The Oxford Handbook of Warfare in the Classical World
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Adopting the custom of other Oxford Handbooks, contributor acknowledgments are collected here. These include Phyllis Culham who thanks her Naval Academy seminar in Roman Counterinsurgency in fall 2006, and, additionally, 2nd Lt. Austin Murnane, USMC, for his contributions. The twin consciences of this project were 2nd Lt. Ali T. Kianpour, USMC, who questioned “the Western tradition in warfare” with patience, good humor, and great intelligence and Lt. Kylan Jones-Huffman (USNR, KIA, al-Hillah, 2003), whose short career in history was dedicated to scrapping the conventions of military history and who would have insisted that her contribution, at the least, not glamorize or romanticize the experiences of suffering or perpetrating violence.

Randall Howarth expresses his gratitude to Mercyhurst College for providing the editorial assistance of Chelsea Boothe who supplied essential help with his chapter.

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Thomas Palaima wishes to thank his student, Stacey Peebles, for discussing his epilogue and allowing him to read in advance chapters from her 2011 book, Welcome to the Suck: Narrating the American Soldier’s Experience in Iraq.

The editors sadly note that contributor John Buckler, a specialist in the study of the Greek fourth century B.C. and its wars, died June 2, 2011 before this volume was ready for press. This is especially regrettable as John was not only timely with his chapter, but especially anticipated the volume’s publication. His chapter on the Theban general Epaminondas and his spectacular victory at Leuctra, marked by close study of the topography—work of which John was proud professionally and personally—should long remain authoritative.
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THE spelling and presentation of Greek names and technical terms is a thorny issue over which scholars continue to wrangle, much to the confusion of nonspecialists. James Whitley’s advice (*The archaeology of ancient Greece*, Cambridge, 2001: xxv) seems eminently sensible, and we too have tried to be consistent in our inconsistency, preferring the familiar anglicized forms for well-known personal names (so Thucydides and not Thoukydides) and places (so Syracuse and not Syrakousai) so that those readers unfamiliar with things Greek might investigate more easily on their own. On the other hand, we have transliterated technical terms (e.g., *strategos*, general) and some place names (e.g., Kerameikos, the “national” cemetery in Athens) not so much for effect as for some sort of authenticity.

Names of ancient authors and titles, and other standard reference works, are for the most part abbreviated as listed in the *Oxford Classical Dictionary* (see below) or LSJ = H. G. Liddell and R. Scott, *A Greek-English Lexicon*, 9th ed., rev. by H. S. Jones and R. McKenzie (Oxford, 1940). Titles of periodical literature are generally abbreviated as found in the annual index to classical studies, *L’Année philologique*; titles of nonclassical journals are spelled out.

The following should also be noted:

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<thead>
<tr>
<th>Author/Editor</th>
<th>Work</th>
<th>Place/Year</th>
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<td>Andrewes-Dover</td>
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*IG*  *Inscriptiones Graecae*. Berlin, 1873.


*SEG*  *Supplementum Epigraphicum Graecum*. Leiden, 1923–.


The chronological range of this volume sometimes complicates easy reference to dates (this especially so in Part III and its thematic discussions). While context will often provide a guide to the dates cited, an introductory reference in many chapters to follow will tell readers whether dates refer to B.C. or A.D. or both. Ordinarily, all four-digit dates should be taken as modern, while context will again place such references as “fifth century” or “first century,” B.C. or A.D. The following outline may help readers orient themselves with the events.

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<th>Political-Military Events in the Greek World</th>
<th>Political-Military Events in the Roman World</th>
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<tr>
<td>ca. 700 B.C. Lelantine War between Chalcis and Eretria: first “historical” Greek war: era of the “Trojan War” (?)</td>
<td>ca. 594 Solon’s reforms in Athens, followed by establishment of the Athenian democracy.</td>
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<td>ca. 650–620 “Messenian Wars”: Sparta defeats and occupies Messenia</td>
<td>ca. 509 Foundation of Roman Republic after expulsion of kings</td>
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<td>ca. 500 Clisthenes and the rise of democracy in Athens</td>
<td>499 (?) Battle of Lake Regillus (?)</td>
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<td>499 (?) Ionian Revolt: sparks conflict between Greeks and Persian Empire Era of the Persian Wars</td>
<td>499-494 Era of the “Struggle of the Orders”</td>
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<td>494-491 (?) Coriolanus and Volscians attack Rome</td>
<td>490 Battle of Marathon: Athens defeats invading Persian army</td>
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<td>Greece</td>
<td>Rome</td>
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<tr>
<td>480 Battles of Thermopylae/Artemision and Salamis Athens burned by invading Persians</td>
<td>Fabii annihilated at Cremera (?)</td>
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<td>479 Battles of Plataea/Mycale: Persian defeat complete</td>
<td>Etruscan defeat at Cumae</td>
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<td>478/477 Establishment of Delian League under Athenian leadership</td>
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<td>474 Battle of Eurymedon: victory over Persians by Athens</td>
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<td>466/465 Revolt and suppression of Naxos by Athens</td>
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<td>461/450 Five Years’ Truce (Athens and Sparta’s Peloponnesian League)</td>
<td>Decemvirate in Rome</td>
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<td>449 (?) Peace of Callias, end of war with Persia</td>
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<td>446/445 Thirty Years’ Peace ends “First” Peloponnesian War</td>
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<tr>
<td>ca. 441–439 Revolt and suppression of Samos by Athens</td>
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<tr>
<td>435 Outbreak of hostilities between Corcyra and Corinth</td>
<td>First war with Fidenae</td>
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<tr>
<td>433/432 (?) Dispute between Corcyra and Corinth, now joined by Athens, leads to battle of Sybota</td>
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<tr>
<td>431, spring Theban attack on Plataea leads to full-scale mobilization of armies and outbreak of Peloponnesian War’s first phase, the Archidamian War; first of annual Peloponnesian invasions of Attica begins; plague in Athens; death of Pericles</td>
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<tr>
<td>427 Civil War in Corcyra; revolt of Mytilene on Lesbos</td>
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<tr>
<td>425 Athenian victory at Sphacteria/Pylos</td>
<td>Fidenae reduced by Romans</td>
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<tr>
<td>424 Battle of Delium: crushing Theban victory over Athens; Congress of Gela, Athenians leave Sicily</td>
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</tbody>
</table>
Deaths of the generals Brasidas (Sparta) and Cleon (Athens) in battle at Amphipolis; Peace of Nicias ends the Archidamian War; fifty-year alliance between Athens and Sparta

Athenian alliance with Argos and allies

Battle of Mantinea: the great hoplite battle of the Peloponnesian War

Athenian attack and destruction of Melos

Athenian Expedition sails for Sicily; Alcibiades recalled from Sicily to stand trial in Athens; his flight to Sparta

Defeat of Athenian forces in Sicily; Sparta declares war on Athens; Agis occupies Decelea in Attica

New phase of the Peloponnesian War, the Ionian War, and Persian intervention in Greek affairs begin.

Alcibiades arrives in the Ionia/ eastern Aegean, intrigues with Persians, later Athenians; Athenian naval victory at Cynossema; recovery of Cyzicus follows (410)

Alcibiades returns in triumph to Athens, soon after elected general; Arrival of the Persian prince Cyrus in Sardis

Athenian defeat at Notium; Alcibiades falls from power, returns into exile; Athenian victory over the Spartan fleet at Arginusae; Athens rejects Spartan peace overtures; Athenians condemn and execute the generals in command at Arginusae
405/404 Spartan commander Lysander assumes de facto command of Spartan Aegean forces; Spartan destruction of the Athenian fleet at Aegospotami; Athens besieged by land and sea, surrenders

404/403 The Thirty Tyrants rule Athens, democracy overthrown, civil war follows; democracy resumed following Spartan intervention

401/400 Expedition of Cyrus, followed by his death at Cunaxa; Greek mercenaries fight their way to Hellespont

396 (?) Roman destruction of Veii

394 Battle of the Nemea: perhaps greatest hoplite battle of classical Greece

391 Battle of Lechaeum: Spartan hoplites defeated by Athenian pelotasts

387/386 King's Peace, or Peace of Antalcidas: attempted era of "Common Peace"

371 Battle of Leuctra: Theban victory ends Sparta as "great" power

343-341 First Samnite War

340-338 Latin War

338/337 Battle of Chaeronea: victory of Philip of Macedon over united Greeks

334-323 Age of Alexander the Great

334 Alexander's victory at the Granicus: those of Issus (333), Gaugamela (331), and Hydaspes/Jhelum (326) follow

326-304 Second Samnite War

321 Battle of Caudine Forks

301 Battle of Ipsus: end of a "unified" Macedonian kingdom
295
Battle of Corupedium: Seleucid and Ptolemaic kingdoms confirmed

280–275
Pyrrhic War

ca. 270–168
Syrian Wars (6), waged between Ptolemaic and Seleucid kingdoms

268
Mamertines seize Messana

264–241
First Punic War

ca. 260
Chremonidean War: Athens defeated, end of Athenian “freedom”

247
Rise of the Arsacid dynasty and the Parthian kingdom

222
Battle of Clastidium leading to Roman occupation of the Po River Valley

ca. 220–202
Eastern campaigns of Antiochus III, the “Great”

218–201
Second Punic, or “Hanniballic,” War

218
Battle of Trebia

217
Battle of Raphia: Ptolemaic victory over Seleucids using Egyptian troops

216
Battle of Lake Trasimene

202
Battle of Cannae

200–196
Battle of Zama

First Macedonian War

197
Battle of Cynoscephalae: Roman legion defeats the Macedonian phalanx

192–188
Asian War against the Seleucid Kingdom

189
Battle of Magnesia, defeat of the Seleucid king Antiochus III, the “Great”

181
Celt-Iberian Wars begin

167–166
Second Macedonia War begins; battle of Pydna (168): Macedon abolished
167  Revolt of Maccabees establishes the Hasmonean dynasty

149–146  Third Punic War: Carthage destroyed, 146

146  Third Macedonian and Achaean Wars: Corinth destroyed; Roman province of Macedonia organized

133  Third Celt-Iberian War ends: destruction of Numantia

133–122  Age of Gracchan, or “Roman,” Revolution

105–101  Cimbri and Teutones invade into northern Italy; Roman defeat at Arausio (105)

102–101  Marius defeats Cimbri and Teutones at Aquae Sextiae and Vercellae

91–88  Social War

89–86  Mithridates VI of Pontus invades Greece, attacking Roman interests everywhere; Mithridatic forces defeated by Romans at Chaeronea

87–30  Era of Roman Civil War

71  Slave War of Spartacus suppressed

67  Pompey’s eastern war against the pirates

66–62  Pompey campaigns into the East, ends “Seleucid anarchy,” establishing Roman “protectorate”

58–50  Caesar’s Gallic conquests

52  Caesar’s victory over Vercingetorix at Alesia

53  Battle of Carrhae: Parthians destroy army of Crassus

49–45  Civil War between Caesar and Senate

48  Battle of Pharsalus: Caesar defeats Pompeian/Senate forces
Battle of Actium: victory of Octavian over Antony and Cleopatra; end of the Greek “Hellenistic” world; Ptolemaic kingdom becomes Roman province

Octavian as Augustus: establishment of Roman Imperial Army

A.D. 6–9

Pannonian revolt

9

Battle of the Teutoburg Forest, the clades Variana

43

Britain invaded: beginning of Roman occupation

60–61

Revolt of Boudicca and its suppression

66–74

Great Jewish War

68–69

“Year of the Four Emperors”: Roman civil war, the two battles of Bedriacum

70

Siege and capture of Jerusalem by Titus

73/4

Zealot stronghold of Masada falls

77–84

Campaigns of Agricola in Britain

85

Oppius Sabinus, governor of Moesia, defeated and killed by Dacians

85–92

Dacian and Pannonian Wars of Domitian

101–106

Dacian Wars of Trajan: creation of province of Dacia

106

Province of Arabia established

113–117

Parthian War of Trajan

122

Construction of Hadrian’s Wall begins

132–135

Revolt of Bar Kochba

161

M. Sedatius Severianus, governor of Cappadocia, defeated and killed in Armenia
162–166
Parthian War of Lucius Verus

167–180
Marcomannic Wars of Marcus Aurelius

193–197
Civil Wars: victory of Septimius Severus over Clodius Albinus at Lugdunum (197)

197–198
Parthian War of Severus: province of Mesopotamia established (198)

208–210
Campaigns of Septimius Severus in northern Scotland

213
Caracalla’s war against the Alamanni in Germany

213–217
Caracalla’s war against Parthia

224
Parthian kingdom overthrown, rise of the Sasanian Persian state

231–233
Severus Alexander’s war against the Persians

235–284
Era of the “Third Century Crisis”: internal anarchy, barbarian invasion

251
Decius defeated and killed by Goths at battle of Abrittus

260
Valerian defeated and captured by Persian king, Shapur

267
Heruli attack Athens

270–275
Aurelian defeats Palmyra; completes new walls of Rome

277–278
Probus defeats the Alamanni and Franks, restores the German frontier

284–305
Reign of Diocletian: reforms of army, state, and provincial structures

312
Battle of the Milvian Bridge: Constantine emperor in west

324–337
Reign of Constantine: continues Diocletian’s reforms, legalizes Christianity

337–360
Persian War

363
Death of Julian fighting Persians
370  Appearance of Goths and Huns across the Danube
378  Battle of Adrianople: Valens defeated and killed by the Goths
396  Alaric and Goths besiege Athens
410  Sack of Rome by Alaric, Gothic chief
429  Vandals invade Africa
451  Defeat of Attila at Chalons by Roman-German alliance; Huns retreat
502–561  Roman-Persian Wars
533–560  Justinian sends Belisarius west to recover lost “western” empire
582  Sirmium on the Danube falls: Slavic occupation of the Balkans follows
603–628  Roman-Persian Wars: victory of Heraclius
632  Death of Muhammad
634–640  Muslim victories in Egypt and Syria: Roman Empire near collapse
636  Battle of Yarmuk
642–644  Muslim conquest of Persian Sasanian Empire; end of the ancient world
The names by which emperors are commonly known are italicized.

27 B.C.—A.D. 14
Imperator Caesar Augustus

A.D. 14–37 Tiberius Caesar Augustus

37–41 Gaius Caesar Augustus Germanicus (Caligula)

41–54 Tiberius Claudius Caesar Augustus Germanicus

54–68 Nero Claudius Caesar Augustus Germanicus

68–69 Ser. Sulpicius Galba Imp. Caesar Augustus

69
Imp. M. Otho Caesar Augustus

69
A. Vitellius Augustus Germanicus Imp.

69–79 Imperator Caesar Vespasianus Augustus (Vespasian)

79–81 Imp. Titus Caesar Vespasianus Augustus

81–96 Imp. Caesar Domitianus Augustus (Domitian)

96–98 Imp. Caesar Nerva Augustus

98–117 Imp. Caesar Nerva Traianus Augustus (Trajan)

117–138 Imp. Caesar Traianus Hadrianus Augustus (Hadrian)

138–161 Imp. Caesar T. Aelius Hadrianus Antoninus Augustus Pius (Antoninus Pius)

161–180 Imp. Caesar Marcus Aurelius Antoninus Augustus

161–169 Imp. Caesar L. Aurelius Verus Augustus (Lucius Verus)

176–192 Imp. Caesar M. Aurelius Commodus Antoninus Augustus

193
Imp. Caesar P. Helvius Pertinax Augustus

193
Imp. Caesar M. Didius Severus Julianus Augustus

193–211 Imp. Caesar L. Septimius Severus Pertinax Augustus

198–217 Imp. Caesar M. Aurelius Antoninus Augustus (Caracalla)

209–211 Imp. Caesar P. Septimius Geta Augustus

217–218 Imp. Caesar M. Opellius Macrinus Augustus

218
Imp. Caesar M. Opellius Antoninus Diadumenianus Augustus
218–222
Imp. Caesar M. Aurelius Antoninus Augustus (Elagabal)

222–235
Imp. Caesar M. Aurelius Severus Alexander Augustus
Imp. Caesar C. Julius Verus Maximinus Augustus
Imp. Caesar M. Antonius Gordianus Sempronianus Romanus Africanus Senior Augustus (Gordian I)

235–238
Imp. Caesar M. Antonius Gordianus Sempronianus Romanus Iunior Augustus (Gordian II)
Imp. Caesar D. Caelius Calvinus Balbinus Augustus and Imp. Caesar M. Clodius Pupienus Augustus

238–244
Imp. Caesar M. Antonius Gordianus Augustus (Gordian III)

244–248
Imp. Caesar M. Julius Philippus Augustus (Philip)

249–251
Imp. Caesar C. Messius Quintus Traianus Decius Augustus (Trajan Decius)

251–253
Imp. Caesar C. Vibius Trebonianus Gallus Augustus

251–253
Imp. Caesar C. Vibius Afinius Gallus Veldumnianus Volusianus Augustus (Volusian)

253
Imp. Caesar M. Aemilius Aemilianus Augustus (Aemilian)

253–260
Imp. Caesar P. Licinius Valerianus Augustus (Valerian)

253–268
Imp. Caesar P. Licinius Egnatius Gallienus Augustus

268–270
Imp. Caesar M. Aurelius Claudius Augustus (Claudius II)

270
Imp. Caesar M. Aurelius Claudius Quintillus Augustus

270–275
Imp. Caesar L. Domitius Aurelianus Augustus (Aurelian)

275–276
Imp. Caesar M. Claudius Tacitus Augustus

275–276
Imp. Caesar M. Annius Florianus Augustus (Florian)

276–282
Imp. Caesar M. Aurelius Probus Augustus

282–283
Imp. Caesar M. Aurelius Carus Augustus

283–285
Imp. Caesar M. Aurelius Carinus Augustus

283–284
Imp. Caesar M. Aurelius Numerius Numerianus Augustus (Numerian)

284–305
Imp. Caesar C. Aurelius Valerius Diocletianus Augustus (Diocletian)

286–305
Imp. Caesar M. Aurelius Valerius Maximianus Augustus (Maximian)

305–306
Imp. Caesar Flavius Valerius Constantius Augustus

305–311
Imp. Caesar C. Galerius Valerius Maximianus Augustus

306–307
Imp. Caesar Valerius Severus Augustus
Eastern Emperors

450–457  Imp. Caesar Flavius Marcianus Augustus (Marcian)
457–474  Imp. Caesar Flavius Valerius Leo Augustus
474–491  Imp. Caesar Flavius Zeno Augustus
491–518  Imp. Caesar Flavius Anasthasius Augustus (Anasthasius)
518–527  Imp. Caesar Flavius Justinus Augustus (Justin)
527–565  Imp. Caesar Flavius Petrus Sabbatius Justinianus (Justinian)
565–578  Imp. Caesar Flavius Justinus Iunior Augustus (Justin II)
578–582  Imp. Caesar Flavius Tiberius Constantinus Augustus (Tiberius Constantine)
582–602  Imp. Caesar Flavius Mauricius Tiberius Augustus (Maurice)
602–610  Imp. Caesar Flavius Phocas Augustus (Phocas)
610–641  Imp. Caesar Flavius Heraclius Augustus (Heraclius)
"War is the father of all things," once wrote the philosopher Heraclitus (G. S. Kirk, J. E. Raven, and M. Schofield. The presocratic philosophers [Cambridge, 1983], 193 = fr. 212), a sentiment echoed in Thucydides’ bitter reflection on the horrors of the Peloponnesian War: war is a “violent teacher” (3.82.2). The Romans knew this too, seen most clearly perhaps in a famous Tacitean appraisal of the Roman way of war: “they make a desert and call it peace” (Agr. 30.6), a reality demonstrated in archaeological finds uncovered in 1939 at Maiden Castle in Britain and in Spanish Valencia in 1995 (see further James, 110–11).

War and organized violence lay at the heart of much of life in the classical world. Whether between tribes or states, internal or civil, or wars waged to suppress rebellions, war was a very personal experience and battles were resolved by face-to-face encounters, violent and bloody for the participants. Nevertheless, warfare and its conduct took a wider relevance far beyond the battlefield. War often had significant economic, social, or political consequences. Battle casualties could have devastating demographic impact. The small Greek city-state or polis of Thespiae remained just that, small, after two great battles, Thermopylae (480) and Delium (424) left hundreds of its elite citizens dead. Yet war also brought power through the riches acquired and glory for those who survived. The conduct of war and military service could have, in a sense, positive demographic effects, as in Rome where entering the army could open the doors to upward social mobility. As the Roman community spread through the Mediterranean world, the army and service in it became an instrument of change: Roman citizenship acquired through military service resulted in extensive veteran settlements that encouraged and accelerated the process of Romanization.

Western literature begins with a story of two peoples—Greeks and Trojans—fighting over the life or death of a city. Homer and his story of men at war inspires the later writings of the Greeks, Herodotus and Thucydides, so shaping the writing of history into the modern era, no less than it influenced Virgil’s Aeneid. As states and communities grew in sophistication in both the Greek and Roman worlds, new and specialist books explored the making of war and related military practices and the stratagems of famous commanders came to be written.

Our contributors offer not only base narratives of these developments, but also vigorous interpretations surrounding the practice of war in classical Greece and Rome: readers should expect divergent views as the evidence is often incomplete and far from clear. Therefore the editors have not set out to impose a rigid uniformity upon contributors or to produce an accepted view of warfare in the classical world. Instead we have tried to gather a significant variety of approaches and ideas and have aimed to accommodate traditional narrative presentation with innovative thematic chapters.

The volume’s introduction begins with the ancient sources for the writing of war, preceded by two broad surveys of ancient Greece and Rome. Yet the study of war in the ancient world has not remained static. Archaeology has yielded many new insights. A better understanding of the feared Roman sword, the gladius Hispaniensis, for example, explains the success of the legion, making clear too the ferocity of battle. Other examples of battlefield archaeology, as seen in the gruesome finds of late antique Roman and Persian siege tunnels, also sheds light on the conduct of ancient war. No less critical is an understanding of how the land, geography, and even animals affected the ancient practice of war, and a discussion of the environment concludes this preliminary narrative.
This prepares the reader for the second part of the *Handbook*, broad narratives of Greek and Roman societies at war. Older nineteenth-century handbooks studying war in the ancient world, those of H. Delbrück and H. Droysen, for example, focused on grand strategy and the movements of armies, paying little attention to the underlying structures of society. In the twentieth century military studies began moving away from this limited focus and this continues here: the nature and development of Greek hoplite warfare and its alleged connection with political and social developments; the gradual decline of the Successors of Alexander which witnessed the eclipse of the heavy cavalry that swept Philip and Alexander to victory and an ever more rigid phalanx that the Roman legion would consistently outmaneuver. Discussions include veterans and their life experiences after war, how wars were financed, and the role of slaves in war. Rome’s early history witnessed the consequences of military activity and state organization, while important developments in the military practices of the Republic accelerated with the age of Augustus and the Roman Empire.

The volume’s third part comprises thematic discussions that examine closely the nature of battle: what soldiers experienced as they stood, fought, and often died; how the wounded and sick were treated; the rearing and training of horses for war; the recruitment and life of the mercenary soldier. Treatment of military institutions and structures also appear here: discipline, intelligence gathering, the art of command, as well as examination of the rituals of war, including justice, and how these were conducted and perceived in the Greek and Roman worlds. Warfare in the classical world introduced Greeks and Romans to “Others” beyond their frontiers with whom they often clashed: the Persians remained the great threat to the Greek world until Alexander’s conquests destroyed their power; the movements of Germanic and Danubian peoples were to eventually overthrow the western Roman Empire; and Sasanid Persia was simply a more acute threat to Rome than the Parthian kingdom had ever been. So key is this later issue that two discussions of Rome’s eastern frontier are offered, the first detailing Iranian military institutions and society, which prepares the second (in the concluding section), a discussion of the exhausting slugging match between Rome and Persia, a struggle that opened the way to the Arabic invasions that ended the ancient world in the East. The discussions here are more technical in the sense that narratives of battles and wars generally do not appear. Instead, contributors have concentrated on specific issues relating to the nature of war and its consequences for those involved.

Finally, the concluding section offers exemplary test cases of Greeks and Romans at war. These discussions range from the failed Athenian expedition to Sicily, perhaps the greatest military operation and disaster in the classical Greek world, to the evolution of siege warfare that accompanied the Peloponnesian War and which became such a feature of Greek and Roman warfare afterward. No less critical was the leadership of the Theban Epaminondas who broke generations of Spartan power in an afternoon at Leuctra, or that of Demetrius the “Besieger,” so well known in the ancient world as the archetype of a military leader. Finally, and really in no need of defense, is an analysis of the Second Punic War, the “Hannibalic War,” that made Rome a world power the likes of which had not been seen before. These case studies provide detailed analyses while demonstrating at the same time their respective periods. Extensive background material will not be found in these discussions as introductory narratives will have already provided this.

In the concluding Epilogue, classicist Tom Palaima reveals that Plato’s oft-cited verdict that “only the dead have seen the end of war” is actually that of George Santayana on weary but ebullient war veterans at Oxford in 1922. Greeks and Romans regarded war with awe and dread, believing that war should give way to peace (Cic. *Off.* 1.23) and were only too happy to jump with joy when it came
(Ar. *Pax* 538–40). In brief, an attempt to understand these contending responses to the beast called War lies behind this study of warfare in the classical world.

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L. A. Tritle
Belfast and Los Angeles, March 2012
Alexander’s Empire
The Hellenistic Empires after Ipsus, 301 B.C.
The Hellenistic Empires, ca. 275
The Roman Empire
Roman Warfare with Sasanian Persia: the wider context

Roman Warfare with Sasanian Persia: northern Mesopotamia
This chapter surveys some of the main elements of warfare conducted by the Greeks between the eighth and third centuries B.C. (all dates henceforth are B.C.). There were as many as fifteen hundred autonomous or semi-autonomous communities (poleis) in the Greek world, with much variation in social and political organization and size. It would be impossible to discuss all the myriad forms and complexities that warfare took in these communities through five centuries. The modern study of Greek warfare has been extremely vibrant precisely because the sheer breadth of the subject makes it difficult to generalize satisfactorily, or for any reconstruction to account for all variations. This is compounded by the diverse array of evidence that survives: literary, epigraphic, iconographic, and archaeological—which is often partial and contradictory. This material is frequently the product of sophisticated and complex cultures, members of which had their own interpretations and controversies about the nature of warfare, and the cause and course of the many wars that occurred. What follows is necessarily a partial discussion and the reader should not be surprised if in subsequent chapters there are differences of emphasis and interpretation.

**Fierce Values and the Causes of War**

For the Greeks, a reputation earned for prowess in combat was no bad thing. In the epic poetry of Homer, the son of Castor, the child of a master and a slave-concubine, boasted that “being first to leap forward to strike an enemy with a spear” brought fear and respect in the community. It led him to an advantageous marriage into a wealthy family, “since I had martial excellence” (arete; Od. 14.220–1, 233–4, 211–13). There were broad social pressures for males to prove their manliness (andreia) and excellence (aretē) by marching off to war. The Spartan poet Tyrtaeus proclaimed that any man who displayed excellence (arete) by “holding firm and standing unshaken in the front of the phalanx … encouraging his neighbor with words,” was “good in war” (agathos en polemōi) and was regarded as acting for the “common good of the polis and the whole people (demos)” (Tyrt. fr. 12.13–20). For Tyrtaeus the bravery of individual Spartans received communal respect and gratitude, manifesting in deferential treatment of the “spear-famed” by all members of the polis. The social eye of peers and compatriots ultimately observed and judged martial achievement in all communities. At one point Chares stood before the Athenians to display his penetrated shield and his wounds, evidently expecting this to generate respect (Plut. Pel. 2.3). By contrast, his rival Timotheus could only admit that a long-range catapult bolt had landed near him (Plut. Pel. 2.3).
Violence could be exciting, intoxicating, even addictive. Indeed, it was supposed to have been the case that during battle, “nothing equals the sheer delight of routing, pursuing and killing an enemy” (Xen. *Hiero* 2.15). Whole communities could be characterized as particularly bellicose, thus the Trojans, according to their opponents, were a people “whose fighting strength is full of blind fury, nor do they ever have their fill of the close mêlée of deadly warfare” (*Il.* 13.633–5). The practice of “fierce virtues” so habituated some men to violence and war that they could not bear the quiet life. In the *Odyssey*, the son of Castor organized a raiding expedition to Egypt soon after returning from the Trojan War, explaining that “labor in the field was never to my liking, nor the care of a household … but oar-swept ships and wars, and pitching spears with treated hafts and arrows, dismal things that are shuddering and bitter to other men, to me were sweet” (*Od.* 14.223–7). This epic example has its historical parallels (e.g., Clearchus, in Xen. *An.* 2.6.6; Tittle 2000: 60, 68–71). The restlessness of Alexander the Great and his successors stemmed from their habituation to military activity and the construction of their personal and public identities in martial terms, so much so that many personally involved themselves in the thick of the fighting (Lendon 2005: 147–9). Pyrrhus engaged in single combat (Plut. *Pyrrh.* 7.4–5), while Eumenes personally despoiled the body of his rival Neoptolemus whom he had slain during battle (Plut. *Eum.* 7.4–7; Diod. 18.31.1). In fact, the drive to excel in war was such that it was not an uncommon event for generals of Greek armies in all periods to be killed or badly wounded. Ten of the fourteen Seleucid kings died in this way (Baker 2003: 375–6), while the Athenian Sophanes, who in his youth had fought a single combat during the war with Aegina (ca. 491) and had distinguished himself as “the best fighter” among the Athenians at Plataea, years later fell fighting against the Thracians (ca. 465; see Hdt. 6.92; 9.74–75).

Alongside the honor, martial identity, or sheer enjoyment to be had from violence were other motivations. The hybristic acts of the enemy were widely regarded as sufficient provocation for war. The desire to inflict violent humiliation on enemies or to pay them back for any such actions stand as a fundamental feature of the Greek honor code and of reciprocal ideology (Lendon 2000). Those who felt victimized, having lost out materially through hostile action or been shamed and humiliated in some way, were expected to feel outrage and to demand revenge. The inhabitants of Acharnae, a frontier district of Attica, demanded that the Athenians face off against the much larger army of the Peloponnesian League and defend their land, which lay directly on the invasion route (Thuc. 2.20–1). Thereafter, vengeance was an Acharnian mantra (Ar. *Ach.* 179–85, 225–32). Even the failure to show proper respect could be construed as an insult that necessitated revenge. The Corinthians went to war with the Corcyreans in 433 because they hated them for not “giving them the traditional privileges at common festivals as did other Corinthian colonies” (Thuc. 1.25). Such motives, of course, could be combined with others. According to Herodotus (6.132), Miltiades persuaded the Athenians to give him seventy ships to attack Paros, partly because he had been slandered by a Parian at the Persian court, partly because of revenge for them joining the Persians at Marathon, and partly for the prospect of plunder.

Warriors were often motivated by the chance for self-enrichment through booty. The son of Castor’s successes in war brought him “abundant riches” (*Od.* 14.232). It was the attraction of the wealth of Persia which apparently motivated the Athenians to undertake the campaign in support of the Ionian revolt in 499 (Hdt. 5.97), just as later the prospect of an “everlasting source of pay” generated enthusiasm for the Sicilian expedition (Thuc. 6.24). Indeed Thucydides (4.59) observed that “nobody is deterred by a fear of war if they expect to gain by it.” *Pleonexia*, the desire for more, has been seen as a fundamental aspect of Greek society, affecting both individuals and whole communities (Balot 2001). This was not merely a greed for more wealth; men might equally wish to
accumulate greater honor and fame. According to the Spartan officer Teleutias, “Nothing is more enjoyable or honorable than … to live from booty taken from enemies; it provides sustenance and renown” (Xen. Hell. 5.1.16).

The Greeks saw war as part of the natural order of things. Heracleitus (fr. 53) claimed that “War is the father of all and king of all”; that “one should understand that war is common and justice is strife…” Wars manifested as natural expressions of man’s innate hostility to others (Arist. Pol. 1253a) and the desire to dominate (Thuc. 5.105). Plato even went so far as to make one of his speakers in the Laws contentiously argue that Greek states existed in a universal and undeclared state of war with one another (Leg. 625e–626a; see van Wees 2004: 3–5, especially 253, n. 5). Such a view has led some scholars to argue for the existence of a harsh and anarchic international system, in which recourse to war was often the most common method of attempting to resolve tensions between states (Eckstein 2006).

We should not take this picture of rampant aggressiveness too far. Aristotle described a man who was war-mad as an isolated game piece, asocial and separate from those more cooperative people who preferred to live in a polis (Pol. 1253a). Most Greeks, particularly those who spent much of their lives farming, may have experienced war rarely (Hornblower 2007: 22–5). While the son of Castor had a fascination for martial pursuits, he readily admitted that weapons were “dismal things, shuddering and bitter to other men.” Even Achilles understood that:

Men can raid cattle and sturdy sheep, and men can win tripods and bay horses by the head; but there is no raiding or winning a man’s life back again, when once it has passed the guard of his teeth (Il. 9.406–9).

Other Greeks echoed these sentiments. Euripides’s Suppliant Women (949–54), exhorted “mortals to live quietly and to cease from the toils of battle, since life is so short.” Xenophon, no stranger to warfare, remarked that although “it is fated by the gods that wars should exist, man should be cautious about beginning them and anxious to end them as soon as possible” (Xen. Hell. 6.3.6).

Of course war was only one of several relationships that could exist between states in antiquity, and whether the default position was one of hostility and competition seems problematic. There were evidently peaceful relationships ranging from noncontact or disinterest, active neutrality, or friendship (philia); some states even claimed kinship (syngeneia) and traced common historical or mythological roots. There were also numerous defensive or aggressive alliances (symmoriai, symmachiai). While some peaceful relationships were technically of limited duration—for instance, the ten-day renewable armistices during the Peace of Nicias (Thuc. 5.26), or the fifty-years’ peace agreed at the time between Athens and Sparta (Thuc. 5.23)—others were intended to be “forever” (e.g., the treaty of the Sybarites and Serdaioi, ML 10 = Fornara 29). From the fourth century there emerged the concept of a “common peace” (koine eirene) among Greek states (Ryder 1965, Jehne 1994). There were repeated attempts to impose such peace agreements, but few were universal or long-lived.

Most agreements between communities were accompanied by the mutual swearing of oaths (horkoi), the invocation of gods as guarantors, and the pouring of libations (spondai). These elements are apparent as early as the Homeric poems, but continue into the Hellenistic period. Written treaties first appeared in the archaic period (inscribed on stone or bronze and placed in a prominent position in the community), and gradually became more complex and legalistic, reflecting developing diplomatic and political sophistication (Adcock and Mosley 1975).

The mechanisms by which negotiations could be carried out were hardly perfect. Despite direct
negotiations (using heralds [kerykes] and ambassadors [presbeis]) and third-party arbitration, there was no international institution capable of enforcing such arbitration or agreement. The position as guarantor assigned to the Persian king, and later to Philip and Alexander, in the “common peace” agreements had only a limited impact in reality. The values of participants and the communities they represented could get in the way, particularly if honor was felt not to have been satisfied. During negotiations parties frequently adopted a rhetoric of aggressive deterrence or made opening demands that seemed unreasonable and inflexible, and these might exacerbate mistrust and fear. The belligerent posturing by Agesilaus toward Thebes in 387, in attempting to enforce the King’s Peace, was an important step in the downward spiral in relations between the Spartans and Thebans (Xen. Hell. 5.1.32–3).

Whether believed to be god-given, or born from a desire to assert martial virtues, or from greed, vengeance, or other differences, ultimately people choose to start wars. It is therefore possible to regard the outbreak of war as the product of politics, insofar as members of the community, after consideration of the issues as they understood them, decide to support or acquiesce to conflict. Decisions were rarely unanimous (e.g., Thuc. 1.87), so a declaration of war was “primarily a legal, ceremonial, and ideological statement,” an expression of communal solidarity and responsibility, at least in principle (Shipley 1993: 1–24). In reality, along with those who disagreed in the assembly, there was often a significant proportion of any community who were not included in the decision making: those excluded on grounds of wealth, status, gender, or age, as well as those who could not attend the voting. Many of these might have supported the resolutions of the assembly nevertheless and, if they were not involved in the subsequent campaigns, they might stand on the side to cheer the men off to war (e.g., Thuc. 6.30–31). However, should a conflict end in failure, there could be recriminations within the community. When the news of the catastrophic defeat in Sicily (413 BC) eventually reached Athens, the people “turned against the speech-makers who had advocated the expedition, as though they themselves had not voted for it” (Thuc. 8.1).

Patterns of Warfare

War took many forms. The type and degree of military operations varied considerably, yet almost all polities were at some time involved in warfare ranging from “private” raids and border provocations comprising handfuls of warriors to clashes on the battlefield of rival power blocs consisting of many thousands of allied soldiers. This variation is evident as early as the Homeric poems. The siege of Troy looms large in the poems, with its coalition of Greeks faced by the Trojans and their allies, but stories of the campaign of the Seven against Thebes, the attack on Egypt, and even Odysseus’s conflicts with the Suitors and their kin, all play their part in revealing a rich tapestry of violence. The murders, ambushes, raids, battles, and sieges represented in the poems had their counterparts in reality throughout Greek history.

Local Horizons

Aristotle observed that some communities prohibited those in frontier regions from debating with the issue of war with their neighbors “since their own personal concerns prevent them from giving good counsel” (Arist. Pol. 1330a20–3). Cross-border raiding appears to have been a common form of intercommunal violence. Indeed the Persians on their reconquest in 494/3 “compelled the Ionians to
make agreements among themselves: that they would abide by the law and not rob and plunder each other” (Hdt. 6.42). In the spring of 414, the Argives launched a raid on the long-disputed border region of Thyrea, taking a great deal of plunder from the Spartans (Thuc. 6.95). This region had been originally taken from the Argives in the mid-sixth century after a curious episode in which both sides had agreed to a combat limited to three hundred warriors a side. This Battle of the Champions appears to display a ritualized, games-like approach to warfare and some scholars have argued that many local wars, particularly in the archaic period, were bound by rules and conventions, turning them into *agones* (competitions) for limited prizes: tracts of borderland, the plunder of agricultural resources, or the honor and prestige of victory (Connor 1988; Hanson 1995: 327–55). The latter is suggested by such elements as the commemoration of victories in the erection of trophies on the battlefield, and in the awarding of prizes of valor (*aristeiai*) among the victors.

The Greeks’ agonal approach to warfare appears in remarks attributed to the Persian general Mardonius in a debate before the Persian king Xerxes:

> As far as I have heard, the Greeks are pugnacious enough and start fights on the spur of the moment without sense or judgement to justify them. When they declare war on each other, they seek out the most attractive and most level territory and go down and have their fight on it—with the result that even the victors never get off without heavy losses; as for the losers—well, they’re wiped out. (Hdt. 7.9b)

Yet Herodotus is putting words into Mardonius’s mouth that are ironic, since the Greeks later opposed his army and defeated it at Plataea, where he himself was killed. Indeed, he appears to misunderstand the Greek approach to war on every point. During the Persian invasion of 480/79, the Greeks showed some appreciation of strategy and did, indeed, try to use terrain by attempting to block the passes at Tempe and Thermopylae (Hdt. 7.173, 176–8). Even at Plataea, rather than find the flattest plain, they had attempted to keep to the high ground (Hdt. 9.56). One thing that Mardonius does not mention (though his rival Artabanus did [Hdt. 7.10a]) was that the Greeks, especially the Athenians, possessed navies. Triremes were technologically sophisticated and expensive warships, and were deployed in substantial numbers by the Greeks, who defeated Xerxes’s fleet at Salamis, Mycale, and, again, at Eurymedon in the early 460s.

Persian warfare is rarely seen as agonal by modern commentators, and, according to Mardonius, it is the Greeks who have absurd and militarily irrational practices. Yet at Plataea, Mardonius supposedly sent a message to the Spartans challenging them to a combat of picked warriors intended to that would decide the fate of Greece (Hdt. 9.48). This challenge seems to reflect the “silly things” his fellow Persians accused him of believing about the Greeks (Hdt. 7.10g) and the Spartans ignored the invitation.

At best, Mardonius’s understanding of Greek warfare was outdated, but Herodotus had already undercut the story of the Battle of Champions, upon which the Spartan agonistic reputation (in Mardonius’s mind) appears to have been based. As Herodotus tells it, after the battle, in which the combatants had almost wiped one another out, both sides argued over who had won, citing contradictory criteria (two Argives to one Spartan left alive at the fall of night, but the Spartans claimed their man had remained on the battlefield overnight). So the point of Herodotus’s version of the story was that neither side could agree on the rules. Instead they followed the *agon* with a more general battle (Hdt. 1.82), in which victory enabled the Spartans to take permanent control of the Thyrea.

Agonal warfare appears more a modern construct than an ancient reality (cf. Krentz 2002; Dayton
It is clear from Herodotus and other sources that the sixth century was filled with examples of ambushes, deceptive stratagems, bloody pursuits, and massacres. These pursuits were practiced from the time of the Homeric poems until the Hellenistic period (Ma 2000: 353–7). Of course the Greeks often liked to think of themselves as acting honorably. Sometimes individuals did, but this did not prevent others from maximizing their advantages by any means they could devise. While good intentions might win praise, results often counted for more. Stratagems, the “thefts of war” (klemmata), were to be admired and emulated. The Spartan general Brasidas is made to say: “the most successful soldier … makes his attack not so much in an open and straightforward fashion, but by seizing the opportunity of the moment; and these thefts (klemmata) … have the most brilliant renown in war” (Thuc. 5.9; Wheeler 1988: 43–53; Krentz 2000). The use of deception and stratagem was common, limited not so much by a sense of honor as by the composition and experience of the military forces and the imagination, acumen, and daring of the generals.

Rarely did states completely subdue and conquer neighboring rivals (van Wees 2004: 29–30). In some cases there may have been a sense of neighborliness, or, rather, a sense of keeping disputes in proportion for fear of escalation and its unpredictable consequences. But mostly it seems there were few opportunities to push things to a final finish. Many communities tried nonetheless, but one reason for this failure to annex appears to have been the relative size and resources of communities (Ma 2000: 352–3). Many of the thousand or more poleis that we know about were small, which limited their capacity to conquer. Those which did effect military or peaceful mergers (synoecisms) eventually found their territories constrained by similarly expansionist rivals or, having grown to the limit of their plains or valleys, they were encircled by natural hindrances such as mountains or the sea. It is striking that one of the most successful annexations of territory, the Spartan subjugation of Messenia in the seventh century, led to a situation in which, by 479, a mere eight thousand hoplites (Hdt. 7.234) ruled some 8500 km² or the lower third of the Peloponnese (Cartledge 2002: 6, 178). They held on through a combination of collusion with the perioikic communities of Laconia (which played an active role in the phalanx: five thousand at Plataea) and the acquiescence of the conquered helots, of which a staggering thirty-five thousand were claimed to have been deployed at the battle of Plataea (Hdt. 9.10–11; Cartledge 2002: 138–68). However, Spartan society became fixated on the enemy within, with stories of the ephors annually declaring war on the servile helot population (Plut. Lyc. 28), or of the elimination of potentially subversive elements (Thuc. 1.128; 4.80). On several occasions the Spartans had to deal with unrest and active warfare from the Messenian helots and even some perioikic communities (Cartledge 2002: 131, 187, 250, 253, 255). The citizen body, the Spartiates, adopted the mentality of a permanent warrior band of homoioi (“the uniform”) in lifestyle and ethos (Plut. Lyc. 24.1–2; Rawlings 2007a: 208–11). Few other states were ready to bear such a social burden; it was easier to negotiate a settlement from a position of military strength that preserved the existence of both communities than to try to govern a conquered territory in the teeth of resentment and potential revolt. After failing to “helotize” the Tegeans in the early to mid-sixth century (Hdt. 1.66), Sparta turned to a system of coercive alliances, in which allies undertook to “go by land and by sea wherever the Spartans might lead” (suggested by a clause in the treaty between Sparta and Erxadieis circa 426/5 [Peek 1974]), although from circa 507/6 the Spartans apparently sought allied consent before calling on them to assemble for war (Hdt. 5.91–3; cf. 5.74–5).

International Vistas

If it had ever been the case that archaic warfare was agonal, it was clearly inappropriate against the
vast army of the Persian aggressor in 480. Political decisions to resist or to Medize might have life or death consequences. Communities on the invasion route hurried to evacuate; those who failed to evade the Persians in Phocis, for example, were subjected to the horrors of rape and massacre (Hdt. 8.33). Both Phocis and Attica were devastated and much of Athens itself was destroyed. Again, an aspect of Mardonius’s false impression was the inability of the Greeks to bury their differences through negotiation, yet the pan-Hellenic response, albeit partial, was effective enough during and after Xerxes’s invasion. There were precedents. The Greeks had the Trojan War from their mythical past as an example of international cooperation, while during the archaic period the semi-legendary First Sacred War, waged over control of the Oracle at Delphi (Fornara 16), and the Lelantine War had apparently involved large coalitions of Greek states (Thuc. 1.15). During the sixth century Sparta had assembled its regional hegemony, the Peloponnesian League, which it deployed against various rivals (see further Cawkwell 1993).

Such associations formed the core of the pan-Hellenic alliance that resisted the Persian invasion of 480–479. With a widening of the war, particularly into the eastern Aegean, the Athenians took over leadership of the non-Peloponnesian allies in 478. The Delian League continued the war against Persia, on and off, until 449. Its success was founded on the vigor and skill of the Athenian and allied fleet, which struck Persian territory in the Aegean and beyond. Acquiring the techniques of siege warfare as well, the Delian League took Persian naval bases and strongpoints at Eion, Sestos, and Abdera (Hdt. 9.115–20; Thuc. 1.98; Plut. Cim. 12, 14). In the 470s and 460s it was involved in campaigns and sieges in Ionia, Caria, Cyprus, and even Egypt (Diod. 11.60.1–6; Thuc. 1.104, 109–110).

Thereafter, there were repeated wars involving large agglomerations of states, of which notable examples are the Peloponnesian wars (459–446, 431–404), the Corinthian War (394–386), and the Greek support for Alexander’s invasion of Persia (336–323). These ran alongside or swept up the disputes of local rivals. It had been the Thessalians, owing to their long-standing bitterness toward the neighboring Phocians, who had encouraged the Persians to ravage their territory in 480. Local rivalry seemed so intense that Herodotus commented: “if the Thessalians had chosen to resist, no doubt the Phocians would have deserted to Persia” (Hdt. 8.32–33).

Prior to the involvement of Rome, the Greek mainland experienced only two brief periods of direct invasion by “barbarians” (the Persian campaigns of 490, 480–479, and the Gallic forays of 281 and 279/8), nevertheless Greeks had frequent military contact with foreigners (barbaroi). Some states hired barbarian Thracian, Scythian, Iberian, or Celtic mercenaries, while the armies of the Successors not only employed such mercenaries in large numbers, but also variously drew on the manpower of the non-Greek regions they controlled (on mercenaries see further Trundle, 330–50). Many of the slaves who followed their masters into war and sometimes fought at their side were also of non-Greek origin (Hunt 1998). Furthermore, the potential vistas for Greek warriors were broad. The Homeric poems describe overseas operations: at Troy (a substantial distance from the west coast of Greece, such as Odysseus’s Ithaca) and the Cretan raid on Egypt (Od. 14.245–72; cf. Hdt. 2.152); there was, perhaps, an assumption among the poet’s audience that travel abroad for military purposes was not improbable. The archaic period witnessed overseas expansion and, sometimes, the violent establishment of Greek communities throughout the Mediterranean including Spain, Southern France, Sicily, North Africa, as well as the coasts of the Black Sea (Rihll 1993). The armies of Near Eastern states, such as Lydia, Babylon, Egypt, and, from the sixth century onward, Persia, and Carthage in the west, recruited considerable numbers of Greeks as mercenaries, allies, or subjects. Some of these
men returned to their families or communities (such as Antimenidas, brother of Alcaeus), but many stayed, such as the Greeks settled at Pelusium by the pharaohs (Heph. Ench. 10.3; Libanius Or. 13.5; Str. 13.2.3; Hdt. 2.154, 163; Kaplan 2003). These vistas and the opportunities for foreign adventure were greatly enhanced by the conquests of Alexander and his successors.

After the Macedonian conquest of the Persian Empire, communities of veterans, often Greek mercenaries deposited as garrisons or discharged with *kleroi* (allotments) of land, were sprinkled across the landscape from Asia Minor to Bactria (Chaniotis 2005: 84–6). Some were given *kleroi* for service, others in the expectation that they or their descendants might be called up (Cohen 1987). The wars of the Hellenistic kings traversed huge distances, and were often conducted on a grand numerical and material scale (see below Serrati, 179–98). Yet war in the Hellenistic period could be just as much a local as an international affair (Ma 2000; Baker 2003). Communities continued to make war on their neighbors, made alliances, joined leagues and sometimes took sides in the large-scale rivalries of the Successor kingdoms.

All this indicates the tremendous variety of warfare in Greece and beyond. Although the patterns of warfare seem to recur, the methods of warfare underwent a number of significant developments. These were underpinned by several important trends: the growth of state institutions and apparatus, and the process of tactical and technological innovation.

**WAR AND THE STATE**

A twofold picture of private and public is evident in the Homeric presentation of military organization and preparation for the conduct of war. Sometimes individual lords mounted their own expeditions, as when the son of Castor targeted the Egyptian coast (*Od.* 14.259–72). At other times expedition leaders might recruit allies from nobles of other communities, as Agamemnon does with Odysseus (*Od.* 24.115–19). But it is clear that community assemblies also made decisions to send contingents on campaign, as indicated by the Mycenaean vote to support the Seven against Thebes (*Il.* 4.376–81) and the Cretan assembly’s undertaking to send men to Troy, even compelling “with harsh words” Idomeneus and the son of Castor to be the expeditionary commanders (*Od.* 14.237–9). The “catalog of ships” emphasizes the connection between named commanders and communal contingents (*Il.* 2.249–759).

Although Homeric leaders on campaign had their followers (*therapontes*), a seemingly personal relationship of subordination, generally the mass of warriors were drawn from the community. They did not always follow their commander’s orders, particularly on raids (*Od.* 9.43–61; 14.259–72), and it is suggested that they followed such men as Agamemnon or Menelaus as a “favor” (*charis: Il.* 1.156, cf. 5.306–7). They often were addressed as comrades (*hetairoi: Il.* 9.630–1, 12.122) or friends (*philoi: Il.* 2.110; 19.78) to their faces, stressing their personal relationships with the kings, though also with a sense of a shared stake in the conflict (see Geddes 1984: 32; van Wees 1992: 48, 337 n. 80). But there is an element of social nicety in such representations. *Charis* has its aspects of deference and of giving proper respect to a superior, while the kings appear to regard their followers as “counting for nothing in war or council” (*Il.* 2.201–2).

In the archaic period there was a gradual extension of state control over violence, although it rarely achieved a monopolization, even in later periods (Gabrielsen 2007: 249–52). The private modes of violence described in the Homeric poems were still a feature of sixth-century Athens, where “those who come together for the pursuit of booty” were even accorded legal rights (Gaius
Dig. 47.22.4). The codification of such rights was, of course, an indication of state interest. Similarly, Dracon’s law on homicide (ML 86) indicates how, in Athens, state institutions were employed to regulate violent activity (the state assuming the role of avenger, prescribing punishments for murder within the polis). From the archaic period onward, in many Greek communities, at least where some form of representation existed, eligible citizens were expected to cast votes in their assemblies to sanction the mustering of military forces and the launching of campaigns against those they regarded (and designated) as their enemies (Garlan 1976: 43). Communities also developed more formal conceptions of military authority, often with limited powers and periods of office. War officials, principally generals (hegemones, strategoi), officers (e.g., taxiarchoi, lochargoi, dekarchoi, trierarchoi), and administrators such as booty sellers (laphyropolai) and accountants (tamiai) came to be appointed through election or selection by the state. In theory, such officials carried with them on campaign the authority of the state in order to allow them to fulfill their allotted tasks. Yet the power of these officials was often heavily circumscribed and even the ability to discipline troops was limited, since the common soldiers often regarded themselves as fellow citizens and equals (isonomoi) in the eyes of the law (Pritchett 2: 232–45; Hornblower 2000). Mechanisms also developed to check their behavior, as in the scrutiny of generals during and after their terms of office by other state officials (e.g., Spartan ephors and symbolai) or the general assembly of the people (Pritchett 2: 36–8). These became common in the fifth and fourth centuries. The trials of Athenian generals are reported frequently enough to suggest an underlying expectation that generals were agents of the community and accountable to it. There was a sense that abuses and individual ambitions of generals needed constant supervision and control. It was, however, military failure that often encouraged prosecution (Pritchett 2: 4–33, esp. 24; Hamel 1998).

State authority, although an important concept in its own right, in reality rested on a collusion of interest groups. It might be undermined by competing factions, usually made up of powerful individuals and their supporters, who might have the capacity to mobilize substantial forces in order to pursue their own interests. Indeed the frequency of violent internal conflict, stasis, between such interest groups is remarkable. Hansen notes that in the archaic and classical periods, there were 279 outbreaks of civic violence in 122 different poleis (Hansen and Nielsen 2004: 124–9; Hansen 2006: 125–6). In Syracuse, often a particularly volatile mix of regularly disenfranchised and persecuted political factions, mercenaries, and transplanted populations, there were twenty-seven occurrences of civil war between 670 and 279 (Berger 1992: 34–53). Such disputes indicate the fragmentary and fragile nature of political consensus. Warfare might act as a unifier against external threat, but it often allows one group or individual to take control, be it through gaining glory and influence with the general populace in victory, overturning the status quo in defeat, or even by cutting a deal with the enemy during the war itself.

The success of Philip and Alexander, and the latter’s conquest of Persia, opened up vast possibilities for the adventurous, talented, and well-connected general. A number of veteran officers of Alexander’s campaigns exploited the problems of succession on Alexander’s death in 323 to divide up his empire. They looked to their own resources and to the loyalty, inspired and purchased, of their armies (Chaniotis 2005: 60–8). The Macedonian elements of these forces had considerable influence. Traditionally the Macedonian army had ratified the succession by acclamation, as it did with Philip, Alexander, and Arrhidæus (Hatzopoulos 1996: 276–9), but at times it acted as kingmaker, or even undid the claims of its commanders, such as when the Argyraspides (the Silver-Shields) betrayed Eumenes at Gabiene in 316 (see further Heckel, 173–6).
Eventually the rivals were whittled down by the vagaries of military fortune and political intrigue and several great kingdoms emerged. The Seleucids in Asia, Ptolemies in Egypt, and Antigonids in Macedonia became the main players, but there were also a number of lesser kings, such as the Attalids of Pergamon and the rulers of Bactria. Kingdoms large and small continued to compete militarily, and required standing armies and a network of local militias and garrisons to ensure their continuity. The political organization of these kingdoms often reflected their martial origins, with officials displaying their relationship to the king through military terminology (Chaniotis 2005: 64). The kingdoms were organized so that their military power rested on two central aspects. First, the essential manpower for armies, navies, and garrisons was provided by the Macedonians and Greeks who had been settled or were currently serving in the kingdom, supplemented where necessary by the employment of indigenous populations (Bar-Kochva 1976). Second, exploitation through taxation of the wealth of the regions allowed the long-term maintenance of elite forces, and a large surplus gave the kings the ability to hire and outfit many more troops for specific campaigns.

Economic Structures

The *Iliad* suggests that the besiegers of Troy supplied themselves through raiding neighboring communities (*Il.* 9.329–30, 20.90–2, 21.35–8) and by trading, on an individual basis it seems, their booty for supplies brought from nearby friendly islands (7.467–75, 9.71). The Greeks of the archaic, classical, and Hellenistic periods also left it to private exchange in order to satisfy many of their logistical needs on campaign. Soldiers marched out with their own rations and purchased more from merchants and temporary markets on the way. This haphazard approach to supply frequently limited the scope and duration of campaigning. The Peloponnesian invasions of Attica during the Archidamian War, for instance, lasted on average only thirty days. For the most part, soldiers equipped themselves at their own expense, meaning that an army on the march reflected the economic differences in society at large. Rich men rode horses, wore elaborately decorated armor, and had attendants to carry their equipment and supplies, whereas the poorest armed themselves with whatever came to hand. Of course large items such as artillery, warships, and war elephants were usually state-owned. In Athens, fourth-century inscriptions record catapults stored in a state armory (*IG* II² 1487B.84–99) and there are lists of public warship hulls and equipment, though other states, such as Rhodes, subsidized privately owned warships.²

Toward the end of the sixth century, financial systems based on coinage allowed states to store up military potential for the future. In other words, they could hire or support men in military activity at relatively short notice from reserves of bullion, minted into coin (Trundle 2010). Some of the first to exploit the military potential of money were tyrants, who used it to raise armies of mercenaries to seize and maintain their power. Alcaeus alludes to a loan of two thousand staters from the Lydians for an attempt to take over Lesbos (Alc. fr. 69). Pisistratus used personal connections to raise sufficient money and troops to back his third attempt at tyranny in 546 (Hdt. 1.61; Arist. [*Ath. Pol.*] 15.2). However, it was the Persian Empire that demonstrated the power of money to the Greeks. Many thousands were attracted to serve in the armies of the Great King. Some of these men could rise quite high: a certain Phalinus, an expert in drill and infantry tactics, in the service of the satrap Tissaphernes after the battle of Cunaxa, conducted discussions on the Great King’s behalf with the Ten Thousand, themselves mercenaries recruited by the pretender Cyrus (Xen. *An.* 2.1).

The Persians may have shown the Athenians the power of tribute (Raaflaub 2009: 98–101). Vast
financial resources drawn from the empire backed the Persian military, allowing it to mount the expeditions of conquest that overwhelmed Egypt and attempted to annex Greece. In response, from its creation the Athenians assessed and regularized the financial contributions of individual members of the Delian League (Thuc. 1.96; Diod. 11.47.1). Although a few states contributed ships, the vast majority instead paid for the Athenian crewed and commanded fleet (Plut. Cim. 11; Meiggs 1972: 524–61). Athens compelled its allies to render coin or bullion to the treasury, which stimulated them to develop systems of generating the money through taxation (Rawlings 2007a: 164–5). Similarly the Athenians created a system by which their landowning rich citizens were expected to pay liturgies, principally trierarchies (ship commands), which forced such men to create methods of converting their agricultural surplus into cash crops (Osborne 2002: 125–8). From the fifth century the most regular expense for Athens was the wages of soldiers and sailors (citizens or otherwise). An ample supply of coins also enabled states to maintain troops in campaigns longer than the traditional summer window of operations (e.g., the siege of Potidaea 432–430/29; Thuc. 2.70). Pay enabled soldiers to purchase supplies and foodstuffs from merchants, although recourse to pillage, where available and diplomatically appropriate, was often an option and sometimes a necessity (Rawlings 2007a: 74, 76, 118).

The fifth century was the high point for Athenian military finance. In 431 the Athenians had reserves of 6,540 talents. But conflict could be expensive. Just three years into the Peloponnesian War, most of this money had been consumed, and the Athenians were forced to raise tribute, taxes, and obtain loans from wealthy temples (Wartenberg 1995: 31–2). After its defeat in the Peloponnesian War and the loss of its empire in 404/3, its straitened circumstances often led to inadequate finance for the expeditions that it sent out, and which were expected to live off their wits (Millett 1993, 191–4). In the mid-fourth century, Athens had become out-resourced by Philip II, who drove the expansion of Macedon with the profits of his lands and conquests, particularly of the mines around Damastium (captured 358), Pangaeum (357), and Philippi (356). As Demosthenes observed (3.50; 8.11), Philip’s wealth meant his army could operate all year round. His money also opened the gates of a good number of walled cities, such as Olynthus (347/6; Diod. 16.52.2; Dem. 8.40, 19.265, 342; cf. Diod. 16.53.3). However, it was the spectacular success of Alexander in his conquest of Persia that transformed the economy of war. While the Delian League produced 480 talents of silver annually, rising to 1,460 at the height of the Peloponnesian War, the annual revenue of Alexander’s empire was supposedly 30,000 talents; the Successor kingdom of Egypt was worth 14,800 talents a year to its kings in the mid-third century (Aperghis 2001: 78; Davies 2006: 81). Such resources dwarfed those of individual Greek states and allowed the Successors to raise huge armies and navies to confront one another and to further their territorial and hegemonic aspirations (Austin 1986).

**Military Equipment and the Development of War**

The Greeks did not possess a concept of progress founded on technological innovation. Such development in the ancient world was therefore limited and piecemeal. Toward the end of the eighth century, however, two evolutions in the tools of war were of fundamental importance. The first was a warship designed primarily to engage ships directly in combat: the trireme of the classical era grew to become the quinquereme of the Hellenistic era (see further de Souza, 370–82). The second was a panoply of armor and weapons that became closely associated with, if not synonymous, for the Greek heavy infantryman, the hoplite (see further Jarva, 395–417 and J. Lee, 147–51). These developments,
outlined here, appear to have had a variety of military, institutional, and ideological ramifications.

**Warships and Navies**
The early archaic period witnessed the development of polyremes, wooden warships constructed of two or more banks of rowers and fronted by a ram. By the late sixth century, the ship of the line was the three-banked warship, the trireme or *trieres*; each “three” needed 170 oarsmen and thirty other crew, and a contingent of marines (Rawlings 2007a: 123–4). Triremes were expensive to construct and maintain, and were effectively beyond the personal resources of all but a handful of the wealthy elite; their increasing deployment is indicative of the process by which naval warfare became an instrument of state. Early navies appear to have been assembled from privately owned ships, mostly penteconters (“fifty”-crewed), but gradually states came to assert control over the ownership of warships and related infrastructure (de Souza 1998). A large fleet of triremes was a manifestation of the economic and institutional sophistication and power of the *polis*. Few states could match the resources of the wealthiest players: Phoenicia and Egypt (under Persian control), or Athens, whose fleet was initially created through Attic silver mines and later supported by the tribute of an empire (Gabrielsen 1994: 129). They also appear to have been able to bear the cost of training their crews to a higher technical standard than their rivals.

For Athens, the commitment to trireme fleets had important repercussions. The fleet allowed Athens to maintain a thalassocracy (“sea domination”) in the Aegean. The side effect of empire was that the city became a center of trade and imports of luxuries. The wealth of the empire was turned not only to maintaining imperial control, but to constructing magnificent buildings in the city (Kallet-Marx 1989: 252–66). However, Isocrates (*Peace* 8.102–3) argued that sea power could corrupt, leading to injustice, lawlessness, laziness, greed, covetousness and a tyrannical attitude. The fleet required a heavy demographic commitment from common Athenian rowers, supplemented by hired oarsmen from the empire and beyond. Some elite writers regarded the citizen poor as a naval mob that held power in the city because of their military contribution (Xen. [*Ath. Pol.*] 1.2). It is unclear, however, whether the rowers ever constituted any kind of politically self-aware group. Nevertheless it was sometimes said that the harbor town of the Piraeus was more democratic than the inland city of Athens itself (Arist. *Pol.* 1303b10–12; Roy 1998).

By the Hellenistic period there had developed a naval arms race in which ships became ever larger. In the third century, while “Fours” and “Fives” were predominant, larger ships such as “Sixes” and “Sevens” were also frequently deployed. The fleets of Demetrius and Antigonus Gonatas included even larger ships: “Nines,” “Elevens,” “Thirteens,” and even “Fifteens” and “Sixteens”; the very largest ships (“Twenties,” “Thirties,” and even a “Forty” with a crew of four thousand are reported) were perhaps more for show than actual wartime service (Morrison 1996: 273–7). Such ships advertized the resources and power of the kings and it was the vast reserves of gold and silver of the conquered Persian Empire, as well as the continued exploitation of its territories, that funded this gigantism and the explosion in naval construction (Bugh 2006: 275–7). Athens could not compete against such power and wealth (defeat at Amorgos in 322 ended its naval power: Diod. 18.15.8–9; Plut. *Dem.* 11.3, *Mor.* 338a; Morrison 1996: 13–19), and only Rhodes henceforth succeeded in maintaining an independent fleet, one that mostly eschewed the use of superships for smaller and swifter *hemioliai* (“one and a halves”) and *triemiolai* (“three-banked hemioliai”?), ships capable of securing trade routes and rooting out piracy (Gabrielsen 1997: 42–4; 85–111).
The Panoply, the Hoplite and the Phalanx

On land the appearance of the panoply-wearing infantryman has been regarded as one of the most significant developments in Greek warfare. The seventh-century poet Tyrtaeus (fr. 11.38) calls them *panoploi*, “the panoplied,” while the term *hoplites*, “the armed,” first appears in the early fifth century (Lazenby and Whitehead 1996: 32; on arms and armor see Jarva, 395–415). For the most part, the panoply (*ta hopla*) consisted of a spear and large, usually circular, shield (the *hoplon* or *aspis*), with, perhaps, a bronze, leather, or reinforced felt helmet. Greaves and a chest-protecting cuirass of bronze, leather, or, from the end of the sixth century, stiffened linen, were probably expensive extras, as was a sword, carried as a secondary weapon. Hoplites were well suited to direct hand-to-hand combat where they benefited from the personal protection offered by the panoply. It was the intention to fight in such a close up and direct fashion that marked the hoplite as a dangerous, courageous, and intimidating foe (figure 1.1).

Aristotle (*Pol.* 1297b10) argued that the appearance of a tactical system for infantry could be linked to the extension of political and citizen rights. Indeed he argued that the *mezoi* (“middle class”) tended to form nonexclusive oligarchies based upon their hoplite status (*Pol.* 1321a1). Whether we should accept Aristotle’s view of early military developments and their connection to political rights is not easily answered. His formulation can be criticized as an overly schematic philosophical construct, a hypothetical reconstruction conditioned by his fourth-century world view, with limited knowledge or understanding of the conditions of the seventh, sixth, or even fifth centuries. His analysis, however, puts into sharp focus a central controversy of the so-called “Hoplite Revolution”: was it the rising prosperity of farmers that led them increasingly to demand and obtain more rights, with a consequent egalitarianization of social and political life, which, in turn, came to be reflected in the adoption of the cooperative close-fighting tactics of the phalanx and the development of hoplite equipment? Or was it the changing face of battle, where massed formations of hoplites superseded individualistic “aristocratic” warfare, which led the farmer-hoplites to demand more political rights in recognition of their military contribution (Cartledge 1977; Salmon 1977; Snodgrass 1993; Hanson...
In an attempt to cut this Gordian knot, it may be argued that developments on the battlefield ought not to be linked so closely to political changes, and that civic rights and hoplite service were not intrinsically connected (van Wees 1995: 170–1). In the classical period, not all members of the phalanx possessed equal (or any) political rights. In the fifth century Athenian democracy, for instance, the lowest property class, the *ithetes*, could not be elected to high political office, but some of them could afford to fight as hoplites. Democratic Athens was a relatively large hoplite state. According to Thucydides (2.13), in 431 there were approximately thirteen thousand hoplites and sixteen thousand reservists (the youths, the old, and the metics [the latter were resident foreigners without any citizen rights]). However, the oligarchic regimes of 411/10 and 404/3 restricted political rights to five thousand and three thousand citizens respectively; most of those who were excluded were poorer hoplites (Thuc. 8.65–6; Xen. *Hell.* 2.3.20). By comparison, from the sixth century, if not earlier, Spartiates and *perioikoi* marched out as hoplites together, but the latter did not have the same political rights as the full citizens of the Spartan *polis* (Oliva 1971: 55–62; Cartledge 2002: 153). Sparta had around eight thousand citizen hoplites at the time of Plataea (Hdt. 7.234), plus, perhaps, an equivalent or greater number of *perioikoi*.3

Another important aspect of this debate centers on how the phalanx was organized and operated in battle. Most scholars see a development from an unformed and somewhat disorganized mass to a formation displaying a degree of *eutaxia*, good order, with formal concepts of rank and file. Although the term *phalanx* (in the plural, *phalanges*, meaning “lines” or “ranks”) occurs thirty-four times in the *Iliad* (Pritchett 4: 22), battle in the Homeric poems appears to have been a loose and fluid affair (van Wees 1997, Rawlings 2007a, 34–9). There is some debate about how long this period of the proto-phalanx lasted. Some scholars see a move to the tactical formation suggested by Aristotle (*Pol.* 1297b10; see above), in the mid-seventh century; others regard the change as coming later, even, perhaps, at the end of the sixth century.4 The sources are not decisive, though the majority of the representations of violence on archaic painted pottery, and in the poetry of Tyrtaeus (fr. 10–12, 23a) and Callinus (fr. 1), suggest that, for much of the seventh and sixth centuries, engagements could be fluid and the phalanx may have remained an unformed and undifferentiated mass of lightly armed warriors and even horsemen (van Wees 2000a; 2004: 60, 169–77, 196).
By the time of the Persian Wars it seems that the “panoplied” had become sufficiently differentiated from the rest of the combatants in form and function to be termed hoplites. Yet engagements involving phalanxes of hoplites operating as discreet units (taxeis, lochoi) of set depths (usually eight or twelve men deep) are first described in any detail by sources writing in the latter third of the fifth century (fig. 1.2). It does appear that, as early as Marathon in 490, the Athenian army consisted of ten tribally organized taxeis (Hdt. 6.111; Lazenby 1993: 62–3). Other states organized their hoplites in similar units, such as “the five lochoi” of the Argives who deployed alongside “the older men” and a thousand-strong band of “picked men” (logades) at the first battle of Mantinea (418; see Thuc. 5.67, 72). The Argive logades were trained at public expense and, in the latter part of the fifth century, we hear of a number of such specialist bands of elite hoplites in a number of states (Pritchett 1974: 222–4; Tittle 1989). However, few states could afford large numbers of such men. Most hoplites were primarily farmers and were little more than militias that were capable of only rudimentary drill or discipline.

Phalanx formations in the classical period were subject to variation, in terms of width and, particularly, depth. The Thebans sometimes adopted super-deep formations of twenty-five or fifty shields (Thuc. 4.93; Xen. Hell. 6.4.12). The Spartans developed a complex command structure, organizing smaller commands that enabled articulation of movement and independent responses to battlefield conditions (see further J. Lee, 151–7). It is unclear how many states other than the Spartans maintained units below the lochos.

The imposition of lesser officers on groups who regarded themselves as political and civic equals might be socially difficult, nor was there opportunity to develop chains of commands or tactical subtleties prior to the assemblage of militia armies on campaign. Consequently, many farmer-hoplites found maneuver in formation difficult to achieve effectively when under pressure. Only the Spartans had apparently mastered the ability to march in time toward the enemy, even to the point of contact (van Wees 2004: 187). Most phalanxes broke into a run when they approached the enemy, which could be as far as a couple of hundred meters (Hanson 1989: 139–40; Goldsworthy 1997: 10; Rawlings 2007a: 91–2). This had the effect of opening and elongating formations, introducing fluidity and chaos to the initial moments of contact. Nevertheless, phalanxes were reasonably effective in battle. Hoplite cohesion did not rely so much on the ability of officers to discipline their men, but on the moral pressure from comrades in arms, who were often neighbors and relatives, and from a regard for the wider attitude of the community to those who acted in a cowardly or shameful manner in combat (Hanson 1989: 117–25; van Wees 2004: 111–12, 162–4; Rawlings 2007a: 205–13).

Specialization and Flexibility

Hoplite phalanxes were a major feature of warfare in the fifth and fourth centuries, though not the only aspect. There were many occasions when hoplites operated outside of the phalanx, particularly when they participated in sieges, raids, and acted as marines in naval battles (Rawlings 2000). Contact with the far more sophisticated military methods of the Persian Empire forced the Greeks to employ the rudiments of military methodology, first against these barbarians but then against each other. Increasing use of other forces such as cavalry, light infantry (including peltasts), and mercenaries made for more complicated engagements. The specialization of such groups, including hoplites, is
indicative of a developing sophistication in strategy and tactics. Indeed, to cope with the increased use of maneuver on the battlefield, hoplite equipment became lighter. Linen corselets commonly appear in representations from the end of the sixth century, as do open-faced helmets. These allowed for more mobility and visibility than the bronze “bell” corselet and Corinthian helmets of the archaic period.

In the mid-fourth century the hoplite was superseded by a new form of heavy infantryman, the specialist phalangite, who needed both hands to use a much longer spear, the *sarissa*, and who relied less on his shield in combat and more on the density of the phalanx for success. These pikemen swept away both the old hoplite order and the military system of the Persian Empire on the battlefields of Greece and Asia. *Sarissa* fighting required a high level of discipline, where the formation was paramount. Unlike hoplites, these phalangites did not charge at the run into battle, but presented an intimidating hedge of pikes, the formation itself often sixteen men deep. The high level of training was, perhaps, only possible to achieve in monarchies, which might have the will and coercive power to compel their subjects to stand the rigors of drill. Certainly few Greek states adopted the *sarissa*, and then only later in the third century (Ma 2000: 346–7, 361). Philip, Alexander, and the Successors were also backed by sufficient wealth to sustain such forces for long periods of time, which gave their phalanxes the opportunity to develop the skills and cohesion to dominate enemies in combat (see further Serrati, 182–8).

In the archaic period, the light-armed seem to have fought among those with armor in an undifferentiated mass. Thus a bow-armed Teucer sheltered behind the shield of his brother Ajax (*Il. 8.266–72*) and Tyrtaeus (fr. 11.30–8) represents the “armored” (*panoploi*) and the “naked” (*gymnētes*) fighting side by side. By the classical period, the light infantry had been separated from the phalanx, as *psiloi* or, more specifically, *akonistai* (javelin-armed soldiers), *toxotoi* (archers), or *sphendonētai* (slingers). Most of these men came from poor, low-status backgrounds. Despite the limited attention they are given in our literary accounts, large numbers seem to have been present on campaign and at most battles. At Delium (424), more than half of the combatants on the Boeotian side were light troops; the Athenians suffered in the battle, in part, because many of their own non-hoplite infantry had already returned home (Thuc. 4.93). Indeed, Aristotle (*Pol. 1321a14–26*) claimed that the light-armed poor could easily get the better of “wealthier” hoplites and cavalry (particularly during *stasis*) and so urged the better sorts to train their sons as light infantry. As early as the mid-fifth century troops described as peltasts also begin to make an appearance in Greece.

Cavalry in the second Peloponnesian war did much to limit the Spartan ravaging of Attica, and to help keep up morale within Athens (Spence 1993). Athens possessed a relatively large cavalry force, approximately one thousand, plus two hundred horse archers, whereas most central and southern Greek states had limited numbers. Indeed, Sparta only organized a cavalry force in 425, evidently in response to Athenian naval raids on Laconia (Thuc. 4.55; Spence 1993: 11–15). The main reason for this failure to develop substantial cavalry forces, particularly in the Peloponnes, was that horses were expensive to breed, train, and feed (see further Hyland, 493–504). Consequently horses were generally only owned by the wealthy, a demographically small element of society.

Horsemen were further marginalized in the martial ideology of states with substantial forces of hoplites. From the sixth century, if not earlier, Spartan kings fought with their bodyguard of *hippeis* (horsemen), but did so collectively and symbolically on foot. Many generals and wealthy equestrians of other states also dismounted to fight in the phalanx. Mantitheus, a well-to-do Athenian, made a
point of refusing to serve in the cavalry, fighting instead as an infantryman, since, “I saw that everyone believed that the cavalry would be the safer option, but that the hoplites would have to face the real danger…. I thought it shameful if the majority had to face peril, to go to battle thinking of my own safety” (Lys. 16.13).

For men like Mantitheus, things had changed somewhat in Athens since the Peloponnesian War because of the oligarchic regime of 404/3, in which the cavalry had been heavily and bloodily implicated. For a generation, any Athenian who was a member of the “cavalry class” (hippeis) could be suspected of antidemocratic sympathies. In the 360s Xenophon wrote a manual which attempted, in part, to rehabilitate and offer advice on improving the effectiveness of the Athenian cavalry. By then, however, large and powerful cavalries were coming to dominate battlefields and campaigns in northern Greece and were soon to contribute to the victory of Macedonia over the Greeks at Chaeronea (338/7) and to its meteoric conquest of the Persian Empire.

Macedon’s emergence as the dominant military power in Greece underlines the developments in military practice and organization in the fourth century. The Macedonian army appears to have been reformed by Philip II. He gave the army greater discipline, mobility, and tactical and strategic flexibility than contemporary Greek states. The Macedonians had already possessed good cavalry because their terrain and social structures favored its development. Under Philip and Alexander we hear of the Companions (hetairoi), heavy cavalry—able to charge enemy cavalry and to fight hand to hand with thrusting spears, rather than skirmishing with javelins (Brunt 1963). As territorially recruited units, the Companions were mostly landowning noblemen or Macedonians and Greeks who had been granted estates by the king. These were augmented by Thessalian cavalry, good quality horsemen whose role in battle was to secure the left flank, while the Companions tried to win the battle with a timely charge on the right.

The Macedonian army, in the hands of a bold and ambitious general like Alexander, backed by a war-toughened cadre of officers and Companions who had learned their trade under Philip, won spectacular successes against the Persian Empire. In battles at Granicus, Issus, and Gaugamela, in sieges such as Tyre and Gaza, and even in the difficult years of campaigning in eastern Iran and Afghanistan, the army dominated its enemies, as the empire of the Great King fell into Alexander’s hands (Milns 1976). After Alexander’s death, however, the army split into several factions, and thus the armies of the Successors tended to be comparable in quality and organization. The armies of the Hellenistic dynasts exhibited an understanding of the integration of cavalry, light and heavy infantry, trained and officered to execute the strategic visions of their commanders. This flexibility was, to some extent, constrained by the quality of training and organization of the troops and their officers.

Furthermore, the influence of Philip and Alexander’s battle deployments and grand tactics remained strong. Elite units of cavalry, usually deployed on the right, were readied to strike a decisive blow, although by the end of the third century their importance as winners of battles had diminished. Despite the subtlety of deployment and the close integration of the various contingents, for the most part major battles of the Hellenistic period, such as Paraetacene (317) and Raphia (217), involved the centers of armies—sarissa-armed phalanxes—grinding into one another, each attempting to overpower the other. The evolution of the close-quarters spearman, begun in the eighth century, reached its apogee in the Macedonian pikeman. As Polybius observed, the sarissa phalanx was almost unstoppable on level terrain (18.29.1–30.4; 31.3–5). Yet it relied on close collaboration with light forces and cavalry to protect its flanks, without which its vulnerability and inflexibility was all too apparent (see, e.g., Polyb. 18.26.4; Livy 44.41).
It was a great shock when the phalanx encountered the heavy infantry legions of Rome, which employed a flexible system of reserves and relied primarily on a combination of missile bombardment, “an iron downpour” of the fearsome heavy *pila* (Macrob. *Sat*. 6.1.52 = Enn. *Ann*. 8. frg. 281 Warmington = 287 Vahl.), and close combat with body-covering shields and cut-and-thrust swords. The legion was also relatively comfortable in rough terrain, but the pike block was, in this respect, overspecialized (Polyb. 18.31–2). This was demonstrated at Pydna (167), where the Roman legionary maniples were able to infiltrate the ranks of the phalanx and cut it to pieces (Plut. *Aem*. 20.7). Furthermore, even the large armies fielded by Hellenistic kingdoms struggled to match the vast manpower reserves of the Romans. As Pyrrhus discovered to his cost, their capacity to absorb heavy losses and defeats seemed like that of the many-headed hydra (Plut. *Pyrrh*. 19; cf. Flor. 1.13; Rawlings 2007b; Sekunda 2007; see further Howarth, 32–3).

**CONCLUSION**

Greek warfare could be a local, regional, or international activity. Greeks participated in sieges and battles, raids and skirmishes, civil conflicts and guerrilla actions. They launched campaigns with motives of intimidation, reprisal, predation, conquest, and annihilation, against one another and foreign targets. The desire to engage an enemy face-to-face manifested at all levels: from individuals to whole communities. Such combat contexts may have been characterized by less conspicuous acts of gallantry than those of the Athenian hero of Aegina and Plataea, Sophanes; nevertheless they did allow participants to test their personal qualities, and their actions were witnessed by their peers. The Greeks shared a wide range of customs, beliefs, and religious rituals; it was what they thought helped to set them apart from foreigners, but it did not prevent them from killing one another in any way that they could. The burning of six thousand Argives, who had run for shelter into a sacred wood after their defeat at Sepia, indicates how brutal the realities could be (Hdt. 6.78–80, 7.148). War has always been unpredictable and the fear of consequences—economic, social, political, and personal—were powerful checks on aggression and positive inducements to negotiate. However, there were contrary pressures that could prove overwhelming. Many members of Greek communities might relish the opportunity for war: young men lacking understanding of the realities, old men with accumulated bitterness toward their neighbors, and ambitious members of the elite wishing to win a reputation or to bolster their support and popularity; all might be seduced by the luster and profit that a victorious campaign might bring.

There were many developments in the practices of war in this period, from the introduction and modification of equipment, group formations and tactics, to the elaboration of institutional structures of states and empires. The economic and agricultural configuration of communities placed constraints on the types and duration of warfare they could conduct, but from the sixth century monetarization and the development of complex financial structures allowed some states to extend their capabilities. There was an increasing articulation of state authority, exemplified in the appointment and scrutiny of war magistrates (generals and other officers). *Polis* structures facilitated the creation of navies and may have played a role in the emergence of exclusively constituted hoplite formations, with increasing emphasis on ordered files and ranks. In the classical era, the process of combat skill specialization was an essential prerequisite to the increasing interdependence of troop types on campaign and in battle. These developments gave the Greek and Macedonian armies the capacity to resist and then overcome the Persian Empire and contributed to the essential character of warfare in
the era of the Successors.

**BIBLIOGRAPHY**


CHAPTER 2
WAR AND WARFARE IN ANCIENT ROME

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From the Midlands to Mesopotamia, from the Caucasus to the Cataracts, the armies of Rome marched and left permanent marks on the physical and cultural landscapes they traversed. Wherever a Roman army went, it left roads and depots around which the infrastructure of a cohesive empire gradually coalesced. Vast rivers of resources were mobilized across great distances, the long-term effect of which was the creation of a complex economy that linked hundreds of separate microeconomies. The army was itself a powerful social organism. It was both an agent of Romanization and a significant conduit through which flowed the potent influences of other cultures. With the demise of the Republic, the army soon became the prime arbiter of supreme power and its members a privileged class.

Meanwhile, the popular culture of Rome exhibited an abiding fascination with death and blood in a reflection of the martial values of an empire sustained by a more or less permanent state of war. And, finally, many scholars point to fateful changes in the way Rome organized and deployed its army as a prime candidate for blame in the fall of the Western Empire. With these general observations in mind, one grasps not only the centrality of war to Rome but also the enormity of the topic. The chapter that follows will present a synoptic view of the evolution of Roman war and warfare; by necessity only a sketch, it will emphasize threshold moments as well as key and problematic issues pertaining to our understanding of the Romans at war.

Threshold Moments in Roman War and Warfare

It took the Romans a long time to reach the limits of the empire they accumulated, but we can locate the threshold after which Mediterranean hegemony was certain, in the same place as did Polybius. Here is the rhetorical question that begins his History (1.1):

Who is so worthless or indolent as not to wish to know by what means and under what system of polity the Romans in less than 53 years have succeeded in subjecting nearly the whole inhabited world to their sole government—a thing unique in history?

The period to which Polybius refers (ca. 220–168 B.C.) encompassed the second war with Carthage, the defeat and humiliation of Antiochus III, and the destruction of the Macedonian monarchy. After this, two things were clear to the Romans and to everyone else: first, no external enemy of Rome could reasonably hope to win a war that Rome chose to pursue. And second, no polity bordering the Mediterranean existed except on the sufferance of Rome. We could explain
Rome’s emergence to this commanding position solely in terms of the tactics, weapons, and training of the Roman army—it was often a frightfully effective machine of death—but to do so ignores the fundamentals that had already set Rome apart from other candidates for hegemony and ultimately made Roman military success more likely over the long run.

Polybius began his narrative of Rome’s rise with the first war between Carthage and Rome (264–241 B.C.). But by that time Rome had already established the basis of her long success in the preceding century. The cornerstones of that early success were constructed from a combination of good fortune and sound policy; good fortune in that the relative isolation of Italy provided a buffer that limited the appearance of outside raiders, or at least the intention and the scale of their raids—the invasion of the Gauls in 387/6 B.C. being the only important exception. Good fortune in that the manpower of Italy, a fountain of mercenaries since the late Bronze Age, was sufficiently large and acculturated to a warrior ethos that the raw material for a large military machine was ready to hand (Thuc. 7.53.1–2 and Etruscans recruited by the Athenians for Sicily). But it was sound policy, however, that from the beginning the Romans fostered an inclusive political identity that made it possible and feasible to integrate the war-making potential of conquered populations, to continuously broaden the basis of logistical support, and to create a network of allies that could and did survive disastrous setbacks. Most of all, it was sound policy to provide both allied and conquered elites genuine opportunities and real incentives to cooperate with the Romans.

Between 400 and 300 B.C., Rome developed a matrix of treaties with her neighbors that may have multiplied Rome’s manpower base by a factor of four, although numbers are always problematic. The most important of these treaties, that with the Latin League, had roots dating to the sixth century B.C. Although our primary interest in the Latin League stems from its importance to the Romans as a vehicle for mobilizing regional military assets, it was the political benefits of membership that truly differentiated the Latin League from other classical era leagues of cities and ultimately made it useful as a military organization. The most striking of these political benefits was a functional permeability of civic identity. Citizens of one member city could take residence in and exercise the rights of citizenship of other member cities. For the veteran of wars undertaken in this cooperative framework, the fruits of successful warfare were in some instances distributed in the form of colonies among whose enrollees would be counted citizens of Rome and other allied cities. The ease with which local elites could coalesce into regional elites important to Rome was an enticement to regional cooperation that did not exist in the Greek world, except perhaps in the Macedonian system of the mid-fourth century. A path to political inclusion existed at the bottom of the social scale as well. Ex-slaves could vote and the descendants of ex-slaves were full citizens. In all these we note contrasts with the more common customs exemplified in Athenian management of the Delian League. Athenians of the fifth century jealously guarded the gateways to their citizenship, to emphasize the civic and social distinctions of Athenian ancestry, and to limit colonists to Athenian enrollees. The effect was to limit both the theoretical extent of diplomatic cooperation among Delian League elites and the degree to which low-status individuals in ancillary communities felt connected to the ruling elite. One can hardly overestimate the benefits of these distinctions. Rome’s allies before 200 B.C., on the whole, understood the Romans as not fundamentally different from or ascendant over themselves—language and culture notwithstanding—because the diplomatic conventions promoted by the Romans gave form to and promoted inclusion in an overarching federal identity. (On the development of the conventions of the Latin League cf. Alföldi 1966, Sherwin-White 1973, Salmon 1982, and Howarth 2006, for a revisionist view).
The sources for Rome’s military and political institutions begin to provide cogent detail for the period beginning with the last quarter of the fourth century B.C. Rome’s emergence then as a significant player in Greek affairs—and so in Greek historical accounts—explains this change. We see, for example, that the sources begin to associate numbers (the first through the fourth) with the legions of that period whereas they seem not to do so for any previous period. We may fairly surmise that the Romans were by then routinely deploying four legions every year. From this date through the reforms of Marius (ca. 100 B.C.), we understand each Roman legion to have a theoretical complement of 4,200, nominally divided into thirty divisions. The legion was deployed in three lines (front to back: hastati, principes, triarii) with the most experienced soldiers in the rear. Lightly armed men (velites) were deployed in the front of the formation—brining the theoretical complement up to 5,000—and the unit was supported by three hundred cavalry. Individual units had no permanent or long-term identity and the soldiers enrolled only for specific campaigns.

By 338 B.C., the Romans were actively managing the military assets of their erstwhile partners in the Latin League as well as a varied collection of miscellaneous allies the Romans termed collectively the “Italians.” Whereas before this date the allies cooperated with Rome on a more or less voluntary basis, their cooperation was thereafter essentially compulsory. On the other hand, after 300 B.C., Roman successes were increasingly frequent and their scale increasingly impressive. Presumably the fruits of these efforts were shared; we have no particular reason to think they were not. On what proportional basis the categories of allies were deployed is a matter for conjecture until late in the third century, and even then it is inconsistent and idiosyncratic. As the Romans continued to grant their citizenship, we might suppose that the proportion of the army which was technically Roman would have increased. Against this, we note that the number of communities in the allied category continued to grow, so that the proportions may have remained more or less in balance. Without undue damage to the evidence, we may suggest that consular armies were never more than 50 percent Roman anytime after 338 B.C. and perhaps substantially less. On this question, the sources simply do not say enough. We can say that the Romans were routinely deploying at least seventy thousand soldiers in consular and proconsular armies every year by the last third of the third century B.C. This does not include any number of smaller deployments under the leadership of second-tier commanders (praetors) nor does it include naval forces.

All things considered, Rome’s matrix of treaties ensured that the costs of war in men, material, and treasure were effectively spread over a wide base. All categories of allies that provided manpower also equipped and paid their own men. Treaties—as with Naples circa 325 B.C.—provided ships, while others, such as with Syracuse circa 260 B.C., provided grain. The war with Pyrrhus and the first two wars with Carthage provide dramatic examples where Roman manpower and logistical advantages trumped both the repeated battlefield successes of enemies and the vicissitudes of natural disaster. Pyrrhus, for his part, although the apparent winner in at least two of three battles he waged with Rome between 280 and 270 B.C., ultimately gained nothing for his effort except that his name became forever synonymous with a victory won at too great a cost. In the first war with Carthage, Rome’s losses in warships and men were staggering; perhaps as many as 100,000 Roman and allied soldiers and sailors may have been lost over the twenty-three-year war and, if one counts transports and warships, well over a thousand ships. Yet in a single battle in 241 B.C., the loss of only one hundred ships by the Carthaginian side led Carthage to accept a humiliating peace. The net gain for Rome was substantial: Sicily, substantial reparations, and shortly afterwards the opportunistic seizure of Sardinia and Corsica when unpaid Carthaginian soldiers revolted. Analysis of Carthaginian silver over the course of the war shows an unmistakable pattern of repeated devaluations. Ultimately,
Carthage lost that war in much the same way that the Soviet Union lost the Cold War (Lazenby 1996): it could not afford to compete.

In the second war between Rome and Carthage, Hannibal understood these advantages; one can see a consistent pattern of attempts on his part to separate Rome’s allies from Rome, a mostly unsuccessful enterprise. Although Hannibal was the superior military thinker—he won every significant battle with the Romans except his last—he could not win the war because he could not win over Rome’s allies. Meanwhile, the Romans absorbed the lessons taught by Hannibal on the battlefield and eventually stole the initiative by finally attacking Carthage itself. The result for Carthage was the same as in the previous war: humiliating terms of surrender. We should therefore understand Roman military success before 200 B.C. as a function of a structural resilience much more than we should see it as that of superior tactics, weapons, or leadership (Polyb. 3.89; Brunt 1962).

The next stage of Rome’s military history begins with the second defeat of Carthage in 202 B.C. and ends with the demise of the Republic. This period marks the slow erosion of the presumption of equality among allies of Rome. Because after Hannibal no external entity existed that could realistically threaten Rome’s dominance, the quid pro quo implicit within treaties like that binding the Latin League was no longer necessary to sustain Roman success; the principle of equal status among allies was increasingly dishonored, even where it continued to exist by treaty. This translated into a pattern of abuse of and interference in the domestic concerns of the various Italian allies (Howarth 1999). In addition, the movement of Rome’s frontiers away from Italy changed the economy irrevocably, and not to the benefit of the lower classes of Italians (Rosenstein 2004). The combination of these conditions eventually stirred awareness of a gradual devolution to second-class status. The most destructive war in Italian history is conventionally known in English as the Social War, but it might more transparently be termed the War of the Allies. It tore Italy apart early in the first century B.C., after Rome’s allies demanded full Roman citizenship at the point of a sword. Rome survived the trauma, but the tensions that fueled the war remained fundamentally unrelieved for another hundred years.

The wars with Carthage furthered Roman advantage in the most fundamental of ways: they forced the centralization of supply and command. The logistical demands of maintaining so many men in the field for such long periods of time fostered the marshaling of enormous resources, channels of supply to distribute them, and the emergence of large-scale state contracting (Erdkamp 1998; Roth 1999). The occasional resistance of Italian municipalities to Rome’s incessant demands for manpower led inevitably toward centralization of manpower records, and, logically, to direct management of the resources to which they corresponded. These systems of supply and recruitment evolved in the third century B.C., and were taken for granted in the second century B.C.

By the end of the second century, the Romans reverted to a streamlined recruitment policy that encouraged men without property to enlist (Keppie 1998). This meant inevitably that the state was now routinely obligated to provide weapons and equipment kits to recruits. This created a practical imperative for standardization, with coincident benefits occurring in battlefield management (Smith 1958; Keppie 1998). The successive consulships of Gaius Marius (104–100 B.C.) represent the threshold by which time these reforms were functionally complete. The three ranks of the pre-Marian army were now replaced by ten cohorts of 480 men, identically equipped. This basic complement will remain the standard legionary model at least until A.D. 200. Legions hereafter bore permanent names that corresponded to enduring identities. The lightly armed velites and cavalry were replaced by separate units termed auxilia (“helpers”) and alae (“wings”), respectively. Initially these were
discrete contributions from specific allies but over time it is clear that auxilia were replenished by various methods, including recruitment of citizens. Over the long run, these new categories became increasingly important to the Roman army, but gauging their varying size and tactical importance constitutes a significant problem in understanding the Imperial army.

The monarchy that was established by Caesar’s successor, Augustus, created the framework for the third significant period of the Roman military machine. Although the armies of the Republic could and did remain in the field for long periods, technically they had always been ad hoc arrangements for particular missions, at least until Marius. Armies marshaled under such circumstances were inherently insecure constituencies whose loyalties remained ripe for manipulation by ambitious dynasts. Augustus, recognizing this, after discharging and paying off a substantial portion of the combined armies of 31 B.C., created a stable professional army with a centralized command-and-control and supply structure (see further Culham, 236–60). Whereas the Republican system of supply and logistics had always left de facto organization of supply networks in the hands of commanders, Augustus modified this by creating a permanent military treasury (the aerarium militare) funded over the long term by inheritance and auction taxes (Cass. Dio 55.24.9). Eventually, perhaps as early as A.D. 200, taxation schemes began transitioning from tax in coin to tax in kind on the model of what was already in place in Sicily and Sardinia since the third century B.C. With the institution of a fully professional army, soldiers could count on a sixteen to twenty-five year career and the enduring patronage of a highly centralized government whose stability depended on their support. Augustus, hardly an altruist, was very careful to restrict access to leadership positions and carefully managed military deployments.

These arrangements created the conditions necessary for cohesive and long-term military policy and, of course, left the appearance of it in the record. As a result, modern scholars have mapped patterns of deployment, plotted the construction of a hardened military infrastructure, and even proposed the existence of an enduring “grand strategy” of frontier management, although the latter notion has lost ground. The opposite conclusion is that the Romans had no frontier policy at all, but considered the frontiers, such as they were at any moment, as borders of their logistical network rather than the limits of their empire (Whittaker 1994). The truth may lie somewhere between.

Imperial disposition of positions within the leadership of the army was governed by at least three competing considerations: the need to dispense meaningful patronage, the necessity of keeping potential challengers from exploiting these opportunities to the detriment of Imperial protégés, and the desirability of maintaining competent commanders in key positions. The realization of these goals may coincide, but seem seldom to have done so, so that periods of what appear alternately to be either conservative or assertive frontier policy can also be construed as functions of changing Imperial confidence (cf. Lendon 1997 who argues that the army expected a code of behavior from the emperor, not just his patronage). We see that emperors gradually increased the number of legions over the third century to as many as sixty-seven but reduced their complement proportionately. If we think of the Imperial government as an essentially reactive one (Millar 1977), we might see strategic thinking as a series of weighted responses to different kinds of enemy: those from within and those from without. We see this tension early on in Domitian’s decree that no two legions could camp together (Suet. Dom. 7.3).

The third century A.D. represents the next important threshold. An essentially unstable political period, the length of average reigns by emperors decreased dramatically after 235 until Diocletian’s successful reorganization began in 284 (MacMullen 1976). The political uncertainty in Rome
certainly engendered a collapse of strategic coherence. Borders abandoned by would-be emperors who marched for Rome were tested and overrun by increasingly bold invaders. The Romans initially adapted by building walls around cities and emphasizing mobility of force over static defense. Over the long run, it would appear that the Romans constructed a multilayered defensive structure that required a substantial increase in the total number of men under arms but deployed in smaller units than had been the standard before circa 200. Unfortunately, the lack of good evidence for this period makes it nearly impossible to understand these dispositions in detail.

Finally, a series of military and political shocks rocked the Roman world in the last third of the fourth century. Julian, emperor from A.D. 360 to 363, was killed in an abortive invasion of Persia, but Persian indecision and Roman territorial concessions saved his army. In 378, the impetuous Valens died along with much of his army, slaughtered by the Goths at the battle of Adrianople (Lenski 2002). His successor, Theodosius, eventually granted the Goths extraordinary powers of autonomy as well as huge subsidies. But we note an ominous development for Rome in 394 when Theodosius led an army composed substantially of Gothic confederates and defeated a Roman army led by the usurper Eugenius. With Theodosius’s death the next year the Goths became once again the enemy, stunning the Roman world by sacking the city of Rome in 410. From this point, no longer could the Romans assume dominance in military contests nor was their empire’s future a safe assumption.

**THE EVOLUTION OF ROMAN MILITARY-POLITICAL INSTITUTIONS AND CUSTOMS**

What we know of the political organization of Rome before 200 B.C. inspires some comparison with the Greek *polis*. There is an obvious and significant correlation between what we might term the political class and the primary military class upon which any organized community depended. A correlative principle is that those who were in a position of responsibility for leadership in war enjoyed the highest level of prestige. In Sparta we see this correlation clearly: the political class and the hoplite army were one and the same. Spartan kings were primarily war leaders. Likewise, we see the greatest extension of democracy to unpropertied classes in Athens, because its navy required so many sailors. Pericles, elected as *strategos* in Athens, enjoyed a virtual first-citizen status with the benefit of that position. The two supreme magistrates of the Roman Republic—the consuls—had no power within the city walls except to preside over Senate discussions and ritual functions, though consuls might choose to lend the prestige of their name to legislative initiatives (Sandberg 2001). Their primary portfolio was the conduct of war. There were a handful of lesser military commands available in any given election cycle so that the total number of elected and prorogued commanders in the field fluctuated from year to year.

The most exclusive elected office in Rome was that of censor, who were elected in pairs at four-to-six-year intervals. Although the censor developed wide-ranging responsibilities by the late Republic—these would include, for example, the letting of public contracts—the censors’ original and core responsibilities had to do with manpower management. The Romans also elected lower-level officials called *quaestors* who provided supervision of financial concerns in military districts outside of Italy. The Roman Senate existed primarily as an advisory council for war and diplomacy, and acted as a forum for the articulation of privileges associated with the conduct, rituals, and rewards of warfare. Certainly many other matters fell within the purview of senatorial comment, but the chief movers within the Senate won that status as a consequence of a family history of military endeavor. In the *Comitia Centuriata*, or the Assembly of Centuries, the citizens of Rome assembled...
to declare war and elect the consuls, the institution having evolved from an army assembled to acclaim its leaders and undergo ritual purification (see Mitchell 1990; Nicolet 1980). The clear implication is that war amounted to the first true business of the Roman state.

The internal stability of the Roman oligarchy was, like that of any other, highly dependent on internal cooperation in the management of access to the means of influence and the most effective modes of aristocratic display. The competition that is allowed in any such system must operate within consensual parameters of discretion or the dynamic balance of power within the group will become unstable. By 300 B.C., military endeavor was firmly established in Rome as the primary conduit for the accumulation of aristocratic prestige (Rosenstein 1990). Accordingly, the competition for access to leadership positions was always sharp. Even having achieved such positions, however, the ability of any member of the oligarchy to overreach was limited by the scale and duration of military endeavors. So long as short-term commands were the rule, the oligarchy had an effective tool to limit individual ambition. But, by 200 B.C., short commands had become the exception, not the rule. And from about 100 B.C., the prime movers in the Senate demonstrated an inability to restrain individual ambition on any consistent basis. We should see this as the background for Sulla’s ultimately failed attempts to enhance the power of the Senate and an excellent context within which to locate the elusive “Servian Reform” of the Comitia Centuriata (Howarth 2006).

We can observe this same threshold from a different perspective, that of loyalties demonstrated by soldiers, and the manipulation of those loyalties by competing dynasts. Before the end of the second century, recruitment of soldiers was tied to property rating. While it seems that the Romans were not routinely drafting men without property before the end of the second century B.C., it appears that on occasion they did so, mostly in response to emergency situations. Even so, it does not necessarily follow that men without property were not ordinarily enlisted; only that men without property ordinarily did not self-enlist without some sort of interaction with a patron whose property obligated them to provide a man. Manpower obligations were in some manner indexed to wealth rating; we might surmise, therefore, that the higher the wealth rating, the greater the number of bodies necessary to meet one’s obligation. For those at the top, such requirements would logically be fulfilled from one’s clientele. It had always been the custom that soldiers provided their own kit so we should expect these recruits to have been equipped with armor and weapons by their sponsoring patrons.

It follows logically that patrons should expect some enduring bond of obligation as a consequence. Although there is no confirming evidence, one might also expect a material obligation on the part of the soldier: perhaps a share of his portion of war booty or even an interest in any land that might eventually be distributed. But whether or not a formal obligation to the sponsoring patron existed, the salient point is that the informal nature of an enduring patron-client relationship would stand as an offset to the temporary influence of the commander to whom the recruit was assigned. In addition, although patronage patterns that endured between ex-commanders and veterans were only one element determining aristocratic prestige, subsequent events indicate that it was the most dangerous category. On the other hand, so long as short commands of limited scope were the rule, the growth in any individual’s prestige ultimately depended on the approval of the oligarchy as a group.

Unfortunately, all customary and institutional checks on aristocratic prestige were obliterated by the end of the second century B.C. Short-term commands remained practical only so long as armies marched from Rome and were in a position to achieve their objectives within a single campaigning season. This was already mooted by the middle 200s during which Roman campaigns evolved to accommodate war at sea against a powerful enemy on another continent. With this evolution of
Roman military activity came an inevitable modification of the term limit; consuls’ and praetors’ authority to wage war was routinely prorogued for two or three years at a time. While this was a clearly practical and logical response to logistical imperatives, it also enhanced the bonding process that always takes place between soldiers and their commanders, especially successful ones. We see the implicit potential in the illegal election of the young P. Cornelius Scipio by the troops of his deceased father in 210 B.C. The army, which had been fighting in Spain for years, had been led first by the uncle and then by the father. With this, we also note the increasing scale of the plunder won in such contests, literally hundreds of thousands of pounds of silver and tens of thousand of gold, not to mention of course the many thousands of captives sold at auction.

The breaking point came with the rise of Gaius Marius at the end of the second century. Marius was an extraordinary man with boundless ambition but with one significant shortcoming: no pedigree. That is, he was the first of his family to achieve prominence in Rome. Normally men without generations of family history in Roman politics could not expect to rise to the highest levels of leadership, however capable they might be. Yet Marius, a second-generation citizen, won the consulship more times than any other man in the Republic. How can we explain Marius’s unlikely success? First, there was an emergency. A significant migration of Germans was taking place just beyond the northern frontiers of the Roman world in the last decade of the second century B.C. Several Roman armies sent to confront the Germans had been destroyed, the political effect of which was to break down, at least temporarily, some of the unity within the ruling oligarchy. Marius, fresh off a successful three-year campaign in Africa, was a logical choice for assignment in the north except that political considerations would normally forestall a repeat consulship for any commander much less an outsider like Marius. Marius’s five additional and successive consulships point to a political paralysis of sorts within the oligarchy whose collective antipathy to the “New Man” could prevent the proroguing of his command, but not his reelection (figure 2.1).
Marius, in preparing to confront the German menace, implemented a number of initiatives in the areas of recruitment, equipment, and training that had enormous long-term impacts across the political and military landscapes. The most immediate problem facing Marius was a severe manpower shortage. The relatively low returns of the Iberian and Celtic wars of the late second century, combined with the disasters in what are now Croatia and France, would certainly generate an increasing reticence on the part of patrons to provide men and equipment. Compounding this reticence was Marius’s pedigree. While we are clearly in the range of supposition, it is not hard to envision individual members of the oligarchy turning their backs on obligations to supply his army with men. Subsequent events certainly suggest that the shortage of manpower was, indeed, an artificial shortage, because Marius did fill his army by direct enlistment. As we have already noted, this was not so much a radical reform as it was a resort to expediency. In one sense, this course of action can be construed as a sop to the aristocracy because, rather than force members of the aristocracy to provide manpower, it obviated them from giving up client labor supplies for which the burgeoning economy of the late second century had other uses. It would also unburden that aristocracy of any obligation to equip the new soldiers. Marius’s recruits, now equipped by the state with a standard complement of equipment that each man carried himself, came to be dubbed “Marius’s Mules.”

Marius did succeed in his campaigns against the Germans, but, with the threat represented by their presence no longer a political consideration, the oligarchy closed ranks against him. Their reluctance to sanction a reward of land to Marius’s veterans should be seen as a naked political ploy designed to undermine the auctoritas that his meteoric rise had generated. However, this stunt removed a cornerstone of the compact between the oligarchy as a whole and the citizen-soldiers of Rome. The next seventy years saw a succession of dynasts who each capitalized to some degree on the combination of disaffected soldiers and a dysfunctional Senate to challenge for individual supremacy. The allegiance of soldiers to the community was inevitably displaced by allegiance to individual commanders, a recipe for an accelerating instability (Brunt 1962). All leaders cultivated strong ties to a dedicated soldiery who were willing, to one degree or another, to crash the gates of Rome in the service of their patron. In so doing they established a truism of the following century: the army would be the most important arbiter of political ascendancy. There is no particular reason, I think, to believe that any of these men, Caesar included, sought a monarchy, but merely the first position within the oligarchy. On the other hand, that Caesar’s assassination merely delayed the creation of a monarchy for a few more years demonstrates its structural inevitability.

Meanwhile, the external empire that the Romans had accumulated continued to endure, even as the Roman political system collapsed upon itself. The only serious outside threat during the civil war years came from the Parthians, whose forays into Syria were inspired by their destruction of Crassus’s army at Carrhae in 53 B.C. A new order, a monarchy wrapped in Republican titles and customs, came to power. Nevertheless, this new system retained the essential elements of the old system, if by essential we mean that the most potent forms of aristocratic prestige were still derived from the management of war and its rewards. The real difference between Republican and Imperial realpolitik was that access to the highest levels of prestige had now been stabilized under the control of a single family. What remained of the former oligarchy was unable to mount any significant challenge to the authority of the Emperor, if only because it had no opportunity to accumulate sufficient prestige to compete realistically for the affections of the army. We see, for example, that the last non-Imperial family commander allowed to triumph was Cornelius Balbus in 19 B.C. With the most impressive forms of aristocratic display firmly under the control of one family, along with, of course, control of the fruits of war and empire, others had to settle for the accumulation of empty titles.
and for access to the patronage of the Emperor. In the process, Rome became, for all intents and purposes, a military autocracy. All political questions paled before the most important one: to whom would the army be loyal?

The Roman emperors of the Principate and beyond continued to engage in expansionist activities in response to predictable imperatives: the need to shore up political influence at home or with the troops, and, ultimately, to transfer their accumulated loyalty to heir-designates. Lavish public games and huge donatives to the army and the citizens reinforced these political objectives, but emperors who were perceived as uninterested or unlucky in military endeavors were much more vulnerable to challenge. The best example is Nero who, for his own part, had no stomach to lead the army anywhere, preferring instead to dominate sham poetry contests. His suicide anticipated his overthrow and murder, perhaps by minutes. Later, Domitian’s failures on the frontier, despite his personal leadership there, engendered considerable hostility in the army and left him vulnerable in Rome. Finally, Commodus’s preference for the capitol over the army camp lay at the center of his own unpopularity. The unpleasant but entirely real possibility of revolts led by ambitious frontier commanders clearly conditioned Imperial policy toward the army and frontiers for the next three hundred years.\(^5\)

The key problem we have for understanding the end of the Roman Empire in the West is whether we should emphasize Rome’s growing reliance on recruitment of barbarians for the army as the essential cause for subsequent problems. Without a continuous narrative it is hard to chart the history of this policy. It is certainly true that Rome had always integrated the war-making potential of her conquered foes and we should rightfully regard this as a continuing strength of Rome, not a weakness. What seems to set this period apart is the pace of absorption and the seemingly disproportionate representation of the Goths. Furthermore, one might say that the schizophrenic policies of the Romans toward the Goths actually made a problem where one had not existed. The Goths, never culturally integrated into the Roman world, sacked Rome in 410 after protracted negotiations with the Romans failed to secure them a tenable position in Italy.\(^6\) Alongside this trend, we note clear evidence that Imperial authorities were having trouble recruiting soldiers and sustaining those they had.\(^7\) The end of Rome in the West was rooted in the increasingly obvious inability of Western Roman authorities to support a significant army (see Whittaker 1994; Southern and Dixon 1996; Elton 1996; Coello 1996 for unit sizes in the late army).

**NEW SCHOLARLY TRENDS CONCERNING ROMAN WAR AND WARFARE**

As the other contributions to this volume suggest, much new work taking place in the study of Roman war and warfare looks at the experience of war, as opposed to its direction and outcome. What was it like to stand on the line of battle in a Roman legion? How does one feed an army as it is traversing enemy territory? What effect does a hostile army have on a host population? Such questions bring with them their own problems, not the least of which is that our sources seldom addressed them, at least directly. But there is much indirect evidence that lends itself quite nicely to questions such as these. There has always been a great deal of archaeological, papyrological, and epigraphical evidence. However, much of it has been marginalized, practically speaking, by its publication outside of historical journals. Its collection and organization into regional and Empire-wide categories gives substance to our largely anecdotal narratives, while in turn those narratives give meaning and context to the minutiae (see further James, 91–127, Adams, 261–76).
One productive category of this work focuses on logistics (Le Bohec 2000; Alston 1995; Erdkamp 1998; Roth 1999). It is absolutely clear that ancient writers were aware of the importance of logistics in the outcomes of war: Polybius notes for the third century B.C. that “the advantages of the Romans lie in inexhaustible resources in supplies and men” (3.89). According to Frontinus, Caesar sought to “conquer the enemy with hunger rather than with steel” (4.7.1). The Romans were nothing if not organized, and everything we know about Roman training suggests that Roman soldiers were kept constantly busy training, building, or foraging. Romans did not maintain separate support units in conjunction with combat units so that all the support activities—supply, mess, armory, engineering, foraging—would normally be carried out within the structure of the legion. Each legion on the move required thousands of mules, hundreds of carts, and perhaps thousands of muleteers, drivers, and other “helpers,” especially if the legion commander had a staff or if the unit were equipped for siege warfare. The Romans made elaborate provision for gathering water, firewood, and fodder, only a few days usage of which can reasonably be hauled at a time by any army on the move. Keeping the army in supplies entailed a wide range of discretion from pillaging to requisitioning, the choice of which was related to the desired impact on the host population (Roth 1999).

Since the third century B.C., the Romans made systematic provision for regular supply networks and the seemingly durable nature of these networks helps explain how the various players who vied for power at the end of the Republic could maintain their armies. The combined figures for Romans under arms when the civil wars finally ended in 30 B.C. are in the vicinity of one-half million: a testament to a stunning achievement of logistics and one not equaled in the West for another eighteen centuries. What were tactical depots in the time of Augustus hardened into permanent infrastructure in the following decades. The construction of the navy bases at Misenum and Ravenna were tied to the need to protect supply shipments into Italy. All told, there must have been a significant and salutary impact on local economies, especially in underdeveloped areas. The Roman armies built an incredible network of roads, of course, not so that soldiers had a hard path upon which to walk, but to keep the cart traffic supporting them from sinking into the mud (Chevalier 1976). All of this suggests a rich area for further investigation.

Another direction taken with respect to Roman warfare is that we are increasingly interested in what is going on in the minds of the men on the line. What was a Roman infantry battle actually like and how did it differ from a hoplite- or Macedonian-style contest? In a hoplite battle it makes little sense to hold men in reserve if the goal is to force the enemy backward until the formation breaks down and the army becomes a mass of individuals. Ancient sources usually do not make it easy to estimate how long these encounters lasted, but, by comparison, it seems easy to prove that typical Roman infantry battles lasted longer than typical Greek hoplite battles, in some cases hours longer (cf. Pritchett 4: 46–51). Our ancient authors note that the Romans’ regular rotation of fresh troops for tired troops was a significant Roman advantage and reason for success. One can see little opportunity for rotation if continuous pressure existed between the front lines of opposing forces, if only because there is no space between men (Sabin 2000).

The model we are given by Hollywood, where disciplined formations of soldiers devolve into full-scale melees, while presumably allowing for continuous reinforcement by fresh troops, nevertheless is also unsatisfactory because it demands casualty figures commensurate with a mutual slaughter lasting for hours. There is no consistent evidence that suggests that this was the norm. An alternative and much more plausible model is that of two armies in a “dynamic balance of mutual dread” (Sabin 2000: 15). We would see a series of individual or group clashes along the fronts of
two armies which were barely separated. The space between the armies also allowed the Romans to rotate, as was their reputation, a constant supply of new men to the front. Opponents anxious for the clash and too undisciplined to wait, hasten their demise at the hands of the constantly refreshed Romans. The first to step back, usually that side which tires first, precipitates a general movement backward and heralds an ultimate defeat. Hannibal’s practiced approach was to choose topography that would allow him to attack Roman flanks, thereby disrupting or precluding an orderly rotation of fresh troops to the point of contact. The ultimate influence of Hannibal on Roman strategy is that he taught the Romans the art of pre-battle maneuver. After Hannibal, Romans always gave much more thought to battlefield choice and psychological advantage (see Sabin 1996: 59–80). Once the battle was joined, however, it was the actions of the few that mattered the most. When one tries to reconstruct the progress of any Roman battle, it seems that we should place much more emphasis on the acts of individuals than we have previously done and regard legions as flexible structures (Goldsworthy 1996).

In conclusion, we see that there is scarcely any element of Roman history and culture that should be seen in isolation from the habits of the Romans in war. In the beginning, Roman diplomatic success was predicated on partnership in the conduct of war and the sharing of its benefits. The most obvious path to prestige in Rome was found in the management of war and its rewards. Eventually the practical problems of managing warfare at great distances from the city of Rome overwhelmed both the institutions and customs of the city and the diplomatic instruments that had facilitated early success. The system that replaced the Republic increasingly favored the army as a privileged class of citizens and it continued to expand. The demise of the political idea of Rome was tied to changes in the way the army was organized and deployed. On the other hand, we see that the Roman army and the habits of Rome at war should not be considered in isolation from the social, diplomatic, and political contexts in which they existed. Happily, all of these realizations are resulting in a fresh synthesis of narrative evidence and material culture, and a host of new questions being asked of long-familiar material.

BIBLIOGRAPHY

Campbell, B. 1975. “Who were the viri militares?” JRS 65: 11–31.
In the summer of 341 B.C., Demosthenes addressed the Athenian assembly in a speech now known as his *Third Philippic*. After confronting his fellow citizens with a catalog of Philip of Macedon’s aggressive interventions, he turns to describe Philip’s new way of fighting (47–50). Although other speakers have pointed reassuringly to Athens’ earlier success in resisting the all-powerful Spartans, even when supported by the Persians, this Macedonian way in war is something unprecedented:

For I hear that, in former times, the Spartans, like everyone else, would ravage and invade the enemy’s land with hoplites and with citizen armies. This went on for only four or five months during the campaigning season, then they would go home. But now you hear of Philip marching where the fancy takes him. He is followed, not by a phalanx of hoplites, but by light-armed troops, cavalry, archers and mercenaries.… I need hardly tell you that he makes no difference between summer and winter, and has no season set aside for inaction.

Demosthenes advises against risking a pitched battle against Philip, for which he is the better prepared. The Athenians must first supply themselves with ships, money, and men, then win the support of other Greek states. We will return to consider the plausibility of Demosthenes’s presentation of Philip’s waging of war.

Some thirty years later, Theophrastus produced for the benefit of his pupils in the Lyceum a collection of *Characters*: thirty or so caricatures of imagined Athenian citizens, including the portrait of a Coward (XXV). Having described the Coward’s near panic on board ship (he sees pirate ships everywhere), Theophrastus suddenly switches to his demeanor in battle. The Coward is evidently wealthy enough to serve as a hoplite (3–8):

Hearing cries and seeing men falling he says to his neighbours that he was in such a hurry that he forgot to bring his sword, and he runs to his tent, sends his slave outside with instructions to see where the enemy are, and hides it under a pillow, then spends a long time pretending to look for it. While he is in the tent, he sees one of his friends being brought back wounded, and so he runs up to him and tells him to be brave and lends a supporting hand. Then he gives him medical attention and sponges him down and sits beside him and keeps the flies off the wound—anything rather than fight the enemy. Spattered with blood from the other’s wound he meets the troops returning from battle and announces, with the look of one who has risked his life, “I have saved one of our men.” Then he invites his fellow-demesmen [clansmen], and tribesmen to come in and look at the patient, and as they enter he explains to each one of them how he carried him to the tent with his own bare hands.
Taken together, these two passages might seem to tell a coherent story. When Demosthenes warned the assembly how Philip had rendered obsolete the time-honored, seasonal way of fighting with a hoplite phalanx of citizen-soldiers, Chaeronea was only three years in the future. Yet Theophrastus, writing well after Athens’s defeat in the Lamian War and the Macedonian takeover (321), wanting to show up cowardice and (by contrast) the need for courage, does so with what reads like a traditional hoplite battle. The implication is that the Athenians, having failed to learn their military lessons, were overwhelmed by the Macedonian way in warfare.

Demosthenes’s observation that nothing changes so much as the business of war might serve as a classical maxim for military historians and strategists. Writing in the interwar years, Captain B. H. Liddell Hart famously sought to demonstrate how three hundred years of *The British Way in Warfare* (relatively small forces moved rapidly by sea to where most effective) had been disastrously superseded from 1914 by the “French way” of mass attacks on defended positions. More than two thousand years earlier, the traditional “Greek way in warfare,” characterized by the restricted scope of hoplite battle, had seemingly been superseded by the Macedonian emphasis on combining branches of arms (notably cavalry) on the battlefield, so as to annihilate the opposition.

But alternative readings of both passages are possible and even preferable. Demosthenes, in his attempt to persuade the assembly, plays on the rhetorical ploy of telling hard truths (3–5, 46–54): the Demosthenic equivalent of “blood, toil, tears, and sweat”. In fact, what he chooses to tell the Athenians regarding Philip’s war machine are arguably half-truths. Virtually all those “new” aspects of fighting had been anticipated in the Peloponnesian War and developed during the first half of the fourth century. It may be significant that Demosthenes omits the battlefield innovation traditionally attributed to Philip: the *sarissa* or formidable twenty-foot pike wielded by the Macedonian infantry. Better, perhaps, to keep to more institutional and moralizing aspects of Philip’s campaigning, avoiding the “face of battle,” so sparing his listeners the sharp end of Macedonian war-making. After all, a fair number of the audience (those aged eighteen to sixty) would be the ones doing the fighting; including, as it turned out, the speaker.

As for Theophrastus, his *Characters* is not quite as at first appears. Although certain Characters mention events and individuals from well after the death of Alexander (VIII, XXIII), the Athens in which they do their stuff seems fully democratic, with assembly, courts, and frustrated oligarchs (XXVI, XXIX). Current consensus sees these inconsistencies as reflecting composition through time, rather than willful anachronism (Diggle 2004: 27–36). Either interpretation presumes, as does Demosthenes’s speech before the assembly, an audience in part willing to suspend disbelief. In the case of the Coward, this is promoted by incidental yet authentic touches: the cries of the fallen, the trumpet sounding the advance, blood-spattered clothing, flies buzzing around the wound.

I have cited these passages at some length as paradigmatic of the problems inherent in reading as history Greek writers on warfare. Hindsight inevitably colors our perception of the *Third Philippic* and the entire public debate in Athens over Macedon. Like so much of the surviving ancient testimony, the *Philippics* are framed from a contemporary Athenian viewpoint. From the vantage point of the second century, Polybius provides a powerful critique of Demosthenes’s understandable but blinkered pro-Athenian perspective. Small states in the central Peloponnese, overshadowed by a vengeful Sparta, benefited from more distant Macedonian supremacy (18.14). Other key issues of interpretation include context (physical and ideological), authorial intention, and audience expectations: all aspects of the so-called “performance culture” that was such a feature of Athenian society. In a competitive arena (*agon*), “actors” put on a distinctive display (*epideixis*), cultivating a
particular appearance (schema) before the gaze (theoria) of an informed and critical audience (see Goldhill 1999; Millett 2007: 28, 72–3, with reference to the Characters). This obviously applies to Demosthenes before the assembly, and also to Theophrastus “acting out” his Characters in the Lyceum. As will emerge, issues of orality and performance directly affect almost all Greek authors concerned with warfare (on orality and literacy, Thomas 1989 and 1992 remain essential).

**SOME POETIC USES OF WARFARE**

Commonplace but still striking is the sheer range of “Greek writers on warfare,” as broadly conceived. Each author calls for a different set of considerations, but emphatically at their head stood Homer, profoundly influencing almost all that was to follow. “This is Arniadas’ tomb: him grim Ares slew as he fought by the ships at the streams of Araththus, foremost by far in the mournful battle-din” (Tod no. 2). This suitably Homeric epitaph in hexameter verse is from Corcyra, dated circa 600. The durability of the epic tradition is also apparent from its deliberate burlesquing in the late mock-Homeric *Battle of the Weasel and the Mice* and *Battle of the Frogs and the Mice* (see West 2003: 259–79). Analogous are the twin accounts of the Trojan War, probably from the Second Sophistic, purporting to be by Dictys the Cretan and Dares the Phrygian, both setting Homer to rights (translation: Frazer 1966; cf. Higget 1949: 51–3).

The long gap between Homer and the intensely Homeric Herodotus (ca. 700–430) is bridged by the surviving and surprisingly extensive fragments of archaic poetry, here presented as a case study in the uses of warfare in early Greek literature. The range of possible performance contexts (festivals, games, symposia) reinforces the public and oral characteristics of early poetry.² The poems of Mimnermus, Callinus, Alcaeus, and Tyrtaeus themselves were conceived and performed in the context of the ongoing if uneven process of state formation, incorporating the creation of constitutional government and the emergence of the citizen-soldier. Demarcation of frontiers and development of political tendencies provided plenty of scope for armed conflict: between and within Greek communities, between Greeks and barbarians (discussion in Pritchett 4: 33–44; Arnould 1981).

This interplay of ideas between generations and genres of authors, complicating and enriching our reading of Greek warfare, is already present from the mid-seventh century (or earlier) in the hardly heroically correct *persona* of Archilochus of Paros. In what is arguably the earliest surviving “personal poetry,” Archilochus portrays himself as an infantry soldier and a poet: “I am the servant of Enyalios, Lord of Battle, and I know the lovely gift of the Muses” (fr. 1); and possibly (fr. 2; cf. Gerber 1999a and Davidson 1968a), through his “spear-won” (*en dori*) barley bread and imported wine, as a mercenary. According to tradition, Archilochus was killed in battle, in hand-to-hand combat (T 12–18). But the autobiographical implications of the lyric “I” are notoriously open to debate.³

On occasion, Archilochus can moralize like a Homeric hero: how Ares “favours the enemy with guest-gifts (*xeinia*) of grief” (fr. 6). But more arresting is Archilochus’s apparent undercutting of the heroic ideal. His defiantly carefree reaction to throwing away his shield (“I’ll damn’ well get another just as good”) either inaugurated or, more likely, responded to an existing poetic tradition of lost shields (*rhipsaspasia*). The relevant fragment (5) is cited by Plutarch as a pendant to his account of the Spartan banning of Archilochus for his self-proclaimed cowardice (*Mor.* 34.239B; cf. Val. Max. 6.3 = T 46). According to Aelian (*VH* 10.13 = T 33), the pro-Spartan Critias also criticized Archilochus for this unnecessary piece of honesty: “far more shameful than his lechery or arrogance.”
“That’s Critias’s opinion, not mine,” as Aelian hastens to add.

According to one of Athenaeus’s learned diners, Alcaeus of Mytilene (fl. 600) was “warlike to a fault” (14.627a; cf. T 22), introducing the poet’s evocative account of a whole armory “gleaming with bronze,” with its plumed helmets, and other accoutrements of war (fr. 140; cf. 350, 383, 427). “To die in war is noble” is a saying attributed to the resolutely aristocratic Alcaeus (fr. 400), who some said did die in battle (T 9c). Other fragments of Alcaeus offer a more equivocal attitude to fighting including an apparent appeal for an end to civil strife (fr.70; cf. 36).

Some decades later, verses attributed to Theognis of Megara (fl. 580) echo both Alcaeus’s self-consciously aristocratic outlook and his mixed response to warfare. The common factor may be the experience of war within the developing community (39–52, 77–8, 53–68). According to Theognis, the abiding fame (kleos) of a spearman defending land and city is to be contrasted with the worthlessness of wealth in the wrong (non-noble) hands (865–8; cf. 549–54). Yet there is also a prayer for peace and prosperity for the polis: “So that I may hold revelry with the others. I have no love of cruel war” (885–6; on identification of which verses in the collection are actually by “Theognis,” cf. Lane Fox 2000).

The story of archaic poetry so far might suggest a spectrum of military engagement, along which the remaining major poets may be located. Even poets representing (at least, in surviving fragments) the more pacific tendency routinely incorporate military material, by way of imagery and allusion, and even mockery. Hesiod’s Works and Days (from Boeotia, fl. 700) is possibly the only extended piece of archaic poetry devoid of any hint of warfare. Hence, perhaps, the slighting saying attributed to King Cleomenes: “Homer was the poet of the Spartans and Hesiod that of the helots, because the former encouraged men to make war, and the latter to farm” (Plut. Mor. 223A). Apart from Tyrtaeus, the Apophthegmata Lakonika or “Spartan Sayings” preserved by Plutarch (Mor. 208B-236E), provide the closest approach to Spartan “writing” on warfare (cf. Plut. Lyc. 21 with Alcman fr. 41).

Solidly “militaristic” are the surviving sections of Callinus of Ephesus (fl. 650) and his near contemporary, Tyrtaeus of Sparta, exhorting their respective armies to fight bravely. Callinus was concerned with barbarian, Cimmerian invaders (frs. 1, 5); Tyrtaeus with rebellious Greek Messenians. Extended fragments from Tyrtaeus hint at the actualities of early hoplite battle (fr. 11): “Come, let everyone stand fast … biting his lip with his teeth, and covering thighs, shins below with the belly of his broad shield … let everyone draw near … and fight against a man, seizing the hilt of his sword or his long spear” (cf. fr. 10 with Lycurg. Leoc. 106–8: compulsory recitation to Spartan soldiers before battle).

In similar vein were the lines delivered by Solon of Athens (fl. 600), shaming his fellow citizens (“Salamis-ceders”) into renewing their war with Megara for control over Salamis (frs. 1–3). Although only a handful of verses survive, Plutarch exceptionally preserves a tradition concerning the original performance (Plut. Sol. VIII.1–3 = T 1): Solon feigning madness, rushed into the agora, wearing a pilidion or little felt cap (cf. Irwin 2005: 134–46; Podlecki 1984: 122–4 for the possible historical context). Mimnermus of Smyrna (fl. 630) described in his quasi-epic Smyrneis the earlier defense of the city (ca. 660) against Gyges and his Lydians (Podlecki 1984: 58–61; West 1993: 5–6). The aristeia of an unnamed warrior is Homeric in conception (cf. Il. 4.370ff), but said by Mimnermus to have been heard from an older relation (Paus. 9.29.4; cf. frs. 9, 13, 13a, 14). He may have provided a model for Simonides of Ceos (fl. 610) in his elegiac poems on (possibly) the battles of Artemisium, Salamis, and Plataea (fr. 532–6; cf. 524). Of the numerous epitaphs for the war dead supposedly commissioned from Simonides (Elegs 1, 10; Epigs II-LXXI; see also Molyneux 1992),
only two seem likely to be authentic (cf. Kowerski 2005: 151–60, including discussion of P.Oxy. 3965 and the fragments now identified as the “new Simonides”; West 1993: 1). 4

Simonides and his younger contemporary Pindar from Thebes (fl. 490) carry over lyric poetry into the Classical period with its increasingly autonomous history. But contemporary events (notably the Persian Wars), confronted directly by Simonides, enter only obliquely into Pindar’s poems (text and translation: Race 1997; Pindar’s complex poetic persona: Lefkowitz 1991). Isthmian VIII manages to allude to the victory over the Persians without mentioning it directly (10–11). It seems natural to associate Pindar’s reticence with the medism of Thebes (suggested by Ehrenberg 2011: 143–6, who identifies fr. 110 as advice to the Thebans on the eve of the Persian invasion: “To the untried, war is sweet …”).

Assimilation of victory in the games to success in war, with shared heroic associations, generates a range of reference to epic warfare and warriors. He likens his own verse to an arrow from his quiver, hitting the mark (Ol. 2.83–93; cf. 9.5–14; Isth. 5.46–9; cf. Nagy 1979: 199–214). Pindar’s close contemporary and competitor, Bacchylides of Ceos (nephew of Simonides), invokes a near-identical range of military motifs. Apart from a Paean for Apollo (fr. 4. 61–80), in praise of the “peace dividend” (“Peace gives birth to noble wealth for mortals”), Hiero and his brothers are hailed, as by Pindar, for their victory at Himera (5.31–5).

Among the most telling evocations of warfare in archaic literature are isolated, chance survivals. Such are the enigmatic pronouncements of Heraclitus of Ephesus: “It is necessary to know that war (polemos) is common and right is strife (eris), and that all things happen by strife and necessity”; and “War is the father of all and king of all, and some he shows as gods, others as men, some he makes slaves, others free” (Kirk, Raven, and Schofield 1983: nos. 212–13). Although the sense is presumably metaphorical (cf. Guthrie 1962: 446–9), Heraclitus plays upon the perceived impact of war on individuals and society. A further case in point also sheds light on a possible “performance context” for some of this poetry. Apropos of erebinthoi or “chickpeas,” one of Athenaeus’s diners (2.54e) quotes from the Parodies of Xenophanes of Colophon (fl. 540), the natural philosopher and poet (II.54E = D-K fr.18). “As you lie stretched on a soft couch by the fire in the winter season, these should be your words … sipping sweet wine while munching chickpeas…. How old were you when the Mede came?” The question (reminiscent of “What did you do in the Great War, Daddy?”) probably refers to the Persian invasion of Asia Minor circa 540, here framed as a defining moment and point of reference. No doubt the identical question would be asked more frequently in mainland Greece in the fifty or so years after Marathon, and then Plataea.

**The Classical Contribution: Mainly Athenian**

Apart from demonstrating the pervasiveness and the variety of uses of warfare, archaic poetry provides an antidote to the overriding Athenocentricity of later “Greek writers on war.” Aside from Homer, origins of poets so far encountered encompass the Greek world from Ionia to Southern Italy. Solon is the sole representative from archaic Athens; but from Athens in the classical period, warfare either dominates or impinges significantly on all the major genres.

Drama in Athens reaches back into the archaic period. The elaborate festivals in which tragedy and comedy were embedded enhanced their complex role in fashioning and reflecting polis ideology (festival and civic ideology: Goldhill 1990; festivals and the competitive element: Osborne 1993). Of
the thirty-two surviving tragedies, perhaps half are set in wartime or are war-related. Shortly after
the Persian destruction of Miletus in 494, Phrynichus, with his *Capture of Miletus*, had moved the
Athenian audience to tears and landed himself a thousand-drachma fine (Hdt. 6.21). In 480, it was the
turn of the city of Athens. Aeschylus’s *Persians* of 472 (the earliest tragedy to survive intact)
celebrates through Persian eyes the subsequent Greek victory. The audience in the theater of Dionysus
only had to raise their eyes to survey the real-life “backdrop” of their city, destroyed twice-over by
the Persians and still being rebuilt (Pelling 1997b; Goldhill 1988; Hall 1989 remains fundamental).
The play was the product of a survivor of the Persian Wars (his brother was killed at Marathon), who
preferred in his epitaph to commemorate his role as soldier rather than playwright: “The famous
grove of Marathon his valour can tell/As can the long-haired Persian, who knew it well” (Ath.
10.627c; cf. Paus. 1.4).

In Aristophanes’s *Frogs* (1013–29), a thoroughly militant Aeschylus is made to mention the
*Persians* as making citizens “yearn always to defeat the enemy.” He is Dionysus’s eventual choice to
return to Athens to “save the city” (1419), while his rival Euripides, accused (by Aeschylus) of
rendering the Athenians unfit for war making (1058–98), is left to languish in the Underworld. For
surviving Athenian expressions of “the pity of war” (the phrase is famously that of Wilfred Owen),
the natural choice is Euripides’s plays on the imagined aftermath of the Trojan War: *Trojan Women,*
*Hecuba,* and *Andromache.* Elsewhere, Euripides causes Medea to represent the experience of
childbirth in terms his male audience might appreciate (*Medea* 250–1): “And, they [husbands] tell us,
we at home/Live free from danger, they go out to battle: fools!/I’d rather stand three times in the front
line than bear/One child.”

Of the eleven extant comedies of Aristophanes, four date from and deal directly with the
Peloponnesian War (see Dobrov 2010 for the context and history of comedy). Characteristic episodes
are the hostile caricature of the commander Lamachus (*Acharnians* 572–625; cf. Sidwell 2009: 139–
44), humiliation of a ruined arms salesman (*Peace* 1210–64), and the gentler mockery of the chorus of
Old Men in *Lysistrata* as self-styled “Cleomenes-besiegers” and even “Marathon-fighters” (254–86):
the fifth-century equivalent of “Old Contemptibles.” From a twenty-first-century vantage point, it
might be thought remarkable that all four plays, competitors in a state-sponsored drama festival, could
be characterized as “anti-the-war.”

The war naturally finds its way into other plays. In the opening scene of *Clouds* (1–7), Strepsiades
curses wartime conditions: “One can’t lay a hand on one’s own slave nowadays, when they
oversleep.” True to form, a few moments later (56–9), he is cheeked by one of his household slaves.
The pressing circumstances of the last phase of the war resulted in an exceptional grant of freedom
and probably citizenship to slaves rowing in the fleet at Arginusae (406). “Curse it! Why didn’t I fight
Elsewhere, mainstream writers seem systematically to have ignored “slaves-as-soldiers,”
presumably as undercutting the prevailing ideology of the citizen-soldier (cf. Hunt 2002: 26–8, 83–
101, with Paus. 1.32.3–5, 7.15.7).

Several of Menander’s supposedly domestic comedies feature mercenary soldiers (suitably
named) as leading characters: Kleostratos (“Famous Army”) in *Aspis,* Bias (“Force”) in *Kolax,*
Polemion (“Warfare”) in *Perikeiromene* (Hunter 1985: 66–9; MacCary 1972). In the opening scene of
*Aspis,* “The Shield” (1–92), Kleostratos’s slave/batman vividly recreates episodes from a failed
Greek mercenary campaign. His account culminates in the misidentification, through a battered shield,
of a bloated battlefield corpse as that of his master. Mnesimachus, from the mid-fourth century,
provides an earlier and more explicit example. A character at a symposium in his comic play *Philip* (presumably the father of Alexander) is made to say (Ath. 10.421b-c):

Don’t you know that you’ve got to fight against us men who dine on swords freshly sharpened, and who, instead of a starter, eat up lighted torches?

That might serve as the comic counterpart to Demosthenes’s expression of Macedonian war making.

From the breadth of Attic oratory, some nineteen-or-so “public” speeches explore in detail aspects of warfare, politics, and diplomacy; fourteen were delivered before the assembly, four are law court speeches (see Gagarin 2011; Hunt 2010: 15–25). The great majority are either by or are attributed to Demosthenes. In 354, he contributed his earliest surviving assembly speech, *On the Navy Boards* (XIV), on the intricacies of naval finance. His earlier speeches, the *Olynthiacs* (I–III) and the *Philippics* (IV, VI, IX, X) confront the Athenians with the challenge of war making. Embarking on the final stage of his career (338–22), Demosthenes delivered the traditional Funeral Oration over the ashes of the dead from Chaeronea (LX; cf. Plut. *Dem*. XXI), part of the public ceremony so memorably recreated by Thucydides. There survive from Athens five real or imitation speeches commemorating the war dead, representative of what came to be seen as a peculiarly Athenian sub-genre (see further Loraux 1986, with discussion of Thuc. 2.34–46 Pl. *Menex*. 236b-49c; Lysias II [with Todd 2008: 210–74]; Hyper. VI; Dem. LX).

The so-called “Private Speeches” of the orators regularly engage with military service, as might be expected from the frequent appearance as litigants of Athens’s politico-military elite. The Demosthenic speech *Against Timotheus* (XLIX) followed from Timotheus’s large-scale borrowing from the bank of Pasion, in order to fund his campaigning (Millett 1993: 191–4). Of Lysias’s surviving speeches, some eight are linked directly to military matters, ranging from corrupt commanders to insubordination and deserting the ranks (speeches I–XI, see Todd 2008). Half of Isaeus’s twelve speeches over disputed inheritances arose directly out of death in war (speeches IV, VI, VII, XI: see Wyse 1904, Wevers 1969).

Alongside death in battle, prosecutions arising out of military offenses have a relatively high profile in the Orators (cf. Andoc. I.74; Pritchett 2: 232–45): desertion (*lipotaxia*), absenteeism (*astrateia*), and cowardice (*delia*). In Lysias’s speeches *Against Alcibiades* (XIV, XV), the son of the fifth century commander stands accused of having fled from the line of battle. After Chaeronea, Aeschines thought it worthwhile to remind the jury how Demosthenes had been formally accused of cowardice, simultaneously highlighting his own dutiful service (2.148–51, 167–9). Lycurgus’s full-length speech from 331/0, *Against Leocrates*, accusing his opponent of deserting the city in defeat, may be read as his personal, patriotic manifesto for Athens after Chaeronea. Along the way (70) Leocrates rewrites the Battle of Salamis, stating the intention of the Spartan, Corinthian, and Aeginetan fleets to leave their Athenian allies in the lurch (see Allen 2000; Whitehead 2006).

Such high-profile prosecutions over alleged military misconduct are part and parcel of political maneuverings in the courts in Athens. But “ordinary Athenians” might also find themselves in court as a consequence of warfare. A case in point is Demosthenes’s speech *Against Eubulus* (LVII), where the course of the Peloponnesian War proved doubly unfortunate for the speaker, accused of usurping Athenian citizenship. His opponents claimed that his father spoke Attic Greek with a foreign accent (18–30). What they have conveniently forgotten (he claims) is that, during the later stages of the war, his father was taken prisoner and sold into long-term slavery on the island of Leucas, where he
acquired his nonstandard pronunciation. As for his mother, the fact that she sold ribbons in the agora and acted as a wet nurse is not evidence of her metic or servile status, but rather the consequence of the hard times inflicted on the whole *polis* in the final stages of the war and the civil war that followed (30–45).

Taken literally, the “writing on war” that loomed largest for ordinary Athenians was the thousands of inscriptions around the city, testimony to Athens’s “epigraphic habit,” relating to warfare in the public domain. Of the ninety-five inscriptions selected by Meiggs and Lewis, some twenty-five relate directly to warfare, of which twelve are Athenian (ML 7; see also van Wees 2004: 211, 232). Aspects covered include celebration of victory (nos. 15, 18, 19, 26), decrees concerning campaigns (nos. 23, 51, 61, 78), and casualties (nos. 33, 48). The casualty lists from 460/59 and 447 name individually, gathered by tribe, those citizens dying in the course of the previous campaigning season. To date, a minimum of thirty such lists have been identified from Athens (Bradeen 1969, 1974: 3–34; lists outside Athens, Pritchett 4: 140–5).

The uniform and implicitly democratic aspect of this final stage of the civic process of memorialization may be compared with the carefully crafted relief (a horseman spearing his adversary) on the private monument, erected in the Ceramicus in 394, to commemorate the death of the young cavalryman Dexileos (Rhodes-Osborne 7B; illustration: Osborne 1998: 14, pl. 3; cf. Goldhill 1990: 110–1; Strauss 2000: 263–7). Poignantly, on the casualty list for 447, the stonemason left additional space under each tribe, in the expectation that further names might be added. Lists of names on war memorials, ancient and modern, may be approached as examples of “symbolic writing,” making a visual impact, and not necessarily meant to be read (Clairmont 1983: 1: 29–73; Tritle 2000: 143–64).

**THINKING ABOUT WAR**

For mainland Greeks, what we call the fifth century was given its shape by two wars, a phenomenon familiar from our twentieth century. Given the embeddedness of warfare in the written and spoken words in both private and public spheres, and, by extension, in Athenian culture in general, its uneven treatment by mainstream thinkers might seem anomalous: the unbalanced relationship between practice (quite a lot) and theory (not very much). 6

Practicalities are apparent in Plato’s *Laches* (178a–84c), where a display of simulated hoplite fighting involves two commanders, Laches and Nicias, in a debate about the role of private military training as part of *paideia*. This leads by stages into a consideration of the nature of courage. In the initial conversation, Laches introduces and commends Socrates’s own service as a hoplite in the Delium campaign (181a-b). In Plato’s *Apology* (28d-e), Socrates is realistically made to remind the jury of his service at Potidaea, Delium, and Amphipolis (cf. Hunt 2010: 279–82).

The theme of military training recurs at length in the *Republic* (369b), where the actual theory of war and peace receives relatively short shrift. In a few sentences, Socrates causes Glaucon to agree that the quest for a city enjoying anything more than the most basic standard of living calls for detailed division of labor, necessitating a substantial increase in population (372d). This in turn means occupying the territory of neighboring states: aiming at “unlimited acquisition of wealth,” matched against the implied idea of the “limited good” (see Millett 2001: 36–7). The process might seem in part to reflect the reality of recurring frontier disputes within the Greek world; what Herodotus
caused Aristagoras to describe to King Cleomenes as “wars over a scrap of land, and poor land at that” (5.49).

Having discovered what Socrates terms “the origin of war” (373e), it seems imperative to the discussants that the ideal state should develop the strongest possible army to protect and preserve what has been taken from others. Hence their rejection of part-time citizen-soldiers, in favor of suitably trained *phulakes*: the first mention in the *Republic* of the “Guardians” (374d), followed by a lengthy account of their education as both soldiers and philosophers (cf. 525b).

The shared role of men and women in Guardianship over other citizens includes the active role of women in warfare, which leads into a digression on the conduct of war (466d–471c). Cowards are to be demoted to the status of artisans or farmers; those taken prisoner are not to be ransomed (again, against current Athenian practice, noted by Lys. 12.20). By the same token, there are to be rewards for the conspicuously brave (supported by Homeric precedent); the dead are to be suitably honored, according to instructions sought from Delphi.

As for the enemy, a fundamental distinction is drawn between Greeks and others. Those Greeks taken prisoner are not to be enslaved but spared, so as not to weaken collective resistance to the barbarians. The enemy dead (who are all to be buried) are to be relieved only of their weapons (contrast the behavior of Homeric heroes: van Wees 1992: 97–8); plundering of the dead (indicative of “feminine small-mindedness”) provides an excuse for cowards to abandon pursuit. Although the enemy’s harvest may be carried off, lands (supposing they are Greek) are not to be devastated nor houses burned. Such destruction is to be reserved for barbarians as “natural enemies.” This is on the grounds that wars between Greek states are effectively an extension of stasis or internal conflict between people who should be friends, and will be so in the future, once those in error have been “corrected.” Apart from the faintly chilling notion of corrective “re-education” (Plato wrote, after all, in the aftermath of the Thirty Tyrants), the argument reflects theoretical preoccupation with “inner war,” for which Thucydides famously supplies a far less optimistic analysis than Plato (2.69–85; see Price 2007).

Plato’s preoccupation with internalized conflict recurs close to the beginning of the *Laws* (624a–26b). In essence, the unnamed Athenian speaker (normally associated with Plato himself) wishes to question the apparently overwhelming emphasis placed by Cretan and Spartan lawgivers on success in warfare. Cleinias, the Cretan contributor, explains the nature of military training and equipment peculiar to Crete: the mountainous terrain encourages running rather than horse riding, with light armor and weight-saving bows and arrows. He explains how their lawgiver Minos (instructed by Zeus himself) stipulated common meals so as to simulate practice in wartime:

> In this, I think, he censured the stupidity of ordinary men, who do not understand that they are all engaged in a never-ending lifelong war against all other states…. The legislator’s position would be that what most men call “peace” is really only a fiction, and that in cold fact all states are by nature fighting an undeclared war against every other state.

The passage is routinely cited as indicative of “the Greek” (or possibly Plato’s) view of warfare as opposed to peace as the norm (see Connor 2004: 12–17). In fact, Plato causes the Athenian speaker politely to undercut the Cretan’s observation with a reductio ad absurdum. If states are permanently in a condition of undeclared war, what about villages, then households, then individuals, and finally each individual at odds with himself?

The Athenian develops the argument so as to cast doubt on the seemingly deep-seated military orientation of Cretan and Spartan institutions (627–32). He causes Cleinias to agree that stasis (“total
war,” as he labels it) is more damaging than external warfare. Accordingly, the best or “genuine” lawgiver is one who is able to restore and preserve internal peace. But of the two kinds of war, it is the internal type which is most bitterly fought (seemingly contrary to the argument of the Republic, above). This means that those fighting internal wars must display a superior courage. Theognis is cited (frs. 77–8) to clinch the argument that, with stasis, “a man will never prove sound and loyal unless he has every virtue,” whereas the courage praised by Tyrtaeus ranks only fourth among the “divine” benefits or virtues. In any case, in external war, citizen-soldiers will be supported by hordes of brainless mercenaries. Cleinias expresses dismay at the apparent failure of the Cretan lawgiver. Not at all, replies the Athenian; rather, we were wrong in assuming that the primary aim of Minos and Lycurgus in their lawgiving was preparation for war.

That is virtually all the theorizing about warfare to be found in the Laws. In the laws for the projected Cretan colony that make up the heart of the work, there are details, for example, concerning the appointment of commanders and their subordinates (755b–756b) and regulations for the well-being of the territory (760a–761d). Military training is a major preoccupation, including dancing and parading which should involve carrying arms and armor (796c–d). Particular attention is to be paid to the punishment of cowardice, with elaborate rules governing the loss of shields. Finally (955b–c), stasis is to be formally outlawed by making death the penalty for waging private war of any kind.

A similar pattern may be traced in Aristotle, not himself Athenian but a long-term resident of Athens. Although the business of war makes frequent appearances in the Aristotelian Constitution of the Athenians (cf. 42.2–5, 49.1–2, 61, with Rhodes 1981), and presumably in the other 157 constitutions attributed to Aristotle and his school, warfare as a concept is only intermittently introduced into the synoptic Politics. Contrast may be drawn with his devotion of the whole of Book V to an exploration of stasis, introducing external war only as an intermittent factor (1306a20–32, 1306b37–07a3).

The closest approach to an analysis of warfare comes in the closing pages of the Politics (1333a32–34a10). Life is divided into leisure (schole) and absence of leisure, into peace and war. Absence of leisure must be for the sake of gaining leisure, and war for the sake of ensuring peace. In short, what is useful and necessary should serve what is noble. It is the job of the lawgiver to promote this overall approach through appropriate paideia. This leads into a critique of writers who praise the Spartan constitution, on the grounds that it is entirely focused on warfare and conquest. But that is easily refuted by theory and by the experience of history: the Spartans have, after all, lost their empire. This prompts a brief contemplation of the proper purpose of military training, which is not to enslave the undeserving, but for three other reasons: (i) to avoid being enslaved; (ii) to rule over those who would benefit from being ruled (not indiscriminate despotism); (iii) to hold despotic power over those deserving to be slaves.

This passage is to an extent paradigmatic of Aristotle’s overall thinking about war in the Politics, picking up a point made close to the beginning of Book One (1256b21–7). A consequence of the presumption that nature has made all animals for the sake of men is that the art of war, of which hunting is a part, is “by nature” an art of acquisition. So warfare is just which is aimed against those persons who are natural slaves, but refuse to acknowledge it. The criticism of Lycurgus’s legislation recurs through the Politics, with explicit acknowledgment of Plato in the Laws (1271a42–71b7; cf. 1324b2–9, 1325a1–11). 

Aside from practical considerations of defense and metaphorical use of military matters, this seems in large part to be the extent of theoretical engagement with warfare in the Politics.
both Plato and Aristotle reveal a preference for “internalizing” implications of warfare; not just stasis, but the relationship of military service to the entire social and political order. Confirmation that this “under-theorizing” of warfare is not peculiar to Plato and Aristotle comes from the lists of philosophical writings compiled by Diogenes Laertius in his *Lives of the Philosophers*. From the hundreds of titles preserved, not one seems to promise a sustained analysis of the phenomenon of war (Demetrius of Phalerum comes closest with his *Strategikon* or “Military Matters” [5.80]; cf. his *Peri eirenes* [“On Peace”; 5.81]). The obvious explanation for this intellectual incuriosity may well be correct. Rather like our resignation in the face of winter or bad weather, warfare was “taken for granted” to the extent that it did not provoke sustained contemplation. There is an analogue in the absence from antiquity of any widespread discussion of the nature of slavery. The sole significant exception from Aristotle’s *Politics* (1253b15–55b40) was apparently prompted by awkward and unique questions about the naturalness and therefore the justice of slavery (1253b20–3). In the case of warfare, no one apparently thought to ask the necessary questions (cf. Shipley 1993: 18–22; weather and slave analogies: Garlan 1989: 8–9, 1975: 15–18).

**“IN COMMAND OF HISTORY”**

The phrase is from the book of that name by David Reynolds, a brilliant exploration of the circumstances of Winston Churchill’s composition of his famous history, *The Second World War* (1948–1954), through which Churchill created his own compelling vision of the war itself (Reynolds 2004: 37–8, 545). Churchill’s oft-quoted words (approximately his own), that “it will be found better by all parties to leave the past to history, especially as I propose to write that history myself,” seem a fitting introduction to this selective treatment of the four outstanding Greek writers on warfare, Homer, Herodotus, Thucydides, and Xenophon, all of whom created for posterity the wars they set out to describe (cf. Trible 2000: xi-xv; Shipley 1993: 3–4).

There are two significant differences from the Churchillian experience. Even before Churchill’s death in 1965, the process of revisionism had begun; first, tentatively and apologetically (Alanbrooke 1957), then with increasing candor (Moran 1966), and even apparent malice (Ponting 1994). In the case of the Greek authors, the materials for systematic reassessment are virtually or entirely absent. Secondly, for the Greek historians, there is added complication (and enrichment) in the ways each author responds to the work of his predecessors, over all of which are set the epics of Homer. The development is not linear, with additional strands feeding in from contemporary and earlier authors. An intriguing case has been made for the connection from Thucydides back to Pindar, himself heavily engaged with Homer (Hornblower 2004; Flower and Marincola 2002: 4–5).

It may be thought misleading to include Homer as a “writer” on warfare. In Xenophon’s *Symposium* (3.5, 4.6), Niceratus tells how his father, the distinguished commander Nicias, made him learn by heart the whole of the *Iliad* and *Odyssey*. Since Homer, “that wisest of men,” wrote about virtually all human affairs, the son can claim to be an authority on managing landed estates and becoming a leading politician or military commander.

Although Niceratus’s audience is suitably skeptical, behind the obvious caricature lies some kind of reality. The richness and range of the *Iliad* and *Odyssey* explain the reach of their influence within and well beyond the classical world. So Odysseus has been claimed as a model for the life of Jesus, and books XXII and XXIV of the *Iliad* for the Passion, both as told in Mark’s Gospel (McDonald
The implied message is that Christ transcends even the greatest pagan heroes. Two millennia later, Achilles and Odysseus have memorably served as prompts for the discussion of aspects of combat trauma in the Vietnam War (Shay 1994, 2002; cf. Tritle 2000: 4–7; also Havelock 1972 and Verdenius 1970).

Something of this Homeric breadth is reflected in the subject matter of the three historians, none of whom wrote uniquely “military history.” The strand pursued here relates to ways in which the historians both echo Homer and also reflect realities of ancient warfare through their individual interweaving of the destructive violence of war with the concentration, deployment, and redistribution of material resources, public and private (cf. Immerwahr 1960; Hornblower 1991; Kallet-Marx 1993: Kallet 2001). They share the philosophers’ conception of warfare as promoting acquisition and loss, made the more pressing by the underlying notion of the “limited good.” The sheer unpredictability of warfare made it a high-risk enterprise, beyond the battlefield. With good reason did the “ancient oracle” reported by Thucydides associate war with famine and plague (2.54; cf. 1.23.2–3, with Hornblower 1991: 62–4).

The *Iliad* opens appropriately enough with “deadly plague” ravaging the Greek army besieging Troy. The action of the poem arises out of the associated dispute over Agamemnon’s disdainful appropriation of plunder: behavior on which even Achilles and Thersites can agree (1.92–190, 2.212–42). The war against Troy is conceived against the background of the accumulation and concentration of resources, as exemplified by the “Catalogue of Ships” (2.484–759) and the prospect of major plunder from Troy (1.127–9), balanced against its progressive dissipation (cf. van Wees 1992: 207–58).

From the *Odyssey*, the story told by the disguised Odysseus to Eumaeus might serve as a case study of the interplay of fighting, acquisition, redistribution, and reputation (14.191–359). He tells how, though the son of a wealthy Cretan landowner by a bought concubine, through his own merits he made his reputation, rejecting farm work and family life. Soon after returning to Crete from Troy, he fitted out ships for an expedition to Egypt. The undisciplined behavior of companions, greedy for plunder, led to military disaster. Fortunes lost and shipwrecked, he was rescued by the king of Thesprotia, witnessing by the way the fabulous wealth of Odysseus, deposited with the king. A further betrayal resulted in his arrival in Ithaca, destitute and in rags. “By the stubble, see what the harvest was like,” is how Odysseus introduces his tale (14.214–5; cf. Donlan 1973: 153–4; van Wees 1992: 207–10, 238–9).

The monumental scale of Herodotus’s history and its possible public performance in Athens align it loosely with the Homeric epics (Plut. *Mor.* 862B, with Thomas 2000: 249–69; Marincola in de Séllincourt 2002: xii–xiii). “Longinus” where he labeled Herodotus as “most Homeric,” presumably referred to his style and language (13.3). But the connection to Homer is apparent, literally from Herodotus’s opening sentence. His stated intention, that “human achievements” and the “great and marvelous deeds” of the Greeks and barbarians should not be “without their glory” is a verbal reminiscence of Achilles in the *Iliad* singing to Patroclus of the “glorious deeds of men” (9.189). The Homeric model is again evident in Herodotus’s overarching theme of conflict between East and West: incorporating the Trojan War and culminating in the invasion of Xerxes. Also shared with Homer is Herodotus’s frequent explanation in terms of reciprocity and retribution. A tit-for-tat sequence of seizures of women from Europe and Asia supposedly provided the inspiration for Paris’s abduction of Helen (1.1–3). For Herodotus (5.97), the “beginning of evils for Greeks and barbarians” (the phraseology is Homeric: *Il.* 5.62, 11.604; cf. Thuc. 2.12) was the sending by the Athenians of
twenty ships to assist the Ionian Greeks in their war against the Persians. Darius (then Xerxes) allegedly responded to subsequent Athenian participation in the destruction of Sardis by singling them out for future punishment (5.105; cf. 7.1, 8; cf. Gould 1989: 82–5; Finley 2002).

Herodotus closes his “introductory digression” (1.1–5; cf. Asheri 2007: 36–9), by stating his intention of treating “small cities of men no less than great” on the grounds that, given the instability of prosperity, cities formerly great have become small and vice versa. Warfare naturally has a major role in the process of growth and decline. Wholesale destruction has its part to play, as with the Persian razing of Miletus (6.18–20), but the experiences of the Phocaeans introduce a range of factors into the physical creation, acquisition, abandonment, and relocation of communities (1.162–7). The Persian Harpagus besieged the city, offering easy surrender terms, but the Phocaeans, rejecting the idea of slavery, secretly evacuated the city, which the Persians then occupied. The Phocaeans unexpectedly returned and murdered the Persian garrison. Half remained behind; the remainder settled in Corsica where five years of plundering provoked their neighbors to war, forcing the surviving Phocaeans to relocate to Rhegium in southern Italy.

The Phocaeans rated preservation of freedom above the material loss of their city and other non-portable property. Elsewhere, Herodotus introduces the motif of weighing likely gains from warfare against outlay: the rhetoric is not always consistent. Xerxes justifies his plans for the invasion of Greece as the conquest of country “richer than our own” (7.8). Mardonius seeks to discourage Xerxes by emphasizing the slenderness of Greek resources (7.9). The essential rightness of Mardonius is confirmed by the anecdote closing the whole history (9.122; cf. Cartledge 1990: 40).

The complexity of Thucydides’s relationship to Herodotus is well documented. Although Thucydides begins his narrative where Herodotus leaves off (1.89), there are significant departures: his non-use of Herodotean *historie*, minimal use of the first-person singular (some thousand times in Herodotus), and detailed correction of his predecessor (1.20.3). There is similar development and distancing by Thucydides from Herodotus’s preoccupation with material achievement. This is apparent close to the beginning of the history (I.10), where Thucydides digresses to argue by analogy that Agamemnon’s Mycenae, though physically unimpressive, might have been as powerful as Homer implies:

> Suppose, for example, that the city of Sparta were to become deserted and that only the temples and the foundations of buildings remained, I think that future generations would find it very difficult to believe that the place had really been as powerful as it was represented to be…. If, on the other hand, the same thing were to happen to Athens, one would conjecture from what met the eye that the city had been twice as powerful as in fact it is.

Thucydides here diverges sharply from Herodotus’s association of monumental *erga* with overall achievement. Right through the so-called “Archaeology” (1.1–20), there is repeated reference to the importance of accumulated “wealth” as a key to the ebb and flow of power (cf. Hornblower 1991: 3–58).

These opening pages give an impression of the laborious and precarious process of accumulating resources, culminating in the aftermath of the Persian Wars with the emergence of Sparta and Athens as easily the two most powerful states, by land and sea respectively (1.18.2). The Archaeology is framed by statements of their exceptional power and preparedness for war (1.1.1, 1.18.3). The Athenians obtained the substantial wealth needed to wage naval warfare by appropriation of others’ resources through their maritime empire; the Spartans achieved access to military manpower through the cultivation of sympathetic regimes in the Peloponnese (1.19). Extended and intensified warfare,
made possible through accumulated resources, brought unparalleled scope for dislocation and
destruction, anticipated by Thucydides in terms of cities destroyed, populations expelled,
banishments, and general bloodshed (1.23.2; destructions: Cobet 1986; Parry 1981: 114–20).

The Archaeology seems programmatic, informing the remainder of the history, punctuated by
references to acquisition and deployment of resources (so Hornblower 1991: 7–8). Paradigmatic is
King Archidamus’s “warning speech” before the Spartan assembly (1.79–85), advising of Athenian
superiority in public and private wealth, ships, armament, population, and tribute-paying subjects. By
contrast, the Spartans have no money in their treasury nor the prospect of readily raising any through
taxation (80). He later revisits the importance of revenue raising (83): “War is not so much a matter
of armaments as wealth … particularly is this true of a war fought between a land power and a sea
power.” Sthenelaidas, in his opposing speech (1.86), is made to gloss over the imbalance in
resources.

Archidamus’s arguments are amplified in the correspondingly “resource-sensitive” speech from
Pericles before the assembly early in the war, reviewing the assets available to each side (1.141–
142.1). The financial flexibility he attributes to the Athenians anticipates the adaptability
characteristic of the later “fiscal state,” typically in response to the demands of warfare (further
Millett 2009: 479–81). A case in point was the decision of the Athenians in 413, against the
background of increasing expenditure on the war and falling revenues, to abandon the collection of
tribute in favor of an empire-wide harbor tax of 5 percent; according to Thucydides (7.28.4),
“thinking that in this way they should derive more revenue.” As Pericles had earlier advised the
Athenians (echoing Archidamus), “It is accumulated wealth, and not taxes levied under duress, that
sustains wars” (I.141.5). Perhaps the psychological satisfaction of exacting annual tribute (and
parading it around the Theater of Dionysus) succumbed to fiscal prudence.

Thucydides’s fullest reflection on the implications of war combines material with psychological
considerations (3.82.2):

In times of peace and prosperity cities and individuals alike follow higher standards…. But war is a stern teacher. In depriving
them of the power of easily satisfying their daily wants, it brings most people’s minds down to the level of their actual
circumstances.

The passage follows on from Thucydides’s account of the ferocity of stasis on Corcyra, but the
sentiment seems to apply to war more generally. Control over resources is a strand running through
Thucydides’s presentation of the Sicilian Expedition, beginning with his account of the opposing
assembly speeches by Nicias and Alcibiades (6.9–23). Thucydides introduces Alcibiades as anxious
to conquer Sicily (and Carthage) so as to increase his private wealth (6.15); he also suggests that the
majority of the Athenians present saw success in Sicily as offering a permanent source of pay (6.24).

The disastrous end of the Sicilian expedition is in obvious contrast with its initial grandeur,
reprised with a Homeric-style roll call of Athenian forces and their allies (7.57). The massive
expenditure of wealth (and the expectation of perpetual pay) are reduced to four upturned shields
filled with the cash surrendered by the troops under Demosthenes (7.82). The massacre of Nicias’s
men in the River Erineus, fighting each other for the privilege of drinking water fouled with mud and
blood (7.84), offers an extreme manifestation of war depriving people of their daily needs, matching
disposition to material conditions.

The success of the Spartans in securing Persian subsidies can be traced, falteringly at first, through
the final stages of Thucydides’s account (8.5, 29, 37, 87), then with decisive success in Xenophon’s
Hellenica (1.5.1–7, 2.1.10–15, 3.8). Xenophon’s post-Peloponnesian narrative regularly refers to problems in raising resources for war making: a feature of the straitened circumstances characteristic of public economies through the fourth century. Elsewhere, Xenophon manipulates the theme of plunder-as-revenue (e.g., 4.4.16, 4.5.6–9, 5.1.7, 6.5.27; cf. 5.3.14 for money offered to “buy off” a planned invasion).

Xenophon recounts how the political circumstances of the fourth century involved the major poleis in plenty of campaigning on the basis of inadequate wealth (cf. 2.1.1, 6.2.37; 4.8.35, 5.1.12; cf. McKechnie and Kern 1988). Athens was particularly exposed: “As for the Athenians, they could see that owing to their help the power of Thebes was growing, yet no money came in to them from Thebes for the upkeep of their fleet” (6.2.1). Such is Xenophon’s prelude to the peace of 375 with Sparta. A second, unstated characteristic of Xenophon’s writing is an awareness of the “peace dividend.” Apart from the Athenians (as above), it is imputed to the Corinthians (4.4.1), who are made to contrast the devastation of their own land and population with the prosperity of their allies at peace. The economic advantages of peace over war are made explicit in Poroi or “Ways and Means” (5–6), apparently conceived in the aftermath of the wasteful “Social War” between Athens and her former allies (4.40).

Poroi is arguably the most sophisticated piece of political economy to survive from antiquity (Gauthier 1976). This reassessment is in line with the general revival of appreciation for Xenophon as author. Like other of Xenophon’s writings (Cyropaedia, Anabasis, Agesilaius), Poroi has no obvious antecedents, suggesting that he found existing genres unsuited to his intentions. No other Greek author provides a comparable range of perceptions of warfare, albeit from an aristocratic perspective. The possibilities can only be hinted at here (reassessments in Dillery 1995; Dewald 2007; Tuplin 2004, 2007; Gray 2010).

Xenophon’s experience with the Athenian cavalry is directly reflected in his Hipparchios or “The Duties of a Cavalry Commander” and in Peri hippikes or “On Horsemanship,” which is explicitly concerned with the war horse (1.2, 3.7, 12.1). But military matters feature in almost all his writings; even Cynegeticus or “On Hunting with Dogs” is advertised as “affording the best training for war” (12.1; cf. 1.17). The Anabasis is the fullest account to survive of a Greek military campaign, seen from the inside. Recent studies also testify to its sociological, anthropological, psychological, and topographical content (especially Nussbaum 1967; Lee 2007; Rood 2005, 2010). Above all, the Anabasis is an extended case study in military leadership, perhaps the recurring theme in Xenophon’s writings. It dominates his Agesilaius: an exposition of the manifold virtues of Agesilaius as king and commander. The Battle of Coronea (394) forms a centerpiece (2.9–16), including a terse account of the debris of death left on the battlefield (14). Xenophon’s strong Spartan connection shapes his Constitution of the Lacedaemonians, which focuses on the process attributed to Lycurgus for producing first-class soldiers. The misleadingly named Cyropaedia or “Education of Cyrus” is actually a fictionalized account of Cyrus’s upbringing and military achievements, conceived as to elucidate the art of leadership (1.1–5; see Due 1989). It has been described as: “The most illuminating evidence for the nature of classical infantry combat … a vehicle for Xenophon’s ideas about military practice and leadership…” (van Wees 2004: 99).

From Xenophon’s more theoretical writings, Oeconomicus or “The Estate Manager” (see Garlan 1975: 89–90; social and historical commentary by Pomeroy 1994) repeatedly relates work on the land to warfare (4.2): both necessitate ponos (endurance of effort). The third book of Memorabilia or “Reminiscences of Socrates” opens with a series of vignettes in which Socrates discusses with his
followers aspects of military command (1–5). The ability of one Dionysodorus to teach the art of
generalship for a fee is tested and found wanting (1); a disappointed candidate for a generalship is
reluctantly made to agree that a “good estate manager” (oikonomos) might prove a successful
commander (4). The sequence ends with a wide-ranging discussion between Socrates and the younger
Pericles about the best ways to ensure success in battle against the Boeotians. As reported by
Xenophon elsewhere (Hell. I.7), things turned out rather differently for Pericles (see also III.6.6–10
[defense of territory]; 9.1–3 [courage]; 12.4–8 [desireability for fitness in war]).

“So wrote Walt Whitman in his autobiographical fragments Specimen Days (1892: 80–1), recalling in
part his experiences as a surgical dresser in the Civil War: “Future years will never know the
seething hell and the black infernal background of countless minor scenes and interiors … and it is
best they should not…. Not until the First World War did warfare in modern literature begin to
approach the place it held for the Greeks. War was not generally deemed a suitable subject for
literary treatment, nor were writers much involved or even interested in battle (cf. Harvey 1998). For
Whitman, what mattered was the response he witnessed of rank-and-file soldiers to suffering caused
by wounds or disease. As has been seen, much of Greek writing (and speaking) on war before
Plutarch contained the equivalent of these indirect traits and asides. Even the major Greek historians
(pace Whitman) were not writing conventional military history; with differing emphases, their
accounts embed warfare in contemporary society and economy. That is crucially the case with our
final text: Aeneas Tacticus’s pamphlet How to Survive under Siege (cf. Whitehead 1990: 34–42).

The author is plausibly identified with Aeneas of Stymphalus, whom Xenophon reports as an
influential commander-in-chief among the Arcadians in the 360s (Hell. 7.3.1). In any case, the
writer’s practical involvement in warfare could have been suspected from the voice of authority and
experience. His military thinking is tightly tied in with civil life in the polis, here conceived as a
small-scale community, half a world away from Athens or Sparta. Openness to attack from near or
more distant neighbors may be inferred from Aeneas’s advice (3.4) that the citizens organize
themselves for military action, “in time of peace” (see further Chaniotis, 447–9).

Aeneas introduces the reader to familiar aspects of the city (astu) and its territory (chora), but
mobilized for the better waging of war. Under threat of invasion, the territory cannot fulfill its prime
function of supplying itself and the city with raw materials. By proclamation, crops and free persons
are to be brought into the city (10.3); the “infrastructure” of the chora is to be systematically
devastated, denying anything of use to the enemy (8.1–5), who will, in any case, loot and destroy what
he can (16.3–12).

Normal types of social interaction are curtailed in the interests of security. Private sacrifice is
forbidden as are communal; festivals are not to be canceled, at least, not in the city (10.4), but should
be viewed with suspicion as providing cover for conspirators (4.7, 17.1, 22.17). At a given signal,
all stores and shops are to close their doors (10.14). There is to be monitoring of slaves and strangers
who may wish to leave to contact disaffected citizens in exile (10.5–6).

As for the citizens, they are to be carefully integrated into the military machine. The “most prudent
and experienced in war” are to liaise with the civil authorities; the fittest men are reserved for
commando-like actions (1.4–5); at a pinch, womenfolk may be disguised as men to appear on the
walls, but they must not try to throw anything; that will give the game away (40.4). Even animals had
their part to play. Dogs and cocks which might give away a night sortie are to be made mute (23.2; cf. 22.14, 24.18). On the other hand, dogs tethered outside the walls may alert the guards to spies or deserters (22.14).

Interaction between citizens and mercenaries is to be carefully managed (12–13). Mercenaries (even allies) must not outnumber the citizen-soldiers. Pay is predictably a major issue; best assured by having the wealthiest citizens assume responsibility for several mercenaries apiece. The mercenaries themselves are to be called together in camp and, “when everyone is listening,” informed of their terms of employment, concluding with: “undermining morale in camp is a capital offense” (10.18–19). Aeneas then turns to citizen morale, stressing the need for unanimity, which emerges as a major preoccupation, indicative of the interface within the *polis* between warfare, stasis, and internal politics (10.20–11.14, 14). Such is the context for Aeneas’s concern that, should any agreement with the besiegers be broken, parents of children taken as hostages should be prevented from witnessing the “sad end” of their execution (10.23).

In its blending of pathos with pragmatism (anxiety that the parents might turn subversive), this passage seems an appropriate conclusion to Greek writing on warfare. Aeneas and his predecessors, intimately involved with the life of the community, contrast with the academic *Tactics* of Asclepiodotus (first century), and his ideal phalanx of 16,384 men. Of this Oldfather writes, “The tramp of the phalanx, that had once reverberated among the hills around Thermopylae and Marathon, now echoed feebly in the halls of theorists and rhetoricians” (1923: 231).

**BIBLIOGRAPHY**


  —— (ed.). 1999b. *Greek elegiac poetry: From the seventh to the fifth centuries B.C.* Cambridge.
Rome was a militaristic society; even Ovid, the poet of love, could write that “all lovers are soldiers” (*Am. 1.9*), emphasizing the deep-rootedness of military ideology in Roman society. Roman families seemed to operate like a disciplined military unit, with a clear chain of command leading from the slaves at the bottom to the powerful paterfamilias at the top, having prescribed duties for each family member, whether husband, wife, son, or daughter, with the goals of the individual subsumed for the good of the group. Roman voters were organized into units and met on the Field of Mars to cast their ballots for the highest officials, for laws, treaties, and declarations of war. Roman males, especially in the days of the Republic, might serve as soldiers from the ages of sixteen to sixty, while the males of the aristocracy cemented and augmented the reputation and power of their families through military command and victory.

It should not surprise us then if Roman authors concerned themselves with tales of war. The story of their empire was for them a story of conflict, beginning with the feud between Romulus and Remus. But what did this history of conflict mean to the Roman authors? How did they interpret Rome’s many wars? How did they want those wars remembered, and why? In this chapter we will be considering these questions and others by examining a number of authors and their works as examples of Roman writing on the subject of warfare. These works can be divided into several categories.

First, we have the writings of the most famous Roman author who had firsthand experience of the warfare he described: Julius Caesar in his *Commentaries on the Gallic War*, as well as the *Commentaries on the Civil War*. Next, we have works by those authors who possessed solid military experience and could provide a nearly firsthand account of events: Velleius Paterculus in his *Roman Histories* and Ammianus Marcellinus in his *Histories*. Third, we have texts by those authors who digested the military experience of others in order to create handbooks of such knowledge, especially for use by Roman commanders: Frontinus in his *Stratagems* and Vegetius in his *Epitome of Military Science*. Last, we have those accounts by authors who were by and large armchair historians of warfare: Sallust in his *War against Jugurtha* and *War against Catiline*, Livy in his *From the Founding of the City*, and Tacitus in his *Annals* and *Agricola*.

**THE COMMANDER’S VIEW: JULIUS CAESAR**

Caesar published memoirs on his military exploits, both against foreigners and against citizens of the Republic, primarily for the political purpose of molding public opinion, as well as the opinion of
posterity, in his favor (see especially B Civ. 1.22). At the same time, these commentaries served as a sort of field report to the people of Rome, informing them of what happened “out there.”

These aims must have been taken for granted by Caesar and his audience; hence, Caesar provides no preface, no statement of purpose for his Commentaries, as most students of Latin will remember from memorizing the first passage in the Gallic War. He does, however, begin with a statement of opinion, and here we see one of Caesar’s basic beliefs about war: it makes a people great. Caesar regards the Belgae and Helvetii as the “fortissimi” among the Gallic tribes because they are farthest from the decadent effects of Roman “civilization” and constantly testing their cultural character and martial skills in warfare with their neighbors (Caes. B Gall. 1.1). He raises this belief clearly again (4.1–4, 6.21, 24) where he compares the Gauls and the Germans. The Germans are more virtuous and warlike, and thus more worthy of praise than all the Gallic peoples. Caesar’s feigned or conventional or honest respect for the warlike tribes as opposed to the more settled and peaceful tribes thus hits the reader from the start; this is the Roman attitude of love of war as a virtue, not as a necessary evil, a theme that we find equally in the works of Tacitus and Sallust.

Caesar also reveals the characteristic Roman respect and admiration for the worthy, but, of course, vanquished, adversary. The Gallic chieftain Vercingetorix, for example, is portrayed as cleverly sniffing out Roman weaknesses, such as their vulnerable supply lines (7.64), while planning to cut retreating Roman columns and employ various methods to shock the Romans (7.65); he is as much a master of war and of wartime psychology as any Roman commander. In contrast, however, Caesar characterizes the virtually unbeaten resisters in Britain as treacherous (4.28–36). And naturally his Roman adversaries in the Civil War always appear formidable and honorable (B Civ. 3.93, 3.110). In his account of the Civil War especially, Caesar asserts two further beliefs about war in general: that great results often depend on seemingly small things (1.21, 3.72), and, related to this, that fortune has a hand in who wins and who loses (1.46, 2.6, 2.14, 2.30, 3.27, 3.68, 3.72).

Caesar understands the psychology of war. His account of the Civil War provides many examples of this. He notes how soldiers are virtually paralyzed by uncertainty and tension in a crisis situation (1.21), the fear only made worse by conversations among themselves (2.29). He believes that humans have a natural inclination to fight (3.92), but this instinct must be bolstered by mental preparation (3.85) and encouragement from one’s commander (3.92), and by a sense that one is fighting for country and family (2.4); this instinct must also be sustained by such mundane things as adequate supplies of food (3.49). On the other hand, the enemy’s instinct must be dulled by denying them necessities and especially by filling them with terror (3.92). Caesar asserts that resolution of spirit is the greatest strength of an army (3.28), but he also makes clear that a commander can program such resolution into a military unit by not letting his fears or doubts about the situation or about his own men be known (2.31); soldiers are ready to believe their confident commander (2.27).

Aside from these attitudes, what do we learn from Caesar about the art of war itself? His approach leads the reader through problems and solutions, tactics and obstacles, plans and outcomes, always with his men reacting defensively against the threats or assaults of enemies. With Caesar we feel that we are on the ground in the command tent trying to “right wrongs,” or at least stay alive while contending with hostile forces all around us. Once again certain themes stand out.

First, Caesar often presents his information in such a way as to admit the weaknesses of his army but then emphasize the superior adaptability, ingenuity, and discipline of those same troops. For example, he details the difficulties faced by the Roman navy in their suppression of resistance among the Veneti of modern-day Brittany (B Gall. 3.7–16) and similarly the disadvantages of his forces in
their siege of Massilia (B Civ. 1.58–2.8); in both cases, the ingenuity and experience of his men brought victory. Again, his troops tried new strategies when landing in Britain (B Gall. 4.24–27, 5.1–2). In the first attempt at landing, which was hotly resisted by the Britons, a bold aquilifer launched the Roman assault that eventually led to success (4.24–36). In the second invasion, Roman adaptability allowed the construction of a protective camp (5.10–11), often the key to Roman long-term victory. Later faced by quick but coordinated attacks by small bands of Briton warriors and their charioteers as well, the heavily armored Roman infantry and cavalry found it hard to gain the initiative. But Roman discipline and cohesiveness lured the Britons in closer and closer and into making more sustained assaults, to which the Britons were unaccustomed, thus turning the advantage to the Romans (5.15–23). Caesar can be most detailed on these themes, and it is no wonder. The collective effect of these and many other similar descriptions is to convince the reader that the Romans are a force tough to beat.

Second, Caesar often notes how interested the Romans were in acquiring military intelligence before committing themselves to action; correct knowledge of the enemy and the careful planning that results are crucial to victory. For instance, before setting out for Britain, he tried to find out whatever he could through local collaborators (B Gall. 4.20), and while battling Vercingetorix, Caesar relied on deserters and captives for up-to-date information on enemy plans and resources (7.71–74). Romans are victorious, then, when they are one step ahead of the opposition.

Lastly, Caesar reveals over and over again the importance and frequency of sieges in Roman warfare. The famous descriptions no doubt are those of the siege of Alesia (B Gall. 7.68–90) and the siege of Dyrrachium (B Civ. 3.41–72). In these episodes, Caesar not only provides complex and vivid details of the operations of both armies, but also ties in the above themes, and reminds the reader that whereas in Gaul both sides were impelled to fight by their courage, their sense of honor, and their desire for praise (B Gall. 7.77), with simply the better army winning, at Dyrrachium, Pompey’s forces were arrogant and lucky; the “accidents of war” cost Caesar the victory that time (B Civ. 3.72).

The Commentaries are nothing if not a tale of perseverance. Caesar never gives the impression that Romans were destined to win or that winning was easy and assured. Instead, we see the Roman forces tested over and over again, often teetering on the edge of defeat, yet relentless in their efforts at the command of their determined leader. This was how the last generation of the Republic conceived of war.

**Military Officers as Historians**

Velleius Paterculus served as a military tribune in the east, and as a cavalry commander in Germany (A.D. 4–12) under Tiberius Caesar, the future emperor. In A.D. 6 he was elevated to membership in the Roman Senate because of this loyal service and given a special command. Velleius composed a small compendium of Roman history, a unique work combining the traditions of the annalists and the biographers of Rome; it was intended as a gift to his friend M. Vinicius who had been made consul, and thus it functioned as a praise of that friend, but also as a panegyric honoring Tiberius, expressing genuine affection and admiration for the Emperor among military personnel, represented by Velleius himself.

The extant text summarizes military history from the Republic’s wars in Greece to the mutiny of Roman armies on the accession of Tiberius to the purple, but one should not regard it as a unified
military history. Rather, it is a chronologically organized series of portraits of Rome’s great men and
great episodes, examples for Vinicius to emulate or avoid, a gallery of famous persons among whom
this friend might find a space for his own portrait perhaps!

Taken this way, one finds three themes embedded in Velleius’s epitome pertinent to our discussion
here. First, he agrees with Sallust on the moral interpretation of history (read: Rome is in decline; see
2.1) and on the role of fear and hatred as the principal motivators of war (1.12). Second, running
through his section on the end of the Republic (2.46–87) is Velleius’s belief that the waves of fortune
affect the events of war; this is similar to Caesar’s thinking, but much more heightened and critical
now. Third, despite his interest in fortune, Velleius still sees warfare as primarily a matter of
personalities, especially of the commanders. That is, victory or defeat is in the hands of the general;
his personality and his moral character determine the course of events.

This is illustrated in Velleius’s special praise for Scipio Aemilianus (1.12 and 2.4), his focus on
generals in all his summaries of the Republic’s wars of expansion (1.9–2.37), and in his discussion of
the Gallic War and the Civil Wars that brought the Republic to collapse (2.46–55). Here he does
spend a bit of time on Caesar in battle, and in the following sections on the advantages of Octavian
and disadvantages of Antony leading to the former’s victory at Actium (2.84–87), but Velleius’s
chief concern is still with praise of Caesar and particularly of Octavian, and blame of Antony’s character
flaws for his failures. The author provides far less military detail than we would expect considering
his background and career and far more moral judgment.

In the last part of his book, which covers the career and rise of Tiberius (2.105–125), details are
fuller. While Tiberius’s skills and the valor of the Roman troops in Germany are highlighted,
supplemented by consideration of the Teutoburg disaster and the mutinies of A.D. 14, Velleius’s
rhetorical style continues to emphasize exempla, drawing the reader’s attention to them rather than to
the details of war. Velleius vividly describes Tiberius’s military skill: “Through the foresight of our
commander we took the opportunity to evade their united forces and rout them separately. He showed
outstanding judgment in placing our winter camps. The enemy was carefully blocked in by the
outposts of our army so that he could not break out, and through lack of supplies and dissension in his
own ranks, was gradually weakened” (2.111).

We can perhaps forgive Velleius becoming part of the trend of his times, the love of heroes, of
tangents on exotic cultural elements, of juxtapositions of virtue and vice, and of senatorial politics
(for instance, his summary of the Jugurthine War at 2.11 deals much more with the politics of the
moment than the battles), but we are disappointed in receiving so little information and analysis from
a man with so much to tell us from his own solid experience.

Like Velleius Paterculus, Ammianus Marcellinus possessed solid military experience, serving as
an officer in elite regiments of the Roman army under the emperors Constantius and Julian. After
retiring from the service around the year 364, he began to write a history of Rome covering the period
from A.D. 96–378. His final installment of that work, Book 31, encapsulates his approach to the
history of Roman warfare.

Ammianus recounts in Book 31 the famous uprising of the Goths in A.D. 376 and their destruction
of the Roman forces sent to suppress them in 378, including the death in battle of Emperor Valens at
Adrianople. The author insists that he has tried to put together the most faithful account of events, and
acknowledges significant gaps in evidence available to him (31.5.10).

The reader will find, however, that this “accurate” account betrays the heavy influence of Greek
historiographical and dramatic traditions, perhaps not surprising since Ammianus was a Syrian Greek
himself (31.16.9). From the start, one feels the ominous outcome looming: Ammianus speaks of Fortune, Bellona the war goddess, and the Furies preparing adversity for Rome, and of terrible omens in the Eastern provinces (31.1); he repeats these allusions to the Furies and to Bellona later in the narrative (31.10, 31.13). In this way the author’s approach to war has a Homeric quality, giving real events the feel of myth. Similarly, he draws upon the tradition of Herodotus, comparing the armies of the Goths to the Persian hordes (31.4.7); caught in suspense, the reader can only wonder whether the Romans will fare as the Greeks of Thermopylae or of Salamis did in the encounter that must now take place. And in the final event, Ammianus renders the battle scene (31.13) and its aftermath (31.15) at Adrianople with metaphoric and graphic descriptions worthy of the sensational Hellenistic style of history writing (the two forces crashing into each other like beaked ships; the fight like the roaring waves of a tempestuous sea; the enemy crushing the Roman cavalry like a collapsing fortification; cries of the wounded and the dying filling the darkness).

Throughout this story, Ammianus shows his fondness for stark, rhetorical juxtapositions and contrasts. The Romans may be reckless but their enemies are “mad beasts”; the war cry of Roman soldiers finds its response in the discordant noises of the barbarians; Romans are disciplined, Goths always in frenzied motion; the latter wield clubs against Roman swords. Yet like other Roman authors, to Ammianus these strange foes have courage and strength equal to the Romans; they deserve a certain respect (31.7, 31.10, 31.13, 31.5).

Like Velleius, Ammianus gives the commanding officers credit for military success or blame for failure (31.7, 31.10, 31.12), and, like Caesar, he recognizes the critical role of flexibility in combat. Thus, foolish Roman generals fight pitched battles against barbarian hordes and lose, while clever Germanic chieftains adapt their methods to face Roman tactics and survive (31.7–9). Romans hold their own against the barbarian onslaught only as long as they counter the guerillas with speedy, unconventional attacks, even at night, by small groups of select Roman troops (31.9–11). Perhaps the best example of Ammianus’s point is his implicit comparison of steady and careful junior Emperor Gratian, who defeats the rebel Alamanni (31.10), with hasty senior Emperor Valens, who destroys himself and his army against the Goths (3.12–13).

WRITING MILITARY HANDBOOKS

With Frontinus and Vegetius we have the least rhetorical of all the literary sources on warfare. Frontinus was a senior senator, and in 98 and 100 held the consulship with the Emperor Trajan. He had been governor of Britain in 73/4–77 and wrote several technical handbooks, including a survey of the aqueducts of Rome and the *Stratagems*. In the preface of the latter work he makes clear that he seeks to provide examples for generals in brief format, case studies in words and deeds of things to imitate or to avoid, analyzed and categorized according to whether before battle (Book 1), during and after battle (Book 2), or part of siegecraft (Book 3). Frontinus provides little in the way of commentary, instead simply the examples, drawn mainly from the conflicts of the Republic (such as the Samnite Wars or the First and Third Mithridatic Wars) and from the early Empire (such as the Parthian Wars of the first century A.D. or the wars of Vespasian and Domitian).

It is interesting that the first two books address primarily cases of damage control (how to conceal deficiencies or how to restore morale, and so on), not aggressive tactics of battle, while the fourth book focuses, as other Roman authors often do, on the qualities that win wars (discipline, determination, constancy, and so on). Frontinus thus agrees with the Romans’ psychological approach...
to war: he assumes that possession and demonstration of the right qualities on the Roman side, and exploitation of the enemy’s weaker qualities (such as ignorance and superstition), will guarantee the Romans the advantage in any encounter (1.11.13).

The antiquarian Vegetius, in the Preface to Book 1 of his *Epitome of Roman Military Science*, states his objective as gathering together information on Roman military science, especially the principles of recruiting and training the best army and navy and of maintaining an empire militarily. In the Preface to Book III he goes further: he argues that without warfare there could be no civilization; it guarantees the existence and the survival of civilized society threatened always by barbaric peoples. Thus, “he who desires peace, let him prepare for war” or “war preserves… liberty and prestige… [and] saves the Empire” (3.10).

Vegetius regards warfare as the highest of the civilized arts (“the art of war comes before all else” 3.10). Like Frontinus, he draws on examples from a wide period of Roman history, especially from the time of Cato the Censor to that of Hadrian (1.8), culling those instances where the quality of well-trained troops paid off. Like other Roman authors, he recognizes the unconventional weapons in warfare: “the most effective weapon” he says is deprivation (3.2–4), so keep your troops well fed, healthy, as well as disciplined and hard at work. He similarly argues that the psychological state of one’s troops is crucial (3.12). Again like other authors, he demonstrates how important are camps (1.21–25) and proper battle order (2.4–18), but he is far more concerned with training (1.11–20, 26–27, 2.19–25). He even argues that one should avoid pitched battle, protecting one’s own forces in such a way as will cause harm to the enemy (3.9), and emphasizes the values of caution on the march, good intelligence, and secrecy (3.6). His discussion of siegecraft (fortifications 4.1–6, protections against siege 7–12, weapons of siege 13–24, 29–30, and reactions against besiegers 25–28) emphasizes psychological understanding and specific knowledge, as does his treatment of navigation (38–43) and naval tactics (44–46). More than any of the other Roman authors, whether firsthand witnesses to war or not, Vegetius is strongly emphatic that wars are not won by numbers or great commanders, but by skill, practice, preparation, strategy, and sometimes even punishment (1.1, 3.1, and especially his general rules of war at 3.26).

**HISTORIANS AND WARFARE**

The historian Sallust served as quaestor and tribune of the plebs, and on Caesar’s military staff during the Civil War. He was also appointed proconsul of Africa Nova. Sallust thus had substantial knowledge of soldiering and of command, but he certainly never became famous from it. In fact, accused of plundering the provincials, Sallust, though protected by Caesar, was compelled to retire from public life after the latter’s assassination.

During this retirement, he turned to composing several historical works, two of which have survived intact and are of help to us in understanding Roman warfare: *The War of Catiline* and *The Jugurthine War*. These are dramatic and energetic texts, tightly packed in terms of language and forceful messages, that reveal clearly Sallust’s debt to Greek playwrights and historians (especially Thucydides) and his desire to make a name for himself through writing about war and politics (*Iug. 3–4, Cat. 3–4*). As he notes in the *Catiline*, composing history is the next best thing to making history, as it preserves the memory of what your people have achieved in the past and encourages present and future generations to emulate those ancestors (*Cat. 3.3*).

The close connection Sallust makes between studying the history of war and engaging in successful
warfare reveals one of his basic arguments: that war depends not simply upon physical prowess but also mental ability; indeed, he asserts that brawn cannot succeed in war without brains, that is, without planning, information, and intelligence (Cat. 1–2). Warfare, then, is a mental exercise, and the Romans have been victorious in war because of their superiority in this regard over their various enemies.

Sallust shares the view with other Roman authors that Rome’s wars before the late Republic were all defensive, matters of self-protection (especially protection of family, homeland, and freedom) or defense of threatened allies (Cat. 6). This does not mean that war is an entirely good thing, however. By the time he came to write the War against Jugurtha, Sallust’s reflections on civil strife became more noteworthy. He openly criticizes the use of force; it is dangerous to use force even for the right reasons, he says, because it can lead to uncontrollable violence, and the often heralded “struggle against the odds” he casts as mere folly (Iug. 3). Jugurtha’s thirst for glory perhaps mirrors that of the Triumvirs of Sallust’s own time (Iug. 7).

Despite these misgivings, Sallust seems to have believed that the young Romans of the “old days” enjoyed the hardships of combat because they were heroic, courageous, honorable; they sought true wealth, that is, glory and reputation (Cat. 7). Virtuous in peace and war, bold and fair, obedient and steadfast, hard-working and just, the Romans of bygone times built an empire by reducing the “mighty” and the “savage” (Cat. 9–10). This perspective emphatically imparts a strong moral tone to the history of Roman warfare, and sets up the counterpoint that in Sallust’s own time, in the last days of the Republic, such martial virtues have declined (Cat. 12).

Yet they are still to be found in several characters presented by Sallust in his works, and we might argue that the delineation of these exempla is the ultimate purpose for his writing, rather than to provide a detailed account of the two conflicts. For instance, in both the War against Catiline and the War against Jugurtha, the “villains” Catiline and Jugurtha both display traditional qualities of the martial hero. Jugurtha is described as a risk taker, tough and wise, generous and shrewd, better than many Roman officers, and favored by the Roman hero Scipio Aemilianus (Iug. 7–8). Like Roman commanders, he singles out his most courageous men, exhorting them to lead the others by example (49). Of course, Jugurtha is also corrupt and devious, perhaps natural traits, perhaps something learned from the “modern” Romans.

Sallust’s final image of Catiline is even more positive. His army weakened by desertions, trapped by opponents, Catiline delivers a set speech to his men in which he encourages their desire for honor, their boldness in battle, and the necessity of winning their freedom by fighting or losing their lives as executed criminals (Cat. 58). Neither timid nor selfish, he joins with them in the thick of the battle that ensues, active and supportive of others, prototypic soldier and prototypic general, falling in the midst of enemies (Cat. 59–61).

The strongest symbols for what has made Rome great in war are the figures of Metellus and Marius. Sallust’s treatment of the War against Jugurtha up to the point where Metellus arrives on the scene in North Africa is basically an extended morality tale: one Roman army and one Roman commander after another betray the ideal virtues of Rome, succumbing to corruption of various kinds or engaging in acts of sheer foolishness. Metellus then restores discipline to Roman forces (Iug. 44–45), prepares well and advances cautiously against the enemy, using the enemy’s own seductive promises and ruses against him and his allies (46–48), adapting his tactics to suit the needs of battle (49–50). Metellus definitely comes across as a father figure, tending to the wounded Romans, honoring those who did well in battle, encouraging others to follow suit (54). As we have seen, these
were regarded as the traits of a great Roman general, and Sallust states as much (52). Like other Roman generals, Metellus believed in using psychology against the enemy; he adopted a scorched-earth policy, methodically seizing or destroying strategic sites and driving Jugurtha’s allies and forces to starvation, which threw the entire land into a state of terror, and reduced Jugurtha to banditry (54–69).

Though Marius rose to command by criticizing Metellus’s methods, he in fact continued them to further effect, striking further panic in enemy hearts through his massacre of the population at Capsa (91), and appearing even more the hero by playing the part of soldier himself in the final battle against Jugurtha (97–101). Marius had recruited fresh troops for these maneuvers, and the arguments he used to win them over, according to Sallust, also suggest the author’s belief in old-fashioned Roman heroism: Marius urged men to join his army not just for spoils but primarily for love of glory, virtue, honor, and patriotic duty, the true sources of immortality (84).

Livy’s *From the Founding of the City* covered a vast period of Roman history (753–9 BC), filled with wars; it was so stylish and comprehensive a work that it became a literary classic overnight. We should keep in mind that an entire tradition of literature grew out of the adaptation and abridgement of Livy’s history.

Yet we should also bear in mind that for his telling of the story of Roman warfare, Livy had little if any personal military experience to build upon. What he knew of war he learned from poets, annalists, playwrights, and philosophers. Fortunately, for the most significant episode of his history, the account of the war with Hannibal, he did rely very heavily on two Greek authors who had much experience in the matter: Thucydides of Athens (who provides much of the philosophical underpinnings) and Polybius of Megalopolis (who provides that and also most of the historical detail that Livy reworked). Livy’s debt to his Greek predecessors is made clear right from the start of that episode in Book 21, as he paraphrases lines from Thucydides’s *History*, claiming that the war between Rome and Carthage was the “most memorable of wars” (21.1) in which each side was almost equally brought to ruin by the other until the Romans’ final victory. Also like Thucydides, and like the other Roman authors we have already noted, Livy credits psychological motives as the real cause of the war: “odium” motivated both sides, beginning with Hannibal’s hatred for Rome, imparted to him by his father and brother-in-law. In fact, at the start of the episode Livy gives no other reasons for the war than this personal hatred (21.1).

No wonder then that in true Greek and Roman fashion, Livy conceives of the Hannibalic War as a contest of personalities representing their respective cultures (note his musings on Hannibal and Scipio and once again his emphasis on the psychological state of both armies at 30.28). Again, this should not surprise us when we consider what Livy asserts in the preface to his work: the purpose of history is to teach moral lessons and gain an understanding of one’s ancestors and what it means to be Roman.

This perspective is encapsulated in the final encounter, the meeting between Scipio and Hannibal before the battle of Zama. While Hannibal in his set speech (30.30) muses on the fortunes of war and makes some thinly veiled threats about how the battle might go against the Romans (so they should conclude a peace before battle on certain terms), Scipio’s blunt response reveals the unbending self-righteousness of the Romans, their determination to see the war through to the end, the end of punishing the Carthaginians for all wrongs done (30.31). War for the Romans was like a moral crusade; for the Carthaginians, a more practical business, open to negotiation (30.29). Perhaps this is not just Livy’s rhetoric; after all, Hannibal had never pressed home his advantage against the Romans
in Italy as Scipio would do against the Carthaginians in North Africa.

Besides the philosophy and psychology, what else do we learn about Roman warfare from Livy? In his accounts of the Battle of Cannae (22.43–54) as well as the Battle of Zama (30.30–45), several themes emerge. First, reconnaissance of the environment was important in ancient warfare. Hannibal was very careful in the choice of encampment and battle site when he had the chance to choose, as at Cannae (22.43); he had surveyed the terrain and the weather in the region and considered those factors favorable to his military maneuvers against the Romans (who would have the sun in their eyes during battle, from where and how strong was the wind blowing, where were the nearest sources of water and how could they be defended or blocked off from the enemy, and so on). The advantages at Cannae favored Hannibal’s cavalry (22.44).

Moreover, the unity of strategy was essential to victory. Another factor in Hannibal’s favor at Cannae was the quarreling among the Roman commanders, the consuls Varro and Paullus; we learn from Livy as from other Roman authors that decisions in battle were often and apparently regularly taken in concert, as the outcome of argument and persuasion among a commander and officers (22.44).

As in the case with other authors (especially Tacitus), Livy has a fondness for detailing the battle order of the Roman forces (22.45, 30.33) and their enemies (22.46, 30.33). His descriptions of the battles at Cannae and Zama differ in detail. Cannae, probably one of the most studied and best known in Rome’s history because of its disastrous results, proceeds step by step. We can imagine it clearly in our mind’s eye: the maneuvers of the Carthaginian auxiliaries and cavalry (22.47), the sneak attack from the rear by Carthaginian prisoners (22.48), the careful enveloping technique. At Zama, there is a greater sense of confusion from the start of the engagement, and the clearest point we come away with is that both armies were flexible and were compelled to alter tactics while the battle was in progress, as wrestlers trying to outmatch one another might do, looking and pressing for weaknesses (30.33–34), until the Roman cavalry charge from the rear routed the Carthaginians (30.35). Roman success came from outdoing Hannibal in his own enveloping techniques and from having access to able reinforcements (30.35–36).

Finally, we should not forget the Roman heroics in Livy’s work: the valiant fight to the death of Paullus’s forces at Cannae, the commander himself taking a short breather to impart wisdom as well as information to a messenger headed for Rome before ending his life fighting for his country, the catalog of war prisoners and casualties fit to be memorialized (22.49). There is no doubt that Livy is trying to teach a moral lesson here in dramatic terms, as his next paragraph goes on to contrast brave versus cowardly survivors of the battle (22.50). Yet the paragraph after that paints the scene of carnage with remarkably graphic detail; would this be regarded as wonderful or frightening by the Roman readers (22.51)? In the remaining section, Livy ties up the threads of the Cannae story with Hannibal’s capture of the Roman camps (22.52) and the gathering of refugees at Canusium and Venusium (22.53–54), among whom is Hannibal’s future nemesis, Scipio. Through these episodes, Livy again highlights the differences between brave and cowardly troops, and continues this line of thought in describing Hannibal’s offer to ransom his prisoners and the Senate’s reaction (22.55–57). The scathing speech of Torquatus against those Romans who should have died rather than be captured, and his characterization of war as an all or nothing affair of self-sacrifice, could not better encapsulate the Roman attitude to war (22.58–61).

Yet if cowardly troops deserve death, what of an incompetent commander? Livy concludes the Cannae episode by providing us with an interesting, but perhaps not fully intended, contrast between
the Romans and Carthaginians on this matter. The Romans had voted to leave their captured soldiers entirely in the enemy’s hands, to be treated as Hannibal pleased, yet the Romans welcomed back consul Varro, who should have been held completely to blame for the disaster, with thanks and great fanfare! Livy suggests that the Carthaginians would have executed Varro had he been their failed commander. But the point is that Varro had set an example “by not despairing of the state,” and had brought back with him a body of soldiers who had not surrendered or been captured (similar to Dunkirk in 1940).

What is just as interesting in Livy’s account of the contest between Rome and Carthage is the change in tone from Scipio’s early self-righteousness (noted above) to his outright politicking after Zama. Not that his self-righteousness is entirely gone: it makes itself apparent during the negotiations for peace (30.37). But Scipio is now clearly once again a Roman politician, not just a general, who wants to hold on to his glory and the credit for defeating Carthage at a time when fellow senators wanted to steal that from him and knock him down a few pegs (30.36, 40–43). Even a patriotic Roman author like Livy has to admit the more self-interested motives of the Roman heroes, and Hannibal begins to appear as the more sympathetic character once again (30.44), clear-sighted, truer.

In the company of Sallust and Livy, we must place Tacitus, perhaps the best known of all ancient Roman historians. Apprenticed as a young man to several prominent lawyers of his time, married to the daughter of one of Imperial Rome’s best generals, a personal friend of the Emperor Titus, and advanced politically by him and his successors, Domitian, Nerva, and Trajan, Tacitus perhaps acquired firsthand military experience as a legionary commander in the Roman province of Asia. Still, most of his life and career was spent in the city of Rome, and most of his knowledge of warfare came from his reading and research for his several historical works.

In four of Tacitus’s extant works, warfare plays a significant role. One of these, the Annals, provides a good example of Tacitus’s perspective on Roman warfare. He wrote the Annals sometime in the years A.D. 105 to 117, a time of relative peace and stability for the Roman world, and he saw the time frame for his book, the Julio-Claudian dynasty, also as a period of relative calm. In comparison with previous generations, the first dynasty of Roman emperors appeared to him to be too peaceful, without the glorious exploits of heroic wars, captured cities, and defeated kings that other Roman historians (like Livy) had already immortalized in their works about much earlier periods of Roman history (Ann. 4.32). Yet Tacitus revealed his view on the continued importance of war for Rome through the speech of Tiridates, the king of Armenia: “For great empires are not preserved by idle cowardice; they are made by the contest of men and arms” (Ann. 15.1).

Tacitus’s apologies for his subject matter often take this form of lamentation; he wishes he could have written a truly military history of Rome. What we have instead is a work that largely focuses on highly personalized political affairs at the capital, with a few sidebars on other regions of the Empire. His interest at these moments is especially on the frontier enemies, Germany and Parthia: at the limits of the Empire, one could still see at times the ancient bravery and aggressive glory of Rome, qualities loved and admired by Tacitus. For the historian, the purpose of recording such episodes was to provide lessons for contemporary and future generations to learn from. Moreover, like Livy, Tacitus has the goal in mind of proving a point, of teaching his fellow Romans a lesson: “I consider it the prime duty of history to make sure that virtuous deeds are not kept silent and that wicked words and deeds fear posterity and infamy” (Ann. 3.65).

Tacitus describes three major theaters of war in the Annals: Germanicus’s invasion of Germany (Ann. 1.49–71, 2.5–26), the suppression of rebellion and consequent Roman expansion in Britain
One of Tacitus's main themes is the dividing line of cultural difference between Rome and its enemies, the civilized Romans versus the barbarian foes. For instance, the Germans are portrayed as impetuous, Romans as disciplined (Ann. 1.67–68); Parthians are treacherous and cowardly, while Romans glorious (13.39). Savage German leaders like Arminius gather around themselves the uncivilized, frenzied, risk takers among their people, those who hate Rome and shun peace, rejecting what is “best for them” like incorrigible children (1.55–58). The same is true of the rebels in Britain, whether led by Caratacus (12.33–37) or Boudicca (14.31–35); indeed, Boudicca’s rebels are painted as so horrifically brutal that no prior Roman wrongs against them (which the historian does make note of) could truly excuse their behavior. And Armenian and Parthian rulers appear always deceitful and scheming, playing tough but having little staying power (15.1–2, 5, 13–15, 24, 28–31). While “barbarians” resort to bribery of Roman and auxiliary soldiers (Arminius at 2.13), faithless diplomacy (Vologeses at 13.37, 15.5, 13) or rampaging rapacity (Boudicca at 14.31–33), all to no avail, Romans, epitomized by Germanicus, Suetonius Paulinus, and Corbulo, carefully gather intelligence on their enemies’ strengths and weaknesses, plotting the methodical destruction of the other side.

From these descriptions, one would think of these enemy leaders as the antithesis of their Roman counterparts. Yet this is not always the case. For example, in the speech Tacitus creates for him to rally his forces, Arminius encourages Germans exactly as a Roman commander would do with his own men, by speaking of how they must protect homeland, parents, and freedom, and fight for glory (1.59). Caratacus reportedly delivered a very similar message, exhorting his British warriors to fight for freedom against slavery, to do their ancestors proud, never to yield to the enemy (12.34). Boudicca does the same later (14.35), and even Vologeses and Tiridates make good points in their speeches about the reasons for preserving Parthian power (15.1–2, 29). The use of such speeches or paraphrases of speeches is as important in Tacitus’s works as in those of the Greek historians, especially Thucydides, to give the reader a sense of the historical dramatis personae, and to convey Tacitus’s messages regarding the motives of war. Perhaps he is trying to get into the heads of the enemy chiefs; perhaps he is merely projecting Roman values onto them so that his Roman readers will have familiar points of reference.

Tacitus’s focus is thus on people, the psychological motivations of commanders and soldiers. We see this further in his account of the wars in Germany, where he asserts that the Roman soldiers, after their mutinous behavior in A.D. 14, desired to assuage their sense of guilt by winning back their honor in combat (1.49). Other Roman authors noted this sort of motive as well, especially Caesar. Indeed, like Caesar, Tacitus also conveys the sense of Roman perseverance, ceaseless effort, discipline, planning, and experimentation—determination that will triumph in the end (1.63–68). For instance, even after his fleet is destroyed by storms at sea, Germanicus continues to suppress the German rebels (2.23–26); even after general Paetus’s forces are compelled to surrender under the yoke by the Parthian king Vologeses, Corbulo strikes back (16.6–18). Romans do not surrender.

For the Roman soldiers, victory heals their wounds, nourishes their bodies, and restores their spirits (1.68). And that victory must be total; Germanicus employs tactics of terror as he proceeds deeper into German territory and, during his final battle with Arminius, orders the complete destruction of the enemy side (2.21). Similarly, Corbulo in his invasion of Armenia threatens the inhabitants of Artaxata into surrendering, then razes their city to the ground, just one example of his
scorched-earth policy designed to instill terror among the locals and end even the thought of war with Rome (13.40–41, 14.23–26, 15.26–27). Even more vivid is Tacitus’s description of the fall to the Romans of Uspe in the Crimea (49) and the massacre of the population: “This terrified the local population. Weapons, defenses, natural heights and obstacles, rivers and cities, had all failed to stop the invasion: nothing seemed safe” (Ann. 12.17).

Like other Roman authors on war, Tacitus praises the noble leader, even if that leader is a woman. He portrays Agrippina and Germanicus both as commanders of the Roman forces on the German front; both dutifully tend to the wounded, provide for the needy, and together save the Roman provinces from devastation (1.69, 2.13). His greatest hero in the *Annals* is definitely Corbulo, victor over the Parthian menace. Corbulo is capable of great physical endurance, is as hard-working as he expects his men to be, encouraging and solicitous of their well-being, but also tough with discipline, and cautious and very thorough in preparation for and execution of battle (see especially 13.35–36, 14.24, 15.11–12). One cannot help but see the parallels with Tacitus’s father-in-law Agricola, whom he immortalized in an encomium of his own, written about a decade or so before the *Annals*. The historian regarded Agricola as a leader who inspired fear and terror in the enemy and shared the dangers with his own troops, encouraging as well as disciplining them (*Agr.* 18–25); an excellent coordinator of his forces and judge of when it was right to engage the enemy, Agricola, like Corbulo, saw war as honorable, death in battle as the truest glory (*Agr.* 33).

When it comes to the details of war, Tacitus seems obsessed with such things as which military units were involved in which operations, their relative arrangement in battle and at camp, and so on. This was probably always part of the way Romans remembered their wars; we might compare how modern American military units hold reunions or other ceremonies to recall and commemorate with such details their actions and camaraderie. His description of battles in Britain (*Ann.* 12.31–33, 35–36, 39, 14.29–30, 32, 34, 37) or of siege operations in Syria and Armenia (13.35, 37, 39–40, 14.24, 26, 15.7–11, 26) seem very quick, revealing just the basic outline of events. On the other hand, the battle scenes in Tacitus’s narrative of Germany are always chaotic; no matter the preparations or plans of either side, things always seem to be thrown into confusion, the battles becoming as wild as the wilderness in which they were waged (1.62–66, 2.16–18). One wonders whether Tacitus gives us the reality of the situation. Perhaps, or perhaps we have here Tacitus’s sense that the truth about Roman war against such enemies would be lost in the details of battle, the sort of information we find preserved by Caesar or Vegetius. The deeper messages about soldiers and commanders were what mattered most to him and his audience.

### Poets and War

In the days of Caesar Augustus, Horace famously remarked that “conquered Greece brought the arts to rustic Latium.” This is evident in the poetry of the Middle Republic, especially the comedy of Plautus, who adapted the “new” comedies of Menander and other authors, giving his audiences images of overbearing soldiers (*Miles Gloriosus*) and even conflicted portrayals of the lately defeated Carthaginians (*Poenulus*, or *The Little Carthaginian*; cf. Leigh 2000: 290–2). More realistic perhaps are the images of war and violence that abound in the poetry of Virgil (both the *Eclogues* and *Georgics*: cf. and in particular his Civil War–era–influenced tale of Aeneas and the Trojans arriving in Italy, the *Aeneid*). While Virgil’s innate genius and the Homeric influences are not to be questioned, neither are the wartime realities of his own time: the tears of Aeneas on memory of
Troy’s fall (Aen. 1.633–45); the suicide of Dido prefiguring the historical destruction of Carthage but also Civil War realities (Aen. 4.920–29); of atrocities committed in battle (Aen. 9.660–62) and soldiers taking their vengeance on the enemy for the deaths of comrades (Aen. 12.1277–298). While Virgil and others recognized the horrors of war, perhaps with little thought of the human cost all around, they yet enthusiastically embraced Roman imperialism. The consequences are aggressive language that Livy might admire (cf. 1.16.7: “let them teach their children that no human strength can resist Roman weapons”): Virgil writes that “to this people I assign no boundaries in space or time. I have granted them power without limit” (Aen. 1.278–9; cf. 6.852–3), Propertius adding that “on foot we attack the flying Parthian [and] with our fleet attack the Briton” (2.27.5).

CONCLUSIONS

For the writers on war whose works have survived, Rome’s history of conflict was understood primarily in cultural and personal terms. In the cultural sense, Romans fought against other societies in defense of their way of life, which was regarded, in Greek fashion, as more civilized than that of their adversaries. Even an author as matter-of-fact as Vegetius, who aims to provide practical information for military men in order to enable them to succeed, sees war as the act that preserves civilization. Cultural survival, as well as cultural hegemony, were thus at stake, and for most Roman writers of war, the task was to examine and present the traits of the competing societies in a dramatic and memorable fashion. In the personal sense, warfare also engaged the moral and intellectual character of each side, and especially the moral and intellectual character of each side’s leader. Roman authors compared and contrasted those commanders, and determined that the smarter and more careful generals, the more virtuous, courageous, and determined ones (usually Roman) always prevailed. These were, therefore, held up for public praise and emulation and preserved in the memory of Roman society.

BIBLIOGRAPHY

CHAPTER 4
THE ARCHAEOLOGY OF WAR

SIMON JAMES

Warfare comprises organized acts of physical violence, conducted against human bodies, victims’ possessions, settlements, and the landscapes in which they live. And these acts are perpetrated primarily through the dedicated material culture of lethality and destruction: arms, armor, and other “accoutrements of war.” Among the peoples of the classical world, and neighboring societies with whom they fought, further material preparations were widely undertaken both to facilitate and counter these actions.

State societies, especially, created infrastructure to support campaigning, facilities for assembling troops and storing supplies, plus the means to move them: harbors and shipping, roads and bridges, and also gathered the vehicles, draft and pack animals needed for armies to move. Means of defending territory, resources, and population also often involved construction of works, from small strongholds such as the cooling-tower-like drystone brochs of Scotland to the town walls of Numantia, Spain, the ingenious Hellenistic defenses of Syracuse, stupendous feats of engineering like the mighty double walls of Constantinople, or, largest of all, vast integrated frontier systems of forts and linear barriers, most famously Hadrian’s Wall, or the Gorgan Wall of Sasanian Iran.

The classical world—especially the sprawling Roman Empire—and adjacent regions have preserved many such remains of military infrastructure, of other martial material culture, and of warlike actions themselves, ranging from impact-bent javelins and sword-slashed skulls to battlefields and devastated cities. We also have the testimony of commemorative monuments, weapon-graves of warriors, and offerings of arms to the gods. This vast range of physical evidence is the domain of archaeology.

Especially associated with commemoration is another distinct category of ancient material evidence which makes its own unique contribution to our understanding of ancient warfare: contemporary visual representation. On victory monuments, figural tombstones, and in other contexts like figured pottery, some of the cultures concerned have left us depictions—sculptural, drawn, or painted—of their own and their foes’ arms and equipment, warriors, styles of combat, and particular wars. Like ancient texts, these visual images are constructed representations of the world, but are also material artifacts, often recovered by archaeological means.

This broad spectrum of material testimony directly surviving from antiquity reveals much about the beliefs, aspirations, and deeds of soldiers and generals, and how their societies valued them. It provides independent evidence for armies and warfare to stand alongside written records. Ancient images have their own rules of evidence and limitations, akin to those of texts in that they are
confined to certain societies and, as another form of representation, they are subject to stylistic distortion and the filtering effects of ideology, rhetoric, and stereotyping. In these respects they are more the purview of art history than archaeology, but here I include their contribution to interpreting other material remains, and elucidating ancient practices.

My focus is on the contribution of archaeology to understanding aspects of ancient warfare, archaeological methodology, and its achievements and problems in the context of explaining how men fought and how armies were organized in the ancient world. A central aspect of archaeological evidence—arms and armor—is touched on, although covered in more detail elsewhere (see further Jarva and Campbell, pp. 395–437). I draw primarily on my own field, the Roman Imperial era, for much of which the evidence is exceptionally extensive, relatively rich, and well explored, both for the Roman military and for many of its enemies (for another view of the archaeology of Roman conflict, see Coulston 2001).\(^1\) Military remains of earlier periods, from archaic Greece up to and including the Roman Republic, are generally sparser, with far fewer dedicated military sites and, generally, less intensive deposition of martial equipment for archaeologists to find. Consequently its archaeological study is inevitably smaller scale and less developed.

**Strengths and Weaknesses of Archaeological Evidence**

Archaeology is no mere “handmaiden of history.” It can do much more than simply illustrate or refine what we already know from texts. It may indeed elucidate these, but also reveals entire domains far beyond the boundaries of surviving writings or invisible to their authors, highlighting their biases and misrepresentations. It is a central independent means of investigating past warfare even for historical contexts such as the classical world. For prehistoric eras it is the *only* means of direct study.
The tombstone of the Roman auxiliary cavalryman Insus, son of Vodullus, of the Gallic Treveri. Excavated in Lancaster, England, in 2005, a striking visual representation of a Roman soldier maintaining the tradition of his Gallic forbears: taking heads as trophies of victory (an act that the Romans themselves perhaps approved).

© Lancaster Museums.

As a major by-product of its activities, archaeology also makes direct contributions to text-based study, for fieldwork provides the main source of new texts for historians to work with. Many are military-related, especially from Roman times. They range from inscriptions on state monuments, milestones, and fort gates to soldiers’ epitaphs like that of the cavalryman Insus from Lancaster, United Kingdom (figure 4.1; Bull 2007). They also comprise graffiti and occasionally military “paperwork”: letters, dispatches, reports, lists of men and matériel on papyri, ostraca (potsherds), or wooden tablets. Excavation is responsible for recovering our textual knowledge of the two most thoroughly documented units in the Roman imperial military: cohors ix Batavorum stationed at Vindolanda near Hadrian’s Wall circa A.D. 100 (Bowman 1994; Bowman and Thomas 2003); and, at the opposite end of the Empire, cohors xx Palmyrenorum, based at Dura-Europos, Syria, circa A.D. 200–250 (Welles et al. 1959; Kennedy 1994).

Like the surviving textual evidence, the wider archaeological record exhibits characteristic, sometimes dramatic, strengths but, as we will see, also suffers from weaknesses, limitations, and frustratingly large lacunae. Of its nature, archaeological evidence is anonymous. It is also, like the textual record, highly fragmentary, depending on the vagaries of deposition, survival, recovery, and research. Interpretation of such incomplete evidence presents its own difficulties, and in trying to do so archaeologists, like ancient historians, are conditioned by their personal prejudices and cultural baggage. However, among its greatest strengths is its ability to tell us about aspects of classical warfare on which texts are silent, or at best partial, in both senses of the term: incomplete and biased. Perhaps most important here is its capacity to give us a view, undistorted by Greco-Roman prejudices or misunderstandings, of the many “barbarian” antagonists of classical polities, silent or silenced in that they have left us few if any texts of their own. In the field of war, archaeology can especially help us better understand the world of soldiers and warriors. It is particularly suited to creating social, economic, and technological histories.

However, archaeology also contributes to the writing of narrative history. Indeed, there are cases where astonishingly informative direct physical evidence of war has been recovered, generating archaeological accounts which stand direct comparison with the most vivid surviving ancient eyewitness descriptions of men in battle.

**ARCHAEOLOGY OF BATTLE AND COMBAT**

An outstanding example of the potential of archaeology at its best is provided by the case of the siege of Dura-Europos, a Roman-garrisoned city of Hellenistic origins on the west bank of the Middle Euphrates overlooking Mesopotamia (figure 4.2). In or around A.D. 256, Dura was invested and destroyed by the Sasanian Shah Shapur I. This siege is completely unattested in classical sources (James 1985). Yet, purely from archaeological excavations, the story of the struggle for the city can be told in dramatic detail which stands direct comparison with that of another major Sasanian siege known, by contrast, only from a literary source: Ammianus Marcellinus’s eyewitness testimony of the siege and fall of the fortress city of Amida on the Tigris (modern Diyarbakir, Turkey), 350 km (220 miles) north of Dura, at the hands of the second Shapur a century later, in 359. This is among the most
remarkable of all textual accounts of ancient warfare (Amm. Marc. 18.8–19.8).

Figure 4.2. The city of Dura-Europos, Syria, showing the location of the intramural Roman military base (top), and the position of the Sasanian assault ramp from the final siege (bottom left). Plan of the Franco-Syrian Mission to Dura-Europos, adapted by Simon James.

Ammianus, a Syrian-Greek officer trapped with many other fugitives at Amida, identifies the Roman contingents defending the city, seven legions and other units. He also details the composite nature of the Sasanian army, incorporating many subject and allied contingents, including Chionite Huns. His thrilling description records the main operations of the siege, undertaken beneath storms of artillery projectiles, sling-bullets, and arrows. Ammianus graphically conveys the ordeal of the defenders: the sufferings of the wounded, the impossibility of burying all the dead, and an epidemic blamed on the putrefying corpses. The struggle for the city involved psychological warfare, the two sides competing to shout the praises of their rulers, while the Sasanians attempted to intimidate the defenders into surrender by shows of numbers, including massed cavalry and elephants.

Both sides used torsion artillery. Ammianus cites examples of the accuracy and power of light arrow shooters in picking off individuals (like the son of Shapur’s ally, the Chionite King Grumbates, shot through the breastplate), and describes how five machines rapidly cleared a tower of seventy Sasanian archers who had infiltrated the defenses by night, some bolts killing two men. The Sasanians
constructed siege towers to allow their artillery to command the walls, while raising siege ramps to get over them. Ammianus details the ripostes of the defenders, making sorties to disrupt the siege, and countering the ramps by heightening their own defenses. These eventually collapsed under their own weight—unless, unbeknownst to Ammianus, they had been undermined—leading to the fall of the city. Under cover of night, Ammianus escaped the ensuing slaughter through an unguarded postern. Captured survivors joined the columns of prisoners deported to Persia, and Amida was left an abandoned ruin over which the Emperor Constantius subsequently wept (Amm. Marc. 20.11.5). The siege lasted seventy-three days.

In the archaeologically recovered case of Dura, occurring a century earlier, we do not know for sure which Roman units were trapped there (the military papyri relate to events from two years to decades before the siege), or the names of any individuals caught up in the fighting. However, in some ways we know more details of what happened than we do at Amida, and without the selectivity, possible exaggeration, or dramatic editing of an Ammianus—although conversely we know less of the sequence of events. However, the nature and extent of siege works argue for a period of weeks or months (Du Mesnil du Buisson 1936 and Leriche 1993; James 2011b).

At Dura the Sasanians built a huge mud-brick-walled siege camp, far larger than the city, on the plain facing Dura’s relatively vulnerable western wall (the others being protected by cliffs). They raised a sophisticated siege ramp to try to get over the southern end of the western wall, undermining a troublesome adjacent tower to eliminate its use as an artillery platform. As a result of new excavations we can trace exactly how the ramp was built, no mere mound of earth but a solid box construction, walled and paved with fired brick, its regular incline intended for a wheeled siege machine. The Romans sought to counter this, as later at Amida, by heightening the city wall and, behind it, deepening the earth rampart which had recently been added to strengthen the defenses against siege. Meanwhile, both sides also dug further mines here, the Persians seeking (with unclear outcome) to enter the town, the Romans (certainly successfully) to destroy the attackers’ ramp.

This engineering duel, probably ending in stalemate, was part of a multipronged Sasanian assault which doubtless included attacks on the relatively vulnerable river gate (now wholly lost to the Euphrates), and certainly saw direct assaults on the heavily fortified western (“Palmyrene”) gate. Here the Sasanians also used siege machines, to which the Romans responded with a tornado of artillery stones, iron bolts, and incendiary weapons plus, perhaps, sorties (a Roman shield boss was found in the debris from the fighting, well outside the gate).

The Sasanian strategy also involved another mine, intended to bring down Tower 19 and an adjacent stretch of city wall, to make a breach viable for assault by troops charging across the plain (figure 4.3). This operation was detected in progress by the Romans, who dug a countermine to intercept and foil it. The resulting underground struggle led to deposition of perhaps the most astonishing material evidence yet found for ancient warfare in action.

On excavation, the Roman countermine revealed intense burning and a scatter of equipment ending in a dense tangle of some twenty skeletons, still with their armor. From the nature and disposition of these gruesome remains, it is possible to determine in fine detail what happened (figure 4.4). The Persians had tunneled under the hard limestone surface layer of the gypsum plateau on which Dura stands, and had dug upward into the foundations of the city wall, encased in the recently added external mud-brick glacis and internal inner-earth rampart. They were removing the lower courses of the wall and tower, replacing them with wooden props which would later be fired to bring down the superstructure. The Romans dug a timber-propped tunnel through their own earth rampart to seize and
hold this expanding Persian chamber. But the Sasanians heard them coming and were waiting for them. When the Romans broke into the Persian mine, about twenty were killed, almost certainly by asphyxiation; like contemporary Roman writers, the Sasanians knew the Hellenistic trick of filling an enemy mine with choking fumes (cf. Livy 38.7; Polyb. 21.28; Polyaenus, *Strat.* 56.7), doubtless employing the sulfur and bitumen which, minutes later, they used to destroy the Roman countermine.

The surviving Romans fled, and the Persians, shutting off their smoke-pot, entered the Roman gallery, intent on collapsing it to prevent further interference with their mine. However, to stop the Romans reentering their countermine before its timberwork could be set alight, the Sasanians dragged the Roman dead and dying, along with their shields, toward the entrance, and stacked them into a wall across the tunnel. Then they piled straw, wood, and Roman cloaks against the roof props, and used sulfur and bitumen to start an inferno leading to collapse of the Roman mine, one Sasanian warrior perishing in the process (James 2011). The Sasanians then completed their own mine, and fired it.

**Figure 4.3** The siege operations at Tower 19, Dura-Europos (see Figure 4.2). Top left, the Sasanian approach tunnel and sap beneath the tower and adjacent city wall was intercepted by a Roman countermine from within the city. Inside the Roman tunnel were found a pile of dead Roman soldiers, and nearby a Sasanian. His iron helmet (left) shows signs of Roman influence (mail, reinforcing plates), and in turn was a prototype for Roman helmets of the following century. This illustrates convergence in military technology and practices across this frontier, seen also in the shared methods of siege warfare exhibited at the site. Simon James, after Du Mesnil.
Figure 4.4 Schematic diagram, to approximate scale, showing the stages of the fight for the mines at Tower 19, Dura-Europos. 1. The defenses of the city, showing the wall and towers reinforced with a mud-brick glacis, and earth rampart behind. 2. The Sasanian sappers reach, and begin to undermine, the wall inside the rampart. The Romans hear them, and begin a countermine. 3. The Romans break into the Sasanian gallery, intending to prevent its completion. 4. The Sasanians are ready for them with a smoke generator, which rapidly fills the Roman mine with choking fumes, killing about twenty. 5. The Sasanians enter the Roman gallery, and prevent Roman re-entry with the bodies of the dead while they set it on fire. 6. The Roman gallery partially collapses, allowing the Persians time to finish and fire their mine. Drawn by Simon James.

Although the Roman countermine failed, their earth-strengthened defenses held anyway: the undermined wall and tower sank about a meter, but stayed upright. The tower floors collapsed, entombing several horse armors and a painted “scutum” (James 2004), but there was no practicable breach here. Stalemate.

We do not know how the Sasanians finally entered the town, but the defenders made a last stand in the military cantonment in the northern quarter of the city. Recently a row of iron bolt heads was found, still lying by the base perimeter wall where they had been placed to serve a catapult positioned to shoot down one of the streets (James 2007). But this last line of defense was, in turn, overwhelmed. Bodies were found lying where they had fallen inside some of the barrack rooms. As would befall Amida a century later, Dura was sacked, the defenders slaughtered or deported, the site abandoned.4
The best archaeological testimony for ancient warfare, then, can rival that of the best texts in detail and drama. However, Dura is exceptional in a number of respects, the product of a rare concatenation of circumstances (but then, the vivid detail of Ammianus is equally exceptional). Unlike Amida, Dura—in what became a contested no-man’s-land between Rome and Persia—was never substantially reoccupied, permitting survival and archaeological accessibility of so many traces of the siege operations, neither disturbed nor overbuilt beyond reach of archaeologists. Further, local environmental conditions were conducive to remarkable organic survivals like complete painted wooden shields and papyri.

There are other remarkably well-preserved and highly informative sieges sites, famously the Roman works round the Zealot stronghold at Masada, Israel, which site, like Dura, was not later disturbed (Richmond 1962; Yadin 1966; Goldfus and Arubas 2002). Other striking examples of siege archaeology include Gamla, Israel (Syon 2002), and Olynthos (Lee 2001).

Archaeology also produces dramatic insights into some “open-field” battles. A major discovery was the scene of the destruction of Varus’s three-legion army by Germans under Arminius in A.D. 9. It occurred around modern Kalkriese near Osnabrück (Schlüter 1999; Schlueter and Wiegels 1999; Wells 2003). The battlefield, initially located by recovery of coins and metalwork using metal detectors, has been more fully explored through archaeological survey and excavation. This work has now revealed a great deal about the actual course of this notorious Roman disaster. Scatters of artifacts across the landscape, pits containing the subsequently collected remains of the dead, and remains laid down during the fighting itself have provided a fairly clear picture of the shape of events. The Romans were in a long column which was led at this point into a narrow space between boggy ground on their right, and a forested hill on their left. Overlooking the Romans, in the cover of the trees, Arminius’s men had constructed an earth rampart, behind which they hid and from which they launched their attack on the unsuspecting legionaries, who had neither time to arm nor space to deploy. They were slaughtered, along with their civilian followers and even their pack animals: the body of a mule, still wearing its bell, lay by the rampart.

However, archaeology generally proves less informative for the majority of ancient battles, especially open-field conflicts (as, indeed, most textual accounts are inferior to those of Ammianus on Amida, or the battles of Strasbourg and Adrianople: Amm. Marc. 16.12; 31.12–13). The reasons are clear. Unlike modern wars with high-explosive munitions, few ancient battles other than sieges left lasting traces. The Roman habit of entrenching camps and digging earthworks makes their military actions relatively detectable, but even these offer limited information, being often almost devoid of artifacts the result of battlefield clearance. Soldiers and other scavengers normally picked up anything of value, and so nothing much larger than arrowheads was likely to be left. Anything missed, in vegetation or shallow-buried, was vulnerable to weather, rust, and the plow. However, Roman projectiles, boot nails, and other militaria preserved by special soil conditions, recently discovered at Harzhorn, Germany, attest a forgotten third-century battle deep inside Barbaricum (Wiegels et al. 2011).

The same considerations also applied to the bodies of the dead: men, horses, even war elephants. Occasionally we find some remains of soldiers, as at Kalkriese and Krefeld, Germany, which has also produced graves of horses killed in fighting in A.D. 69 (Reichmann 1999). The latter may offer clues to the shape of the fighting, since heavy and noisome equine cadavers are likely to be rolled into pits dug where they had fallen. However, perhaps most remarkable is just how rarely we recover potentially the most important archaeological evidence for the nature of ancient front-line combat: the
bodies of slain combatants, bearing their death wounds (James 2010). Given the millions who perished in Rome’s wars alone, it seems astonishing that, as yet, we have not identified and scientifically studied a single mass battlefield grave. As with other remains, this is due to battlefield clearance (the winners usually recovered their own dead, for disposal elsewhere or to cremate), to the likely shallowness of any hasty on-field burials (thereafter vulnerable to the plow) and, in the case of enemy dead left to rot where they fell, complete obliteration even of teeth due to weathering. Consequently, it becomes less surprising that no convincing archaeological traces have yet been identified even of so vast a slaughter as Cannae.

**ARCHAEOLOGY AND NARRATIVE HISTORIES OF WARS AND CONQUESTS**

It is often unappreciated just how fragmentary the Greco-Roman historical record is, by comparison with that for more recent times. Even for the relatively well-documented early Roman Empire, it is peppered with lacunae large enough in which to “lose” battles, campaigns, even entire wars. Material evidence sometimes proves invaluable in reconstructing the courses of campaigns and conquests, and even political strategy. Excavations at Waldgirmes, Germany, have confirmed that Augustan commanders actually did commence foundation of the first cities in his new province east of the Rhine before the disaster of A.D. 9 (Becker et al. 2003), proving beyond reasonable doubt that permanent occupation and civil development were intended, not simply military operations to protect Gaul.

At a finer scale, in the case of the conquest of Britain, there has long been uncertainty over whether, in the early 70s, the provincial governor Cerealis was simply harrying the powerful Brigantes of northern England to neutralize them while the conquest of Wales was completed, or whether he was trying to conquer them outright. Tacitus, our source, has been suspected of deliberate ambiguity, downplaying the achievements of Cerealis to inflate the subsequent glories of his father-in-law, Agricola (Tac. Agr. 17; Salway 1989: 136–7). Precise dendrochronological (tree-ring) dates of A.D. 72–3 for the cutting of timbers used in the first Roman fort at Carlisle prove Cerealis was establishing garrisons deep inside Brigantian territory (Birley 1973; McCarthy 2002: 69–71).

Roman Europe has produced the most extensive and intensively explored archaeological evidence for ancient campaigns, conquests, and military occupation, at the scale of “theaters of operation” beyond battlefields—“conflict landscapes” (Coulston 2001). Here, in the first two centuries A.D., particular early imperial campaigns left entrenched “marching camps” across the landscape. Principally through aerial photography, individual camps and even sequences have been found, sometimes allowing us to track the passage of particular armies on the ground, notably in northeast Scotland; however, these ephemeral traces prove frustratingly difficult to date closely (Jones 2012; figure 4.5).

Campaigning early imperial armies also began establishing their familiar playing-card-shaped “forts” and “fortresses” (Wilson 1980). These modern designations are actually misleading since, while defended stoutly enough to resist surprise attacks, they were not designed as strongholds intended to survive sieges, but were winter quarters and depots, and springboards for offensive operations: they are better termed “bases.” Consequently, their distribution can be hard to interpret in terms of campaign strategy, because their individual locations were ad hoc compromises determined according to multiple considerations, logistic and political as well as strategic. Some were sited to
control communications junctions, or to watch settlements or other potentially troublesome concentrations of newly conquered people. Others were located for convenience of supply by friendly groups, to exploit areas of good pasture for cavalry horses, or to be on navigable waterways for bulk supply of foodstuffs brought from more distant regions (legions daily consumed grain by the ton). And some were indeed sited as “jumping-off points” for future campaigns.

**Figure 4.5** Selected archaeological evidence for Roman military operations in Northern Scotland. Hollow symbols: Roman marching camps of various periods (those reaching towards the Moray Firth probably represent Agricola’s operations culminating in the battle of *Mons Graupius*). Solid symbols: Flavian military installations, including Inchtuthil legionary base, the ‘glen blocking forts’ and the location of Elginhaugh. Drawn by Simon James.

For example, excavation of Flavian installations in Scotland attest the nature and disposition of garrisons in the territory conquered by Tacitus’s father-in-law Agricola, notably at Inchtuthil, most northerly of all legionary bases (Pitts and St. Joseph 1985), and the “glen-blocking auxiliary forts” at the edge of the Scottish highlands (**figure 4.6**). These last, for example Fendoch at the mouth of the Sma Glen (Richmond and McIntyre 1939), were doubtless partly to contain the unconquered peoples beyond (Fendoch was overlooked by a watchtower sited to see up the glen), but also to form starting points for anticipated future conquest of the Highland massif which never happened. These sites also reveal what happened after Tacitus’s panegyric on Agricola—our main historical source—turns its
attention away from the island with the governor’s recall. Excavation shows that Inchtuthil was never finished, but demolished and abandoned during the later 80s, according to coin finds.

These are all valuable cases, and others could be cited, not least building inscriptions which allow us to date many Roman bases and frontier works to precise years. However, most archaeological sites produce few or no epigraphic finds, while only extremes of waterlogging or desiccation preserve dated military “paperwork” or timbers for dendrochronology. More often we are obliged to estimate foundation, rebuilding, and destruction dates from stratified coins and pottery. We have to make judgments on the basis of the latest minted coins present, or the range and forms of pottery on the site, for example red glossy terra sigillata (Samian) vessels, with rapidly changing forms, decoration, and makers’ stamps that make them datable to a decade or two. Such data give us fuzzy dates for things like the building of bases, for example, “Claudio-Neronian” and “Flavian.” In broader archaeological terms such dates are unusually precise (and the envy of prehistorians often facing chronological uncertainties measuring centuries). However, twenty to thirty years is a very long time in warfare, and greater than the lifetime of many early imperial military bases. In places like Britain it is, therefore, virtually impossible using archaeological evidence to draw provincial maps of which bases were occupied in a given decade, let alone a particular year; redeployments and troop movements occurred at rates too rapid to resolve through this kind of data. Archaeological evidence, then, may sometimes help us to build year-by-year campaign maps, but most often it helps us understand the shape of conflicts, conquests and military occupations, that is, the nature of warfare in more general terms, rather than its detailed course.
Archaeological testimony can also provide important direct information about the organization of armies, partly through numbers of bases, but especially through their conformation. It can sometimes tell us about the anatomy of units and, more generally, how they worked. Many early Imperial Roman bases were constructed to accommodate single regiments, often identifiable from inscriptions recovered on site, and in their layout “wrote” the structure of the unit onto the landscape. This is seen most clearly in the obsessively regular Flavian and earlier Antonine examples in the northern provinces. For example, trenching and aerial photography of the buried foundations of Inchtuthil, apparently intended to replace Chester as the base of legio XX Valeria Victrix, reveal the disposition of barrack blocks for all ten cohorts, including expanded accommodation for the first cohort, increased in size in Flavian legions (figure 4.6: Breeze 1969; Pitts and St. Joseph 1985).

Many fort plans, like that of Inchtuthil, are actually based on limited trenching and, using plans of other sites plus any air photos or geophysical data, “joining the dots,” usually with a ruler. The result can be significantly to exaggerate the regularity and orderliness of fort plans, tending to idealize them. With regard to forts and the Roman military generally, ruler lines, actual and metaphorical, may often be more in the minds of modern scholars than real. The Flavian base at Elginhaugh, Scotland, is a rare example of a timber-built installation almost completely excavated to modern standards (figure 4.7; Hanson 2007). Its actual plan is noticeably “shaky,” irregular in line, and also in conformation. For even with a complete plan, it has still proved difficult to decide the nature and composition of its garrison (thought most likely to have constituted part of a cavalry regiment).

Such early, timber-built installations of odd sizes or conformation, lacking epigraphic evidence are, then, harder to understand than Inchtuthil. Another example is the first-century base at
Longthorpe, England, too small for a whole legion and far too big for an auxiliary regiment: it may have served as the winter quarters of a “mixed brigade” comprising a legionary vexillation and attached *auxilia* (Frere and St Joseph 1974). However, such vexillation fortresses tell us something of ad-hoc tactical formations during active conquest phases.

For other contexts and periods, things are much more obscure even than this. “Playing-card forts” exist in the East, but marching camps are hardly known, while legions in provinces like Syria and Egypt were stationed within or adjacent to major cities. We know vanishingly little of most of these bases due to lack of fieldwork, or because most such sites have been continuously occupied ever since, and so are deeply buried beneath medieval buildings or modern suburban sprawl. Only two urban bases have been explored in any detail, both relatively late and in abandoned Syrian cities: a Tetrarchic example at Palmyra (Baranski 1994), and that at Dura-Europos, consolidated in the 210s (Rostovtzeff 1934; Pollard 2000; James 2007; see figure 4.2). The latter occupied the northern third of the city, with a headquarters building (principia), military baths, and amphitheater inserted. However, most of the base interior comprised civilian houses converted to military accommodation startlingly irregular by comparison with earlier European playing-card forts, and therefore much more difficult to read in terms of the formations they were intended to accommodate—which the Dura papyri and inscriptions (above) suggest comprised one or more legionary vexillations, *cohors xx Palmyrenorum*, and perhaps other auxiliary contingents.
For the organization of most other ancient armies, the archaeological record is much more obscure than this. No others were as obsessed with building, and with expressing regularity through layout, as the early Imperial Roman military. Late Roman bases have more varied, less regular, and frequently ephemeral interior buildings which are hard to interpret in terms of unit organization. Greek or Macedonian campaign infrastructure is hardly known. The Sasanians, and perhaps before them the Parthians, built systems of military bases on their frontiers, especially facing Central Asia, but these are barely explored yet (Nokandeh et al. 2006). Indeed, even the all-conquering Republican Roman army remains virtually invisible in these regards. Among the earliest remains of this kind are the siege camps around Numantia, Spain, dating to the second century B.C. (Dobson 2006). And even early Imperial Roman base plans still pose problems. Notably, it has often proved difficult to identify where cavalry units kept their horses (probably because most were normally kept outside the walls), and only recently have special cavalry barracks finally been securely identified, for example at Wallsend (Hodgson and Bidwell 2004).

Archaeology of military bases, then, sometimes provides assistance with understanding the
anatomy of military formations. However, it can provide valuable qualitative and quantitative information regarding other aspects of military organization, such as provision and maintenance of infrastructure, services, and supply systems. For example, deposits of animal bones and seeds can indicate sources of foodstuffs and the organization of their provision. Weed seeds contaminating grain may prove to come from distant environments, revealing the operation of long-distance water-borne supply systems rather than reliance on local production. Exceptional preservation conditions can provide astonishing detail on the plant food, fodder, and fuel consumed by military contingents, as at Mons Porphyrites, Egypt (Veen and Tabinor 2007). The kinds of bones preserved and details of butchery can show whether meat was supplied to military bases on the hoof, or already processed through curing. Such details can also suggest where the animals were coming from: the cattle consumed at the Claudian base at Alchester were evidently of native breeds, procured fairly locally (Stallibrass and Thomas 2008). And in the Roman case, it tells us something of the disposition of hospital facilities, and the medical system which kept Imperial armies operational (Davies 1970; Baker 2004).

ARCHAEOLOGY AND “THE OTHER SIDE OF THE HILL”

Paradoxical as it may seem, the most important contribution archaeology makes to the study of Greco-Roman warfare may come from the light it sheds on non-classical peoples, not only on “barbarians at war,” but societies as a whole, in peace as well as conflict.

It may seem obvious that, to understand any war, it is essential to look at both sides; to research the world wars, for example, historians now routinely access the political and military archives of all principal combatants. From the outset, at all levels, from “grand strategy” to fighting methods, armies have to respond to the capacities and customs, strengths and weaknesses of their foes. However, in the study of ancient armies and warfare, seeking to comprehend both sides is still too rarely attempted. Much scholarship on the Roman military and frontiers, for example, often still seems mesmerized by the internal workings of the “Roman war machine” to the virtual exclusion of the world in which it operated.6

To understand a phenomenon such as Alexander’s Macedonian army or the Imperial Roman military at war, then, we need to consider it in the context of its actual and potential foes. However, from the textual record this is often effectively impossible. The Hellenistic states fought unlettered “barbarians” from the Balkans to Afghanistan, as did the Romans in Western and Central Europe, from the Republic’s wars in Hispania to Imperial invasions of Caledonia, to the conflicts with Germans, Sarmatians, and Huns. Even for clashes with empires like Carthage or Parthia, surviving written testimony is universally biased toward the classical viewpoint because, being both literate and commonly the victors, Greeks and Romans wrote the histories. For example, our understanding of the classical Greeks’ duel with Achaemenid Persia is hampered by relative lack of texts surviving from the Persian side. Later, Parthian records were suppressed by the Sasanians, whose own historical traditions have left only limited traces via conquering Islam. Copious surviving writings of the Jewish and Christian traditions provide a tantalizing independent window on Hellenistic and Roman military domination, but are of limited help, being more concerned with religious matters than recording historical events.

In general terms, archaeology provides a fundamental contribution in giving a “voice” to these antagonists of Greeks and Romans to societies silent—or silenced—in ancient textual records. Take,
for example, our knowledge of Rome’s rise to power over the multiple indigenous peoples and Greek colonists of Italy during the fourth and third centuries B.C. We lack writings from Samnite, Etruscan, or Cisalpine Gaulish perspectives to place alongside the Greek and Latin accounts which present the history of the period overwhelmingly from the Roman viewpoint. However, conversely, the archaeological record for Romans at war before the second century B.C., in terms of weapons, other military remains, or visual representations, has proved to be very meager, while by contrast we have striking archaeological evidence for the martial culture of other peoples in Italy.

These are known to us through weapons and armor they buried with their dead, or offered to their gods, and through some remarkable visual representations of martial gear, warriors, and armed violence in action. The Samnites and Lucanians of the south buried some males with full panoplies *(Italia 2000)*, while the Gauls of the Po plain, active participants in peninsular wars from at least the 390s B.C. when they notoriously sacked Rome (Williams 2001), also often interred arms with their dead (Vitali 1991).

Etruria and Campania have also produced spectacular decorated tombs with martial themes, while Lucanian examples from Poseidonia (Paestum) depict funeral games, especially single combats thought to be the origin of Roman gladiatorial contests. Such paintings and finds of armor confirm that the splendor of Samnite arms recorded in Roman histories was not invented or exaggerated by Latin authors simply to make ideological contrasts with Roman austerity (see below).

These material remains help us to keep non–Greco-Roman peoples in view as actors in the processes which led to Roman dominion over Italy. They were not simply *gladius* fodder for uniquely aggressive Romans, as some accounts have been inclined to treat them. Such evidence helps remind us that *all* the peoples of Italy and the Po plain were bellicose; Roman military power in the later Republic did not emerge from a vacuum, through any special, precocious, gods-given martial talent wielded against hapless victims: rather, it was the outcome of long apprenticeship in a school of very hard knocks.

Wider archaeological research also calibrates, corrects, and often falsifies outright received conceptions of the classical world’s “barbarian foes” derived from ancient texts. For example, to Greeks and Romans, Gauls were barbarians *par excellence*, stereotypically portrayed as semi-nomadic savages who lived by the sword and by plundering: timeless primitives, animal-like in their lack of self-control, their warriors headhunters, their priests addicted to human sacrifice. Polybius, for example, decried the lack of arts (*tekne*) of the Po valley Gauls (Polyb. 2.17.10). These, together with their more numerous transalpine cousins, were regarded as teeming hordes posing an ever-present menace which had burst into Italy before (Gauls sacking Rome 387/6 B.C., and rampaging through Etruria in 225 B.C. until defeated at Telamon), and might again. They induced among Romans an abiding *terror Gallicus* (Williams 2001). But how far was all this “racist” denigration and atrocity propaganda intended to belittle prehistoric-becoming-protohistoric peoples who, from the annexation of the Po plain during the Punic Wars to Caesar’s advance to the Atlantic, became victims of Roman imperialism?

Archaeological discoveries, old and new, certainly confirm the importance of the martial aspect of Gaulish societies. Some buried arms with their dead, or sacrificed them in rivers and lakes. Indeed, the extensive offerings recovered from Lake Neuchâtel at La Tène, mostly arms, gave the culture of the Gauls its archaeological name (for the swords from the site see De Navarro 1972).

The Gauls’ reputation for head-taking in war has also been confirmed by a gruesome discovery at Ribemont-sur-Ancre in northern France (Brunaux 2001). Here, at what seems to have been a shrine, a
large wooden rack was erected in the early third century B.C., and from it were suspended the bodies of scores of warriors, bearing their arms—but minus their heads. Whether these men all fell in battle, were massacred as prisoners, or were formally sacrificed, is unclear. Such evidence, deposited far from the Mediterranean and before Rome began to interfere significantly inside Gaul, confirms, in case there was any doubt, that Gaulish armed violence was real, and cannot be solely blamed on stresses induced by proximity to an aggressive and interventionist Roman Empire.

Archaeology tends, then, to vindicate the Gallic reputation for bellicosity and fearsome behavior. However, with regard to other aspects of Gaulish culture, archaeological research has revealed that views based solely on ancient texts are often wildly wrong, leading to mistaken understandings of the military interactions, and intertwined political and socioeconomic dynamics, between Romans and Gauls.

These misunderstandings range from battlefield realities to the highest levels of strategy and politics. So, for example, Polybius presented a ludicrous picture of Gauls charging Romans and slashing downward with their long iron swords, only to have these bend on impacting a shield, requiring the warrior to withdraw and stamp them straight (Polyb. 2.33)! He also claimed these swords lacked a point, and were good for nothing but slashing (2.33, 3.114, 6.39). However, finds of actual Gaulish swords show that, while some indeed lack points, many had them. Similarly, metallurgical analysis shows that about a third were of a quality poor enough for bending to be a real danger—but most were much stronger (Pleiner 1993: 156–9). Polybius exaggerated on both counts, to make contrasts with very well-made Roman weapons used, especially against Gauls, for thrusting.

More important than such technical matters is the wider picture which archaeology is now giving us of “barbarian” societies, without having to see them through the jaundiced or uncomprehending eyes of Greco-Roman observers. For example, studies of settlements, agriculture, and economies have been fundamental to proper appraisals of the late Iron Age Gaulish societies which Caesar conquered. Many prove to have been populous, productive agrarian societies with sophisticated arts (if not of a kind valued by Greeks like Polybius). Far from timeless, they were changing very rapidly, some evolving into states with constitutions, laws, coinages, and tax systems (Haselgrove 2006; Collis 2007). Transalpine Gallic societies were rapidly conquered and became well integrated as provinces, not because they were hapless primitive sword fodder, but quite the opposite: because they were large and complex enough—that is, already sufficiently like the Greco-Roman Mediterranean, in matters of war, politics, and socioeconomic organization—to be amenable to integration. Many possessed fixed assets and political interests vulnerable to military threats, and powerful elites with whom Caesar could negotiate.

In contrast, Germania east of the Rhine proved intractable to Roman conquest under Augustus, resulting in the Varian disaster. Thereafter, as the northern frontier systems crystalized, Roman rhetoric represented the Germani, like the Gauls, as timeless benighted primitives, beyond the pale of civilization. However, archaeological research shows that, during the early centuries A.D., major socioeconomic developments were also under way across Barbaricum from the Baltic to the Black Sea (e.g., among the Goths: Heather 1996). These saw more productive agricultural regimes, growing populations and material wealth, and increasing social stratification. These changes probably arose from internal dynamics, but were shaped by proximity to the Roman Empire, primarily through the effects of war and unrecorded diplomatic exchanges. The long reach of Rome can be seen in excavations of settlements, graves, and, most spectacularly great bog offerings of military equipment, especially from Denmark (Ilkjaer 2000; Jørgensen et al. 2003). These suggest the rise of statelets as
far as Scandinavia, with war bands evolving into organized armies, equipped with the latest military technology: Roman pattern-welded swords (Biborski and Ilkjaer 2007). Many such weapons, silver coins, and other Roman artifacts are thought to represent long-range diplomatic efforts to manipulate barbarian polities, to foster wars among them by selective subsidies and “military aid,” thereby reducing pressure on the Roman frontiers (Erdrich 2001). Whatever the truth of this, such archaeological remains indicate Rome was having significant effects even on regions virtually beyond her ken. They suggest that, across Barbaricum, Rome was inadvertently shaping the societies that would ultimately overwhelm the western empire.

**THE ACCOUTREMENTS OF WAR**

Arms and armor are dealt with elsewhere, but one other example of Roman-era martial material culture may be cited here to show archaeology’s particular contribution to understanding the practical realities of ancient warfare. This is the breakthrough in our understanding of Roman-era saddles.

It is well known that the stirrup was not introduced to Europe until after the fall of the Roman West, and it has therefore been widely assumed that, compared with the shock cavalry of medieval and later times, stirrupless ancient cavalry could only have been of relatively limited effectiveness. Because they could not have had a very secure seat, they would have been restricted in the force with which they could wield a sword or thrust with a spear, for fear of falling. However, brilliant studies of archaeological remains of Roman saddles, combined with meticulously made experimental reconstructions and practical experimentation, have effectively proved this wrong (Connolly and Van Driel-Murray 1991).

Fragments of Roman saddles (partial leather coverings, and sets of metal pommel plates), and some depictions, have long been known. It was apparent that these saddles had four upstanding pommels, two in front of the rider’s legs and two behind, but the details remained obscure. To work out how they were actually constructed, Carol Van Driel-Murray, an expert on ancient leather, studied the shaping, stitching, stretching, and wear patterns on the surviving fragments of saddle coverings. She worked closely with Peter Connolly, experimental archaeologist and illustrator, who produced a series of trial reconstructions until the details perfectly matched the known construction techniques, reproducing the stretching and wear patterns. The result, based around a reconstructed wooden saddle tree whose shape was dictated by the details of the leather, was revelatory, especially when actually tried on a horse (see below figure 23.4). The purpose of the four pommels becomes immediately apparent: the rear two are tight behind the rider’s buttocks, preventing him from sliding backward, while the front pair project outward over the rider’s thighs, stopping him from sliding forward or falling sideways. The rider’s seat is as secure as with stirrups; he can slash with a sword or thrust with a spear to maximum effect. The problem, it turns out, is not falling off, but getting off, or on. Without stirrups, the projecting pommels require the rider to vault on, but extensive experience with replicas have shown this to be a skill rapidly developed.

It appears that this Roman saddle was adopted from the La Tène world or perhaps the Danube lands. Subsequent research has shown that it was also standard in the Partho-Sasanian world (Herrmann 1989). Like many other facets of contemporary equestrian warfare, including horse archery, perhaps armored lancers, and, later, the stirrup, this type of saddle probably originated on the Eurasian steppe. Consequently, such practical archaeological research regarding the function of the Roman four-pommel saddle has much wider relevance to the study of ancient warfare.
EXPERIMENTAL ARCHAEOLOGY AND CROSS-CULTURAL COMPARISON

The case of the four-pommel saddle provides a good illustration of the limitations of “armchair” study of ancient warfare, and a striking vindication of the value of reconstruction (perhaps better, simulation), or experimental archaeology. However, ethical considerations, not to mention laws, place limits on experimentation with replica equipment, and we obviously cannot simulate the elation and terror, agony and horror of ancient war. Such work, then, is largely limited to technical practical matters—but not wholly so (see below).

While some have been soldiers, few currently active researchers have direct experience of lethal violence, and scholarship, wider society, and the law would all doubtless look askance at civilian academics seeking to gain it (they usually limit their aggression to reviews of one another’s books). However, there is real benefit to be had from witnessing, or even better, engaging in some relevant practices short of actual bloodshed.

Experimental archaeology or reconstruction (as in the case of the Roman saddle), so-called reenactment, more general simulation, and cross-cultural comparison with more recent armies and wars, can all help us understand how things may have been done and—equally important—how they were not done. Critical comparison—considering similarities and differences—is a valuable tool. For example, Sabin has used Hollywood battle scenes as a heuristic device for reflecting on what ancient battle cannot have been like, in his attempts to understand the mechanics of actual combat (Sabin 2000).

Similarly, few today have observed the evolutions of large cavalry formations. However, I witnessed a pro-foxhunting demonstration by several hundred mounted protesters in England, which gave a hint of the visual and visceral impression which would have been made by an ala of cavalry; five hundred horse in column, even peaceable and unarmed, make a powerful impact on eye, ear, nose, and through the feet—the ground reverberated under hundreds of tons of muscle, bone, leather, and metal on the move.

Analogies drawn from modern military experience present their own dangers arising from cultural and technological differences between antiquity and modernity. However, they can be invaluable, especially with regard to basic physiological and environmental matters affecting soldiers. Hence Gabriel and Metz used data ranging from Napoleonic examples to modern military experiments to address matters rarely mentioned in classical sources: the impact on effectiveness and health of soldiers, simply of prolonged marching in column through dusty, very hot or very cold environments. Their work makes clear that classical armies did not have to cross the Alps to suffer significant rates of attrition in sick and dead, even before reaching the battlefield (Gabriel and Metz 1991: 104–09).

Ethnographic parallels provide a similar kind of cross-cultural comparison. For example, the ancient traditions of horse archery with a composite bow continued long enough to be thoroughly documented, and many of its skills survive among enthusiasts (e.g., in Hungary) and specialists. It was from an experienced bow maker, archer, and horseman, for example, that I learned how shooting is more accurate at a gallop than a slower jerking trot, because the horse provides a more stable “firing platform” (James 2004: 198).

Academic purists are rendered uncomfortable, if not tempted to snigger, by reenactors. This is a mistake (Croom and Griffiths 2000). There is much to learn from observing and talking to them, positive lessons and indeed reflections on where they are probably getting things wrong. For example, many reenactors are impressively skilled craftsmen who take great pride in their creations,
which can help the archaeologist understand the traditions and sheer effort involved in creating ancient martial material culture. On the other hand, by comparison with archaeological examples, reenactors’ equipment is often clearly too well made—an observation which prompts valuable reflections on the standards of manufacture and likely durability of real ancient arms.

![Figure 4.8](image)

Watching reenactors performing at “heritage events” is equally informative. It can, for example, be enormously impressive to see the power of replica stone-throwing and arrow-shooting torsion artillery. I have also found invaluable watching a full century of “Roman legionaries” put through their paces—and afterward discussing it with the “centurion” (it showed how hard verbal communication was, even for an officer with a loud voice and a small formation in ideal conditions, with so much noisy equipment). And I have found it highly instructive to try on replica armor, to feel the weight of sword and shield, to ride a horse, to vault into a Roman saddle, and to shoot with a composite bow.
Perhaps the most insightful experience of this kind I have had was something deceptively mundane: simply to feel what it is like to walk and move while wearing a *spatha* (Roman long sword) on a baldric, and a cloak arranged in the style seen on many third-century depictions of Roman soldiers (figure 4.8). I did this primarily to create photographic references for a reconstruction painting I was making of the appearance of Roman soldiers from Dura-Europos (figure 4.9; James 2004: 256–9, plates 11–13). Like changing from jeans to a tuxedo, such dress makes one stand and move in different, particular ways. This physical experience viscerally reinforced theoretical ideas I was encountering on how artifacts do not just hang on bodies, but are active components in creating the feeling and materiality of human identity—not least of the warrior or soldier.

**Archaeology of Fighting Men: Creating Warriors and Armies**

In material terms, we can think of a human as a particular kind of primate compounded with artifacts (Schiffer 1999: 3). Appearance is one of the fundamental bases on which our identities are constructed. It comprises artifacts worn or carried, and treatment of the body, including modifications like tattooing or simpler grooming, especially of head and facial hair. The last merges into the matter of style, that is, *how* hair and garments are worn, and artifacts carried. All this in turn relates to how one stands and moves, and the acts one performs, while in such guise. (We would be startled to see someone in a business suit wielding a shovel, and not just because the clothing is impractical for the task: it would also contradict the general implications about the wearer’s identity and status signaled
Creating a particular manifestation of the body is fundamental to building a sense of who we are—to ourselves (literally, a feeling of who we are)—and, primarily visually, to others. Appearance is equally vital in signaling our sense of collective identity, of belonging to particular groups. As any sergeant major knows, soldiers’ appearance is a foundation stone for constructing and maintaining regiments and armies, developing their self-image, and making an impression on their enemies.

Similarly, in ancient war, appearance was of supreme importance to soldiers and armies in creating Us, and intimidating Them. The splendor of Samnite or Gaulish arms was intended to make the wearer feel good about himself, to impress his comrades, and to awe his foes. The seriousness with which the last point was taken is clearly documented in Roman officers’ concern to deflate enemies whose carefully cultivated appearance—glittering splendor, stature exaggerated with lofty helmet crests, and arms emblazoned with terrifying animals and monsters—was working all too well on the minds of their soldiers (Livy 9.40.1–6; 10.39; Frontin. Str. 1.18–19). They sought to burst the balloon by taking such men prisoner and stripping them of their finery—and so of their self-identity and constructed mystique (App. B Civ. 4.8; Plut. Mar. 16). Here subliminal, visceral, instinctive matters—visual intimidation—cross into conscious discourse, expressed most clearly in Roman rhetorical contrasts of the austere plainness their own arms with glittering Samnite panoplies, golden Gallic torcs, or (later) Parthian embroidered trousers, gaudiness to be dismissed as effeminate vanity (e.g., Livy 9.40.4–5). For Romans also used material means, albeit in rather different ways, to help construct their own sense of personal and collective identity as soldiers (milites).

Roman soldiers of the Middle Empire (ca. A.D. 200–250), for example, could know every man in their cohort or ala, at least by sight; these groupings constituted military communities of immediate daily experience. Legionaries would often see much, if not all, of their legion assembled in one place for ceremonies, exercises, or campaigning. However, no soldier—and few emperors, with exceptions like the peripatetic Hadrian—would ever see more than a small fraction of their commilitones (“fellow soldiers,” as emperors were expected to treat them). Rome’s milites as a whole constituted an “imagined community” (Anderson 1991), membership of which was signified, experienced, and made instantly recognizable through common martial culture. This was of course largely discursive, comprising shared ideology and values, expressed via special language (the sermo militaris, a demotic Latin dialect filled with military slang and technical jargon, much derived from the languages of foreign auxiliaries). However, martial identity was substantially articulated visually and physically, through posture, movement, and actions, employing common material culture, not just of combat, but of equestrianism and military dress. These physical traits made soldiers instantly mutually recognizable, and distinct from mere men with weapons (Petron. Sat. 82 describes the one encountering the other). They comprised a visual discourse of military appearance, style, and behavior, about which we can say a great deal, drawing on data from archaeology, texts, and visual representations, allowing us to some extent to get inside the minds of ordinary soldiers, their self-image, motivations, and world view.

The contrast between manly Roman plainness and effeminate barbarian ostentation was a rhetorical trope rooted deep in Republican Roman self-definition, and conscious differentiation from their foes. It persisted at least down to the Middle Empire. Martial dress in the third century A.D., known primarily from archaeological finds, paintings, and tombstones, evinced a quite complex code. It expressed traditional rhetoric of Roman soldierly austerity while toiling in dust and heat for the state (grayish trousers, yellow-brown sagum), but also, through the whiteness of his tunic and its
purple detailing, asserted the soldier’s status among other free privileged males who wore the same

color scheme.  

Even off duty and out of camp, milites materially expressed their special privilege of bearing arms
on behalf of the state by routinely wearing swords, while their waist belts and sword baldrics
themselves were invested with symbolic meaning as marks of martial status. Rhetoric of plain dress
was transgressed in the special fields of weapon hilts, scabbards, belts, and cloak brooches. In these
restricted but prominent zones, archaeology and tombstones reveal elaborate decoration: openwork
ornament, use of silver for fittings or its widespread simulation through tinned bronze, inlay with
niello or contrasting metals or brightly coloured “enamel.” Gods, religious symbols, and
ideologically loaded messages were also sometimes literally written on the clothed body, belt fittings
incorporating texts sometimes expressing individual prowess (FELIX VTERE, “use with good
fortune,” implicitly presentation pieces; figure 4.9), incorporating a collective prayer for the soldier’s
unit: “([Jupiter] Best and Greatest protect us, a regiment of fighting men all”: [trans. L. Allason-
Jones; Bishop and Coulston 2006: 162]), or simply spelling out ROMA.

In such ways archaeology can give some voice to the concerns and aspirations of the ordinary
soldiers of historical societies, especially Roman milites who in ancient literature are usually treated
either as lumpen spear-carriers or as dangerous, volatile, and ignorant men, sometimes escaping
control to become little better than armed mobs (James 2011a).

Archaeology and Martial Cultural Exchanges

A final major contribution from archaeology is another facet of its ability to see the other side of hill
in ways texts cannot. In revealing the martial material culture of classical societies and of their
“barbarian” antagonists, and in tracking these as they change through time, archaeology illuminates
important processes of exchange and interaction across cultural boundaries in the field of warfare,
largely or wholly unmentioned in the historical record.

To pursue the example of Roman military dress and arms circa A.D. 200–250, these are strikingly
different from those of circa A.D. 100, familiar from Trajan’s Column. Unfolding during the second
century A.D., the changes were so radical that they have been described as the “Antonine revolution”
(Bishop and Coulston 2006: 128–48). This shift is not attributable to central authority. Roman
soldiers’ equipment was not governed by modern-style technical specifications or written
regulations, and was not centrally produced (at least before ca. A.D. 300: James 1988); rather, it was
locally produced, its form and embellishment regulated by custom, convention, and traditions among
the soldiers and their regiments, which evolved over time. However, archaeology helps reveal how
the “Antonine revolution” came about, and why. Not least, it shows where the new types and styles
came from, matters on which the texts are virtually silent. It turns out that, for the most part, this
“revolution” did not represent Roman innovation, but drew on types of clothing and weapons taken
from the martial cultures of Rome’s frontier provinces and peoples far beyond, adapted to varying
degrees and melded with existing martial cultural traditions to suit the needs and tastes of Roman
soldiers as a whole.

It is clear that many features of middle Imperial Roman equipment came from the Sarmatian
peoples, through conflicts and exchanges in the Danube region and around the Black Sea. These
included new military belt designs and an entirely different way of suspending the sword, using a
slide or runner on the scabbard rather than lateral rings. Sarmatian models also extended to horse harness, probably the new draco (dragon) wind sock standard, and provided a source of inspiration for Roman lancers with armored horses. The influence of these Iranian-speaking peoples was so great that Coulston has written of the “Sarmatization” of Roman equipment (Coulston 2003).

However, there is good reason to think that the Euphrates frontier was equally important in the development of Roman martial culture (James 2006). Here, against the Parthians, the Romans first encountered both armored lancers and horse archers, and indeed were already employing the latter on the Rhine in the first century A.D. There are reasons to suspect that some widespread new Antonine belt designs, such as the ring buckle and the fashion for long belt ends hung in a curve to the hip, were copied from Partho-Sasanian sources, while the scabbard slide may equally have entered Roman usage via the Euphrates. Iranian influence appears to have continued to be strong into the late Empire: fourth-century Roman animal-headed buckles possibly, and more certainly the radical new styles of Roman helmet which appear around A.D. 300, can be attributed to Sasanian inspiration: a Persian example from the Dura countermine forms a clear prototype for them (figure 4.3; James 1986).

By no means least, between A.D. 100 and 200 there was a fundamental change in the basic clothing worn by Roman soldiers. The bare limbs of traditional Roman dress gave way to a long-sleeved tunic and long trousers, apparently with sewn-in feet like medieval hose. These garments, more suited to the extreme winters of central and northern Europe where the armies were operating, and more in keeping with indigenous eastern traditions of bodily modesty, were worn with the rectangular cloak (sagum), a northern “barbarian” garment Romans had long assimilated. In the second century they simply adopted the rest of an ensemble which seems to have been general male dress from Gaul and Germany to the Crimea (figure 4.10). As we saw, it was adapted to Roman tastes largely through its coloration. However, to Roman civilians of the interior, it was one feature among many which made Roman soldiers seem, increasingly and literally, outlandish.

This divergence between the soldiers of the frontier provinces and metropolitan civilians was already starkly seen during the civil wars of A.D. 69 when, on their arrival in the capital, the men of Vitellius’s northern army seemed to the people of the city to be shaggy aliens, and mutual misunderstandings and antagonism led to bloodshed (Tac. Hist. 2.88–89). Yet, paradoxically, this fission was the long-term result of one of Rome’s most ancient defining characteristics, one already identified by Polybius in the second century B.C. The Greek historian, who fought the Romans and later accompanied them on campaign, identified their exceptional readiness to adopting anything done better by others, especially in war (Polyb. 6.25). This tradition of openness, which famously resulted in Republican adoption of the “Hispanic sword,” was maintained by the Roman military down to the late Empire (cf. Polyb. 3.114, with Walbank 1: 209; the Suda, s.v. machaira, may preserve another fragment of Polybius describing Roman adoption of the weapon). It also extended to people. Her own foundation myths of mongrel origins underpinned a belief that any worthy male could become Roman, a practice extended from friendly foreign aristocrats to useful soldiers. Hence the evolving military equipment of the Imperial period was partly a result of continuing to adopt good ideas, but the mechanisms whereby these new traits entered Roman service were not only copying and capture. To a considerable extent, new gear came in on the backs of their original owners, recruited into the armies from newly conquered peoples, and even beyond the frontiers: the Romans recruited Germans, Sarmatians, Parthians, and many others in great numbers.
Figure 4.10 The ‘Antonine revolution’ in Roman military dress, and its primary source in the dress of northern ‘settled barbarian’ peoples. A. Tombstone of Faltonius, a legionary of the first century A.D. buried at Mainz. He still wears the traditional short Italian tunic, which leaves the limbs exposed, and the poncho-like *paenula*; B. a Danubian German of the second century A.D. from the Column of Marcus Aurelius at Rome. He is clad in a long-sleeved tunic, close-fitting breeches, and a *sagum* fastened at the shoulder by a brooch; C. Valerinus, a Praetorian guardsman buried at Rome in the early decades of the third century A.D. His dress is in all essential regards ‘northern barbarian’ in form; other, colored representations of soldiers show that close-fitting breeches were the norm by this period, and were probably originally represented here by paint. Drawn by Simon James.

Such soldiers were integrated into the armies and made Romans; yet many retained traditional tactics and arms considered useful in war, and these became accepted as part of the ever-evolving definition of what was Roman martial culture, spreading to other units. This was not, then, “barbarization” of the armies, for historical evidence shows how these soldiers of foreign origin came to think of themselves as Romans first. Rather it was a process of “cultural bricolage”—the taking and adapting of elements from more than one culture, and melding them into, and accepting them as, parts of another evolving one (Terrenato 1998).

That Vitellius’s soldiers seemed so alien to Romans of Rome was also partly due to another historical process. Augustus’s creation of a socially distinct professional military concentrated near the frontiers also inadvertently resulted in an increasingly demilitarized citizenry in the interior. It led to diverging civil and military manifestations of Romanness. That of the “core provinces” continued to draw on its Greek, Italian, and other Mediterranean roots. However, that of the soldiers on the frontiers—who also considered themselves fiercely Roman—was, in a sense, an “expatriate Romanness,” although with equal claim to be “real Rome,” for the frontier zones were where politics was increasingly focused, and where emperors and history were made. Yet paradoxically, in terms of ethnic origins, notions of martial masculinity, life experience, and material culture, Roman soldiers had more in common with the peoples around and beyond the frontiers, than with civilians of the interior of the Empire.

Roman martial culture, and especially the archaeology of arms and dress, illustrates how intimately connected Roman soldiers were with the peoples against whom they fought—and from whom they recruited (and, sometimes, to whom they deserted). The connectedness of Roman martial
culture with that of Germans, Sarmatians, Parthians, and Sasanians reveals the frontiers not as peripheries, but as centers of zones, not only of violent conflict, but of intense, multidirectional cultural interaction and exchange, of weapons, ways, and men. Greeks and especially Romans at war, then, can only be understood as part of a much wider picture, a network of interactions reaching to the Baltic and Central Asia, not readily apparent from surviving texts.

**CONCLUSION AND FUTURE POTENTIAL**

Archaeology is a relatively young discipline, still discovering what it can do—and what it cannot. Classical archaeology in particular has been slow to develop fully, having grown up in the colossal shadow of centuries-old traditions of text-focused study of the Greco-Roman world. It faced a prolonged struggle for autonomy in its aims and methods from those of traditional classical studies, which long effectively imposed ill-fitting “text-driven” agendas on it. This remained true of the study of war and the military even longer than it did of civil aspects of classical archaeology. However, the discipline now has the confidence of finding its own voice (Alcock and Osbourne 2007), even if many text-based scholars have yet to comprehend this fully.

One recent example of archaeological discovery concerns what might seem a minor technical point, yet it falsifies a hallowed central image of ancient warfare, thereby providing a symbolic example of the potential contribution archaeology is making to the field. The famous *gladius Hispaniensis*, the “Spanish sword” of the Republican legionary, almost literally carved out the Empire in the last two centuries B.C., and is a Roman martial icon. This weapon, until recently known almost solely from literary descriptions, is routinely described as a “short, thrusting sword,” contrasted especially with much longer Gallic slashing blades. Yet actual examples of the *gladius Hispaniensis*, recently identified in existing museum collections, show that it was not short at all; it was actually as long as the earliest known imperial *spathae*, commonly characterized as long slashing swords, recovered from Scotland (Republican *gladii*: Quesada Sanz 1997; Connolly 1997; Flavian *spathae* from Newstead: Curle 1911: 183–5, plate 34, nos. 6, 7 and 13). Further, the Republican weapon looks as suited to cutting as to thrusting—and, returning to the texts, Polybius makes clear it was actually used in both modes (e.g., Polyb. 6.39), even if thrusting was tactically preferred against foes like the Gauls to foil the long reach of their blades. The case of the *gladius Hispaniensis* exemplifies a general point: our most cherished received ideas about the classical past are open to challenge from new research, not least in archaeology.

It also exemplifies the value of reexamining museum collections and excavation archives as an important source of new discoveries, alongside fresh field research. Excavations conducted by investigators are ever better primed to know what to look for, and how. We are expanding the range of kinds of evidence to seek, for example, using more advanced survey and prospection methods, including geophysical techniques, to recover hitherto inaccessible data from battlefields, and even wider “conflict landscapes.”

In terms of theoretical and methodological approaches to interpreting and understanding the data, as in most other branches of archaeology, borrowing concepts and approaches from cognate disciplines (here, anthropology as well as recent military studies), and overt, critical use of cross-cultural comparison, are likely to be increasingly important.

The martial archaeological riches of the early and middle Roman Imperial period, which have provided most of the examples presented here, are clearly the exception, not the rule. In antiquity the
norms were to build more modest military infrastructure, and not to deposit military equipment in the ground. To get at the archaeology of war for most other ancient classical and related cultural contexts, then, including classical Greece and much of the Hellenistic world, as well as the Roman Republic and (except for military installations) the later Roman Empire, we have to try harder, and deal with sparser remains. However, the arms in the tomb of Philip II and the cache of Hellenistic equipment from Aï Khanoum, Afghanistan, underline that the more we dig, the more finds we will make. And, indeed, as Aï Khanoum highlights, many regions remain untapped, or at best sketchily explored especially in the eastern half of the Greco-Roman world.

As we saw, archaeology is especially valuable for exploring the martial culture of the antagonists of Greco-Roman societies. Contexts like Samnite or Iberian “warrior graves,” Gallic shrines, and Scandinavian bog deposits offer archaeological windows on ancient warfare different from those of the Roman Empire, and continue to provide remarkable discoveries. The end of the Cold War is now leading to better understanding of the steppe peoples around and beyond the Black Sea. We can also hope that Western Asia will be further opened up to research, not least the Iranian heartland of the Achemenid, Parthian, and Sasanian empires. And this world had its own frontier systems, including the newly explored Gorgan Wall (Nokandeh et al. 2006; Rekavandi et al. 2007).

Rather than merely illustrating Greco-Roman texts, archaeology has shown it can range far beyond them on its own terms, in time, space, and kinds of information preserved. It may also help us to reflect back on surviving writings, to reinterpret them afresh. We will make the most effective advances in the study of ancient warfare where text-based and material-based studies work together, reflexively, exploiting their peculiar strengths in conjunction.

**BIBLIOGRAPHY**


50–55.


Jones, R.H. 2012. Roman camps in Britain. Stroud.


As historians present ancient warfare, it is a story of arms and armor, of tactics and strategy, of sieges of cities and the fortunes of empires. Seldom is consideration given to the effects of warfare and militarization on the environment and the reciprocal impacts of the environmental damage done by wars in the ancient societies that waged them. Nevertheless, a damaging aspect of ancient social organization as it affected the environment in the Mediterranean and Near East was its direction toward war. Ancient evidence is not silent on the subject. Sometimes environmental damage was an attendant result of military activities, but it was also used as an instrument of warfare.

Epics chronicle heroic exploits against nature. Mesopotamian tablets describe the journey of Gilgamesh, armed with his mighty ax, and his companion Enkidu to the mountains where they fought and killed Humbaba, the animal-god guardian of the cedar forest, and cut down the trees. This is myth, but many a historical truth is reflected in myth. The forest mentioned is probably the cedars of Lebanon (the epic places it near the Euphrates), a source of timber for the tree-poor Mesopotamian plain, and subject to ancient deforestation (Sandars 1960: 68–82). In Homer’s *Iliad*, Achilles, the greatest warrior of the Achaeans, fought a battle against the river Scamander (21.200–382). The river, angry because Achilles was polluting his waters with the bodies of dead Trojans, called on his brother, the river Simoeis, and attacked Achilles with a flood that would have killed him without the intervention of the gods. To help him, the god Hephaestus started a forest fire, and the conflict did not end without a fight among virtually all the gods. The battle, according to Homer, caused serious damage to the riverbank and the elms, the willows, tamarisks, clover, rushes, and galingale, and “all those plants that grew in abundance by the lovely stream of the river” (21.242–6, 349–55), as well as the eels and other fish.

Hunting was often regarded as a form of warfare, and art often portrayed humans in battle with animals. The idea that hunting and warfare are similar, and can use the same weapons, is much older than the classical period; a dagger from Bronze Age Mycenae shows shield-bearing warriors attacking lions with their spears, and a ring of the same period bears the design of an archer shooting a stag from a chariot (Anderson 1985: 14). Assyrian kings are portrayed wearing war gear, facing lions and stabbing them with swords that pass clear through the bodies of the beasts. Spears and javelins are often mentioned in the literature of hunting, and were redesigned for use against specific prey such as boars. Xenophon said, “Hunting…is…excellent training in the art of war” (*Cyn.* 12.1). His Spartan friends deliberately used it in this way. Perhaps this explains the oft-told Spartan story of the boy who was carrying a stolen fox under his cloak. It was said he met his military trainer and stood talking to him; the fox got loose under the cloak and gnawed at the boy’s abdomen, and in spite
of that the boy continued to stand without showing a sign of pain until he fell over dead (Xen. Lac. 2.7–8; Plut. Lyc. 12.1–2, 17–18; Ath. 141C). The story was intended to illustrate the ability of a young Spartan to bear pain, and his willingness to die rather than admit he had stolen, but why he should have taken a fox can perhaps best be explained in the context of hunting as preparation for war. The Roman Army employed military methods in hunting to provision troops with meat; soldiers or paid professional hunters scoured the countryside in hostile or uninhabited regions. Hunting for large animals such as lions and boars involved organization and tactics like those of war, and many species were reduced in number and extirpated from sections of the Mediterranean basin (Hughes 2007b: 47–70).

Ancient cities and empires were warrior-dominated societies. Our impression that they were never at peace for long is partly due to the fact that ancient historians mostly took wars as their subject, but the impression is nonetheless accurate. The ancients may never have regarded war as the normal state of life, since in the words placed by Herodotus in the mouth of Croesus, “no one is stupid enough to prefer war to peace; in peace sons bury their fathers and in war fathers bury their sons” (1.87). In spite of that, war was a prevalent tribulation for ancient societies and for the natural environment. Athens in its Golden Age had many more years of war than of peace, and in Rome the gates of the temple of Janus, which were closed when there was peace, were usually open. Even the Pax Romana that began with Augustus and lasted, with few breaks, for two hundred years, did not end warfare along the frontiers, including for example the conquest of Britain, and the size of the army and its consumption of finances and natural resources increased sharply.

Fifty years of war in the third century A.D. left no major province untouched by battle, during which commanders in the provinces sought to seize power, plunging the Empire into sporadic warfare. The battlefields were predominantly in the settled regions of the central Empire, and destruction was visited upon houses, barns, orchards, and the rural population. The average period of rule of the emperors between A.D. 235 and 284 was two years, hardly enough time to establish policy, and all of the emperors were military men, few of whom had any understanding of principles of economy. Prices rose astronomically; the price of wheat in Egypt, for example, was eight drachmas per artaba in the second century, twenty-four drachmas in the mid-third century, and 220 to 300 drachmas in the late third century (Duncan-Jones 1990: 147). Emperors facing financial emergency increased the minting of coinage, thus exposing it to debasement. Due to the inflation of the value of precious metals, the cost of the metal in coins rose above their face value, forcing the issuing of coins in less valuable materials such as bronze or lead (perhaps with an easily eroded wash of silver). Silver could be used for coins of higher denominations, in a never-ending inflationary process. The tax base of the Empire, which depended on agricultural productivity, was shrinking. There were onslaughts of plague in 251 to 266 and afterward, and emperors made up a deficit of manpower by allowing groups of barbarians to settle within the Empire.

Armies typically targeted cities, but war also exacted toll from agriculture, since campaigns devastated the countryside, slaughtered farmers and their families, and requisitioned or destroyed crops and buildings. Armed conflict had its direct effects on the environment. Theophrastus remarked that when an army had marched over a field of growing plants, hardly anything remained visible, and due to the compaction of the earth, crops growing there the next year might be stunted. The land in the actual place of a battlefield, however, was another story. The blood of the slain and wounded, and the corpses if they were buried in situ, could fertilize the fields. After the battle of Aquae Sextiae (102 B.C.), in which the Roman general Marius defeated the Teutones, Plutarch reports (Mar. 21.3),
It is said that the people of Massalia built fences around their vineyards with the bones of the fallen, and that the soil, after the bodies had wasted away in it and the rains had fallen all winter upon it, grew so rich and became so full to its depths of the putrefied matter that sank into it, that it produced an exceedingly great harvest in later years, and confirmed the saying of Archilochus that “fields are fattened” by such a process.

Such damage, or enrichment, was incidental to military operations, but deliberate destruction of the ecological base of the enemy was a customary part of ancient warfare.

Armies lived off the land, of course; the conditions of transport did not always permit supply from home, and plunder of the stored grain and growing crops and animals in invaded countries was unavoidable. As Neil J. Goldberg and Frank J. Findlow note, “Because of the restricted method of land transport available to the Romans, or any military force before World War II, an army was forced literally to live off the land on which it stood” (1984: 376). But calculated “environmental warfare,” in which an enemy’s natural resources and food supplies were demolished, was also not a rare event. Indeed, as the agricultural historian knows, a biblical commandment forbids Jewish soldiers to cut down fruit trees while besieging a city (Deuteronomy 20.19–20). This exceptional regulation indicates that such destruction otherwise was a common practice of armies. Victor Davis Hanson notes, “Ravaging of cropland was central to warfare of most societies of the past” (1998: 4). Hanson further notes that Egyptian pharaohs and Mesopotamian kings boasted that they cut down the fruit trees of their enemies, and quotes a comment attributed to Socrates: “Men cut the grain that others have planted, and chop down their trees, and in all ways harass the weaker if they refuse to submit, until they are forced to choose slavery rather than war with the stronger” (Xen. Mem. 2.1.13). Tacitus has the Caledonian chief Calgacus tell his men that the Romans “make a desert and call it peace” (Agr. 30.5). In spite of the abundant references to this type of environmental warfare in ancient sources, however, most modern military historians of the ancient world have paid scant attention to it.

The case where we have the most information is one actually witnessed by Socrates—the invasion of the lands of Athens by the Spartans in the Peloponnesian War, in which they devastated farms and fields and chopped down olive orchards and vineyards, hoping to cause shortages in the besieged city. This took place in two phases. In the first, King Archidamus of Sparta waged annual campaigns to wreak havoc on Attica in an unsuccessful attempt to goad the Athenians to venture outside their impregnable city walls and fight an infantry battle that he was sure he would have won. Indeed, the tactic of devastating the landscape may have been forced on the Spartans in part because at that time siege warfare had not developed to the point where an assault on the walls could promise success, and the Athenians were well supplied by sea. In the second phase, the Spartans built a fort at Decelea in Athenian territory, from which they could ravage and plunder the countryside continuously.

Many historians believe that the damage done to Athenian agriculture by these invasions was major, although not the main cause of the defeat of Athens because the Athenian navy controlled the sea, and provisions came in through the port of Piraeus, which was protected and connected to the city by the Long Walls. Donald Kagan, for example, sees the destruction of vines, olive trees, and houses as a serious blow to Athens’s major export crops (olive oil and wine) and therefore the balance of trade, and incidentally says that the second phase deprived the Athenians of the revenues of the silver mines at Laurium (2003: 75, 106, 299). Hanson, however, emphasizes the difficulty of destroying the major Mediterranean crop plants (2005: 35–62). Olive trees are big, with trunks that reach six meters (twenty feet) in diameter, and deeply rooted, have hard wood that resists the ax and
survives fire, and readily re-sprout from a stump, and moreover were very numerous; Sophocles describes the olive as a tree no man could “destroy or bring to nothing” (Oed. Col. 694ff.). Grapevines are also deep-rooted, regrow from the roots, and were even more numerous, and growing grain is impossible to set on fire until it matures and dries out, after which it is immediately harvested. He concludes that serious damage to Athenian crops would have required the labor of more troops than Sparta could have made available, and that agriculture would have recovered quickly after the war. “The damage that did occur to farmland during war was more often a result of dislocation—the evacuation of farmers, the driving off of slaves and livestock, the death in battle of farmer-hoplites themselves—than of the physical destruction of trees, vines, and cereals” (1998: 14–15).

Hanson’s opinion must be respected because he has had a lifetime of experience as a farmer of Mediterranean crops in California. But he has to explain references such as that of Lysias to devastation in Attica: “Many plots at that time were thick with private and sacred olive trees, which now have for the most part been cut down, so that the land has now become bare” (7.7). And if ravaging crops did little damage, it is hard to explain why Athenian seaborne troops faced obvious dangers to raid Spartan agriculture, and to ravage the lands of Megara, a nearby ally of Sparta. Along with this there are many other examples of what is often called “laying waste to the land” in ancient history, such as happened to Corcyra, Acanthus, Mende, and Melos. Hannibal devastated the land during his invasion of Italy, although not completely, since he wanted the aid of other Italian cities against the Romans. Studies have shown that during periods of military incursion, farmers may escape from dangerous low-lying lands that are subject to ravaging and looting, and find refuge in more isolated forested, mountainous regions where they can clear the trees and plant crops. The effects on the two environments are major: the lowlands become a landscape of abandoned fields, while the mountains suffer deforestation. Probably both conditions are conducive to deforestation (Athanasiadis 1975).

Roman farmers experienced economic and other disasters due to the organization of Roman imperial society for war and the military (Hughes 2007a: 27–40). They knew agricultural remedies for problems like siltation, salinization, and soil exhaustion through the leaching of essential minerals, but could not always apply them due to political and military pressures. The tax system bore most heavily on the agricultural sector of the economy, whether the levies were collected in coin or in kind. Taxes such as the Roman *annona militaris* (an annual tax to support the army) was assessed upon the farmers, depriving them of resources they could otherwise have used to improve the land. Citizen farmers were conscripted for military service, so that they were forced to be absent from their land, and too often were killed in battle, so that manpower left available to care for the land declined. Then the theater of war was often the countryside; farm families were killed, their property requisitioned by the troops, their crops, buildings, and terraces destroyed. The reliefs on Trajan’s Column show soldiers setting fire to villages and rounding up peasants as prisoners and slaves. Sometimes damage could be repaired, but more often agricultural ecosystems were not given the time to recover, making them vulnerable to insects and diseases. It is no wonder that ancient writers complained of abandoned fields (*agri deserti* in Latin). Furthermore, when terraced hillsides were abandoned the terrace walls were no longer maintained, and when they collapsed the amount of erosive material that was washed down into lowlands and coasts greatly increased. This is one of the reasons why harbors silted up in the war-ravaged decades of the later Roman Empire. Indeed, more general studies of deposited material along the Mediterranean coasts have shown that erosion significantly increased in watersheds during and after periods when they were theaters of warfare.
Along with damage to settled agriculture, the question arises of the effects of warfare on other lands such as pastures, brushlands, and forests. Wars were fought for the possession of such land, especially when located near territorial boundaries, as Timothy Howe explained in a study for the Association of Ancient Historians (2008). The Mediterranean climate has a long dry summer season, during which the vegetation is easily ignited, often by lightning but also by shepherds and soldiers. The resulting fires can engulf thousands of hectares. It is worth noting that setting such fires is used in contemporary times as a means of political expression. For example, records of wildfires in Greece during the twentieth century show unmistakable upswings in election years. It should be noted that Mediterranean vegetation, especially the prevalent brushland called maquis, is adapted to fire and will almost always regenerate in the course of a few years.

Setting fire in pastures, forests, and wildlands, unlike ravaging of farmlands, seldom seems to have been done in order to damage enemy territory, but it was often done to gain a military advantage or to kill enemy troops. For instance, during the Battle of Pylos, Spartan warriors were isolated on a brush-covered island in the bay, and Athenian soldiers landed without knowing the exact location or number of the Spartans. A fire started in the Athenian camp and burned off the vegetative cover (Thuc. 4.29–30, 38), enabling the Athenians to find and capture 120 of the Spartiates, the first time Spartans had been known to surrender. Thucydides says that the fire was an accident, although if he was right it was a lucky one, and there is the possibility that the Athenians started it deliberately. Commanders even ordered sacred groves to be burned if foes had taken refuge in them; in 494 B.C., the Spartan king Cleomenes I set fire to the grove of Argus and thousands of Argive soldiers were incinerated (Hdt. 6.78–80).

Damage to forests resulted from the constant need of military forces for wood to build fortifications and war machines and shelters, to burn as torches and signal fires and simply to cook food and stay warm. Shipbuilding was a major use of wood in war and peace, one often mentioned by ancient writers. Shipbuilding required great amounts of wood, including tall, straight tree trunks for masts. Strategies of warfare and diplomacy were often aimed at obtaining supplies of timber and other forest products such as pitch, and guarding the sea-lanes and roads over which they were transported (Meiggs 1982: 116–53, 423–57). Historians in Greece and Rome saw timber supply as a major factor determining naval strategy in particular. In the Punic Wars, Rome rushed ships to completion, from tree to sea, in as little as forty to sixty days (Plin. *HN* 16.74; Livy 28.45.15–21). Supplies dwindled; Dionysius of Syracuse, for instance, found all the shipbuilding material he needed in the rich forests he controlled in Magna Graecia (southern Italy) around 400 B.C., but Hiero, another tyrant of the same city a century and a half later, had to search far and wide for a suitable mast for a large warship (Diod. 14.42.4; Ath. 5.206f, 208e–f). Theophrastus notes that good timber was found mostly far away from major cities, implying that nearer forest resources had been exhausted. International diplomacy often hinged on obtaining shipbuilding supplies. A treaty between Amyntas, king of Macedonia, and the Chalcidians required the latter to obtain the king’s permission and pay duties to export fir timber for ships’ masts, while allowing them to trade less strategic lumber freely. Pharnabazus, the Persian satrap of Phrygia (in Asia Minor), helped sway the course of the Peloponnesian War by giving the Spartans access to the forests of Mount Ida and counseling them “not to be discouraged over a lack of ship’s timber, for there is plenty of that in the king’s land” (Xen. *Hell.* 1.24–5). Athens made treaties with kingdoms in northern Greece to obtain wood for shipbuilding; for instance, a fourth-century treaty between Athens and Perdiccas pledged the
Macedonian regent to export wood suitable for oars only to Athens. But another way to get forests was to conquer them; Alcibiades told the Spartans that this was one of the Athenians’ major purposes in launching the Sicilian Campaign in 415 B.C. (Thuc. 6.90). Areas both strategically located and rich in forests, like Cilicia and Cyprus, were often objects of conquest by powers needing to build up their navies. Colonies were established as timber ports; the Athenians founded Amphipolis on the River Strymon below heavily forested mountains in Thrace, so their consternation when the Spartans took that city is understandable (Thuc. 4.108). Indeed, the Spartan general Brasidas had launched his northern campaign with the object of cutting off Athens’s timber supply from that region and redirecting it to Sparta and her allies, including Corinth. In the second century A.D., the Roman Empire was faced with a declining supply of large timber for purposes such as shipbuilding, so that the prudent Emperor Hadrian established a forest reserve on the mountains of Lebanon where trees of the most important species were declared to be the property of the Emperor, and could not be cut without his permission. More than a hundred stone boundary markers remained in place until the twentieth century, inscribed with warnings against timber thieves:

Boundary of the forests of the emperor Hadrian Augustus: Four species of trees reserved under the imperial privilege. (Meiggs 1982: 85–6)

It is not known just which species were included in the four that the Emperor protected, but it seems certain that the famous cedar of Lebanon (cedrus libani) was one of them.

The damage done to forests during Roman warfare is prominently portrayed in the great spiral relief of Trajan’s Column. That monument in Rome celebrates Trajan’s conquest of Dacia, a territory in modern Romania, and is regarded by experts as a principal source of information about Roman military equipment and operations (Rossi 1971). More than two hundred trees are represented in the relief. Many are shown being chopped down vigorously by ax-wielding Romans or Dacians. Sometimes the military axmen are clearing roads through thick woodland to allow passage for the legions. More often they can be seen carrying away logs and using them to make siege terraces, catapults, battering rams, and beacon fires. One such beacon, not yet ablaze, is made of 144 logs (Lepper and Frere 1988: Plate IV). There are many structures that demanded timber in their construction: camps, forts, palisades and other defense works, warships, boats, and barges loaded with barrels. Then there are the bridges of boats, huge assemblages of wood. Two of them, shown near the beginning of the relief, cross the Danube: “Each boat carries, amidships, a stout pier of logs firmly held together by horizontal slats. In between every pair of boats there is a pontoon of closely fitted planks; and the piers and pontoons carry the timber roadway structure of the bridge, with railings at the sides” (Rossi 1971: 132–3). Each of the soldiers crossing the river carries a wooden stake. The Emperor offers sacrifice on a fire altar. The work to supply the huge amounts of wood necessary for military operations was done by classiarii, technical support units for the army, directed by “ax masters.” If necessary, these men could fight with their axes, as the column relief shows. The transformation of the landscape by these operations was massive. Toward the end of the relief, a scene in northern Dacia where a forest god contemplates a little lake among the woods, rich in game such as deer and boars, is followed by a landscape where a single tree bears only two meager tufts of leaves above a trunk almost all of whose branches have been lopped (Lepper and Frere 1988: Plates CIX, CXIII).

Interference with the water supply of enemies is a method of environmental warfare often mentioned in ancient sources. Rivers were dammed or redirected to deprive cities of water, or
deliberately contaminated. Xenophon described a plan used by King Cyrus of Persia, who gained entrance to the city of Babylon by diverting the Euphrates and sending his army through the walls on the riverbed (Cyr. 7.5.10–20). Frontinus included examples of these schemes in his Stratagems (Mayor 2003: 108–9): Lucius Metellus flooded out his Spanish enemies, and Julius Caesar cut the water supply of the town of the Cadurci to force its surrender. Cases of surreptitiously polluting rivers and wells are numerous.

Ancient armies used animals, both wild and domestic, in warfare. Xenophon wrote a book around 400 B.C. entitled The Art of Horsemanship. Horses were used in warfare as the basis of cavalry and to pull chariots, and performed an important function in military communication (see further Hyland 493–526). They were also used as pack animals and to pull supply wagons; donkeys and mules performed a similar function. Ancient Sumerian art shows donkeys pulling carts containing warriors into battle. By 1700 B.C., invaders from Asia had introduced horses and chariots to Egypt; the Scythians and other peoples of the Eurasian grasslands north of the Black Sea, an environment particularly suited to horses, were among the earliest to develop cavalry. The earliest horses used in cavalry were relatively small, but increasingly large horses were preferred as cavalry soldiers adopted armor. Ferghana (now in Uzbekistan) was a noted source of fine large cavalry horses for China, and also Persia and the Mediterranean. According to J. Edward Chamberlin, Alexander the Great’s legendary horse Bucephalus was possibly of the Ferghana breed (2006: 155–6). The Persian Emperor required several of the provinces to send an annual tribute of horses. The Persians, and Romans in the period of the late Empire, developed cataphracti or clibanarii, fully armored cavalry, and the horses themselves might be armored, so that these animals had to be heavier. Provision of horses with grain, grazing, and water had important environmental effects. Increasingly larger horses would have made greater demands on resources, as well as impact on the land. Alexander, for example, allocated each of his cavalry horses (he had as many as seven thousand) ten pounds each of grain and hay daily, as well as eighty pounds of water, and tried to give them a day a week for grazing. He preferred to time his expeditions into specific regions when harvests were available to feed his horses (Chamberlin 2006: 160).

Camels were used in battle and as pack animals, due to their advantage as animals adapted to an arid environment. The Arabs were apparently first to create a camel cavalry, and used them in battle against the Assyrians in the seventh century B.C. Herodotus says that Cyrus of Persia used camels to frighten the horses in the army of Croesus of Lydia (547 B.C.), and that when Xerxes brought camels into Greece, lions came down from the mountains to attack them (Hdt 1.80, 7.125–6). The city of Palmyra in Syria had a camel corps in the third century A.D., and when the Romans defeated them in 272, Queen Zenobia attempted to flee on a camel (Bulliet 1990: 87, 102–3). The camel was inferior to the horse in warfare, but Diocletian’s edict on prices indicates that transport by camel was less expensive than transport by wagon.

Elephants were captured, trained, and used on the battlefield, resulting in a constant drain on the wild population. This happened first in India around 1100 B.C., judging from Vedic hymns in which war elephants are mentioned. Indian battles sometimes involved thousands of elephants. The Persian Empire used Indian war elephants, which Alexander the Great initially met in battle in 331 B.C., and later famously in the encounter with the Indian king Porus on the Hydaspes (modern Jhelum) River. His successors used both Indian and African elephants. Both Pyrrhus and Hannibal took the great beasts into Italy to use against the Romans, both ultimately unsuccessfully. At the battle of Raphia in 217 B.C., 102 Indian elephants under Antiochus III of Syria defeated 73 African elephants of Ptolemy.
IV, collapsing the left wing of Ptolemy’s battle formation, although Ptolemy managed to win the battle. Strange to say, although in modern times African elephants are known to be considerably larger than Indian elephants, the reverse was stated by every ancient author who commented on the question (Polyb. 5.84; Plin. HN 8.9). Perhaps this was because the African elephant then known was a smaller North African species that is now extinct. The Carthaginian elephants that invaded Italy with Hannibal in the third century B.C. came from the north slope of the Atlas Mountains, but there are none there now (Scullard 1974: 24). Romans used elephants, too, if briefly: the senatorial army under Scipio and Cato that faced Julius Caesar in North Africa sent elephants into the Battle of Thapsus, which they nonetheless lost.

War dogs had an advantage over elephants. Elephants often trampled soldiers on their own side, but dogs could tell friends from enemies. Almost every ancient Mediterranean civilization used dogs in battle. Mastiffs are shown in reliefs with Assyrian soldiers. Molossian hounds from Epirus, the homeland of Olympias, mother of Alexander the Great, were the preferred breed of Greeks and Romans until the discovery of British fighting dogs, which were integrated into the Roman army (figure 5.1). Dogs were trained to attack, and often fitted with spiked collars and armor. They were also used to guard camps and warn against the approach of enemies.

![Figure 5.1](image-url) Dogs have long played a part in war, as seen here, a detail from the “Alexander Sarcophagus” depicting Alexander with one of his favorite dogs (“Peritus”); see Plut. Alex. 61.3). Painted pentelic marble. Hellenistic, ca. 325 B.C., probably by Cephisodotus the Younger, one of the sons of Praxiteles. From the royal necropolis of Sidon. Archaeological Museum, Istanbul. Photo Credit: Vanni/Art Resource, New York.

Adrienne Mayor has assembled evidence for use of weaponized animals of many species in ancient warfare, including birds, pigs, bears, rodents, snakes, bees, wasps, scorpions, beetles, assassin bugs, and jellyfish (2003: 171–206). Beehives or ceramic pots filled with various noxious creatures were catapulted at the enemy. Hannibal lobbed jars full of serpents onto the ships of
Eumenes of Pergamum. The defenders of Hatra, a site now in Iraq, facing a Roman invasion led by Septimius Severus, filled clay pots with “poisonous flying insects” and hurled them at the legionaries (Hdn. 3.9.3–8; Mayor 2003: 181–6). During sieges, the defenders were known to release stinging insects into tunnels being excavated by the attackers, as Aeneas Tacticus advised in his book, *How to Survive under Siege* (see further Millett, 65–6). The Israelite hero Samson tied torches to the tails of foxes and released them in the grain fields of the Philistines (*Judges* 15.4). Alexander the Great did a similar thing with sheep to deceive the Persians into thinking that his army was more numerous than it actually was. The source of the latter incident, the *Alexander Romance*, is unreliable, but there are many similar stories.

Even microorganisms spread in armies as soldiers were weakened by the conditions of march, encampment in hostile territory, and exposure to foreign populations and organisms. Sometimes plagues were spread deliberately among the enemy, although the danger of unintended results including reinfection of one’s own personnel is obvious. The Hittites, for example, drove infected animals into Arzawan territory during the Anatolian War of 1320–1318 B.C. (Mayor 2003: 5, 122–3). Famine and disease were companions of war among the four horsemen, and not uncommonly deaths from disease exceeded those in battle. Athens suffered from plague near the beginning of the Peloponnesian War, when Pericles as a war measure ordered the rural population to take shelter in the limited space inside the city walls. Stunning evidence of the plague in Athens has come to light in recent excavations for the Athens Metro—mass graves with scores of remains indiscriminately thrown together contrary to every ritual of death (Parlama and Stampolidis 2000: 271–3, Littman 2006). So devastating was the plague that the Spartans postponed their annual invasion of Attica in order to avoid the danger that their soldiers might too become sick. The Carthaginian siege of Syracuse in 396 B.C. ended when a plague decimated the attacking army. Had they succeeded, Rome might have come closer to losing the First Punic War. Pandemics seem to have increased in frequency when Alexander’s expedition, followed by Roman trade, made contact with South Asian populations, bringing microbes home to add to pathogens already present in the Mediterranean basin. After Augustus, Rome experienced plagues of increasing severity. Especially disastrous was the plague in the reign of Marcus Aurelius, the symptoms of which were described by the medical writer Galen. It was brought to Rome in A.D. 164 by soldiers returning from Mesopotamia, and killed as much as one-third of the population; two thousand deaths a day in the city of Rome were reported at its height. Even more destructive was the plague that engulfed the eastern Mediterranean world in the reign of Justinian (A.D. 527–565) and which continued as far west as Britain, suggesting to some scholars that it contributed significantly to the end of the ancient world (Little 2007; Rosen 2007). But plagues were disasters for Rome’s enemies, too; incursions of Huns and Vandals were blunted by them. The effects of epidemics on the Mediterranean peoples were significant. Human populations usually rebound after attacks of pathogens because survivors tend to be resistant and birthrates rise as if to replace lost numbers. But if wars interfere, losses may be repaired more slowly. Plague is associated with famine and declining agricultural production, since farmers may die from the disease or flee from the districts it attacks.

Demonstrably, ancient warfare in the Mediterranean area and Near East had important environmental dimensions, many of which were understood and intended by the participants, but others which were the unfortunate side effects of conflict. In particular, a balance with nature is a condition of peace and is upset by war as a matter of course. The direct impacts of battle were noted by ancient historians, but just as important were the effects of the military-oriented organization of societies on the natural environment and resources.


PART II
THE FACE OF BATTLE IN THE CLASSICAL WORLD
In the two decades since Victor Hanson’s *The Western Way of War* first appeared in 1989, the literature on ancient warfare has multiplied dramatically. This surge of research has greatly enhanced our understanding of classical Greek battle, while well-written surveys have quickly disseminated new interpretations to a wider audience. Still, the flood of publication has continued to follow some well-worn channels. Both popular and scholarly works continue to emphasize a few periods: the Persian invasions of Greece (490–479), the Peloponnesian War (431–404), and to a lesser extent the Theban hegemony (371–362). Despite calls to recognize the diversity of classical military practices, the *polis* armies of Athens and Sparta still hold the spotlight, and the Greek hoplite, the heavily armored infantryman, stands front and center (Hanson 2000b: 201). Meanwhile, regional developments in the Greek world, as well as the histories of non-Greek military forces, notably those of Achaemenid Persia, remain neglected (Wheeler 2007b: 187–8).

There is still space, then, for a wider view. Classical warfare was in continuous evolution from the sixth through the fourth centuries (noted by Hanson 1988: 206–7). Developments occurred across the Mediterranean basin, not just in mainland Greece. In the Aegean and in western Anatolia, the sustained interaction of Greeks, Persians, and others had important effects on battle practices. Military contacts between the mainland and the western Mediterranean world were less intimate, but Sicily and southern Italy nonetheless deserve attention. Western Greeks raised large armies and fought battles rivaling any in mainland Greece: to name just one, Akragas in 472/1, where a clash between Hieron of Syracuse and Thrasydaios of Akragas allegedly cost six thousand dead (Diod. 11.53). From Sicily too would emerge siege artillery, which would help shape the face of battle in the later classical era (see further Marsden 1969, 1971).

The Peloponnesian War has long been considered a watershed that overturned traditional war making in favor of new tactics, troops, and attitudes. Yet recent attention to the era between the “great wars” of 490–479 and 431–404 has brought a fresh perspective on fifth century changes. The fragmentary or unreliable sources for the period often tempt students and scholars to skip directly from Herodotus’s Persian War narrative to Thucydides’s detailed account of the conflict between Athens and Sparta. A closer look suggests that from 478 to 431 armies all over the Mediterranean were developing techniques such as combined arms warfare, amphibious assaults, and surprise attacks. The military systems that fought the Peloponnesian War were forged in the decades that preceded it, especially in imperial Athens’s campaigns on the periphery of the *polis* world (Wheeler 2007b: 215, 221–2). Looking beyond the “great wars,” moreover, helps moderate the widespread image of the hoplite as the dominant classical soldier and of phalanx-on-phalanx combat as the
This short chapter offers an introduction to the diverse troops, equipment, formations, and tactics that characterized the period from about 500 to 350. In an effort to expand our vision from Athens and Sparta, the chapter emphasizes regional variation and draws on examples from across the entire classical world. To the extent that the scarce evidence permits, it examines non-Greek as well as Greek military forces. It also investigates battle mechanics and the experience of battle, expanding from the excellent work already done on hoplites to look at a fuller range of classical soldiers. The chapter finishes by suggesting some potentially fruitful directions for future research.

MILITARY FORCES

Classical military forces varied widely in size and complexity. From Sicily to Anatolia, many tribal or non-state societies mustered ad hoc bands under chieftains or nobles rather than formal armies. Neighbors sometimes temporarily joined forces, as the Chalybians, Taochians, and Phasians of Anatolia did against the mercenaries of Cyrus in the winter of 401–400 B.C. (Xen. An. 4.6.5–6). Occasionally a charismatic leader successfully united tribal groups for a longer time, as the Sicel king Ducetius apparently did in Sicily during the 450s and 440s (Diod. 11.88.6; CAH 2 V.161–5; Green 2006). Tribal military forces might number a few thousand at most, and were usually much smaller. The absence of logistical support constrained the size of many war bands, for warriors reliant on plunder or individual provisioning could not long sustain themselves in the field.

In the eyes of Greek authors, tribal warriors prized martial display over tactical sense and were prone to swing between extremes of bravery and cowardice. Thucydides, for example, depicts the Chaonians of northwest Greece rushing impetuously forward, then quickly panicking (Thuc. 2.81). Although they might be extremely skilled as individuals, many tribal warriors, such as the Carduchians of Anatolia, had no apparent unit organization or rank structure (Xen. An. 4.1.10). Other groups displayed more order. The Mossynoecians on the Black Sea coast, for instance, prepared for battle by marshaling themselves in rough lines before marching forward in rhythm (Xen. An. 5.4.11–14).

One level up from war bands were the citizen militias of most Greek poleis (city-states). The army of a small polis, comprised of part-timers who provided their own equipment, might number only a few hundred men at full strength. At the start of the classical period, the entire citizenry might fight in a body regardless of armament, but from the early fifth century onward poleis armies began to divide their differing troop types into separate units. Until the later fourth century, most poleis militias had scant training or organization. They also lacked many of the trappings of an army, such as uniforms, insignia, and standards. Citizen militia did use shield blazons. At first these may have denoted individuals or families, although by the fourth century some standard city markings seem to have entered into use.¹

Larger poleis, and federal states like those of the Aetolians, Arcadians, and Boeotians evolved more complex military practices, including troop call-up systems, formal unit organization, and defined command hierarchies. Large poleis armies, such as those of Akragas and Syracuse in the west, Ephesus and Miletus in the east, and Argos, Athens, and Sparta, could field many thousands of men. The armies of larger poleis were not always composed purely of citizens. At Athens, metics or resident aliens had to serve in ranks as hoplites. Sparta required its perioikoi, subordinated
neighbors, to serve in the Spartan army. The Chians in the late fifth century enrolled slaves in their units (Rubinstein 2004: 1065–6; military roles of slaves generally: Hunt 2007: 138–9, van Wees 2007: 277–9). Large states were also better able to supply armies on campaign. Although “report with three days’ rations” remained a stereotypical instruction for Athenian hoplites, as early as 479 in Plataea, a convoy of pack animals was used to provision an army in the field (Ar. Pax 1138, Hdt. 9.39). Treaties between poleis sometimes specified ration subsidies for allied troops (Thuc. 5.47). The fleets of Athens and Carthage enabled these cities to deploy large forces on distant overseas expeditions.

The unit organizations of many large polis armies mirrored their political structures. Athens, for example, fielded its hoplites in ten regiments (taxeis), corresponding to its ten civic tribes (Xen. Hell. 4.2.19; on the Athenian levy, Christ 2001, van Wees 2004: 99). Each regiment had an elected commander (taxiarchos), and its strength depended on how many men were called up for a campaign. Subdivisions of the taxis called lochoi or “companies” are first attested in the mid-fifth century; the regimental commanders appointed captains (lochagoi) for these. By the end of the fifth century, there is evidence for Athenian lochoi moving independently on the battlefield (Xen. Hell. 1.2.3). The Athenian cavalry was likewise divided into ten tribal units. Other poleis, including Argos, Corinth, and Megara, came to use lochoi in their armies as well. Mercenary hoplites, especially those serving in Asia Minor and the Levant, also commonly used the lochos. In addition, some armies further structured their ranks with age-class systems (Singor 1999, 2002; Krentz 2007: 148).

The Spartan army was exceptional in its organization. Spartan soldiers wore uniform red cloaks and all had the letter lambda (for Lacedaemonians) painted on their shields. The army’s tactical makeup changed over time. In the fifth century, according to Thucydides, four Platoons (enomotiai) of thirty-two men each formed a company (pentekostys) of 128 men, and four companies a regiment (lochos) of 512; there were apparently five such lochoi, with perioikoi organized in separate units. By the fourth century changes had occurred as Xenophon describes two (or possibly four) forty-man enomotiai constituting a pentekostys, two pentekostyes a lochos, and two lochoi a brigade (mora). The entire army counted six morai, with Spartans and perioikoi now serving together. While scholars continue to wrestle with the details and timing of these changes, Sparta’s unit organization and officer hierarchy—every Spartan knew exactly who was in charge no matter how many casualties were suffered—made its troops tactically superior to those of any other Classical army (Anderson : 225–51; Lazenby 1985: 6–10; Singor 2002; van Wees 2004: 97–9, 243–9).

Much less information exists for the organization and command of light troops. In the fourth century, some mercenary archers and peltasts operating in Asia Minor were formed into lochoi (Xen. Hell. 4.2.5). Other light infantry units during the same period were divided into battalions (taxeis) of uncertain size, led by taxiarchoi (Xen. An. 3.1.37, 4.1.28). Commanders of archers (toxiarchoi) are known from the mid-430s onward at Athens (IG I3 138.5–7; Thuc. 3.98).

Citizens who could afford the expense sometimes hired personal weapons instructors (Pl. Lach. 179e, 181e-182d), but comprehensive training for polis soldiers remained rare. The Spartans were unique in having an entirely professional, tightly disciplined army. Some large poleis and federal states did raise bodies of logades or epilektoi, picked troops maintained at public expense. In mainland Hellas, the Argives, Eleians, Mantineans, and others deployed such units, but the Theban Sacred Band of three hundred men was the most famous of all. The Athenians had a permanent elite force in the fourth century. Picked troops also existed in the west, where Syracuse apparently deployed an elite force of six hundred in the mid-fifth century (Hdt. 9.21; Thuc. 2.25, 5.67, Plut. Pel.
Achaemenid Persia, the most complex state society of the period, retained many Assyrian military practices, including the use of an imperial army formed from a professional core backed by units of conscripts, and the combination of cavalry with archers and shieldmen (Tallis 2005: 215; Farrokh 2007; Reade 1972; Postgate 2000; Dezsö 2006). From the Greco–Persian Wars onward Iranians constituted the core, while conscripted units came from a variety of tribes, poleis, and small states. The result was a complicated mélange of military forces, perhaps intended as much to display the empire’s power as for use in combat (Briant 1999: 118–120; Cawkwell 2005: 243). The Empire’s satraps, or provincial governors, also mustered troops for garrisons and punitive expeditions. In western Anatolia and along the Levantine coast, satraps relied on mercenaries and local levies, along with smaller numbers of Persian troops. The Persian army’s superb logistical organization enabled it to raise large forces, move them long distances, and maintain them for extended periods in hostile territory.

Achaemenid commanders faced the challenge of coordinating disparate contingents of troops that employed diverse weapons, formations, and languages. Persian infantry and cavalry seem to have organized on a decimal basis: squads of ten, companies of one hundred, regiments of one thousand, and brigades of ten thousand, with officers at each level. Units were not always kept up to strength, except for the elite Immortals, whose losses were immediately replaced (Hdt. 7.81–83; Sekunda 1988: 69–70; 1992: 5–7; Tallis 2005: 215). Mercenaries and local levies recruited as units may have preserved their original structures, though it is also possible that some of them adopted Persian decimal organization (Xen. An. 1.2.16). Persian leaders often employed detachments of picked troops, some of them mercenaries, as bodyguards or escorts (Hdt. 7.41.1, 9.63.1; Xen. An. 1.1.2).

**TROOP TYPES AND EQUIPMENT**

Classical armies fielded an assortment of troops. Of these, the best-known heavy infantry type was the hoplite. Hoplites take their name from the Greek τα ἧπλα, tools or equipment, but not all hoplites were Greek. In Asia Minor the Carians, Lycians, Lydians, and Pamphylians were using hoplite equipment by the time of the Persian Wars. In the fourth century, Carian hoplites were distinguished by their white shields (Xen. Hell. 3.2.15). In northern Greece, the tribal Lyncestians fought as hoplites (Thuc. 4.124). In the west, some Hellenized Sicels adopted hoplite equipment. Assyrian and Egyptian hoplites are attested at the end of the fifth century (Xen. An. 1.8.9, 7.8.15). All hoplites carried the ἀσπίς, a large round shield of bronze-faced wood, about a meter in diameter, with a distinctive double grip. The round shield type was already common in Iron Age Near Eastern armies, including that of Assyria, but with only a single grip (Snodgrass 1964: 66–8, 233 n. 19; Postgate 2000: 103). The double grip may have been a Carian innovation; the Carians are also said to have been the first to devise helmet crests (Hdt. 1.171; Polyaeus Strat. 7.2.3).

Hoplite armor varied, especially amongst polis troops who paid for their own equipment (see further Jarva, 395–409). Wealthier men bought bronze breastplates, closed helmets that encased the head, and greaves. Poorer ones used leather or laminated fabric corselets and pilos helmets that covered only the top of the head. While the hoplite shield remained a constant, the trend over time was to shed protection for mobility. By the fourth century, some hoplites wore no armor other than pilos and cloth tunic (figure 6.1).
There were also regional differences. In the eastern Aegean, the shield apron, a leather or fabric skirt attached to the bottom of the hoplite shield, remained popular as defense against missiles. Some Boeotians perhaps carried a variant version of the hoplite shield, with crescent-shaped cutouts on the upper and lower edges, into the classical period (van Wees 2004: 50–2). Such shields remained familiar enough to appear on coins as emblems of the Boeotian federal league during the fourth century. Some Cretan soldiers may have used light oxhide shields rather than canonical hoplite versions (Jarva 1986: 2).

Hoplite side arms varied too. Greeks carried several types, including straight two-edged swords as well as the curved machete-like *machaira* or *kopis*; the Spartans preferred a short stabbing blade. Carians used sickle swords, while Lycians employed tridents or Achaemenid Anatolian daggers (for depictions see Mellink 1972: 268, Mellink 1973: 297–8, Summerer 2007a). All hoplites, though, used the same primary weapon: an eight-foot thrusting spear with a bronze head and a sharpened end spike.

The burden of hoplite gear is often overstated. Figures of up to seventy pounds for full bronze panoply have become commonplace, but close analysis shows that twenty-three kg (fifty lb) may be a better estimate. An unarmored hoplite with shield, open helmet, spear, and sword would have carried only about eleven kg (24 lb), with the shield accounting for some 6.2 kg (13.5 lb) of that burden (Lee 2007: 111–16; cf. Franz 2002: 339–49; weight of the *aspis*: Blyth 1982: 16–17).

Not all heavy infantry fit the hoplite mold. Some Egyptian infantry carried large wooden shields that almost reached their feet, plus spears and sabers (Xen. *An.* 1.8.9, 2.1.6; Xen. *Cyr.* 6.2.10, 6.4.16;
The Chalybians of central Anatolia had helmets, greaves, and linen corselets, and carried lances and knives. They impressed Xenophon with their ability to meet Greek hoplites in close combat (Xen. *An.* 4.7.15–16). Elsewhere in Anatolia, Chaldaeans equipped with lances and long wicker shields could be found as satrapal mercenaries (Xen. *An.* 4.3.4–5). In the west, the Carthaginians in Sicily deployed heavy infantry with large elephant-hide-covered shields, iron breastplates and helmets (Plut. *Tim.* 27–8).

Beyond the *polis* world, medium infantry prepared for both missile and melee combat were widespread. Persian infantry, for example, carried bows and spears, daggers, or axes (Hdt. 5.49, 6.211, 7.41, 7.61; Xen. *An.* 4.4.16–17). They wore armor of iron scales, leather, or reinforced fabric. During the Persian Wars, some Persian infantry employed the *spara* or *gerron*, a tall rectangular wicker pavise that could be held by a shield-bearer or propped up to form a defensive barrier. These tall shields appear very rarely in Greek and Persian art, and may have been used only for a brief time in the early classical period (Bittner 1985: 158–160; Sekunda 1988, Sekunda 1994: 184). The Persepolis reliefs do show many Persian spearmen carrying smaller round or scalloped shields. By the mid-fifth century, some Greek vase paintings show Persian infantry using round shields with a crescent cut out of the upper edge. A few vases also depict Persian troops wearing Greek-style corselets (Sekunda 2002: 25; Villing 2005: 239).

Peltasts were another type of medium infantry. The original peltasts were Thracians, equipped with a rimless crescent-shaped shield or *pelta*. Herodotus describes them carrying javelins and short knives, but fifth century vases show them with thrusting spears ready for close combat (Hdt. 7.74). Thracian mercenary peltasts were common in the Aegean world, and many others, Greeks and non-Greeks, eventually adopted peltast equipment. A fragmentary funeral epigram from Athens, dating circa 460, may commemorate an Athenian peltast; by circa 430 Athenian peltasts are securely attested (Thracian peltasts: Best 1969; Athenian peltasts: *IG* I 3 1381, *IG* I 3 60, Bradeen 1974: 33–4; cf. Eur. *Rh.* 311). These new peltasts sometimes used round rather than crescent-shaped shields, in both double- and single-grip versions. The recently discovered Çan sarcophagus of circa 400 depicts a peltast carrying a *machaira* and a round single-grip shield with javelins wedged behind the grip. His mixed weaponry indicates that peltasts could fight capably at close quarters, especially against disorganized foes (Çan sarcophagus: Sevinç et al. 2001; peltasts at close quarters, cf. Thuc. 7.29, 8.25). The same was likely true of the Celtic, Iberian, and Libyan infantry that various Sicilian armies deployed (Xen. *Hell.* 7.1.20, 7.1.31; Caven 1990: 244–5). In the fourth century, the Athenian Iphicrates may have developed hybrid peltasts equipped with long spears, but the details are uncertain (Wheeler 2007b 220–1; Sekunda 2007: 327–9).

Light infantry skirmishers (*psiloi*) used javelins, darts, and stones to strike from afar while relying on speed to escape attack. *Polis* armies, federal states, and tribal bands all deployed light infantry (Hdt. 7.64–80; Thuc. 1.60). Despite Thucydides’s statement (Thuc. 4.94) that Athens possessed no *psiloi* at the time of the battle of Delium in 424, light infantry were already an important component of *polis* armies at the start of the Peloponnesian War and were used throughout the war (Thuc. 2.23, 2.31, 2.79, 4.67, 6.43). Sailors sometimes deployed as skirmishers on land, as at Sphacteria in 425/4 (Thuc. 4.32–4). During his Ionian campaign of 409 B.C., the Athenian general Thrasyllus armed five thousand sailors as light infantry (Xen. *Hell.* 1.2.3). By the fourth century light infantry came to be portrayed as ideal for mountain warfare and border defense (Xen. *Mem.* 3.5.27).

Archers and slingers formed distinct classes of light troops. Cretan archers were known throughout the Mediterranean, while Acarnanian, Balearic, and Rhodian slingers enjoyed high reputations (Thuc.
Most ancient bows were relatively weak, with limited arrow range and penetration. Slingers, especially when using lead bullets instead of stones, could outrange archers. They likely practiced a variety of throwing methods besides the stereotypical overhead whirl (Sling range: Hunt 2007: 122–4; methods: Lee 2001: 16). Archers and slingers held extra missiles in bags and quivers, but the need for mobility kept them from carrying large quantities of ammunition. While Cretan bowmen are justly famous, the prominence of archers in the Athenian army is often overlooked. Although apparently absent at the battle of Marathon, they played a key role at Plataea (Hdt. 9.22). An Athenian casualty list of the Erechtheid tribe of 460/59 includes four citizen archers; citizen archers also appear in inscriptions from the mid-430s (IG I² 929.67–70, IG I³ 1147, ML 76; cf. Bradeen 1969: 149; IG I³ 138). In 431 Athens mustered no less than 1,600 archers, and Athenian archers served throughout the war (Thuc. 2.13, 4.9, 6.43). After the defeat at Sphacteria, the Spartans recruited their own archers (Thuc. 4.55).

The best cavalry of the classical world belonged to the Persian Empire. The Achaemenids fielded a wide range of horsemen, drawn from their far-flung satrapies (Hdt. 7.84–6; Xen. An. 1.8.5–7). Persian cavalry had high-quality, well-trained mounts (Hdt. 5.109, 7.196). Cuneiform documents from Babylonia describe cavalrmen equipped with bows, swords, lances, and iron corselets. Valets wearing cuirasses and helmets may have accompanied them (Tallis 2005: 216; Kuhrt 2007: 715–716, 722–3; on Persian horses: see further Hyland, 493–5). Persian horsemen could attack with missiles from a distance or engage in close combat. Xenophon, who had been on the receiving end of Persian mounted attacks, admired their equipment and tactics (Xen. Eq. mag. 12; for Persian cavalry armor see Sevinç et al. 2001, Casabonne and Gabrielli 2007).

Greek cities and federal states also fielded cavalry, of varying quality (see further Bugh 1988; Spence 1993; Gaebel 2002). In mainland Greece, the Chalcidians and Thessalians had the best mounts and riders. The Athenians fielded 1,200 cavalry, including mounted archers, at the start of the Peloponnesian War and continued using them thereafter (Thuc. 2.13, Lys. 15.6). Sparta’s cavalry was notoriously bad, and it mostly relied on allies to provide mounted contingents (Xen. Hell. 6.4.11). The Spartan unit of hippeis (“horsemen”) was actually an elite infantry guard. Most Greek cavalry was lightly armed and preferred to fight from a distance using javelins or bows. Still, armor for men and horses was not unknown and some troopers, notably the Thessalians, carried lances for shock combat.

In the eastern Aegean, Colophon was known for its cavalry (Polyaenus Strat. 7.2.2). Other Ionian Greek cities also maintained riding traditions, for the Spartan king Agesilaus was able to raise a respectable cavalry during his Asia Minor campaign of 396–5 (Xen. Hell. 3.4.15). In the west, several cities fielded powerful cavalry forces from the beginning of the classical period. Syracusan cavalry played a decisive role in the Greek victory at Himera in 480. By the early fourth century, Taras (Tarentum) fielded a force of several thousand cavalry, including a thousand specially trained men who could dismount to throw javelins and then ride quickly away. Other Greeks eventually adopted this “Tarentine” style (Xen. Hell. 7.1.20–1; Strab. 6.3.4; Sekunda 1994: 178–9; Huffman 2005: 11–12).

War chariots saw continued use during the classical period, notably on Cyprus during the Ionian Revolt of 499–494 B.C. (Hdt. 5.113). Tomb paintings from southwest Asia Minor, dating to about the same time, show Persian chariots engaging in close combat with a nomadic enemy (Summerer 2007a, 2007b). The Carthaginians were still using chariots against the Greeks in Sicily in the late fourth century (Plut. Tim. 27). The Persians occasionally fielded scythed chariots, with blades attached to
the axles. These may have been developed in the 460s to disrupt hoplite formations. Though often derided as ineffective, such chariots could be deadly when properly deployed (Nefiodkin 2004: 376–8; Cawkwell 2005: 252). Near Dascylum in 395, the satrap Pharnabazus with just two scythed chariots and four hundred cavalry routed seven hundred Greeks (Xen. Hell. 4.1.17–19). Unsupported chariot attacks, though, were easily countered, as Cyrus’s mercenaries discovered at Cunaxa in 401 B.C. (Xen. An. 1.8.20). As late as the fourth century some armies employed chariots or wagons as troop transports (Aen. Tact. 16.14–15; see also Strab. 10.1.10, Anderson 1975).

**FORMATIONS**

Much attention has been devoted in recent years to the phalanx. This classical heavy infantry formation appears to have evolved gradually over the course of the seventh and sixth centuries (see further Rawlings 18–21). At the beginning of the fifth century, the phalanx was still evolving.

The *polis* armies that fought Persia in the Ionian Revolt and defended mainland Greece at Marathon and Plataea did so using phalanxes that remained relatively loose and unstructured, perhaps without defined ranks and files. The late archaic phalanx was of mixed composition, including hoplites and missile infantry, and occasionally even horsemen (Hdt. 9.22, 9.29–30). Although armies formed up in close order for combat, individuals and contingents might still advance or withdraw on their own initiative. Battle lines could sway back and forth, as the opposing sides alternately charged and fell back.

The victories of Greek hoplites in the Persian Wars led to the idealization of massed heavy infantry combat and the exclusion of non-hoplites from the phalanx. Many scholars also argue that the all-hoplite phalanx appealed to the political sensibilities of Greek citizen-farmers, but a unified, homogeneous hoplite middle class is a modern exaggeration (see further Krentz 2002: 35–7, van Wees 2001: 61–2). The rise of Athens’s maritime empire may have influenced the movement of light troops out of the phalanx, as poorer Greeks who previously fought as light infantry now preferred to serve as rowers in the Athenian navy (see further de Souza 381–2). By circa 460, at any rate, the Athenian army seems to have divided into separate bodies of hoplites and light troops (Thuc. 1.106). Direct evidence for conditions at Sparta is lacking, but the all-hoplite phalanx probably appeared there too by the mid-fifth century.

The men of an all-hoplite phalanx stood in regular ranks and files, normally eight shields deep (Pritchett 1: 134–54). Phalanx depth varied depending on tactical circumstances and commanders’ preferences. The Thebans were notable for their massed formations, up to fifty shields deep (Thuc. 4.93; Xen. Hell. 4.2.18, 6.4.12). No classical source specifies the width of a file, but a figure of three feet of lateral space per hoplite is widely accepted. The three-foot interval has been employed to estimate the length of hoplite lines at specific engagements, and to test these estimates against battlefield topography (cf. Pritchett 1969: 32–5, and van Wees 2004: 185–6). Wider spacing was also apparently not used to extend the length of a hoplite line. Instead, commanders preferred to reduce phalanx depth if they needed to stretch their line. Non-Greek heavy infantry such as the Egyptians seem to have employed massed formations akin to the phalanx (Xen. Cyr. 7.1.33; Xen. An. 1.8.9).

Little study has so far been made of other infantry formations. Persian infantry in the early classical period used a mixed arrangement of archers and shield-bearers, based on earlier Assyrian practice but possibly with a greater proportion of bowmen (Sekunda 1988: 69–70; Tallis 2005: 216–
If equipped with large wicker shields, either propped up on stands or held by shield-bearers, Persian spearmen could form a loose defensive line, from behind which archers could loose their volleys (Hdt. 1.214, 9.62, 9.102). Once archery had demoralized their enemy, the troops followed up with hand weapons. This formation was effective against hoplite forces in Egypt and during the Ionian Revolt (Hdt. 5.102, 5.119), but less successful in the wars of 490–479, when Persian infantry found their short spears wanting in melee (Hdt. 9.63, 9.102). Although evidence is scarce, Persian battle formations seem to have been changing in the mid-fifth century, perhaps around the time the all-hoplite phalanx was coming into being. Smaller round shields may have supplanted large wicker ones, with archers and spearmen eventually splitting into distinct units. By the battle of Cunaxa in 401, Artaxerxes seems to have employed at least some solid infantry formations, with separate units of bowmen (Xen. An. 1.8.9–10). In the fourth century the Persians may have attempted to equip some of their own troops in hoplite fashion (on these see Sekunda 1992: 52–3, Briant 1999: 120–22). They certainly made increasing use of Greek hoplite mercenaries.

Classical cavalry formations depended on armament and mission. Light cavalry discharging missiles in relays or caracoles required a looser arrangement, while deep, tight formations were better for charges. Most Greek cavalry drew up in squares or wedges, though the Thessalians preferred rhombus or diamond arrays (Spence 1993: 109, 178). Some Persian cavalry in Asia Minor used an extremely deep column that easily bested a four-deep Greek mounted line (Xen. Hell. 3.4.13–14). As Xenophon’s manual on cavalry command reveals, riders and mounts required intensive training to maneuver effectively. Persian horses were sometimes specifically trained to fight hoplites (Hdt. 5.111).

Peltasts and other light troops fought in open order, sometimes dispersed enough for charging cavalry to pass harmlessly through (Xen. An. 1.10.6). The absence of regular ranks and files, though, did not leave light infantry free to roam across a battlefield. Officers needed to be able to move their units, direct their fire, and withdraw or rally them when necessary. How officers maintained control goes unrecorded in our sources, but it may be that trumpet calls or other signals were used to control the movements of light troops. Skirmishers may also have practiced prearranged battle drills, lessening their need to receive orders while in combat.

**Battle**

Though most of the evidence for pitched battle between phalanxes comes from the Peloponnesian War, Greek armies were fighting such battles throughout the early and mid-fifth century, in mainland Greece and elsewhere. Some were extremely bloody affairs: perhaps up to four hundred of the one thousand Argive allies of Athens who fought at Tanagra in 458/7 were killed (ML no. 35; Thuc. 1.108). Despite intensive scholarly scrutiny, the mechanics of pitched battle between two phalanxes remain obscure. Some see a hoplite clash as a literal shoving match, while others take the term *othismos* (“pushing”), used in ancient battle descriptions, more metaphorically (Wheeler 2007b: 205–13). Men may have begun with spear thrusts over the wall of their own shields, aiming for eyes and exposed limbs. As spears shattered and ranks broke down, they could resort to swords and broken spear ends. At some point one side would recoil or break. If troops discarded shields to flee in panic, their victorious opponents could easily cut them down (figure 6.2).
While phalanx-on-phalanx clashes among Greek *poleis* did display some ritual elements, including speeches, sacrifices, and post-battle truces, much of what used to be considered archaic and agonistic in Greek battle probably evolved as nostalgia for an imagined past in the fifth century (so Krentz 2002). The search for the “typical” phalanx clash, at any rate, has obscured the diversity of activity that could appear in pitched battle between hoplites. In 425, for example, an Athenian force of hoplites and cavalry made an amphibious landing at Solygeia in Corinthian territory. The Corinthians hurried troops to meet them, resulting in a seesaw battle where hoplites took shelter in a village and behind walls, threw stones, and alternately gave ground without either side fleeing the field (Thuc. 4.42–44).

The mechanics of pitched battle between hoplites and non-hoplite infantry are extremely difficult to elucidate. Herodotus writes of the fighting between Greeks and Persians at Marathon, Plataea, and Mycale as long and drawn out (Hdt. 6.113, 9.62.2, 9.102.2). While such descriptions could be mere rhetorical flourish, they might just have some basis in reality, considering the looser structure of the early classical phalanx, and the nature of the tall Persian shields, which created a barrier between opposing forces. At Plataea and Mycale, only after the Persian shields fell did the two sides come to close quarters. With their inferior armor and shorter hand weapons, the Persians were then at a disadvantage. Persian soldiers may also been less inclined or trained to keep in formation, instead dashing out to attack in small groups, as they did against the Greek line at Plataea. Further pitched battles between Greeks and Persians occurred after Mycale, notably in Egypt in the 460s (Diod. 11.74), but little evidence survives about their conduct. Xenophon’s description of Cunaxa in 401, though, makes no mention of a shield wall or of mixed archer–spearman formations, but focuses on the solid blocks of Persian infantry and on the rapid Persian flight when faced with a hoplite charge.

Greek literary descriptions such as Xenophon’s have led some to conclude that Persians eschewed...
close-in fighting in favor of missiles, but Achaemenid art shows differently. Grave stelae, tomb paintings, and cylinder seals depict Persians victorious in close combat (Mellink 1972: 267; Bruns-Ozgan 1987: 290; Boardman 1988: 66–7; Sevinç et al. 2001; Summerer 2007b). Whether or not they depict specific historical events, the prominence of such scenes reveals that Persians as well as Greeks valorized victory in close combat. Some Persian commanders even became experts at making sudden cavalry attacks on disorganized infantry (Xen. An. 6.4.24–5, Hell. 4.1.17).

The Persians may also have taken the first steps toward combined arms tactics that employed infantry, cavalry, and supporting troops in tandem. At Malene in Asia Minor (494?), the Persians under Harpagos defeated rebel Greeks by using an infantry assault combined with a cavalry flank attack (Hdt. 6.29). The literary record is backed by Achaemenid art from Anatolia, which shows many scenes of combined arms attack. To coordinate their units, the Persians pioneered the use of battlefield standards (Hdt. 9.59.2; Xen. An. 1.10.12–13). They were not always successful: at Plataea, their commanders failed to mesh infantry and cavalry assaults (Hdt. 9.23, 9.59). Persian commanders continued to innovate throughout the period. Cyrus’s tactics at Cunaxa, where he fought his brother Artaxerxes for the Achaemenid throne, provide a good illustration. Cyrus attempted to fix the opposing line with his infantry, then charged straight for the enemy commander at a crucial moment—foreshadowing the tactics that Alexander would use (Xen. An. 1.8.12–26). By the 390s, Persian commanders in Anatolia seem to have become quite familiar with how to deploy combined arms forces for battle (Xen. Hell. 3.2.15).

Other early steps in the development of combined arms warfare occurred on Sicily. In 480 Gelon of Syracuse was the first Greek to field a true combined arms army, with hoplites, cavalry, archers, slingers, and other light troops (Hdt. 7.158; Diod. 11.21.1; Sekunda 1994: 179–80). In mainland Greece, cavalry and infantry were used together early on, at first without much coordination. The Pisistratids, for example, twice used Thessalian cavalry against Spartan invaders, but on both occasions the cavalry seems to have attacked separately (Hdt. 5.63–4). Athenian hoplites and archers fought well together at Plataea, and in 458 an Athenian force of hoplites and light troops maneuvering in concert trapped and annihilated part of a retreating Corinthian army near Megara (Thuc. 1.106). By the outset of the Peloponnesian War, commanders were well aware of the need to coordinate different arms. At Potidaea in 432, for instance, the Corinthian Aristeus planned to trap advancing Athenians between his own infantry and allied cavalry (Thuc. 1.62). At Spartolus in 429, both the Athenians and their Chalcidian opponents deployed mixed forces of hoplites, cavalry, and light infantry; the Athenians lost because their light troops were unable to support their hoplites effectively (Thuc. 2.79). During and after the Peloponnesian War, Greek commanders practiced combined arms battle, and Epaminondas, perhaps the greatest classical polis tactician, might have continued to innovate had he not been killed at Mantinea in 362 (on Epaminondas see further Buckler 657–70).

The Spartan take on combined arms was to develop the tactic of “running out”—sending the youngest, swiftest hoplites out from a phalanx in a countercharge against attacking infantry or cavalry. The Spartans typically dispatched the first ten age classes (ages 20–29), although in desperate situations the first fifteen classes (ages 20–34) might go (Xen. Ages. 1.31, Hell. 3.4.23, 4.5.14–16, 4.6.10, 5.4.40). “Running out” worked so well that the Spartans in the early fourth century became dismissive of the peltast threat (Xen. Hell. 4.4.16–17). Their overconfidence caught up with them at Lechaemum near Corinth in 390, where Athenian peltasts and hoplites working in tandem cut down most of the men of a Spartan mora (brigade) despite its resort to the tactic. Armies without age classes developed their own versions of “running out,” and the Athenians may have adopted an age-
Another style of combined arms fighting entailed the use of cavalry and light infantry together in the same unit. Such a combination seems to have been first used by Gelon of Syracuse in the 480s (Hdt. 7.158.4; Spence 1993: 30). From the middle years of the Peloponnesian War light infantry known as *hamippoi* ran into battle alongside cavalry; the Boeotians made frequent use of them (Thuc. 5.57). Others, including the Athenians, adopted the fashion during the fourth century.\(^4\)

Hoplites could also respond to light infantry and cavalry by forming a hollow square (*plaision*). The tactic is first attested in 423, when the Spartan commander Brasidas formed his troops into a rectangle to ward off attacking Lyncestians (Thuc. 4.125). A decade later the Athenians in Sicily used the *plaision* (Thuc. 6.67.1, 7.78.2). The Cyrean mercenaries, on their retreat up the Tigris and across Anatolia, perfected the *plaision*, even using it to protect their baggage and noncombatants on long marches (see further Lee 2007: 155–63). Through the Cyreans the formation reached the Spartan army in Asia Minor, and was used by Agesilaus (Xen. *Hell.* 4.3.4). Infantry squares worked best when they were not purely passive. Brasidas, for instance, deployed his youngest soldiers to countercharge attacking troops. The Cyreans, and later Agesilaus, used their own cavalry and light troops to bite back (Thuc. 4.125; Xen. *An.* 4.2.16, 7.3.46).

Cavalry was important but not dominant on the classical battlefield. At Plataea, Theban horsemen covered the Persian retreat, staving off total disaster (Hdt. 9.68). Soon after the Athenian Aristides proposed a joint Hellenic force of infantry and cavalry to fight the Persians (Plut. *Arist.* 21). Cavalry were difficult to transport by sea, though, and the major Greek operations of the 470s–460s were overseas, limiting its use. The Athenian democracy, moreover, was not interested in supporting an aristocratic cavalry force. The Athenians tried to compensate with allied Thessalian cavalry, but these were sometimes unreliable. At Tanagra in 458/7, the Thessalians went over to the Spartans, perhaps causing the Athenians to lose the battle (Thuc. 1.107; Diod. Sic. 11.80). In the Peloponnesian War, cavalry was employed to harass invaders, screen advances, and conduct reconnaissance (Thuc. 3.1). Horsemen were often relegated to the wings of phalanxes for pitched battle, but cavalry charges were decisive factors in some battles, especially when against surprised or outflanked enemies (Thuc. 2.79.6, 4.44.1, 4.94.5). Agesilaus during his Asia Minor campaign and during the wars against Thebes had some success with cavalry in combined arms battle (Xen. *Hell.* 5.4.39–40). So too did Epaminondas in the 370s and 360s. Not until the age of Philip II, though, would the mounted arm achieve its fullest use.

**Other Kinds of Fighting**

Pitched battle was not the only sort of combat. Across the classical world, raids, skirmishes, and border spats were common. All types of soldiers, including hoplites, participated in these actions. Hoplites, archers, and javelin men also found increasing use as marines in naval battles. Siege warfare became increasingly common in the Aegean during the mid-fifth century B.C., as the Athenian empire expanded. The Athenians besieging Samos in 440 are said to have been the first Greeks to use rams and covered platforms to attack city walls continuously (Plut. *Per.* 27.3; Diod. 12.27–28; Green 2006: 219–20; Strauss 2007: 237–8). Sicily, where siege artillery was first developed, also witnessed numerous sieges and assaults on city walls. Perhaps the most famous of these occurred at Motya in 397, where Dionysius I employed catapults, rams, and wheeled towers to force his way into
the city (Diod. 14.49–53). Classical soldiers also found themselves building and defending field fortifications, at Pylos, around Sicily, in Asia Minor, and elsewhere.

Surprise attacks were not unknown even at the start of the classical era, and they continued to be used throughout the period. In 546 Pisistratus finally succeeded in gaining control of Athens by attacking the Athenian army just after it had finished its midday meal (Hdt. 1.62). In the 460s, the Athenian Cimon disguised part of his force with captured Persian gear, enabling him to raid a Persian encampment at the Eurymedon after dark (Diod. 111.61; cf. Polyaeus, Strat. 1.34.1). Throughout the period, men who left camp to forage for food or firewood had to face the possibility of surprise attack, especially from enemy cavalry. Surprise attacks on cities continued on into the fourth century, and the military writer Aeneas Tacticus devoted particular attention to defense against such assaults.

Urban combat was another notable aspect of the classical battle experience. From the allied Greek assault on Sardis in 498 (Hdt. 5.99–102), to the battles in Syracuse throughout the 460s (Diod. 11.67–76), to the Athenian civil war of 403 (Xen. Hell. 3.4.11–19, 3.4.30–34), soldiers found themselves fighting in houses and streets, temples and marketplaces. In such situations, formations and command control often broke down, as men slaughtered each other savagely in dark corners of cities. Women played an important role in urban combat, often by throwing tiles and stones from rooftops (urban combat: Lee 2010; women and urban warfare: Hornblower 2007: 43–6).

CONCLUSIONS

The story of classical battle is often told through the famous clashes of Marathon, Thermopylae, Mantinea, and Delium. While these struggles deserve the attention they receive, taking a wider look reveals how much more research remains to be done. In addition to moving beyond mainland Greece to look at regional developments in the eastern and western Mediterranean, there is much room for additional work on the Persian army and on other non-Greek military forces of the period. The study of classical battle might benefit greatly from archaeological reconstruction of arms and armor, and from practical experiments performed under controlled scholarly conditions. These methods have been utilized with great success in Roman army studies, but have so far seen little use in regard to Greek warfare (Griffiths 2000 is good reading for those considering this approach; Aldrete et al. 2013 demonstrate the potential of archaeological reconstruction for classical equipment studies).

Battlefield archaeology also has the potential to yield rich rewards. While archaeological survey of many battle sites may be impractical, analysis of urban battle at excavated sites such as Olynthus or new surveys of isolated battle locales such as Sphacteria may produce new evidence to supplement the existing body of textual and material evidence. Mortuary studies of classical battlefield dead also have great promise. Some of the most famous monuments, that might have yielded material for such studies, were dug up late in the nineteenth century and never properly examined. Recent work on the surviving Theban and Macedonian skeletal remains from the field of Chaeronea casts new light on the gruesome battle injuries that classical soldiers suffered, and on the use of monuments to reshape memories of the battle (Ma 2008). And there is always the possibility of new evidence. In Sicily near the site of ancient Himera, archaeologists have recently uncovered mass graves of soldiers, apparently casualties of several fifth-century clashes involving Greeks and Carthaginians (Vassallo 2009). When fully excavated and studied, this unprecedented collection of remains will undoubtedly further reshape our understanding of battle in the Classical world.
BIBLIOGRAPHY


Griffiths, W. B. 2000. “Re-enactment as research: Towards a set of guidelines for re-enactors and academics.” 

Hanson, V. D. 1988. “Epameinondas, the battle of Leuktra (371 B.C.) and the ‘revolution’ in Greek battle tactics.” 


In 317 B.C., the army of Antigonus the One-Eyed faced that of Eumenes of Cardia at Paraetacene and Gabiene, coming to grips with the most illustrious of Macedonian veterans, the vaunted Argyraspides or “Silver Shields.” Plutarch, in his *Life of Eumenes* (16.7), says of them:

Indeed they were the oldest soldiers of Philip and Alexander, the athletes of war, so to speak, undefeated and without a fall up to that point in time; many were seventy years old, and none was younger than sixty.

Plutarch’s estimate of their ages, based on a primary source (Hieronymus of Cardia or possibly Duris of Samos), is doubtless somewhat exaggerated, although troops enrolled in this unit (known at the time as the *pezhetairoi*) in the early 350s could easily have been in their sixties in 317. What is noteworthy, however, is that we have in the three thousand Argyraspids a rare example of a unit whose history can be traced through four and a half decades and whose membership remained relatively constant, if we allow for a reasonable number of casualties. No other unit in Alexander’s army attained similar fame (and notoriety), and none was assigned such a critical and varied range of tasks during the campaigns of Macedon’s two most famous kings. In the end, they reaped as their rewards only the scars of war, having reached the threshold of old age bereft of their accumulated plunder and threatened with the loss of their loved ones; some, indeed, were exposed to dangers and hardships in Central Asia in the service of the satrap Sibyrtius (Polyaenus, *Strat.* 4.6.15; Plut. *Eum.* 19.3; Diod. 19.48.3–4; see Heckel 2006: 248–9).

**PEZHETAIROI, HYPASPISTAI, AND ARGYRASPIDES: TERMINOLOGY, FUNCTIONS, ORGANIZATION, AND NUMBERS**

**Stage One: Philip’s Pezhetairoi**

Arrian, in his account of Alexander’s Asiatic campaigns, speaks of units known as *pezhetairoi* (“foot companions”) or *asthetairoi* (the meaning of the word is uncertain: see Bosworth 1973; Hammond 1978; Griffith, in Hammond-Griffith 1979; Goukowsky 1987; Heckel 2009; English 2009: 25–7; Anson 2010), of which the latter is clearly a subset of the former. These were the *sarissa*-bearing, territorial levies, who between 334 and 330 numbered six *taxeis* (each comprising 1,500 soldiers)
and then, at some point after 330, seven (Milns 1967; Heckel 1992: 320–3). But the pezhetairoi of Philip II were clearly not the same troops (that is, in terms of fighting style and recruitment) as those of the same name who served with Alexander. The name appears to have been given to the sarissa-bearing, territorial levies in Alexander’s reign to honor them as the infantry counterparts of the hetairoi (“Companions”) or, more specifically, he hippos he hetairike (“the Companion Cavalry”).

The pezhetairoi of Philip II were the elite troops, known to us from the Alexander historians as the hypaspistai. This, at least, is how we may interpret the combined evidence of Theopompus (FGrH 115 fr.348 = schol. Demosthenes, Ol. 2.17), who says that soldiers “specifically selected (epilektoi) from all of the Macedonians as the biggest and strongest served as bodyguards (i.e., as doryphoroi) of the king and were called pezhetairoi,” and of Anaximenes (FGrH 72 fr.4), who claims that pezhetairoi were formed by a king named Alexander. Theopompus is clearly not speaking of the territorial levies (as the reference to epilektoi shows) but rather of an elite unit to serve as the king’s guard; Anaximenes on the other hand refers to the mass of infantry sarissophoroi (but see also Griffith, in Hammond-Griffith 1979: 705–09; Erskine 1989). And, although Theopompus gives no explicit indication of when this unit was formed, the likelihood is that it came into being early in the king’s reign, that is, in the early to mid-350s (as Demosthenes’s Olynthiacs date to 349, it is certain that the pezhetairoi existed in the 350s; Anson 1985: 248, suggests 358). This would certainly suit the claims of the Argyraspids to seniority and lengthy service under both kings.

Nor are we told how many of these elite soldiers Philip II recruited. But, since there is a tradition that the Argyraspids had a long and uniform history, and since the number of the Argyraspids (three thousand) corresponds to the number of Alexander’s hypaspists, the size of the unit in Philip’s day was probably not much smaller. And, although the twelve thousand infantrymen who remained with Antipater in Europe in 334 (Diod. 17.17.5) may have included three thousand hypaspists (or some similar unit), the three thousand hypaspists who accompanied Alexander to Asia were Philip’s former pezhetairoi. This is clear from their claims in 317 and also the a priori argument that Alexander would not have left his best troops behind, especially when this troop served as the king’s footguard. Furthermore, two of the hypaspist commanders (Atarrhias and Hellanicus) were described as aging veterans as early as the siege of Halicarnassus in 334 (the first year of the campaign), and a third commander of hypaspists, Antigenes, is reported to have lost an eye at Perinthus in 340/39 in the service of Philip II (Plut. Mor. 339b = de fort. Al. 2.7; but Plut. Alex. 70.4–6 calls this man Tarrhias, probably a short form or corruption of Atarrhias; Billows 1990: 27–9 implausibly believes that there is a confusion of Antigenes and Antigonus).

**Stage Two: Alexander’s Hypaspistai**

Macedonian hypaspists are first attested in Alexander’s campaign against the so-called independent Thracians at the beginning of his reign (cf. Arr. 1.5.2 suggesting non-Macedonian hypaspists for Langarus, king of the Agrianes, in 336/5). But the agema of the hypaspists, which Alexander leads on the Macedonian left, may have been a smaller group of noble young men, also referred to as the hypaspistai basilikoi (“royal hypaspists” or “the king’s own hypaspists”: cf. Heckel 1992: 245–53). Nevertheless, they are clearly present in the skirmishes with the Illyrian forces of Glaucias and Cleitus at Pellium (Arr. Anab. 1.5.10) and at Thebes some time later (Arr. Anab. 1.8.3). At the battle of the Granicus River in 334 they appear in their regular position as the articulating force between the Companion Cavalry and the six heavier taxeis of the pezhetairoi, who at this time numbered nine thousand (Arr. Anab. 1.14.2); we find the hypaspists in the same position at Issus and Gaugamela, and
in each case their commander, the *archihypaspistes*, is Nicanor son of Parmenion.

Curtius Rufus (5.2.3–5, a passage that will be discussed below) claims that, before 331, the Macedonians had not organized their troops into chiliarchies (units of 1000) but rather into pentakosiarchies (groups of five hundred). And, indeed, Arrian 4.30.5–6 speaks of three chiliarchies of hypaspists in the Indian campaign of 327: a certain Antiochus commands his own chiliarchy of hypaspists and two others. But Arrian (Anab. 1.22.7) calls Adaues *chiliarches* at Halicarnassus in 334, and it is probable that he and Timander, who is mentioned together with him (and as commander of his own *taxis*) were hypaspist commanders (Bosworth 1980: 148–9, cf. 320–1). If anything, Curtius describes a system in which pentakosiarchs were selected on the basis of merit, but his comments on chiliarchies is clearly mistaken. Alexander cannot have created eight or nine chiliarchies of hypaspists at this stage, and it is extremely unlikely that the men selected on the basis of merit in Sittacene were leaders of other units—certainly not, as some have suggested, commanders of the territorial phalanx. In fact, as we shall see, it is likely that Alexander selected three chiliarchs and six pentakosiarchs in Sittacene, and this would be consistent with the view that the strength of the hypaspists was three thousand (see also English 2009: 31–5).

Just as in the days of Philip II, the hypaspists continued to be *epilekttoi* rather than territorial levies, and their foremost function was to guard the king in battle and at the court. Hence they are occasionally referred to imprecisely as *doryphoroi*. In addition to guard duty, the hypaspists also served as a police force: in this capacity, some three hundred men were sent with Atarrhias to arrest Philotas in Phrada in autumn of 330 (Curt. 6.8.19–21) and it was the hypaspists who arrested the ringleaders of the Opis mutiny in 324 (Arr. Anab. 7.8.3). Nevertheless, their most important military quality was their versatility. Not only did they provide that vital link between the *sarissa*-bearing heavy infantry and the cavalry on the right wing—at the Granicus, Issus, and Gaugamela—but they were detached from the main force when missions required speed, agility, and endurance (particularly in the mountain warfare of the Uxian and Swat campaigns), and they usually played a decisive (and dangerous) role in siege warfare.

**Stage Three: Argyraspides**

The Argyraspids are perhaps the most famous (and notorious) fighting unit in the history of Alexander’s Successors. They are hardened, and cantankerous, veterans, numbering three thousand and commanded by Antigenes and a previously unattested Teutamus. Robert Lock proposed that they were, in fact, newly formed at Triparadeisus in 320 and assigned the task of conveying the Susan treasures to Cilicia under the command of Antigenes (Lock 1977). But this argument fails on a number of counts. That the *argyraspides* are the former hypaspists of Alexander is clear, and it is perverse to think otherwise (see Heckel 1982, 1992: 309–10). Diodorus (17.57.2) and Curtius (4.13.27) refer to the hypaspists at Gaugamela anachronistically as Argyraspids, showing that their common source was aware of their later history. The nominal strength of the Argyraspids was, like that of hypaspists, three thousand, and both units were named for their shields (*aspides*). Antigenes, the chief commander of the Argyraspids, was also a hypaspist commander. And, finally, the troops of Antigenes were among those who returned with Craterus, first from India via the Mullah Pass (Arr. Anab. 6.17.3, where we find a large number of *apomachoi*) and then from Opis along with the demobilized veterans (Justin 12.12.8).

The exact point at which the hypaspists began to adorn their armor with silver and took the name
argyraspides is uncertain. We do know that the change occurred in the Indian campaign, which began in the spring of 327. Curtius (8.5.4) says that, on the eve of the Indian expedition, Alexander “added silver-plating to his soldiers’ shields, gave their horses golden bits and ornamented their cuirasses with either gold or silver” because he had heard of the splendid arms found among the Indians. This remark is echoed by Justin 12.7.5) who says that the entire army was called argyraspides (exercitumque suum ab argenteis clipeis Argyraspidas appellavit). But this is nonsense: there would have been no point in calling a unit the “Silver Shields” if all soldiers carried shields plated with silver. Furthermore, it seems remarkable that, within a year and half, this splendid army should have found itself at Hyphasis “in rags” and Coenus, as the spokesman of the troops, could claim: “Our weapons are already blunt; our armour is wearing out” (Curt. 9.3.10). It may be, however, that the reference to the assumption of new armor is anachronistic. We are told that after the Hyphasis mutiny the army returned to the Hydaspes, where they found twenty-five thousand new suits of armor that had been brought from the west (Curt. 9.3.21; Diod. 17.95.4).

Finally, it is noteworthy that, after the creation of the Silver Shields, the Alexander historians continue to refer to hypaspists in the king’s army. This is exactly what we should expect, but we must be clear that these were the troops who replaced Philip’s veterans in this capacity. When Alexander took the army through the Gedrosian desert, he had with him the hypaspists, even though Antigenes (and one must assume that he was then leading the Argyraspids) accompanied Craterus into Drangiana via the Mullah Pass. Hence we find that, after the dismissal of the Argyraspids from Opis in 324, a full contingent of hypaspists remained with Alexander at the time of his death in the following year and continued to serve in the Royal Army under Perdiccas.

COMMANDERS AND INTERNAL ORGANIZATION

Command of the entire unit belonged, as we have noted above, to the archihypaspistes (Nicanor son of Parmenion from 334 to 330; Neoptolemus from 330 until 323). But Curtius 5.2.3–5 speaks of a reorganization of command in Sittacene in 331, claiming that new commanders of chilarchies were selected on the basis of valor. The so-called contest was, however, not one in which individuals engaged in combat (as in the case of funeral games). Instead, it amounted to oral testimony given by others concerning the merits of certain individuals (particularly, notable accomplishments in the past), followed by the decision of judges. At this point, it is worth quoting Curtius in full:

Those adjudged to possess the greatest valor would win command of individual units of a thousand men and be called “chilarchs.” This was the first time the Macedonian troops had been thus divided numerically, for previously there had been companies of 500, and command of them had not been granted as a prize of valor. A huge crowd of soldiers had gathered to participate in this singular competition, both to testify to each competitor’s exploits and to give their verdict to the judges—for it was bound to be known whether the honor attributed to each man was justified or not. The first prize of honor went to Atarrhias for his bravery; it was he who had done most to revive the battle at Halicarnassus, when the younger men had given up the fight. Antigonus was judged second, Philotas the Augaean gained third place, and fourth went to Amyntas. After these came Antigonus, then Amyntas Lyncestes, Theodotus gaining seventh…and Hellanicus last place. (Curt. 5.2.3–5; see further the textual problem in 5.2.2, noted by Atkinson 1994: 57; also Atkinson 1987)

But Curtius cannot be right in assigning to each of the nine victors the rank of chilarch, nor is it plausible to assume that these reforms involved the phalanx battalions of the pezhetairoi (thus Milns 1967 and Atkinson 1987). To begin with, it is clear that the individuals in question are all men of relatively humble birth. Of the eight names that have survived only one is attested elsewhere with a
patronymic: Atarrhias son of Deinomenes (Plut. Mor. 339b; Heckel 2006: 60). Those of this group who can be identified are all associated with the hypaspists, a unit which had been organized into chiliarchies since the beginning of the Asiatic campaign, if not earlier. And this was the very unit that was recruited on the basis of physique, fighting qualities, and merit. To put men of this social class in command of territorial levies, who had a long tradition of serving under their aristocratic leaders, would be unheard of and unacceptable to the troops themselves. Hence Curtius must have confused the nature of this reorganization. Instead of selecting chiliarchs to command enlarged formations, Alexander was now designating both chiliarchs and pentakosiarchs on the basis of merit.

In fact, the three chiliarchies of the hypaspists, each with two pentakosiarchies, would require exactly nine officers at these two levels. Hence we may conclude that Atarrhias, Antigenes, and Philotas the Augaean (possibly, “Aegaean”) were appointed chiliarchs. Not surprisingly we find that, in the following year, the most prominent individual associated with the hypaspists is none other than Atarrhias. And it was Antigenes who attains prominence in India and is the commander of the Argyraspids, the unit into which the hypaspists had been transformed (in India). About Philotas we know nothing, but it is unlikely that he is the famous infantry commander who later served briefly as satrap of Cilicia (Heckel 2006: 219; “Philotas [6]”). The remaining six served as pentakosiarchs under their respective chiliarchs.6

**WEAPONRY AND FIGHTING**

Unlike the pezhetairoi and asthetairoi, the hypaspists (and the later Argyraspids) did not normally carry the sarissa. This (in Alexander’s time) fifteen- to eighteen-foot pike was far too unwieldy for the types of maneuvers required of the hypaspists. Instead, their weaponry and armor was similar to that of the Greek hoplite. The helmet was of the Phrygian variety, with cheek pieces (which the pezhetairoi did not need) and a tapering crest that cushioned and deflected blows from above. The cuirass was the linothorax, which gave ample protection but afforded greater mobility; at the bottom of the linen corselet, below the waist, were pteruges, which shielded the groin and upper thigh, but also gave the hypaspists the flexibility to mount a horse if called upon to do so. (Such activity is attested in Illyria and in the pursuit of Darius III south of the Caspian.7) Hypaspists carried the larger hoplon (some three feet in diameter, as compared with the smaller shield of the pezhetairoi: see Heckel and Jones 2006 for details and literature) and the regular spear favored by hoplites (dory), keeping in reserve the thrusting and slicing sword (xiphos), instead of the cleaver (kopis) of the cavalryman. Greaves were probably also used in battle and sieges, though one suspects that these might have been discarded in mountain warfare. The infantrymen thus depicted, interspersed with the cavalrymen, on the Alexander Sarcophagus are undoubtedly the king’s hypaspists (figure 7.1). Later, at Paraetacene, the Argyraspids fight against the mercenaries in Antigonus’s army, the latter almost certainly hoplites, and there is no suggestion that their success was owed in any way to the use of the sarissa; here again the former hypaspists of Alexander appear to have fought as hoplites (see below).8
Thus equipped, the hypaspists could fight in regular hoplite formation, disperse among the cavalry and serve as *hamippoi*, proceed more nimbly in broken terrain (unencumbered by the *sarissa* and the weight of leather or metal cuirasses), and scale the walls of cities under the protection of their larger shields.

**THE (MIS)FORTUNES OF WAR**

In 324 it seemed that the Argyraspids had seen the end of an extremely long tour of duty. Antigenes and his men were sent home from Opis with the other demobilized forces under the command of Craterus, reaching Cilicia no earlier than the beginning of winter 324/3. But their return to Macedonia was preempted by events in Cilicia itself and, later, in Babylon and Greece. When Craterus and the veterans reached Cilicia, the satrapy was in disarray. Its governor, Balacrus son of Nicanor, had been killed in battle with the Pisidians (Diod. 18.22.1; *contra* Bosworth 1980: 219; Billows 1990: 44–5), and in the absence of authority the Imperial Treasurer, Harpalus, who had fled Babylon when he learned of Alexander’s impending return from the East, had paused for some time in Tarsus. When Craterus arrived, Harpalus was already in Athens. But the satrapy was in urgent need of reorganization and defense; furthermore, it may be the case that Craterus and his veterans turned their attention to Alexander’s fleet-building program, which looked ahead to his North African campaign (Ashton 1993: 127–9). Whatever their activities in Cilicia, these were thrown into further confusion by Alexander’s unexpected death at the beginning of June, and the outbreak of the Lamian War in Europe.
Torn between the need to secure his own authority in Babylon, where his supporters had secured for him the *prostasia* of the inept new king, Philip III Arrhidaeus (Arr. Succ. 1.3), and Antipater’s appeal for reinforcements in Europe (Diod. 18.12.1), Craterus eventually put the affairs of the homeland ahead of his personal ambitions. Craterus now resumed his march to Macedonia, leaving a certain number of his troops (probably around 1,000) with Cleitus, who had taken charge of the fleet and was preparing to bring it out of Levantine waters and into the Aegean. The three thousand Argyraspids under Antigenes’s command remained in Cilicia for the time, presumably guarding the treasures in Cilicia in his absence. When the Argyraspids were assigned the task of transporting the treasures from Susiana (Antigenes’s satrapy) to Cyinda in Cilicia soon after the settlement of Triparadeisus, they may have been reprising their earlier assignment, for it is clear that they could not have accompanied Perdiccas to the Nile in 320 unless they had remained behind in Cilicia. Guard duty appears to be the most plausible explanation. Craterus augmented his army with new recruits from Asia Minor.

Diodorus (18.16.4) describes the force that returned to Europe in the following words: “As far as infantry were concerned, he took six thousand of those who had crossed into Asia together with Alexander, and another four thousand whom he picked up along the march.” Some scholars have taken the Greek to mean that Craterus’s infantrymen were composed of two groups: those who had crossed the Hellespont with Alexander in 334 and those who joined him in the course of the campaigns. But would a historian actually be capable of making such a distinction. For it is unlikely that, after eleven or twelve years of service, the troops would have been distinguished in such a way. It is more likely that those who were picked up “along the march” were new recruits or satrapal units enlisted by Craterus on his way to Macedonia. The Argyraspids remained in Cilicia, entrusted with the protection of the satrapy, its new ruler (Philotas), and the treasury at Tarsus. Disappointed in their hopes of returning with their accumulated booty and their new families to Macedonia, they may still have found solace in the belief that guard duty in Cilicia promised them a condition of semiretirement in the company of their dear ones. But this was not to be.

In early 320, Antipater and Craterus, who had effectively brought the Lamian War to an end and had been forced to cut short their campaign against the Aetolians, crossed the Hellespont to deal with Perdiccas. This man, now the de facto guardian of the two kings, sent Eumenes toward the Hellespontine region with a portion of the army, while he himself marched on Egypt with the remainder. To augment his forces, he picked up the Argyraspids in Cilicia and led them against his enemy, Ptolemy son of Lagus (Arr. Succ. 24.2; Justin 13.6.16). For the highly decorated veterans, the mission marked the renewal of service in Asia and the beginning of the long road to ruin. Whatever the unit had endured in the service of Philip and Alexander, it was to be rivaled and surpassed in the wars of the Diadochoi. The Egyptian campaign was badly managed by Perdiccas, and the toll on the men in the royal army was considerable. Diodorus’s description of the unsuccessful attempt on Kamelon Teichos gives special attention to the hypaspists, who led the attack on the walls. But these are presumably the new hypaspists of the Royal Army, a unit created by Alexander in India soon after the Argyraspids received their visible signs of distinction and, with them (most likely), the promise of demobilization. The siege lasted less than a day before Perdiccas led his troops south and attempted another crossing of the Nile near Memphis. But the river crossing proved more difficult at this point, perhaps because Ptolemy had opened the floodgates and elevated the level of the river, which had even before then been treacherous. Unable to move the entire force across, Perdiccas was compelled to bring that portion which had already accomplished the crossing back. The result was
disaster, as many drowned in the river and others were killed by crocodiles. Some two thousand were lost, including many of the officer class (18.36.1). The losses incurred by the Argyraspids themselves are hard to estimate, since they are not specifically mentioned by Diodorus, but the impact on their morale cannot be discounted. When a cabal of officers murdered Perdiccas during the night, Antigens, the Argyraspid commander, played a leading role (Arr. Succ. 1.35; Diod. 18.39.6; Nepos, Eum. 5.1 [adding Seleucus]; for Peithon’s role see Diod. 18.36.5.

It must be from this time onward that the Argyraspids began to show greater regard for their own interests, even if this put them at odds with their leaders. Philip II had selected and trained them, and they trusted his leadership just as he could count on their loyalty. With Alexander, too, there was the knowledge that they would not be thrown recklessly into peril, and that their general shared their dangers and tribulations. But they did not feel the same devotion to the great king’s successors, and they would not tolerate incompetence or arrogance. Hence they rebelled against the authority of Perdiccas, rebuffed the entreaties of Ptolemy, and followed Eumenes with a certain reluctance. They had become a pampered and self-centered unit, inclined to influence (and even usurp) authority as often as they obeyed it. In this regard they are precursors of the Roman Praetorian Guard or the streltsy of Tsarist Russia. No doubt the roughly three thousand disgruntled veterans who caused such trouble for the interim epimeletai at Triparadeisus were none other than the Argyraspids. 13

For the commander, the move against Perdiccas won him the satrapy of Susa, though he was not to spend much time in his territory or in an administrative role. He and the Argyraspids were instructed to convey the treasures from the Persian capital to Cyinda in Cilicia and to guard them there. Perhaps the Argyraspids viewed it as one final mission before they could enjoy the fruits of their long labors. Little did they realize that their retirement would once again be preempted by the political convulsions of the unstable empire. But by this time they were no longer the tools of any general who aspired to supreme power. They would serve again, but only, as they (somewhat naively) believed, in the service of the royal house.

The death of Antipater in autumn of 319 gave rise to further disunity, for the dying regent had named as his successor Polyperchon. This man had been a steady phalanx commander in Alexander’s Asiatic expedition, but he was little known in the Macedonian homeland and one might reasonably doubt his political acumen. That, however, was to be revealed in the years that followed, and it is dangerous to assume that others were fully aware of his weakness. Instead, it was a case of Antipater’s son, Cassander, resenting the promotion of Polyperchon to a rank that he regarded as his birthright. And Cassander was able to challenge the man’s authority with the aid of his hetairoi, the longtime followers of Antipater, who may have hoped for greater power and influence with the son. Ultimately it became a struggle not only between the two contenders for the regency but between the rights of Alexander’s son by Roxane and the son and granddaughter of Philip II, Arrhidaeus and his wife Adea-Eurydice.

In 318, on the instructions of Polyperchon, the Argyraspids entered the service of Eumenes of Cardia, whom Antipater and his supporters had outlawed two years earlier. When he met them in Cilicia, Eumenes was careful to appeal to their loyalty to the family of Alexander. He depicted himself as the servant of the deceased king, and pretended to be the equal of the other commanders. The appeal to the authority of Alexander (who was offered proskynesis as a god: Diod. 18.61.2) and the Argead house won over the Silver Shields, who regarded Eumenes “as a man worthy of the solicitude of the kings” (Diod. 18.61.3). Subsequent attempts by agents of Ptolemy (Diod. 18.62.1–2) and Antigonus’s envoy, Philotas, the former satrap of Cilicia, failed to induce the Argyraspids to
defect, for, although there were some who were tempted, Antigones won them back to the cause of the royal house (18.63.1–4). Philotas had persuaded the second-in-command, Teutamus, to change his allegiance, but ultimately it was the forcefulness of Antigones that prevailed, as well as the fact that “the kings and Polyperchon their guardian, and also Olympias, the mother of Alexander, had written to them that they should serve Eumenes in every way…” (Diod. 18.62.1). This decision proved to be the beginning of untold hardships and a commitment to the Second Diadoch War, which would lead ultimately to their destruction. Eumenes decided not to deal immediately with Antigonus in Asia Minor but instead to win over to his side the satraps of the Middle East and Central Asia. Indeed, these were easily recruited and ready for service, since they had mobilized their troops to meet the threat of Peithon son of Crateuas, who styled himself strategos of the Upper Satrapies and, together with his brother, Eudamus, was to assert his false authority. Eumenes thus became their champion by default, and Antigones, whose satrapy of Susiana was equally threatened, now found a personal reason for throwing in his lot with the Cardian.

The power struggle between Cassander and Polyperchon in Europe and Antigonus and Eumenes in Asia constituted the Second Diadoch War, and it drew the Argyraspids away from Cilicia and Phoenicia to Mesopotamia and eventually to Susiana, Antigones’s own satrapy. There he had left the loyal gazophylax Xenophilus, and from the treasures that he guarded the Argyraspids drew pay for six months. But eventually, with Antigonus and his army in pursuit, Eumenes and his supporters made their way to Persepolis and finally the region of Paraetacene (somewhere in the vicinity of Isfahan). There the two armies confronted each other for the first time. We can see in the deployment of Eumenes’s troops the changed role of the Argyraspids. The left side was anchored by six thousand mercenaries, and next to them were stationed five thousand foreign troops equipped and trained in the Macedonian fashion (something that was to become common in the armies of the Hellenistic kings), and next to them the Argyraspids themselves. But instead of forming the articulating force between the infantry and cavalry, as they had done in the battles of Alexander, they now found on their right a new unit of hypaspists (once again three thousand strong), which was entrusted with the responsibility of maintaining contact with the cavalry on that wing. The years had taken their toll on the veterans’ bodies, and they were no longer nimble enough to provide that vital link between phalanx and cavalry; for that purpose a younger force was required. While Eumenes’s horsemen on the right parried the attack of Peithon’s cavalry, the Argyraspids confronted and overpowered Antigonus’s mercenaries, the two units most likely fighting as hoplites versus hoplites. Some historians (cf. Billows 1990: 95) would suggest that “[o]pposite the formidable Silver Shields, Antigonos placed his relatively expendable mercenaries…” But rather than concede defeat at this point in the battle line, Antigonus was probably placing opposite the vaunted veterans his most experienced hoplites (cf. also Griffith 1935: 50).

Although Antigonus’s losses were undoubtedly greater, the battle proved indecisive (for the battle see Devine 1985a; Billows 1990: 94–8; Kromayer and Kahnes 1931; also Delbrück 1990: 1.238–40). We are told that Antigonus, short of supplies, sent the wounded and the heaviest part of the baggage train ahead to a neighboring village (Diod. 19.32.1). Eumenes, drawing on the resources of the satraps in his coalition, is unlikely to have separated the Argyraspids, even temporarily, from their women and children. Diodorus, in the section that follows, speaks of the rivalry of two Indian wives for the honor of performing suttee (on which see Heckel and Yardley 1981), a clear indication that the camp followers remained. Furthermore, the Argyraspids’ later concern for the loss of their dearest possessions makes it unlikely that they would have given up their only remaining comforts at
The final engagement fought by the Argyraspids in the service of the Argead house came in Gabiene, and in the lead-up to the battle Antigones sent a horseman to bring a message to the Macedonians in Antigonus’s army. It forms a thumbnail sketch of their careers and summarizes their high standing among the Macedonians, to say nothing of their own inflated sense of self-worth.

This man, riding up alone to within earshot opposite the place where the phalanx of Antigonus’s Macedonians were stationed, shouted: “Wicked men, are you sinning against your fathers, who conquered the whole world under Philip and Alexander?” and added that in a little while they would see that these veterans were worthy both of the kings and of their own past battles. At this time the youngest of the Silver Shields were about sixty years old, most of the others about seventy, and some even older; but all of them were irresistible because of experience and strength, such was the skill and daring acquired through the unbroken series of their battles. (Diod. 19.41.1–2, trans. R. Geer)

In the battle that followed they confirmed these words with deeds, and they routed the opposing phalanx, killing over five thousand without a single loss of life on their part (so Diod. 19.43.1). Even when they found themselves deprived of cavalry support—for which they laid the blame on Peucestas—they nevertheless formed a fighting square and extricated themselves from the danger of Peithon’s onrushing horsemen. It might have been regarded as one of their finest achievements on the field of Mars, were it not for the fact that the success they enjoyed was ruined by the loss of their families and possessions.

History remembers them for what happened next. Long-serving and long-suffering defenders of the royal house, the Argyraspids had seen retirement and homecoming taken from them in 323 and 320. Now the only thing of value that remained to them—their wives, their children, and their meager possessions—were in the possession of the enemy. Their loss was too high a price to pay for their loyalty to the inept kings who had become little more than the pawns of Alexander’s marshals. They entered into negotiations with Antigonus and ultimately agreed to exchange their commander for their captive families. Even in this difficult predicament there were those who remained true to the cause, among them their commander, Antigenes. Plutarch (Eumenes 18) makes it clear that the betrayal of Eumenes was the work of Teutamus, but the reputation of both commanders and all the Argyraspids suffered. Our primary source for these events is Hieronymus of Cardia, kinsman and admirer of Eumenes, and not surprisingly the extant sources are uniform in their condemnation of the Argyraspids, as are some modern historians (e.g., Bennett and Roberts 2008: 76).

… [Eumenes] turned from entreaty to anger. “You accursed scoundrels,” he said, “may the gods who punish perjury take note of your conduct and bring you to the end you yourselves have given your leaders. Yes, it was you who a short time ago bespattered yourselves with the blood of Perdiccas and also devised the same fate for Antipater. You would have killed Alexander himself, had Heaven willed that he could die at a mortal’s hand; you did your worst and bedevilled him with mutinies. Now I am the last victim of your treachery and I call down on you this infernal curse: may you spend all eternity exiled to this camp, poverty-stricken and homeless, and may you be destroyed by your own weapons with which you have more often destroyed generals of your own side than those of your enemies. (Justin 14.4.9–14, trans. J. C. Yardley)

Eumenes’s concluding remarks betray Hieronymus’s knowledge of what fate had in store for the majority of the Argyraspids, something that Eumenes himself could not have known. For Antigonus was to hand them over to Sibyrtius, satrap of Arachosia, ordering him to wear them out and destroy them in endless campaigning. Justin further remarks on their extradition of Eumenes as the action of “an army which, through the betrayal of its leader, was itself captive and was now conducting towards the victor’s encampment a triumphal procession in victory over itself” (14.4.16, trans. Yardley).
Antigenes, so often regarded as the villain of this episode, was seized by Antigonus, who placed him in a pit and burned him alive. Such was his reward for opposing Teutamus and the other Silver Shields who were desperate to recover their property. He does not deserve the condemnation of posterity. But, by the same token, it is probably wrong to fault the Silver Shields themselves for their action. If Eumenes did, in fact, curse them and hope that they “spend all eternity exiled to this camp, poverty-stricken and homeless,” he was merely enunciating what had been their lot for these past six or seven years. Cheated of their just rewards, the Argyraspids now clung to the little that was left to them, and they put their families ahead of the leaders who had rendered a lifetime of loyal and difficult service all but meaningless. They responded to Eumenes’s words as follows:

[I]t was not so dreadful a thing, they said, that a pest from the Chersonesus should come to grief for having harassed the Macedonians with infinite wars, as that the best of the soldiers of Philip and Alexander, after all their toils, should in their old age be robbed of their rewards and get their support from others, and that their wives should be spending the third night now in the arms of their enemies. (Plut. Eumenes 18.1, trans. B. Perrin)

As Roisman (2011) observes, it was not at all certain that the betrayal of Eumenes would result in his execution. Antigonus had a number of options and, although Plutarch claims that the general was murdered without Antigonus’s approval (an unlikely scenario), those who surrendered him could not have known what fate awaited Eumenes. So too the claim that the Argyraspids’ future service in the East was meant to destroy them may be wishful thinking on Hieronymus’s part. If nothing else, garrison duty in the solitudes of Asia allowed them to spend time with their families. The remoteness of Central Asia may not have been entirely unappealing to the Argyraspids. One wonders what kind of reception Alexander’s veterans would have received had they returned with Asiatic wives and children of mixed blood.

BIBLIOGRAPHY

THE HELLENISTIC WORLD AT WAR
STAGNATION OR DEVELOPMENT?

JOHN SERRATI

The Hellenistic world was born out of warfare and its history was largely forged by military developments. The period itself is bracketed by Alexander’s conquest of the East and the Roman defeat of Ptolemaic Egypt. In the intervening three centuries, Macedonian kings fought each other frequently, marshaling vast resources to field armies of unprecedented size. Warfare in the Hellenistic world affected nearly every aspect of life for people living in the Greek East at the time. So much so that it is amazing our sources even bother to write about its specifics at all, so familiar must every person have been with the composition of armies, arms, armor, soldiers and soldiering, and the impact of conflict on the civilian landscape. Mercenaries—the bulk of Hellenistic armies—came from all walks of life and from all over the Mediterranean and Near East. They were also often used as garrison forces and quartered upon the civilian population. Moreover, representations of warfare appeared in art, pottery, on inscriptions and coinage. War was the principal subject of both histories and technical manuals from the period, and was, either in the form of negotiations, treaties, or combat, the main form of contact between governments (see Chaniotis 2005: 2–3, 243, 247; on warfare in art cf. Rice 1993: 225–7).

While conflict may have been as ubiquitous among the Greeks of the first half of the fourth century, warfare—except for Sparta—never played such a defining role in the culture of the classical world as it did for the Hellenistic Macedonians, who have been accurately described as hyper-imperialist (Eckstein 2006: 101–13). As in the time before Philip II, Macedonian society in the fourth and third centuries was still one of tribal warrior elites. Macedonian generals of the Hellenistic world still had to prove their worth by fighting from the front as their predecessors had, and traditionally kings were merely seen as the chieftains commanding fellow warriors in battle, the first among equals (see Beston 2000; Walbank 1984: 81–4). As such, although some accounts, both ancient and modern, often highlight the role of the commander in a given campaign, most primary sources would lead us to believe that victory in battle was more of a collective achievement (e.g., Diod. 18.50.2, 5, 54.4; Plut. Demetr. 15.3, Eum. 12.1; cf. Austin: 455; Errington 1976: 158–9). The Macedonian warrior ethos speaks a great deal about why conflict was ever present in the Hellenistic period. Warfare was what the Diadochi, the Successors of Alexander, did. They were both generals and fighters; in theory, like all Macedonian kings, they should have possessed the ability to plan and undertake a massive campaign, outmaneuver an opposing army, outline a solid battlefield strategy, and then personally lead men into the thick of combat. Not only did this attitude diminish a general’s efficiency on the
battlefield—commanding thousands of men with no reliable system of communication must have been
difficult enough without having to fight as well—but it moreover exposed a commander to far greater
risk, and Hellenistic monarchs suffered accordingly; death in battle was common (cf. Sabin and de

The history of the Hellenistic world is a reflection of this warrior ethos among the Diadochi; the
empire of Alexander was in fact a Macedonian one, as it had been won by both commander and
subordinate. And because no obvious successor to Alexander had emerged, why should the Diadochi
not fight each other for the spoils for which they had spent over a decade campaigning? Why should
the empire not go to the one who proved himself strongest? This was what would have happened in
the age before Philip II, and therefore it should come as no surprise that this happened after the death
of Alexander, only the scale of the warfare had changed.

The basic unit of the Hellenistic army remained the phalanx as used by Philip II and Alexander.
Once the elite Macedonian cavalry that conquered Persia retired or died, the phalanx returned to the
place that it had occupied in the classical world as the main arm of Greek military forces. Other
aspects of classical warfare persisted long after the age of the polis had waned. War and government
finances continued to be closely linked and the profits of campaigns were still expected to enable
further military and political advances for one’s state. Good agricultural lands remained prime targets
for conquest, and places with abundant forests were still prized as wood was necessary for
shipbuilding. Navies retained their importance among the Greek states, and in this realm tactics,
mostly ramming, boarding, and breaking the enemy’s oars, were largely unaltered. As much as there
was continuity, however, there was even greater change. Primarily, armies were now massive in
comparison to their classical predecessors. In 317 at Paraetacene, Antigonus and Eumenes fielded
armies with a combined total of nearly 80,000 troops, while by the time of Raphia exactly a century
later, the forces of Antiochus III and Ptolemy IV Philopater totaled nearly 140,000 (Diod. 19.27–8;
Polyb. 5.79). Battles became geographically colossal affairs in the Hellenistic world, covering entire
plains or valleys. Wars themselves were no longer confined to local conflicts and border disputes
where phalanxes would simply meet on a field and decide the issue in a relatively short time span.
Conflicts now involved fully fledged campaigns where generals might maneuver over vast expanses
for months at a time before coming to battle. As a result, commanders themselves were forced to
become more professional, scrupulously planning and preparing campaigns as well as studying both
their opponents as well as warfare in general. To further this cause, the Hellenistic world witnessed a
proliferation of technical manuals concerning the art of war (see further Chaniotis, 445–8).

Not only were generals more accomplished, but the enormous armies they commanded were now
composed largely of mercenaries, professionals whose only job was fighting. Unlike the citizen
soldiers of classical Greece, mercenaries had to be paid and could even command significant sums as
well as benefits and bonuses. This combination of lengthy campaigns with sizable and expensive
armies meant that Hellenistic states had to command substantial resources for both pay and supply.
This was by far the greatest change experienced within Hellenistic warfare; although, as previously
stated, the link between warfare and finances was not new, Hellenistic states required new sources of
revenue in order to raise the capital necessary to equip and feed an army and to execute a campaign.
For the first time in the Greek world states emerge whose economies are completely geared toward
furthering their military aims. In fact, it would be no exaggeration to state that Hellenistic economies
largely existed to enable their monarchs to make war.

In respect of Hellenistic armies, numerous themes such as strategy and tactics, recruitment and
The composition of armies and navies, siege warfare, arms and armor, and individual campaigns, wars, and rulers have all received extensive treatment in recent decades. More recent contributions have shone light on heretofore neglected areas such as imperialism, finance, and the social and cultural impact of warfare (e.g., Austin 1986, Archibald 2001; Billows 1995; Lévêque 1968; Serrati 2007). Scholarly attention is also shifting away from the great Successor states and their armies so as to examine forces and conflicts on the level of the *polis*, illustrating continuities with the classical world and how these minor players dealt with the changes in the political and military landscape that were forced upon them by the large-scale warfare of the age (Baker 2003; Bernand 1999; Chaniotis 2005; Ma 2000).

**The Composition of Armies**

**Infantry**

The use of infantry can be divided into two phases. In the decades following the death of Alexander, tactics, the composition of armies, and orders of battle remained much as before: the phalanx, supported by a host of specialized units, was used to either keep an enemy in place or, through its size, to force an opponent onto specific ground. Meanwhile, elite cavalry and infantry would act as the main offensive arm, outflanking the enemy, often by defeating its cavalry, or exploiting gaps in its formations, thus, in theory, bringing about victory. As under Alexander and Philip, the success of the late fourth and third century phalanx was due in no small part to the rigorous training and drill that each soldier received (on this see Arr. *Anab.* 7.23.1–4; Curt. 8.5.1; Diod. 17.108.1–3). Indeed, the maneuvers executed by the Macedonian phalanx in the fourth and early third centuries, in particular the use of feigned retreats, no easy feat for soldiers carrying six-and-a-half-m pikes, could not have been undertaken without intense practice and preparation (Diod. 16.86; Polyaenus, *Strat.* 4.2.2). The Macedonian infantryman was also a tough soldier (e.g., Diod. 18.7.2, 9.3, 29.5; Just. 11.6.4; Plut. *Eum.* 16.4). But once the generations that had fought with Philip, Alexander, and their Successors died off, we notice a marked shift in tactics: the phalanx reverted to its archaic and classical roots and became the centerpiece of the Hellenistic army (so Hammond 1984: 51–4). The heavy reliance of Hellenistic forces upon mercenaries as well as the establishment of *epikektoi*—picked, or elite, troops—by some Greek states ensured that armies remained professional, but these did not compare with the drill and precision of the forces commanded by Philip and Alexander. The lack of elite cavalry and the decline of well-trained Macedonian infantry meant that from the mid to late third century onward the phalanx no longer had its earlier maneuverability, thus battles became slogging matches between opposing phalanxes, which had ballooned in size in an attempt to compensate for the lack of quality soldiers. This swollen phalanx became rigid and increasingly immobile. Since Hellenistic generals seldom attempted to address this shortcoming, mostly because they found themselves fighting armies similar to their own, they had no answer when later forced to fight opponents employing more adaptable forces, most notably Parthia and Rome.

Another factor limiting the mobility of the Hellenistic phalanx was the famous *sarissa*, a pike made from cornel cherry wood that varied in length from six-and-a-half to seven-and-a-half m (Polyb. 18.29.1; Arr. *Anab.* 1.15.5, on cornel cherry wood). This was a phalangite’s principal weapon and originated with the military reforms of Philip II. The *sarissa* featured a large iron point at the top of the heavy wooden pole. A heavy spear butt acted as a counterbalance; this could also be dug into the
ground in order to provide extra defensive power, as an ad hoc spear should the blade break, and to spike the weapon when not in use. It provided the phalanx with tremendous power in attack and made it virtually impenetrable to frontal assaults, particularly by cavalry. Nonetheless, the sarissa was cumbersome and could prove unwieldy; at the same time it severely limited the phalanx’s ability to turn or maneuver once engaged, and left the formation vulnerable to flank and rear assaults.

The length of the weapon meant that only the soldiers of the first five ranks of the phalanx could level their pikes, the remainder held their sarissai pointed upward, acting as a screen against missiles. As a result, while all soldiers wore helmets, only the first five ranks had any type of body armor, usually a metal or leather cuirass and greaves. As two hands were required for the sarissa, the shield, or aspis, which was significantly smaller than the classical hoplon, was held by a strap around the neck. The phalangite’s armament was rounded out by a short sword for use in close combat should the phalanx be broken. All of this equipment was unlikely to have been provided by the state and was probably owned and maintained by each individual soldier, as in classical times. In the Hellenistic world this would have been doubly true as so many military personnel were now mercenaries. Thus, other than with individual mercenary battalions, and possibly not even here, there would have been little in the way of uniformity between soldiers beyond the aspis and the sarissa.

The first-century military theoretician Asclepiodotus provides us with a schema of the subdivisions of the Macedonian phalanx (Ascl. 2.1, 8–10). Modern authors have long dismissed his work, along with that of Aelianus, as pure theory, an account of how a Hellenistic army appeared on paper only. As such these works present the phalanx in such a highly formulaic and schematized fashion that they are of little practical use to the modern scholar. While there is no doubt that both Asclepiodotus and Aelianus present the phalanx as it would appear at full paper strength and with little attention to the differences that may have developed between armies of the Successor states, an examination of the evidence argues that nearly all of their terminology for the subdivisions of the phalanx appears not only in mainstream ancient authors, including Arrian and Polybius, but also in contemporary papyrological and epigraphic sources. In fact Asclepiodotus never claims to be writing from the perspective of an actual campaign. All organized military forces exist, even if only in theory, at full strength and with the utilization of every unit. Therefore, used with caution and with the knowledge that practical considerations, chronological evolution, and geographic differences would have altered each army’s phalanx, there remains no a priori reason to dismiss these tactical manuals; indeed contemporary Hellenistic evidence often bears out their veracity.

The Hellenistic phalanx then largely followed the model of Philip and Alexander. The main subdivision of the phalanx was the syntagma of 256 soldiers. While the term is largely unknown outside of Asclepiodotus (2.8), it would make practical sense as it provided a commander with a perfect sixteen-by-sixteen square. This would also agree with Polybius who notes that the Hellenistic phalanx was typically sixteen ranks deep; this is also the smallest formation to feature commanders who operated outside of its ranks (Ascl. 2.9; Polyb. 18.30.1). Thus it would follow that all higher and lower divisions emanated from this unit itself. The first such section was the taxis, which we are told consisted of 128 men. The use of the taxis is well known in the armies of Alexander and the Successors, and in fact the term itself is very old. Unfortunately, the sources sometimes use it in a vague context: sometimes it means no more than “formation,” a group of soldiers of unspecified size operating outside of the larger phalanx.

The phalanx was then furthermore broken down into the tetrarchia and the dilochia of sixty-four and thirty-two men respectively. Both terms are found in source material beyond the tactical writers,
and there is no reason to doubt that Hellenistic infantry operated in such subdivisions. The same
cannot be said, however, for the lochos of sixteen men, supposedly the smallest component of the
Macedonian phalanx. The existence of such a unit would be logical given Polybius’s statement that
Hellenistic phalanxes tended to be sixteen ranks deep; nonetheless, like taxis, lochos is also an old
military term. It is also not found in contemporary Hellenistic sources. Thus, while the sixteen-by-
sixteen square makes such a subdivision theoretically possible, there is no evidence for the term’s
authenticity.

We are on firmer ground when it comes to the larger sections of the phalanx which, like its
subdivisions, appear to have been based on the 256-man syntagma. Papyrological evidence attests to
the existence of the pentakosiarchia of 512 soldiers, while the chiliarchia of 1,024 was a unit used
frequently by Alexander. Polybius, along with other sources, confirms the use of a telos, also called a
merarches, of 2,048, as well as the phalangarchia of 4,096 and the diphalangia, 8,192. Thus
Asclepiodotus’s phalanx, on paper, would have had a full strength of 16,384 soldiers divided into
1,024 columns, each sixteen ranks deep. Such a number, of course, must remain theoretical and cannot
represent an ideal sought by Alexander or the Successors. All that we can truly say is that the
Hellenistic phalanx, regardless of its size, and there must have been tremendous variations here, was
a highly organized component of the Macedonian-style army; its basis appears to have been the
syntagma square with multiples of this unit existing at larger and smaller levels. These, furthermore,
appear to have been more or less universal in a Macedonian Hellenistic context. Considering the
sizes of the armies fielded by the great powers of the third and second centuries, the utilization of
such divisions and subdivisions for the phalanx only stands to reason as a testament to the high degree
of organization and the professionalism which characterized the forces of the time. Evidence attests to
the phalanx’s great level of efficiency on the battlefield and the existence of a multi-tiered command-
and-control structure should be seen as a major contributing factor toward its success.

After the mid-third century the phalanx had become the main arm of Macedonian military
formations and developed into an offensive shock weapon. Battlefield tactics were designed around
its movements and its purpose was now to overwhelm the enemy with its initial charge. When this did
not happen, as was frequent, battles were decided on lengthy close-quarter combats pitting phalanx
against phalanx. This was inevitable given the very limited mobility of the Hellenistic phalanx,
something its architect Philip had never intended. As individual soldiers became less adept in the use
of the sarissa, fears increased that gaps would appear in the formation and break its cohesion; the
phalanx then could do little save charge forward, and once engaged it was next to impossible to
extricate itself from combat without creating chaos. Moreover, even if it could maneuver, its scope
was limited to level ground, and plains that could accommodate upward of one hundred thousand
infantrymen were often scarce. Simply put, there is no doubt that the charge of such a phalanx could
be devastating and that the formation was still impregnable to frontal assault by cavalry. But its
limitations greatly outweighed its strengths, particularly when its flanks were not protected, and it
would prove no match for generals who understood its weaknesses. Thus by the second century, when
Macedonian-style forces came into contact with armies that did not use the phalanx, we see a number
of tactics used against it.

The most effective way to counter the power of the Hellenistic phalanx was to attack its vulnerable
flanks and rear. Soldiers using the sarissa found it difficult to turn in order to meet an enemy not
advancing toward its front, and this combined with the rear eleven ranks being unarmored meant that
such attacks were usually devastating and very often decisive. Occasionally this involved sending a
force around the battle line and surprising the enemy from behind. Such a tactic, according to Polybius (18.26), was used by the Romans against the phalanx of Philip V at Cynoscephalae in 197 when one of Flamininus’s tribunes seized an opportunity and marched his troops around the Macedonians after emerging victorious on their right wing.

Such opportunities were rare, and the preferred tactic of opponents was the flank attack. This could be achieved through stripping away the phalanx’s protective cavalry by either drawing it away from the phalanx, as was done to Demetrius’s horse at Ipsus in 301, or by defeating them outright as the Romans and their allies did at Magnesia against Antiochus III. This stratagem was widely known, even among the Macedonians, who often used it against one another. However, its chances of success improved remarkably with the decline in quality of Hellenistic cavalry in the third century. The phalanx was also vulnerable when on broken ground as this caused gaps to appear within its formation. Enemy soldiers could exploit these openings where they usually found the phalangites, encumbered as they were by the *sarissa* and otherwise lightly armed and often poorly trained, to be easy targets. This tactic was frequently used, the most famous example being Aemilius Paullus’s crushing defeat over the Macedonian Perseus at Pydna in 168 (Frontin. *Str*. 2.3.20; Livy 41.6–8; Plut. *Aem*. 20.4).

A more straightforward yet less effective maneuver against the phalanx was to use lighter-armed troops to hack into its frontal wall of spear-points. We have only one reference to this tactic being undertaken with any success: Polyaenus (*Strat*. 2.29.2) relates its use by the Spartan Cleonymus against a Macedonian phalanx at Edessa in the early 270s. If a flanking maneuver proved impossible or broken ground not available, then this was perhaps the only option for cutting open a Hellenistic phalanx. By slicing off their spear-points the *sarissai* were rendered useless, so permitting a frontal charge where the phalangites would be forced to fight individually. The tactic involved considerable danger: we are told that a *sarissa* had to be physically grabbed and held fast with one hand while the soldier sliced into its shaft with his sword. In doing so he exposed himself to vicious counterattack. Such was the action at Pydna, where the Romans inflicted great losses upon the Macedonians, but themselves suffered terribly. Nonetheless the Romans persevered, eventually drawing the Macedonians onto broken ground and so destroying the Macedonian phalanx (Livy 44.41–42).

Once the phalanx went from an integral piece in a combined and balanced force to an army’s main weapon, it had exceeded its abilities. Without accompanying units of sufficient number and training, the phalanx’s weaknesses were too many and were too easily exploited once the Hellenistic states moved from fighting each other to facing foreign, well-trained, and experienced armies from abroad.

There were, however, exceptions to the static tactics of the late third and second centuries. Some generals did comprehend the weaknesses of the phalanx and indeed attempted reform. In fact, this process began with Alexander. At Gaugamela in 331, a Macedonian army employed a reserve force for the first time. This innovation immediately paid dividends as Alexander won the battle by throwing this reserve force at the Persians, thus saving the phalanx, then suffering from the fierce attacks of Persian cavalry (Arr. *Anab*. 3.12–14.6; Curt. 4.13.30–2). But perhaps the only true exception to the static nature of tactics in the Hellenistic world was Pyrrhus of Epirus. More than anyone else who followed the age of Alexander and his immediate Successors, Pyrrhus evidently comprehended the decline in the quality of cavalry and use of combined forces and attempted to address these problems as well as the failings of the phalanx. Against the Romans at Ausculum (279) he deployed local levies of Italians at intervals alongside his own phalanx, not only guarding against flanking maneuvers, but also lessening the damage that a gap in the phalanx would cause (Polyb.
Upon returning to Greece he introduced this light-armed soldier, the *thureophoros*, into Hellenistic armies. The *thureophoros* fought principally with javelin and sword while protecting himself with the *thureos*, a large oval shield used in Italy by Pyrrhus’s allies as well as his Roman opponents. The mobile *thureophoroi* were much better suited to rough terrain than phalangites. They could be deployed ahead of the phalanx as skirmishers or along its flanks for protection. As at Ausculum, they could be interspersed among the phalangites in order to fill any gaps that might develop. From Tarentum, Pyrrhus also brought back mounted javelin men for use as mobile missile cavalry, perhaps also to compensate for the lack of well-trained heavy Macedonian horsemen no longer available. These swift riders could be used as skirmishers and as a supplement to cavalry who protected the flanks of the phalanx. They could also be employed as an attacking force to strike at the flanks or rear of an enemy phalanx. Adopted by many Hellenistic armies after Pyrrhus, they became known universally as “Tarentines” regardless of their origin (see e.g., *IG* 2.2.2975; Arr. *Tact.* 4.5–6; Diod. 19.29.2, 5, 39.2–6; Livy 37.40.13; Polyb. 16.18.7; also Bugh 2006: 273–5). After Pyrrhus, we find little in the way of innovation in infantry tactics until the mid-second century when military forces began abandoning the phalanx altogether.

Nevertheless, while *thureophoroi* and Tarentines were first seen in Hellenistic times, Greek and Macedonian armies had earlier developed other types of specialized units. These include the hypaspists and *argyraspides* of Alexander’s day (see further Heckel 162–78). While generally considered to be one and the same, Diodorus (19.28.1) clearly distinguishes between them in his description of Eumenes’s army at Paraetacene. Both appear to have been elite units trained to fight with multiple weapons and were thus able to undertake highly specialized missions. We find them fighting with *sarissai* in phalanx formation in pitched battles, usually in a central role and often proving the difference between victory and defeat. At Paraetacene they were the deciding factor in the rout of Antigonus’s phalanx, and of them Diodorus (19.30.5–6) says,

Eumenes’s men were victorious because of the Macedonian *argyraspides*. These soldiers were already advanced in years, but because of their superior skill and bravery, no one confronting them was able to withstand their strength. Therefore, although there were only three thousand of them, they were the spearhead of the entire army.

We are later (19.41.2) told that “all of them are irresistible in battle due to their experience and strength, these skills and their bravery being acquired through great exposure to combat.” Such skills extended beyond the phalanx, and we also find them undertaking specialized missions where swift movements over rough terrain were required. Such types of troops were courted by many of the Successors who sought their services for their own armies.

The hypaspists and the Silver Shields, regardless of whether they were one and the same, were regiments that fought primarily under Alexander and were then utilized by his successors until they retired or died in battle. Afterward, Hellenistic leaders continued the tradition of having specialized infantry units that were distinguished by the color of their shields.

Many Greek states never thought beyond the phalanx and were thus absorbed in quick succession by Rome. However, those that avoided or escaped being conquered rapidly began to abandon the formation in favor of using armies entirely made up of troops like *thureophoroi* and the *argyraspides* as well as soldiers that were armed as Roman legionaries, who by now had emerged as the most effective and deadly fighters in the Mediterranean world. The Seleucids and the Ptolemies began moving toward the Roman system as early as the mid-second century and gradually others followed suit (Sekunda and de Souza 2007: 354–6). The process peaked with Mithridates VI of Pontus, who by
in the 70s at the latest had an army that featured Roman-style infantry at its core supported by specialized units of *thureophoroi* and *chalcaspides* (Caes. Alex. 39–40; Frontin. Str. 2.3.17; Plut. Luc. 7.4, Sull. 16.7). Thus by the first century the Macedonian phalanx was no more; the formation, bristling with *sarissai* and nearly impregnable to frontal assault, had done excellent service within the armies of Philip and Alexander, but here it was just one weapon in the highly trained Macedonian army. After the third century the phalanx became the primary offensive arm of Hellenistic armies, a role for which it was never intended. Combined with a decline in the quality of the phalangite and his commander, the phalanx was hopelessly outmatched when dealing with more mobile and better-trained forces.

**Cavalry**

In the army that conquered Asia, the Macedonian cavalry was the main striking arm of the combined force. Horsemen were highly trained, often from birth, and as a result their movements were swift, exact, and often decisive. Not only did they protect the wings of the infantry phalanx, they also created and exploited gaps in the enemy’s formation, executing complicated flanking maneuvers, as at Gaugamela. This cavalry took its final bow at Ipsus in 301, by which time most of Alexander’s veterans were either dead or had retired. After Ipsus the purpose of heavy cavalry in the Greek armies of the Hellenistic world was primarily to protect the wings of the phalanx. Defeating opposite numbers of cavalry was a bonus, as this might expose the enemy infantry to a flank attack. But the priority was always defensive in making sure that the phalanx could advance without hindrance. And therefore rarely was their role any longer decisive.

What brought about the demise in the use of cavalry and a rise in the importance of the phalanx in Hellenistic armies was not a priori a decline in the number of horsemen employed and deployed by commanders, as sometimes argued, but a decline first and foremost in quality (cf. Spence 1993: 157, n.145, 177; Sage 1996: 206; Sekunda and de Souza 2007: 345). Simply put, Hellenistic monarchs were unwilling to make an investment in elite cavalry. Horsemen who possessed the skill common among the Companion cavalry of Philip and Alexander took generations to produce. If military horsemanship is not culturally ingrained within an aristocracy, as in fourth-century Macedonia and medieval Western Europe, then tremendous resources must be marshalled toward the procurement, training, and provisioning of capable men and, perhaps more importantly, horses. As the Successors decided that such commitments were not attainable, then a decline in the quality of cavalry was inevitable. Once this occurred, infantry naturally regained its primacy on the battlefield, and, with that, the need for cavalry diminished and ipso facto smaller and smaller numbers were recruited. The successful use of cavalry by Philip and Alexander should not be seen as the ushering in of a new era, but as a blip, a brief period where horses decided the outcome of battles; afterward, though numbers were still larger than what had been witnessed in the classical world, the role of cavalry in combat was decidedly secondary (see Gaebel 2002: 261–2).

In other areas, however, Hellenistic heavy cavalry, often called “Macedonian” regardless of origin, remained much as it had been in the time of Philip and Alexander. Riders wore large and colorful cloaks as had the Companions, and they continued to be protected by helmets and breastplates. Boots were also worn as the rider’s legs were utilized both for gripping the horse as well as controlling it in conjunction with the reins (cf. Kähler 1965: Plates 16–19 for depictions of Hellenistic Macedonian horsemen). Sometimes called *sarissophoroi* in Alexander’s era (Arr. Anab. 1.14.1, 6, 4.4.6), some scholars believe they fought with the infantry *sarissa* as their principal
weapon (cf. Bugh 2006: 272 and Markle 1977: 333–8). Yet most sources tend to refer to Macedonian heavy cavalry under both Alexander as well as the Successors as *xystophoroi*, indicating that their principal weapon was the *xyston* or lance, which is more likely given their swiftness (Arr. *Anab.* 1.15.5–8, 16.1; Ascl. 1.3; Diod. 19.27.2, 29.2; Plut. *Alex.* 16.11).

Rounding out the panoply, Macedonian cavalry adopted the shield by the mid-third century (Kähler 1965: Plates 16–9). This innovation may again originate with Pyrrhus as he observed horsemen with shields in Italy. It may be that this represented a trend toward greater protection for horse and rider, as it develops only shortly before *kataphraktoi* (literally “fully armored”) were introduced onto Hellenistic battlefields by Antiochus III (Polyb. 16.18.6–8; cf. Diod. 13.109.2, 22.8.5, but his usage seems anachronistic). Presaging the medieval knight by more than a millennium, these were cavalrymen who were covered head to toe in armor of mail or a combination of mail and plate. Horses were often equally well protected. This type of cavalry originated with the eastern nomadic peoples of Alexander’s empire and formed part of the Parthian army that rebelled against the Seleucids. Antiochus most likely first encountered *kataphraktoi* during his eastern campaigns (209–204) and soon adopted them. As with Macedonian heavy cavalry, *kataphraktoi* required specialized training; also required, and at an appreciable cost, was the breeding of larger warhorses in order to support the extra weight of the armor. Hence, as with the regular Macedonian heavy cavalry, Hellenistic rulers were seemingly little interested in employing such cavalry as they were reluctant to commit the resources and time necessary for the production of quality horsemen. *Kataphraktoi* then did not spread much beyond the Seleucid army, and even within this force their numbers remained small. Nevertheless they were obviously effective as they were regularly used by Antiochus against the Romans (Livy 35.48.3, 37.40.5, 11). Eventually adopted by Mithridates VI and subsequently by the Romans themselves, *kataphraktoi* are one of the few battlefield advancements from the Hellenistic world that survived the period.

Cavalry in the Hellenistic world were organized largely as in Alexander’s day. Cavalry divisions appear to have been organized based on the eight-by-eight *ile* of sixty-four riders. The *ile* was then divided into two *lochoi*, which in turn may have been further subdivided into four units of eight each. Eight *ilai* came together to form a *hipparchia* of 512 men (cf. Sage 1996: 206, arguing for an *ile* of 128 riders, and Sekunda and de Souza 2007: 331, suggesting two hundred). These higher and lower divisions, however, appear to have been mainly for command purposes, as in battle the main unit was almost certainly the *ile*. These utilized squares, rhomboids, or wedges for attacking as these formations, first adopted by Philip II, more easily cut their way into enemy forces. Our tactical manuals suggest that the wedge and the rhombus continued to be used despite the new role of Hellenistic cavalry, increasingly employed for defensive purposes only (Ael. *Tact.* 18–20; Ascl. 7.2–10). This last point illustrates the lack of progressive thinking employed by contemporary commanders who relied increasingly on the phalanx to settle engagements and relegated heavy cavalry wielded so efficiently by Philip and Alexander to a secondary role on the battlefield. Pyrrhus aside, most Hellenistic commanders lacked the organizational talents to train, raise, and equip good attacking cavalry, and consequently effective use of them in battle gradually disappeared. Polybius’s famous dictum (3.117.2) that “it is better to give battle with half as many infantry as the enemy and an overwhelming force of cavalry than to be in all respects equal,” cannot hold true. Experience shows that in the Hellenistic world it was not the quantity of one’s cavalry that counted, but its quality.

**Auxiliary Forces**
The strength of the armies of Philip and Alexander lay in their use of combined forces to assist the phalanx and heavy cavalry. Hellenistic armies continued to utilize such diverse units. Polybius’s descriptions of the opposing Ptolemaic and Seleucid forces at Raphia in 217 (5.79) and the military parade at Daphne for Antiochus IV in 166 (30.25.2–11) offer perhaps the best record of the composition of a Hellenistic army beyond its phalanx and heavy cavalry. In the realm of infantry, we find archers, slingers, peltasts, javelin men, and swordsmen. These soldiers were employed, as in classical times, in skirmishing, ambushes, reconnaissance, patrol, and as guards for camps and baggage trains. Arms and armor were light and usually comprised linen cuirass, helmet, and small shield, though some might wear no body armor at all. Skirmishers were generally equipped with spears or javelins, although several forces employed Gauls who fought with their traditional long, heavy swords and oval shields. Their use is illustrative of the changing ethnic composition of auxiliary forces in the Hellenistic world from the early third century onward. Though many of these soldiers continued to come from Greece—Cretan archers remained highly valued throughout the period and beyond—increasingly they were recruited from natives within one’s own empire and as mercenaries from the Mediterranean region. Peltasts were no longer simply javelin men from Thrace but now came from various places in the eastern Mediterranean and often employed short spears rather than missiles. As the trend in the Hellenistic world was toward lighter-armed, swifter, and more maneuverable soldiers, the use of this type of peltast, in particular by the Seleucids, only increased and by the second century forces were rarely without several thousand of them (App. Syr. 32; Livy 37.40.13–14).

Hellenistic armies also employed numerous forms of auxiliary horsemen who, like their infantry counterparts, became more diverse over time. Light cavalry, regardless of origin, were known as Tarentines, if they fought with javelins, or as prodromoi (“those in advance”) if they employed short lances or spears. Although prodromoi appeared in fourth-century Greece and formed an organized component of the Macedonian army that conquered Asia, we have just one later reference to them, that in Jewish Antiquities of Josephus (12.372). Yet it is difficult to believe that light, non-javelin-throwing cavalry ceased to exist in the Hellenistic world. Asclepiodotus (1.3) distinguishes them from the Tarentines and calls them simply light cavalry (elaphroi). From the mid-third century onward, save for skirmishing, heavy and light lance-wielding cavalry played much the same role on the battlefield as both were charged with the task of guarding the wings of the phalanx. Moreover, “Macedonian” heavy cavalry came now, like their light counterparts, increasingly from places outside Macedonia. For these reasons, the distinctions between these two branches of horse may well have gradually disappeared. Thus, while it is likely that light, spear-wielding horsemen who engaged with the enemy continued to be utilized in the Hellenistic period, the shift in the lexicon is perhaps more representative of the diminished role of the traditional Macedonian heavy cavalryman. The appearance of kataphraktoi as true heavy cavalry on Hellenistic battlefields supports this conclusion. With the addition of these heavily armored riders, and the trend toward lighter, more maneuverable soldiers, it is possible that Macedonian heavy cavalry shed some of its armor as time went on, and so even in appearance resembled the prodromoi, who often fought with only a helmet, or at most a leather cuirass, for protection. The latter, however, continued to play distinct cavalry roles: reconnaissance, scouting, and guard duty, while also fighting as skirmishers and main battle forces.

As much as the kataphraktos might symbolize the diminished role of Macedonian heavy cavalry, nothing speaks more about the decline in quality of this force than the respective introduction and reintroduction of the elephant and the chariot into Hellenistic warfare. In these two weapons we see a desperate bid by Hellenistic monarchs to fill the void of decisive battlefield action played by the
likes of Alexander’s Companions. Elephants, it was hoped, would smash into an opposing phalanx or clear the field of the cavalry who were protecting the infantry’s flanks. Yet from the beginning elephants were impractical and played decisive roles in only three battles. At Ipsus in 301, Seleucus used them to defeat the cavalry of Demetrius, while at Heraclea in 280 they were employed by Pyrrhus to rout Roman cavalry. Finally, in the famous “Elephant Victory” of 275, sixteen elephants belonging to Antigonus Gonatas frightened a much larger force of Gauls into retreat (Ipsus: Plut. Demetr. 29.4–5; Heraclea: Dion. Hal. Ant. Rom. 19.9–12; Plut. Pyrrh. 16–18; Elephant Victory: Lucian Zeux. 8–11). The volatility of elephants, however, was well known, and there are several examples of them turning on a general’s own troops and creating mass chaos (App. Syr. 35; Livy 37.43.9; Plut. Pyrrh. 25.2–5; Polyb. 5.84.6–7). As the Romans demonstrated at Zama (202), men and horses could be trained to deal with them effectively (Livy 30.33.14–16; Polyb. 15.12.3–7). One must also presume that capturing, training, and maintaining elephants was no easy or inexpensive task. As a result their use was largely confined to the Seleucids, who monopolized the Indian elephant market, the Ptolemies, and the Carthaginians, who took theirs from Africa.

In combat, elephants were outfitted with armor and featured towers on their backs that housed the mahout and four soldiers with various missiles. The mahout also carried a spike which he would hammer into the elephant’s skull should it turn and stampede friendly forces. Its use as a mounted missile platform as well as for crashing headlong into the enemy to create or exploit weak areas was secondary, however, to its role as a psychological weapon, a way of terrifying men and horses. Nonetheless, in all of these tasks the elephant was almost consistently unsuccessful, and it has recently been argued that even the few cases where elephants did play a pivotal role are themselves exaggerated (Sabin and de Souza 2007: 421; see Scullard 1974, the only detailed study). Battlefield use of the elephant then declines with the early second century, as the now-advancing Romans had perfected the means necessary to defeat them on the battlefield (Livy 37.42.5 gives a short description of Roman tactics against elephants).

Another attempt to offset the decline in cavalry and find a new way of breaking open the phalanx was the war chariot, often with scythed wheels, which reappeared on Greek battlefields in the late fourth century. To judge by Herodotus (7.40.4) and Xenophon (Cyr. 8.3.15–18), scythed chariots never fell out of use among the Persians. After Alexander they were mostly found in the Seleucid army. Like elephants, they carried a driver and a missile trooper and were employed in order to smash into the enemy line, creating gaps in the formation and causing casualties with the scythes. And like elephants they were similarly unsuccessful at these tasks, and suffered from many of the same deficiencies, being large, unwieldy, and exposed. As a result, each could fall victim to missile fire and chariots in particular were no match for Tarentine cavalry or horse archers. Even if a chariot did succeed in creating the desired gap, the vehicle needed such a running start that it often found itself far ahead of friendly infantry, and thus any advantage gained might prove unsustainable. Defensive tactics were also similar to those used with elephants, as infantry could be trained to open gaps in their formation to allow the chariots to pass through harmlessly. The gaps would then be closed and the infantry would take advantage of the vehicle’s wide turning circle to shower the horses and charioteers with missiles. Chariots proved utterly disastrous at Magnesia in 190, as Eumenes forced them back into their own lines, where they destroyed Antiochus’s left wing. After this their use in warfare was rare, and by the first century they were seen as something of a joke: their revival in 86 by Mithridates VI at Chaeronea was greeted with laughter from Sulla’s legionsaries, who easily dispatched them (Magnesia: Livy 37.41.6–42.4, including the best description of a Hellenistic war-chariot; Chaeronea: Plut. Sull. 18.1–3).
Rounding out our list of exotic mounted weapons are horse archers and camel cavalry. Like *kataphraktoi*, elephants, and war chariots, horse archers and camel cavalry had their origins in the Near East and thus in the Hellenistic world were most often employed by the Seleucids. Although used extensively for logistical purposes, camels in combat were a rare sight and appear only at Magnesia. They are not mentioned by our tactical writers and Vegetius (*Mil. 3.23*) comments that they were ill-suited to battle. They are likely to have been from Arabia and represent simply another native contingent within the Seleucid army. Such was also the case with horse archers, who mostly hail from in and around Parthia. These soldiers, although they could prove an effective and deadly weapon, are in fact rarely mentioned in the sources and so are unlikely to have played much of a role in Hellenistic warfare (Bar-Kochva 1976: 108–9, 248 n.15, argues for a greater presence in Seleucid forces). The training required of a horse archer was extensive, and as few Near Eastern peoples practiced the art they were not readily available on the mercenary market. The rise of the Parthian kingdom (after 247) monopolized their services, making mercenary employment unlikely. Finally, horse archers could be neutralized on the battlefield by light cavalry, Tarentines, or even very skilled heavy cavalry, anything that would force them into direct combat.

As the Hellenistic world was so characterized by warfare on a grand scale, the ever-increasing use of foreign and exotic weapons is not surprising. Philip and Alexander had instilled the use of combined arms upon the Successors, who themselves were constantly seeking ways of militarily surpassing one another. Some of these—elephants and chariots—had relatively short life spans, while others, like *kataphraktoi* and the increased use of light-armed soldiers, would see service well beyond the Hellenistic world. More than anything else, these auxiliary troops were now seen as full and integral parts of any force, and afterward no major ancient general would be without them. This diversification, specialization, and accumulation of forces was not merely a phenomenon that related to an army’s ability to fight pitched battles, however, as a similar process occurred in another, arguably more important, sphere of military activity—the siege.

**Siege Warfare**

Without question one of the greatest secrets of success for Philip and Alexander was their ability to break into fortified places. Until the invention of siege artillery and the adoption of engines from the Near East in Syracuse under Dionysius in 399, the inability to get at a foe when he was behind the walls of his urban center was perhaps the defining feature of Greek warfare. It was one of the main factors that prolonged the Second Peloponnesian War (431–404) and consistently prevented armies from dealing death blows to their enemies (see further Seaman, 642–56). While Dionysius provided the means, all of this truly changed with Philip, who not only attracted engineers to his court to build new and more impressive machines, but built an army that was large enough to undertake lengthy sieges (Sabin and de Souza 2007: 451–3; Serrati 2007: 462–3).

The Roman engineer Vitruvius (10.13.3) tells us that Philip’s new machines used torsion technology, employing tightly twisted ropes for power. This was a vast improvement upon earlier tension-driven machines. In the Hellenistic era, these machines would grow in size, power, and accuracy, coming to range from the deadly accurate small bolt shooter known as the Scorpion to massive *lithoboloi* ("stone-throwers") that could hurl projectiles weighing nearly eighty kilograms in excess of three hundred meters (see especially Marsden 1969–71: 1.86–98, still the standard work on Hellenistic artillery). The success Philip and Alexander enjoyed with these machines and with sieges in general set the pace for the Hellenistic world, as from this point onward science played a major
role in all military campaigns. This would culminate in the siege train of Demetrius Poliorcetes ("the besieger of cities") that featured numerous double-armed torsion stone- and bolt-shooting catapults, various sheds and screens, battering rams, and the *helepolis* ("city-taker"), an armor-plated tower over forty meters high bristling with artillery. The mere sight of all this supposedly caused the defenders of Sicyon to surrender to Demetrius without a fight in 303.

As on the battlefield, the era is famous for exotic siege weapons. Beyond Hannibal’s snake projectiles in a naval battle in 184 (Frontin. *Str*. 4.7.10–1), the most famous of these belonged to the great Syracusan scientist and military engineer, Archimedes. During the Roman siege of his native city (213–211), Polybius (8.6.1–4, 7.1–4) describes his "iron hand" deployed against the Romans: the device would swing forth from the walls of city, grab hold of individual men, sheds, or entire ships at sea, lift them up, in the process shaking loose the soldiers or sailors, only to release the contents of the hand to send the person or object crashing down. Another device, related by Diodorus (26.18) and Zonaras (9.4), used mirrors to channel the rays of the sun in order to set enemy ships afire. Yet none of our authors actually witnessed any of this. While these tales must be questioned, they probably arose because Archimedes’s more conventional machines did indeed foil the early Roman attempts to assault the city. His reputation as a quirky yet brilliant scientist who designed strange, wondrous, and colossal machines emerges only two generations after his death. The same cannot be said of Dionysius of Alexandria’s repeating catapult (third century), which did exist as the engineer Philon saw it in action himself. He commented, however, that while it could fire several stones in rapid succession, the device was inefficient and had poor range (Ph. *Bel*. 76; Marsden 1969–71: 2.6–9). Hellenistic siege warfare featured its share of exotic weapons: at best these machines were impractical and too complex to use; at worst they may have been purely mythical (for further treatment of siege warfare see Chaniotis, 438–56).

**Navies**

Hellenistic powers continued to prioritize land forces, but the sea also became a venue for battle. As naval warfare became more common it required not only the employment of engineers to design, build, and equip new ships, but provided opportunities for a number of battle experts across the Mediterranean. These would advise inexperienced kings and admirals with tactics at sea. They were mostly Rhodian, as Rhodes was the only state of the time, other than Carthage in the west, that privileged its navy over land forces. Such experts were a necessity because, as with land forces, navies now increased in size and individual ships became more complex and carried more men and weaponry. Tactics, as a result, adapted to this new environment.

Invented by Dionysius I in the early fourth century and featuring banks of oars manned by four and five men respectively, quadriremes and quinqueremes were the most common warships in the Hellenistic era. Their increased deck size and greater height and steadiness were necessary since artillery was now introduced as a naval weapon. Vessels not only featured bolt- and stone-throwers, which were used to clear enemy decks, not to sink ships, but also large screens to cover crews from enemy fire and an increased number of marines. Triremes were still utilized, and navies could be successful with light, swift vessels, as is clear from Polybius’s (16.2.5–7.5) description of the battle of Chios in 201 between Philip V and a combined Greek fleet. Generally, speed and maneuverability were now considered of lesser importance in comparison to bulk, firepower, and the ability to undertake ship-to-ship combat. Ramming, while still practiced, declined in favor of grappling and boarding (cf. Morrison and Coates 1996: 263–5, 316–7; see further de Souza, 369–94).
The fifth century Athenian fleet relied upon rowers and sailors recruited both locally and abroad, and so did the navies of the Hellenistic era. All of the major kingdoms recruited in Asia Minor and the Aegean islands where there was a plentiful supply of skilled seamen. Coele-Syria was also particularly rich in such men, and gaining unfettered access to them was one of the reasons the Ptolemies and Seleucids battled for control of this region so often. In a break from the classical past, however, nearly all crews were now composed of mercenaries, men who served the highest bidder. While in truth this would have been the only possible way to man such huge fleets, this nevertheless represents a marked shift in the composition of both navies and armies during the Hellenistic period.

Without question mercenaries had been around for centuries in Greece, but it was only in the Hellenistic world that they began to make up such a large percentage, at times even a majority, of a state’s forces. Citizen soldiers and local levies continued to make up the bulk of forces in the period immediately following the death of Alexander, but toward the end of the third century, more and more units came to be composed of mercenaries (Chaniotis 2005: 82; Serrati 2007: 474–6). The xenologos, or mercenary recruiter, became a highly important post on a king’s general staff. These men were certainly busy, as the increasing size of forces in the third century meant greater competition to secure the services of professional soldiers, sailors, and engineers. A survey of mercenaries in Ptolemaic service illustrates clearly that early in the Hellenistic world, local recruiting ceased to supply the quantity of soldiers and the degrees of specialization demanded by the royal army. Although the largest number of mercenaries continued to come from Greece, especially Crete and Taenarum in the southern Peloponnese (Taenarum: Diod. 18.9.1–3, 19.60.1; Isoc. 8.44; see Chaniotis 2005: 81–2; Bugh 2006: 276), nevertheless non-Greeks were also heavily represented in Hellenistic armies, and many soldiers for hire were also supplied by Judaea, Caria, Palestine, Syria, and Thrace (see further Trundle, 336–40).

As with any era, the late fourth to first centuries represented continuity as much as it did change. Philip and Alexander were in many ways products of what came before, though no one brought together the innovations of their times in quite the same way. Still, the highly efficient military machine that they created was somewhat of an anomaly, as later monarchs either could not or would not make the investments in training to replicate it. Although certain things, like the primacy of the phalanx, returned to earlier forms, even more things were altered. War was now the business of the professional, and as such troops gradually became more specialized and military science was thrust into the foreground. The concentration of power in the hands of a few states meant that the wealth each commanded was unimaginable to classical Greeks outside of Athens and Persia. Thus, in an effort to make up for quality with quantity, each could now afford to field massive forces. In the end the era produced too few men of the caliber of Alexander or Pyrrhus, men able to unite the numbers, specializations, and technologies to create truly formidable forces. This should not detract from the fact that much was new and innovative on the battlefields of the time, and that the epoch of the local hoplite militia was gone forever from the Greek East. This last point makes it perhaps ironic that, in this age of individually acquired skill, where professional fighting men formed the core of massive armies, accompanied by specialists and serving under kings who had textbooks on warfare available to them, the Hellenistic world would be brought down by a state made up of citizen-soldiers—Rome.

**BIBLIOGRAPHY**


The period 900–700 B.C. saw a gradual stabilization of political and military conditions in Greece, and increasing contact with the outside world (all dates henceforth are B.C.). Agricultural production prospered, providing greater surpluses and valuable commodities such as bronze became increasingly available. These changes resulted in the emergence of the Greek city-state or polis (Snodgrass 1987: 170–209), the gradual evolution of hoplite warfare, and changes in the relationship between the individual and the state. Historians traditionally refer to these changes as the “Hoplite Revolution,” arguing a direct relationship between the increasing participation of non-elite classes in society and their increasing demands for participation in the running of the community. The relationship between these two features seems indirect: both reflect the general rise in wealth, and therefore power. While each polis was unique, the concept of the citizen-soldier, the obligation of the free male citizen to provide military service, was an essential component.

**The Citizen-Soldier**

In order to provide hoplite service, the citizen had to be sufficiently wealthy to possess a hoplite panoply. We have some information as to the value of hoplite equipment, though giving the modern reader an idea of relative cost is difficult; it remains clear, however, that even in the classical period the costs were very substantial (Jackson 1991: 229). In many cities there was a wealth qualification relating the ability of a citizen to defend his home city as a hoplite to his possession of full citizen rights. Additionally, there is substantial evidence for at least the classical era that both poor citizens and noncitizens, including slaves, were pressed into military service of some kind or another—and in substantial numbers (Hunt 1998).

Upon reaching his eighteenth year, a young man was considered to be at his peak (hebe), and for the next two years was known as an ephebos. In the Aristotelian Athenaión Politeía, written around 322, the form of military training (ephebeia) given to Athenian young men at that time is described (42). We know that there was a change in the form of ephebeia in 335, when one Epicrates introduced a reform. It has been suggested that the system was reformed in the wake of the destruction of Thebes by Alexander the Great that very same year, which revealed how great the potential military threat of Macedon was (Bertosa 2003). One of the great controversies of Greek military history is whether the ephebeia was introduced for the first time at Athens in 335, or if an existing system was reformed in that year.
I have argued the second option (Sekunda 1990), and have proposed that before 335 the epheboi received for the most part group physical training in order to compete in ceremonial rituals such as the cycle of ephebic torch races. In the second year those within the wealthier hoplite classes were trained as hoplites and manned the fortresses of rural Attica; those below that level of wealth trained as peltasts and patrolled the countryside of Attica. This latter group was known as the “patrollers” or peripoloi. Aeschines (2.167), whose father Atrometus had lost his property in the Peloponnesian War, tells us that he performed his ephebic training as a peripolos from 380 to 378. It seems that the term peripoloi was also applied to adults who had finished their training and were assigned to patrol the countryside in time of war. The peripoloi are first attested at Athens in 424 (Thuc. 4.67.2), but the institution may well be much older. Many of the peltasts who served under such generals as Chabrias or Iphicrates in the fourth century were, in fact, made up of poorer Athenian citizens (thetes) trained to fight in this method. That these poorer Athenians received this training enabled them to “double up” and operate as peltasts on land when also employed as rowers in the fleet. After 335 the Athenian epheboi trained as one group—as hoplites—while at the same time patrolling the borders.

After the reform of the ephebeia by Epicrates, the Athenian epheboi were given a shield and spear by the state (Arist. [Ath. Pol.] 42.4); it appears that the individual citizen still supplied the rest of his equipment. Outside of the democratic states of mainland Greece, however, where political organization was tyranny or monarchy, more resources were concentrated in the hands of the state, and weapons were produced serially in large numbers. For example in 399, Dionysius, the tyrant of Syracuse, ordered the production of 140,000 sets of shield, sword, and helmet for issue to the infantry he was about to raise. Already in the classical era soldiers began to outfit themselves alike, with regional variations in items of clothing, and with uniform insignia or shield devices painted on shields which enabled rapid recognition by friend and foe. By the Hellenistic period uniformity in weapons and equipment became the rule in the regiments of the armies of the various dynasties (Sekunda 2001); the practice of storing weapons centrally and issuing them out is likewise attested in democratic Athens (Kroll 1977).

The large-scale wars which took place over the Greek world from the death of Alexander until the battle of Corupedio in 281 impoverished many of the city-states. While their citizenry might still have had the will to provide military service, they often lacked the means. Evidence for substantial gifts of military equipment to city-states by the Hellenistic rulers is preserved in both literary and epigraphic sources. Demetrius Poliorcetes, for example, made a gift of twelve thousand panoplies to Athens (Strab. 10.4.16; Plut. Mor. 761B, Demetr. 17). A recently published inscription records a gift of six hundred bronze peltai to the city of Cyme, fifty for each of its twelve tribes, on which the Cymaeans wrote the name of the donor, Philetaerus of Pergamon (Manganaro 2000).

**STATE FINANCES AND MILITARY PAY**

Most Greek city-states had chronic problems with finances. The development of efficient armed forces depended on the provision of state finances and this depended essentially on taxation. Any citizen body is, however, reluctant to vote taxation on itself. In a sense this did not matter too much while the dominant form of warfare remained hoplite warfare. If the city decided to vote for war, it could vote for the mobilization of its male citizenry up to a certain age and decree that they should carry rations for so many days with them. There was no need for any state expenditure.

A decision to establish a force of cavalry, however, had significant financial implications. A man
who volunteered himself and his horse for service had to be paid an allowance for fodder, and had to be compensated if his mount died in battle. In archaic Greece forces of true cavalry were only maintained by the aristocratic states of Thessaly and Boeotia. In these states there existed an aristocracy powerful enough and sufficiently wealthy to provide its own horses. In other states more complicated arrangements had to be made to provide the necessary horses.

Sparta only raised her first force of cavalry in 424, numbering four hundred at first but later expanded to six hundred. We learn that horses were provided for the cavalry by sequestration from the richest citizens upon mobilization of the army (Thuc. 4.55.2; Xen. Hell. 6.4.11). Corinth evidently raised its first force of cavalry about the same time. Cicero (Rep. 2.20) notes that the Corinthians allotted horses to the cavalrymen and maintained them from revenues derived from taxes upon the estates of widows and orphans, which were administered by the state upon the death of the head of a household. Therefore it was only during the final decades of the fifth century that these not insignificant Greek states managed to develop the fiscal and military systems to support true forces of mounted cavalry.

Athens was in many ways exceptional. It was her great good fortune that a new vein of silver was discovered at Laurium in the middle of the 480s. It was normal practice for the citizens to vote to divide up the proceeds of such windfalls among themselves, but the Persians had invaded Attica in 490, and many feared that they would come again. Upon a resolution of Themistocles passed circa 483 the money was used to expand the fleet dramatically. This fleet not only saved Greece during the great Persian invasion of 480, but also enabled Athens to establish itself as the head of a league of islands and cities around the Aegean. The states of the league paid contributions for continuing the war against the Persians, and allowed the Athenians to maintain their forces on a more or less permanent basis.

Athens had created a force of three hundred cavalry by 457, and by circa 443 the revenues of empire enabled the expansion of its cavalry force to twelve hundred. In Athens a cavalryman received a daily fodder allowance (sitos) of a drachma. He also received an establishment grant (katastasis) upon joining the corps, which was to cover the replacement costs of his horse if it was killed in service, and which was repayable when he left the cavalry if his horse had survived. Each cavalryman who had been paid the katastasis would have to present a serviceable horse at an annual inspection (dokimasia) of the cavalry. In Athens these payments were made out of the regular state budget, swelled by the contributions of her by now mostly unwilling allies.

When these sources of finance were removed by the defeat suffered in the Peloponnesian War, the renascent military aspirations of the Athenians were always bigger than the budget available. The crisis seems to have been at its deepest in the 370s. The Athenian assembly voted naval expeditions without the funding to support them. Resourceful generals like Iphicrates or Timotheus (e.g., Polyaeus, Strat. 3.10.5, 9) were forced to resort to protection rackets, raiding, piracy, or even hiring out their own troops as agricultural laborers to raise pay for them.

Citizen troops mobilized only irregularly could never achieve the high standards of professionalism acquired by permanently embodied forces of mercenaries. In the fourth century the city-states experimented with the concept of forming permanently embodied formations of citizen troops (Tritle 1989). These troops were given different names in different cities, but were in general known as epilektoi, or “picked troops.” Once again great difficulties were encountered in trying to find sufficient funds to pay these troops in time of peace. Not infrequently they were “hired out” on contract by the state to a second party, such as the Persian king, who had the funds to employ them.
The Greeks used a bewildering range of words for payments in kind or cash, often as euphemisms for payment in kind. Jens Krasilnikoff (1993: 78) has suggested “it is a widely shared opinion that the terminology of payment separating regular and ration payment was not developed until the emergence of the great mercenary armies in the fourth century.” One obvious problem is that strict meanings for different words can shift over time. The basic word *misthos* was used for a salary or wage paid in coin, but another word sometimes used is *chremata*. “Food” (*trophe*) or “grain” (*sitos*) are the words most often used for rations distributed in kind, but *stereision*, or *sitarchia*, seem to be words generally used for money payments to purchase food. Finally, *ephodia* is a term sometimes used for traveling expenses (Trundle 2004: 84–90). The amount paid seems to have varied over time too. One drachma a day seems to have been normal for the fifth century, but could vary considerably later on. Officers such as company commanders (*lochagoi*) and generals (*strategoi*) were paid double and quadruple wages respectively (Trundle 2004: 91–7). In the sources mercenaries are termed *xenoi* or *misthophoroi* or related forms. There seems to be no perceptible difference in meaning between these forms (Foulon 1995).

**Mercenaries**

Greek mercenary service seems to have long traditions. Eighth-century Assyrian inscriptions refer to Ionians landing in boats and raiding cities. They may refer to raiders, rather than bands of mercenaries (Parker 2000). Nevertheless these raids introduced the eastern monarchies to a useful source of troops to be hired. Somewhat later we have firmer evidence for Greek mercenaries serving in the East. Tantalizing references to Babylonians and Ascalon in the poems of Alcaeus of Lesbos, writing at the turn of the seventh and sixth centuries can perhaps be connected with a bronze-faced shield on a leather backing of Ionian manufacture found in excavations of the city of Carchemish, where Nebuchadnezzar of Babylon defeated the Egyptian army of Necho II circa 604. Ascalon was later destroyed too. Greek mercenaries also fought for the Egyptians (Parke 1933: 3–6).

Perhaps nothing portrays the mentality of these mercenaries more than the Archaic poem “The Song of Hybrias the Cretan” (Athen. 15.695–6, trans. C. Tuplin):

Great wealth for me is my spear and my sword  
And my fine hide-shield, defence of my skin;  
Thanks to it I plough, thanks to it I reap,  
Thanks to it I trample the sweet wine from the vines,  
Thanks to it I am called master of the serfs.  
Those who do not dare to hold spear and sword  
And fine hide-shield, defence of the skin,  
They all, cowering at my knee,  
Prostrate themselves, calling me  
Master of masters, and great king.

It is sometimes held that the reference to great king is an indication that Hybrias had served in the East. The name Hybrias is interesting. A unique name in Crete, other than a few sporadic appearances elsewhere in the Greek world, it is only found in quantity at Delphi, and, in the form Hybreas, in
Caria. It may be that Hybrias’s father had also been a mercenary, and had served abroad with a Carian.

At this point payment would come in the form of food and precious objects. It is possible that the need to provide mercenary troops with easily portable wealth led to the development of the first electrum coins in Lydia and Ionia.

In the archaic period mercenaries were generally Eastern Greeks and Carians, but in the fifth century the demand for Greek mercenaries switched to the West; with the emergence of tyrants and monarchies in the Greek West, the principal source of supply switched to the West too.

The tyrannies set up by Gelon and Hieron at Syracuse and by Theron at the beginning of the fifth century were mere military dictatorships. To arm the subject populations of the cities they ruled could prove dangerous, as many of the populace would willingly overthrow the tyranny if a suitable occasion presented itself. Therefore the tyrants preferred to rely on the loyalty which could be bought from mercenaries, and the demand for them was huge. By the time the Greeks appealed for help against the Persians in 480 Gelon declared that he was able to send a force to the aid of the Greeks consisting of two hundred ships, twenty thousand soldiers, two thousand cavalry, two thousand slingers, and two thousand *psiloi hippodromai* (Hdt. 7.158). These last troops were light infantry who ran alongside the horses (of the cavalry), later known as *hamippoi* (Sekunda 1986: 53–4).

The western Greeks had closer contacts with the Peloponnese than with any other area of mainland Greece; many of them regularly made dedications at Olympia, and the favored place of recruitment of the tyrants was the Peloponnese. Of all the peoples living in the Peloponnese, it was in the mountainous and agriculturally poorer areas of Arcadia and Achaea that they found their most willing volunteers. These societies were pastoral, and could afford to shed surplus male population for considerable periods of time without their absence having too much influence on the economy. Like mountainous peoples throughout history, the Arcadians and Achaeans were also poor and longed to better their standard of living. As opposed to the eastern Greek mercenaries, who often seem to be of relatively high status, the Arcadians and others were willing to settle abroad if offered the opportunity. An inscription left at Olympia was dedicated by one Praxiteles, formerly a Mantinean, but now a citizen of Syracuse and of Camarina. Praxiteles was probably a noble Arcadian mercenary who had entered the service of Gelon, and, in thanks, had not only been given money, but had also been given the opportunity of a better life in the West (Hicks-Hill: no. 15).

The Sicilian tyrants deliberately sought to diminish the loyalty of their Greek subjects to their own communities and engineered large-scale transfers of populations to defuse potential threats to their rule. Originally based in Gela, Gelon had gone on to seize power in Syracuse and had left his brother Hieron to govern at Gela. Camarina was destroyed and incorporated into the Syracusan state; along with other Sicilian cities, half of the population of Gela was transferred to Syracuse. After his victory over the Carthaginians at Himera in 480, Gelon enfranchised ten thousand mercenaries. When he died in 478/7 his brother Hieron succeeded. Hieron defeated the Sicilian cities of Naxos and Catana, resettling their populations in Leontini, sending many settlers to these cities: five thousand from the Peloponnese and five thousand from Syracuse. The population of Himera, oppressed by another tyrant, Theron of Acragas, sought aid from Hieron, but Theron suppressed the plot, banishing many (Diod. 11. 48–49, with Asheri 1992: 150–1). Hieron died in 466 at Aetna: but the legacy of the tyrants lived on. In Syracuse the tyranny of Thrasybulus followed that of Hieron, but it was overthrown by the Syracusans and a democracy was established. The Syracusans wished to restrict all magistracies to original citizens, but of the original ten thousand foreign mercenaries Gelon had
enrolled, more than seven thousand still lived in Syracuse, and civil war ensued (Diod. 11.72–3).

Perhaps even more revolutionary in character was the later tyranny (405–367) of Dionysius in Syracuse. He originally took power after having been elected general-in-chief against the Carthaginians. A capable general, he expanded his personal power in a series of campaigns directed not only against the Carthaginians, but against the Sicilian and Italian Greeks as well. He was responsible for many advances in military technique, including the use of the catapult for the first time, and he decisively demonstrated the military superiority of the single ruler over the traditional Greek city-state. His rule was entirely personal in character, and served as a model for the political methods later employed by Alexander the Great. Like his Sicilian predecessors, his rule rested on the support of mercenaries. The free citizens of captured Greek cities were sold into slavery to raise money for his army, and their lands were given to his mercenaries in lieu of pay. In many cases these mercenaries were non-Greeks, and Campanian cavalry were especially favored by Dionysius (Diod. 14.15.3). Dionysius also undermined Greek loyalty to the city-state, and even Greek identity, for he mixed and transferred populations, and aimed to make his subjects loyal to his personal rule alone. This mixture of populations was copied in Alexander’s Asian colonies, where Greeks were forcibly settled alongside native Iranians. As a result of these methods Plutarch (Tim. 1.2) describes most of the cities of Sicily in the middle of the fourth century as being occupied by barbarians of mixed races and unpaid soldiers.

Nevertheless Dionysius principally relied on Greek mercenaries, and Lacedaemonians were especially favored (Diod. 14.44.2). Given the declining number of free Lacedaemonians in general, and of Spartiates in particular, it would be reasonable to assume that the majority of these Lacedaemonian mercenaries were recruited from Laconians of servile status. Many of the other mercenaries recruited by Dionysius may have been of humble social origins too. Thus it can be seen that mercenary service was not only a source of wealth for the free, it gave the possibility of social advance to the non-free.

Outside the turbulent rule of Dionysius we do not hear much about this in our sources; previous slaves would be reluctant to share this information too widely. In 379 the Phliasian commander Delphion managed to break out through the enemy siege lines at night, with a “branded” man (and therefore a runaway slave) “who had many times stolen weapons from the besiegers” (Xen. Hell. 5.3.24). Xenophon (An. 4.8.4) mentions a Macronian peltast born in the mountains of eastern Anatolia, who had been a slave in Athens, and (3.1.26–32) even a officer named Apollonides, probably a Lydian in origin, who spoke with a Boeotian accent to disguise his non-Greek origin: both of them served in the Ten Thousand.

The importance of mercenaries in the Hellenistic period should not be exaggerated. While the armies of the Diadochi included large numbers of mercenaries, there was yet a distinct “national” character to the men in their ranks. The Antigonid kingdom could mobilize the native-born Macedonian population to man the phalanx in times of war. The manpower base of the Ptolemaic and Seleucid phalanxes was formed of Macedonians settled in Egypt and Asia. In times of peace the majority of these new “citizen” soldiers were demobilized, except for small units of guards, who were mainly responsible for protecting the person of the king, and who were stationed at the court.

Mercenaries were still used however, and they can be divided into two types of formations. In times of peace, the Hellenistic monarchies relied on regiments of mercenaries they had recruited themselves on an individual basis. We can call these “retained” regiments of mercenaries. They were retained by the Hellenistic monarchs on a permanent basis, as integral units of their own armies, and
were directly paid, uniformed, and equipped by them. These mercenary regiments manned the garrisons upon which the security of the monarchs depended. In many cases they were recruited from all over Greece, but in some cases they would be recruited from one area of Greece alone. This was especially the case with Cretans, famed for their skill as archers.

In times of war, when the national army was mobilized, it could be strengthened by allied (“symmachic”) contingents. These allied contingents were supplied by other states, either Greek or barbarian, thanks to an alliance (symmachia) previously entered in times of peace. It was normal for the alliance to stipulate how many troops had to be supplied in times of war, and how much they were to be paid by the king. These allied contingents were units who belonged to the allied state, but were in effect loaned to the Hellenistic monarch in time of war. These two types of troops should be clearly differentiated when they are mentioned in our sources.

**LOGISTICS**

In many Greek armies, on many campaigns, we might define logistics as the personal affair of the individual soldier. When the governing body of a classical Greek city-state decided to send out a military expedition, it would have to decide exactly how many troops to send out: normally all citizens up to a certain age, depending on the size of the military task. It might also order the troops to carry so many days’ rations. For example, a number of passages in Aristophanes (Ach. 197, Vesp. 243, Pax 312; Lazenby 1994: 11) mention that Athenian hoplites are to carry three days’ rations. This might have been the standard amount for a short raid into neighboring Boeotia.

Rations would be carried in a wicker pannier, called a gy lion (Ach. 1097–1101): salt mixed with thyme, onions, and tarichos (salt fish) wrapped in a fig leaf—the ancient Greek equivalent of wrapping paper. Barley, the main staple, was also carried. It could be made into unleavened bread, or more commonly eaten as alphita, barley groats. This was a kind of porridge made of husked and ground barley boiled into a thick paste. This carbohydrate filler would be accompanied with something to be eaten with the cereal to which the Greeks gave the generic title opson, which is normally translated into English as “relish.” The protein element in this would most commonly be tarichos, especially prepared from tunny. Fish preserved in this way remains edible for about a year, though it suffers a 50 percent weight loss, 15 percent protein loss, and a 50 percent vitamin B loss. The salt mixed with thyme mentioned by Aristophanes was carried as a relish to add taste to the rather uninspiring food, perhaps starting to rot, the hoplite was forced to eat during the campaign.

In a rich state like Athens, most male citizens owned a personal slave, who would accompany them on campaign. These slaves acted as baggage carriers (skeuophoroi). As well as the gy lion, this might typically comprise their bedding mats, a water canteen, and a cooking pot; all balanced on a yoke (Chamay 1977). Cooking would be done by the skeuophoroi, either individually or in small groups. Feeding took place individually, or in small groups, and sleeping was in the open air on these small-scale, short campaigns. In poorer regions of Greece, like Arcadia, hoplites would either carry their own baggage, or bring along teenage relatives (neaniskoi), too young to serve on the campaign, to act as their skeuophoroi.

For longer campaigns, or for larger armies, different arrangements had to be made. Hoplites would be grouped into “tent companions” (syskenoi). Each tent party would take a donkey with them to carry the tent, packed inside a leather tent cover, and other heavier communal equipment. In the case of the poorer troops, without slaves, they would have to detail one of their syskenoi to look after their mule.
In the Macedonian national infantry, as first reorganized by Philip, wagons were banned, the troops carried their own weapons, baggage, and flour (rather grain) for thirty days, and each dekas (probably of sixteen men) was allotted one servant, “who was detailed to carry the mills and ropes” (Frontin. *Str*. 4.1.6). The use of the mills is obvious, while the ropes were presumably part of the tentage. These arrangements remained in place in the later armies of the Hellenistic monarchies. Philip’s cavalry were allowed one groom each; earlier cavalry had also been accompanied by at least one groom.

As time went on, and the citizen-soldier gave way to the subject phalangite of the Hellenistic kings, feeding tended to become more communal, rather than carried out on an individual basis. Anderson (1974: 153) has suggested that the picture Xenophon gives us of how Cyrus trained his legendary Persian army in the *Cyropaedia* may be based on his observation of how Agesilaus trained his force of two thousand newly enfranchised Spartan hoplites. Xenophon notes that this involves communal eating sitting by half file, file, company, and regiment (2.1.30). These former helot hoplites would have possessed no slaves or servants, so it would be natural that they would have their meals prepared by cooks and eaten in their ranks. This became standard practice in the armies of the Hellenistic kingdoms.

The late Seleucid general Heracleon made his men take their meals by thousands sitting in orderly silence on the ground in the open air. Dinner consisted of a large loaf with some meat, and wine mixed with water to drink. “Sword bearers” (*machairophoroi*) served the troops (Athen. 4.153b). These *machairophoroi*, who are also mentioned in the Ptolemaic army, are presumably the descendants of the servants attending each file in Philip’s army. The *neaniskoi* who accompanied the Ten Thousand are mentioned (Xen. *An*. 4.3.12) as carrying *encheiridia* (swords or daggers) for self-defense, but no other weapons, so the attendants in later armies perhaps also only carried swords for self-defense, and not the spears of the combatant troops. This may be one reason why such support troops came to be called *machairophoroi*.

**The Train**

Philip had banned wagons to increase the mobility of his army, but in most other armies wagons were regularly used to carry the heavy equipment. At the battle of Mantinea in 418, the Lacedaemonian wagon train was attended by older men (Thuc. 5.72.3) who had not been mobilized to serve in the campaign, but who had presumably nevertheless volunteered to join it in this noncombatant role. Xenophon (*Cyr*. 6.2.34) recommends that each wagon should contain a shovel and a mattock, and spare timbers to repair the cart itself. Each pack animal should carry an ax and a sickle (for foraging). Presumably these wagons and the oxen pulling them were in private ownership, and we have no idea of what financial mechanism was used to sequester them from their owners and compensate them in case of loss.

As well as the assembling of the wagon train, on longer campaigns with larger armies the state also had to play a greater role in assembling and transporting centrally held rations. We first hear of a communal ration supply system in 479, when an attempt was made to resupply the allied Greek forces at Plataea with food from the Peloponnese carried by five hundred pack animals through the mountains (Hdt. 9.39). We have no idea how the allied command assembled these five hundred animals and their attendants, many of whom were killed when the train was attacked by the Persians, or where the money came from to pay for the food. The train was vulnerable while marching through
enemy territory, especially if the enemy was strong in cavalry, as the Persians were at Plataea. One
tactic to guard the train from attack was to draw up the infantry as a hollow square, and to place the
wagons in the middle, as Timotheus did when passing through Olynthian territory in 364 (Polyaenus, 
Strat. 3.10.7).

Nevertheless, the free market, and private purchase, continued to be the most common way in
which armies were supplied, certainly when passing through friendly territory. In 396 Agesilaus
ordered “the cities that had to be visited by anyone who marched on Caria” to prepare a market for
the passage of his army (Xen. Hell. 3.4.11); he then marched in the opposite direction, into Phrygia,
having fooled Tissaphernes as to his intentions. We do occasionally hear of Alexander assembling
food and putting his seal on it (Arr. Anab. 6.23.4) particularly where the army had to pass through
desert regions, but more normally the soldiers procured their own rations from the Phoenician market
which followed the army (6.22.4), and we hear of the soldiers being ordered to carry three days’
rations (Curt. 5.4.17), exactly the same as in classical Athens (cf. Hammond 1983, Engels 1978).

When in hostile territory the army could supplement the food carried by the individual soldiers, by
the traders, or held centrally by the command, by foraging. Indeed, devastation of enemy territory was
frequently used as a tactic to ensure enemy submission (contra Hanson 1998). In 389 the Spartan king
Agesilaus marched through Acarnania at a snail’s pace of ten to twelve stadia (each two hundred
yards) per day, so he could devastate the territory thoroughly (Xen. Hell. 4.6.5). All trees in his path
were uprooted (Polyaenus, Strat. 2.1.10). As well as food, foragers, mainly recruited from the
skeuophoroi rather than the soldiery themselves, looked for brushwood for their fires (Xen. An.
4.3.11).

BOOTY

Foragers were also charged with gathering booty (Pritchett 1: 53–100). The tithe of booty which
Agesilaus’s forces managed to take from Persian territory in Asia Minor over two years (396/5)
amounted to more than two hundred talents dedicated at Delphi, so the total haul of booty was worth
1,200,000 drachmas. This seems to be a record for the classical period. Needless to say, huge sums
of this nature were of supreme importance in providing funds for military pay and allowances to
mercenary and state troops alike (Krasilnikoff 1992). As well as precious objects, anything that could
be sold was taken. In the final phases of the Peloponnesian War the Boeotians took even the tiles and
the timber fittings from the houses of the Athenian countryside. They also made themselves rich by
buying up cheap the slaves and other materials taken from the Attic countryside by the Peloponnesian
troops of the garrison (Hell. Oxyrh. 17.4). Any citizen captives were sold off as slaves. Xenophon
(Ages. 1.28) describes how Agesilaus gave orders to the heralds that the barbarian captives captured
in raids on Achaemenid territory in Asia Minor were exposed naked for sale. Some may have been
bought by the Athenian cavalrymen serving in the allied army, which would explain the appearance of
a number of Iranian slave names at Athens in the fourth century (IG² II 2937, 4598, 10,075, 10,076).

While the taking, management, and sale of booty were matters for the state and the commander
rather than the individual, without doubt individuals frequently tried to keep some booty for
themselves. This was a constant source of friction between commanders and their troops. When
Herippidas, an officer of Agesilaus, took from his allies Spithridates and the Paphlagonians the booty
they had taken from the estates of Pharnabazus, they felt so wronged they went back over to the
Persian cause (Xen. Hell. 4.1.26–7). An Antigonid royal edict regulating military matters was
probably promulgated by Philip V after a near mutiny broke out in 218, fanned, among other things, by resentment that the troops were not given the booty due to them “by custom.” The new edict makes it clear that all booty is to be handed over to the king, and includes provisions to punish the officers severely if this does not happen (Juhel 2002).

It was normal practice to dedicate a tithe of 10 percent to one of the gods, either in the temple of the local god of the polis, or, more usually, at a pan-Hellenic sanctuary. Temple robbing was a sacrilege, which the commander of no normal city-state army would dare to commit. As Greek society grew less respectful of traditional religion, cities such as Athens began to “borrow” money from the treasury of their tutelary deity. An absolute monarch like Dionysius of Syracuse had fewer scruples, and looted a whole series of sanctuaries. As booty amassed at the pan-Hellenic sanctuaries, it was only a matter of time before someone availed themselves of the wealth gathered there. In the case of Delphi this finally happened during the Third Sacred War (355–347). The Phocian generals Onomarchus and Phayallus, and their financial administrator Philon are alleged to have taken ten thousand talents (Diod. 16.56.6). Modern estimates put the figure at nearer to four to five thousand; even so the release of so much gold at once onto the monetary market may have been partially responsible for a change in the gold-to-silver ratio (Davies 2007). The looting of temples—not just those of the enemy, but those located within their own territory—became a fairly common practice of the Hellenistic monarchs. But as they were gods themselves, they were only borrowing from their brothers and sisters.

The booty usually had to be sold locally, as otherwise the army would involve costs of transport, and feeding in the case of the enslaved. It was first handed over to the “booty dealers” (laphyropoloi), including the captives, who had previously been under the care of the heralds. The identity of these “booty dealers” is not known with certainty (Pritchett 1: 90–92); they may have been merchants from the market following the army, rather than military officials.

THE OVERALL DESTRUCTIVENESS OF WAR

If a city fell after a siege, it was standard practice to execute the men and sell the women and children into slavery; sometimes the men would be sold into slavery too. Such practices could mean that an entire community could be wiped out. The losses caused by plundering and agricultural destruction to the local infrastructure during the passage of hostile armies are also self-evident. But even the passage of armies through neutral or allied territory could cause huge disruption to the local economy (Reger 1994: 181–2). This is most clearly shown in the prices for commodities purchased for the Delian sanctuary during the period of independence from 314 to 167. Firewood was particularly subject to dramatic price rises as armies passed by, as they could not forage for their firewood but had to buy it on the local market; prices for grain and livestock such as pigs could also be affected, though less so as armies were frequently accompanied by herds of live animals (Reger 1994: 185–7). In 302 Demetrius Poliorcetes passed through the Cyclades on his way to the battle of Ipsus together with his full army and fleet. After the defeat he passed back and stopped briefly on Delos accompanied by nine thousand men. The price of pigs recorded is extraordinarily high during these two years, and the Delians had to take out a loan of one thousand drachmas to buy grain (Reger 1994: 176–8). The disruption of normal trade links by war could also cause local shortages, even to communities like Delos not directly involved in the war. Thus the high oil prices recorded in the Delian records for 304 are probably to be explained by the siege of Rhodes in 305/4 (Reger 1994:
The effects on trade and prices were mostly local, as there was little long-range trade even in the Hellenistic period. The effects may have been more wide-ranging, though, in the case of commodities traded over long distances, such as corn. An inscription from Cyrene records the distribution of 805,000 medimnoi of grain to cities and rulers in mainland Greece and the islands around 330–327. Although the historical background to this inscription is not known, and the major factor in these changes is likely to have been a fluctuation in the climate, warfare in Italy, Thrace, the Greek islands, and Alexander’s capture of Egypt may also have been factors in the grain shortage (RO: no. 96).

The presence of armies in friendly cities was not only a financial burden, it likewise brought social problems. A whole dossier of inscriptions preserving correspondence between Antiochus III and the cities of western Asia Minor, which lay within his kingdom, outline the problems. The billeting of soldiers in citizen households was highly unpopular. Antiochus agrees to restrict the proportion of private houses taken by his troops in Sardis to one-third, not one-half as previously; at some point the city was granted freedom from billeting entirely (Ma 1999: 288, 353). Another point of contention was the stationing of troops in sanctuaries. In another damaged inscription, the king’s local governor Zeuxis writes to the troops stationed at Labraunda, asking them to be “well-disciplined, and not to camp [in the sanctuary?] in Labraunda, not to live in the [sacred places] and [bring in] pack animals … nor in the gateways nor in the porticoes” (Ma 1999: 305). A sacred law from Xanthus, also probably dating to the reign of Antiochus III, bans the wearing of the kausia and petasos in the Letoon sanctuary (Le Roy 1986). The kausia was a Macedonian regional beret, which became a badge of both Macedonian troops and mercenary regiments in the employment of the Macedonian dynasties of the Hellenistic period. The occupying troops liked to sport it as a sign that they were military men, not “civilians.”

The desire of Greek communities to prevent at least their sanctuaries from being looted, either by pirates (often operating in support of a military campaign) or by armies, led to substantial diplomatic activity, heavily documented in inscriptions mainly coming from the third century. Sylê (“that which has been seized”) is the term usually applied to plunder in the Hellenistic period (Bravo 1980) and these cities attempted to enter into bilateral agreements with a whole host of other Greek communities which would give their sanctuaries asylia: freedom from being seized or plundered. It was an attempt to restore to the Greek sanctuary the inviolability it had enjoyed more fully in earlier times. These diplomatic efforts were, of course, only successful if the potential aggressor had entered into an agreement. If he had not, he did what he liked. Delos, for example, was thoroughly sacked in 88 by Menophanes, an officer of Mithridates VI of Pontus, according to Pausanias (3.23.3–5).

HUMAN LOSSES, DEMOGRAPHIC CONSEQUENCES

The most drastic losses were human losses, which could have significant social, political, and demographic consequences. The way in which the Greek poleis reacted to the demographic consequences of warfare changed over time. In the sixth century policies toward citizenship were additive. Larger political units were starting to coalesce, uniting relatively large areas of territory under one city for the first time. New political constitutions were introduced, and it was relatively common to extend citizenship to persons not previously citizens. When Clisthenes introduced his political reforms in Athens circa 508/7, he extended citizenship to many foreign immigrants and slaves in order to expand the number of hoplite infantry to nine thousand (Arist. Pol. 3.1.10). After
the Persian Wars Athens emerged as one of the leading states of Greece, and policy toward citizenship became much more restrictive. This is seen most clearly in Pericles’’s law of 451/0, which restricted citizenship to those born of Athenian parents (Arist. [Ath. Pol.] 26.4).

Even so, thanks to her economic prosperity, by the outbreak of the Peloponnesian War the number of citizen hoplites of military age available to Athens had risen to 13,000, not to mention a reserve of 16,000 hoplites comprising resident foreigners and Athenians in the age classes in reserve (Thuc. 2.13.6–7). The Athenians voted to send an expedition to Sicily in 413 for a variety of reasons, but one important one was the influence demagogic politicians had on the poorer urban citizens. The substantial losses suffered fell disproportionately on the relatively wealthier citizens who had served as hoplites during the expedition. The result was a series of oligarchic coups at Athens, beginning in 411, which sought to restrict the right to vote to the wealthier citizens. The total losses suffered by Athens were such that after the war she was never again able to field a force of more than six thousand hoplites (Sekunda 1992: 314).

At Plataea the Lakedaemonians had been able to field five thousand Spartiate hoplites, five thousand other Lacedaemonian citizen hoplites, and thirty-five thousand Helot psiloi (Hdt. 9.28). It seems that the helots made up the rear ranks of the Lacedaemonian phalanx (Hunt 1998: 31–9). This proved a dangerous expedient, as the regent Pausanias later tried to seek their aid to gain the kingship, offering them citizenship in return. It was probably at this period that we should put the incident described in Thucydides 4.80.3: two thousand helots who had distinguished themselves most in war, and who were supposed to be set free, were done away with by the Lacedaemonians. It seems that Sparta suffered a quite drastic decline in her citizen body during the fifth century, perhaps as a result of the severe earthquake she experienced circa 465. Despite her fears of the dangers of arming the helots, she was forced to repeat the experiment during the Peloponnesian War and after. On this occasion some of the helot hoplites were even enfranchised before service. Lacedaemon’s period of hegemony in Greece was finished by the losses in citizen manpower she sustained at Leuctra in 371. This ended Sparta’s period of hegemony in Greece at one blow. The total number of Spartiates was eight thousand during the Persian Wars (Hdt. 7.234), but had fallen to less than a thousand by Aristotle’s day (Pol. 1270a11).

The effects of war on smaller communities could be just as catastrophic, although more difficult to trace in the surviving evidence. The case of the small Boeotian polis of Thespiae provides a sobering example of war’s demographic consequences (Hanson 1999). Among the Greeks defending the pass of Thermopylae against the Persians were seven hundred Thespians, who all died alongside the better known three hundred Spartans (Hdt. 7.202). The surviving male population of eighteen hundred, without hoplite armor (Hdt. 9.30), joined the Greek forces at Plataea; so it seems that the city had lost about 30 percent of its male population, all drawn from the wealthier classes. After the war Thespiae had to enroll more citizens to replace these losses. Siccinus, the tutor of Themistocles’s children and the bearer of messages to Xerxes, and so probably a freedman, later became a Thespian (Hdt. 8.75). The Thespians fielded a contingent for the Boeotian federal army at Delium in 424, where they again suffered heavy losses when the contingents on either side gave way, isolating the Thespians who were surrounded and cut down in hand-to-hand fighting with the Athenians (Thuc. 4.96.3). A very similar thing happened a generation later in 394 at the battle of the Nemea river. The Boeotian contingents were stationed on the right wing opposite the Achaeans. All of the latter gave way to the Boeotians except the men of Pellene, stationed opposite the Thespians. Both sides fought and fell in their places (Xen. Hell. 4.2.20).
The collapse of Lacedaemonian hegemony in Greece, which predated the Persian Wars, going back at least to the latter part of the sixth century, entailed the collapse of all local balances of power, and ushered in a period of great destruction. So in Boeotia Thebes destroyed all its hostile surrounding neighbors, previously defended by Lacedaemonian garrisons, until it was in turn destroyed by one Macedon monarch in 336, and then refounded by another in 317. Following the death of Alexander, huge armies commanded by his successors traveled back and forth through the Greek world. Large numbers of people were deracinated, and many communities became short of manpower. The result was a return to an open attitude in enrolling new citizens: often recruited from groups of mercenaries, and often enrolled into the citizen body at the behest of the monarch who had recruited them.

Most of these grants of citizenship are recorded in inscriptions. For example, a list of forty-three newly enrolled citizens was found at Hermione. Guarducci first recognized the names as Cretan, and dated the enfranchisement to 219 to 217 during the Social War, although the inscription could be put at almost any time in the third century (Launey 1949–50: 1, 252 n. 4).

Sometimes the powerful national armies of the Hellenistic monarchs also suffered heavy losses, which could weaken their principal element, the phalanx. There were sixteen thousand Macedonians in the Seleucid phalanx at the battle of Magnesia in 189. Not only would considerable losses have been suffered in the battle, the recruiting grounds in Asia Minor were lost to the Seleucids as a result of the subsequent treaty of Apameia. After the death of Antiochus III the reign of his successor Seleucus IV (187–175) was an unusual period of peace in the turbulent history of the Seleucid kingdom; perhaps deliberately so. At the Parade of Daphnae in 166, some twenty-three years after the battle, the strength of the phalanx had risen to over twenty-five thousand (Griffith 1935: 146).

Following his defeat at Cynoscephalae in 197 Philip V put an end to almost twenty years of constant war and put in place measures to expand the Macedonian population and his financial resource base (Livy 39. 24. 2–4; cf. 42. 11. 6). Philip had been active much earlier trying to stimulate the population base available to him. Philip was also king of Thessaly, and in 215 had taken measures (Bagnall and Derow 1981: no. 31) to encourage the city of Larissa to give citizenship to those of the Thessalians or the other Greeks who were dwelling among them, so the land could be worked to a greater extent. Philip notes that the Romans even freed their slaves, and had been able to send out colonies to almost seventy places. So even then Philip was aware of the disparities between the Macedonian and Roman demographic bases.

It is impossible to quantify the numbers of persons uprooted by war in the Greek world, but they must have been considerable. On the other hand there was always the chance of them being accepted into another city, often thanks to the intervention of one of the Hellenistic monarchs. If this did not happen, many individuals moved to the east to inhabit the new cities that were springing up there after the fall of the Persian empire, the most famous of which was Alexandria, substantially populated by Greeks from Sicily and South Italy, doubtless displaced by the constant strife which plagued that part of the Greek world at the time.

Bibliography


Sekunda, N. V. 1990. “*IG* ii² 1250: A Decree Concerning the Lampadephoroi of the tribe Aiantis.” *ZPE* 83: 149–82.


There are serious difficulties in tracing the history of Roman military formations and tactics during the Republic. The Latin annalistic tradition presents a static picture, projecting the characteristics of the army of the Middle Republic back into the earliest period. In addition, it is for the most part uninterested in the technical aspects of warfare (cf. Rawson 1971: 13–31; Schleussener 1978: 101–10). There are occasional exceptions to this indifference but they mostly concern modifications to weapons such as changes in the pilum ascribed to Marius and Caesar and seem to be more the product of interest in well-known historical figures than in military development. Polybius’s history forms a major exception with his detailed discussion of the organization and equipment of the contemporary Roman army in Book 6 and his comparison of the manipular formation to the Macedonian phalanx in Book 18 as well as in his accounts of the major battles and scattered comments throughout the rest of his work (Polyb. 18.28.1–32.5).

The extant fragments of antiquarian writing are more helpful. They provide the basis for much of our understanding of early military organization and tactics. It is likely that antiquarian sources lie behind the digressions on the Servian army in Livy, Cicero, and Dionysius of Halicarnassus. The fragmentary nature of most of the extant material and its narrow focus prevents it from offering a coherent account. At most it can serve as a starting point for the construction of one.

Military manuals also provide little help in any reconstruction (see further Lovano, 79–80). The earliest known Latin manual, that of Cato (De Re Militari, c. 160), is extant only in fragments (Jordan 1860: 80–2). It does show some interest in the history of the Roman army and seems to have dealt with practical military matters including military organization and battle formations. The extant manuals are all of imperial date and present an interesting dichotomy. The majority of manuals dating from the early empire either focus on stratagems in the field or the role of the commander. They show little interest in the technical details of soldiering with a few exceptions such as Arrian’s Tactica or Pseudo-Hyginus’s treatise on the Roman camp. The emphases change in the late Empire and early Byzantine period. Vegetius’s De Re Militari and the Strategikon of the Emperor Maurice are far more concerned with the practical aspects of war such as training, battle formations, and armament. The reasons for such a change are not clear, but the more difficult military situation of the late Empire may have contributed to the change of emphasis (on imperial military manuals: Campbell 1987: 13–29). These handbooks reflect the same attitude to warfare found in most historical narratives that also focus on the moral qualities of the commanders and their troops.

This lack of interest in the technical aspects of warfare severely hinders any attempt to reconstruct
the history of the Roman army and tactics. It is a striking fact that there is no ancient account of major innovations in tactics and organization such as the development of the manipular legion or the shift from the maniple to the cohort as the basic tactical unit of the Roman army.

Material remains and literary descriptions of weapons can be useful aids, especially so for the earlier periods. Since the type of equipment an army uses bears a close relation to the formations it adopts, equipment can be used as basis for inferences about military techniques. It is also useful in tracing external military influences on Roman practice (cf. Couissin 1926, Connolly 1981, Bishop and Coulston 1989).

Rome’s earliest military formations were of two types. The first type was an army of the community as a whole. The sources claim it consisted of three thousand infantry and three hundred cavalry with one thousand infantry and one hundred cavalry drawn from each of the three tribes (Varro, *Ling.* 5.89; Livy 1.13.8; Plut. *Rom.* 13.1). The authenticity of these numbers gains support from the continuing importance of multiples of three in the Roman army: the sixty centuries in a legion, the three lines of the manipular army, and the three hundred cavalry which were a standard complement of the legion in the Republican period. The king or his deputies functioned as overall commanders. There is some evidence for subordinate commanders of both cavalry and infantry. *Tribuni celerum* are mentioned as cavalry commanders, perhaps one for each tribal contingent, and had as their subordinates the *decuriones* whose title survived in the later Roman army. In the absence of any evidence in the sources about subordinate officers in the infantry it is reasonable to assume that the later *tribuni militum* had their counterpart in the archaic army. It may be that they commanded the tribal contingents and that there were subordinate commanders of units of one hundred men, the precursors of the later centurions (*tribuni militum*: Ensslin 1937: 2432–92).

In addition to the regular army there were also war bands held together either by kin ties or the success of a particular leader or some combination of the two. The defeat of the Fabii at the Cremera River in 479 by a force from Veii illustrates both types of bands. The Fabian force is described as consisting of both members of the Fabian gens and clients. This is the only attested action of a clan army, but circumstantial detail associated with the story adds plausibility to it. Many details of the episode are clearly invented but there is no reason to dismiss the episode as fabrication. Further evidence for bands of this type has surfaced in the form of the so-called *Lapis Satricanus*, an inscription with what appears to be a dedication to Mars by a war band in honor of their leader.

Any attempt to reconstruct the fighting techniques of either the Roman army of this period or the war bands must depend upon weapons finds and pictorial representation of combat as the literary sources are unhelpful (see further Connolly 1991: 358–63). There have been few finds of weapons or other military equipment at the site of Rome from this period. Pictorial representations of combat are also rare. Comparison with other sites in Latium and southern Etruria suggests that before the end of the seventh century throwing spears or javelins often combined with a sword or other weapon suitable for close combat were the most common weapons. In both Latium and at the site of Rome there is little trace of protective armor and it is probable that such equipment was made of organic materials (Stary 1981: 20–159). Although there can be no certainty, the weapons used point to fighting in relatively open formations, as space would be needed to employ missile weapons. Representations of combat from Dark Age Greece may offer us some idea of what this fighting was like (Snodgrass 1964; Ahlberg 1971). The remains of a chariot have been found in an eighth-century grave at Rome (Esquiline 94) and at later sites in Latium but there is no evidence for its use in warfare. Etruscan representations which may be relevant for Rome show mounted infantry rather
than true cavalry fighting from horseback.

The end of the seventh and the first half of the sixth century are marked by the beginnings of urbanization and by a substantial population increase at Rome. Weapon finds as well as representations of fighting at Rome and elsewhere in Latium become more plentiful. Of more importance is the evidence from the mid-seventh century for the adoption of hoplite equipment in Etruria and representation of hoplite warriors at Rome and in Latium (Saulnier 1980: 69ff.; Stary 1981: 63ff). These developments form a suitable context for the military reform traditionally ascribed to Servius Tullius. The main evidence for it is provided by digressions in Livy and Dionysius of Halicarnassus (Livy 1.42.5–43.10; Dion. Hal. Ant. Rom. 4.16–18; Cic. Rep. 22.39–41 adds little; for recent discussion see Cornell 1995: 179–86). Their accounts are in substantial agreement with only a few minor differences. The hoplite military reform was tied to the introduction of a property census which linked military service to wealth, since individuals served at their own expense. This simply may have institutionalized the preexisting situation as service in the archaic army must have been on the same basis.

The complicated five-class structure as well as the division of centuries within each class found in these accounts are anachronistic and are to be linked with later political developments. Some sources preserve a simpler distinction which seems to be authentic between classis and infra classem, that is, between service as heavy or light infantry (Paul. Fest. 100L, Gell. NA 6.13).

The equipment assigned to the first class of forty centuries was the full hoplite panoply of round shield, cuirass, helmet, and greaves. Its offensive weapons were also those of the hoplite: the heavy thrusting spear with a sword as secondary armament. The second and third classes wore fewer pieces of protective equipment but still carried the same offensive weapons. The last two classes were light-armed infantry.

The first class is clearly equipped to fight in the manner of a Greek phalanx. However, difficulty has arisen about its relationship to the second and third class whose principal defensive equipment is the scutum or long rectangular shield (see further Eichberg 1987: 175). This difficulty is due to an overly narrow concept of how early phalanxes fought. The compact, regular arrangement of the Greek phalanx into ranks and files was a gradual development. The Greek phalanx of the seventh and sixth century was much more fluid than it was later to become (van Wees 2004: 170–83, dates the development of the classical phalanx to the last half of the fifth century; the beginning of the fifth seems more likely). Apparently warriors were mobile within the phalanx and changed position in response to the rhythm of the fighting. Light-armed infantry seem to have fought within the phalanx. The adoption of hoplite equipment seems to have been piecemeal and so hoplites both in Italy and Greece must have normally operated with troops armed with other equipment.

Sixty centuries of heavy armed infantry would give a paper strength of six thousand men; this seems compatible with modern estimates for the population of Rome in the late sixth century (Ampolo 1980: 29–30 estimates a population of 20,000 to 30,000 which he calculates could field an army of 6,000 to 8,500 men). The sources also record an increase in the number of cavalry centuries at the same time. This lends support to the view that the reform had two principal objects, the creation of a hoplite force and as means to enlarge the available pool of men available for military service.

The transition to the Republic at the end of the sixth century and the institution of the dual magistracy of the consuls led to a splitting of what had been a single “legion” into two legions with three thousand heavy infantry each. This figure agrees with the number of heavy infantry in the legion of the middle Republic. There is no evidence as to how the Servian legion and its immediate
Republican successors were deployed on the battlefield or the manner in which they fought. The narratives of early regal and Republican battles stress the importance of the cavalry, which is often portrayed as fighting dismounted. Given the relatively minor role of Roman cavalry in later centuries it seems likely that this is annalistic invention.\textsuperscript{7}

By the middle of the second century the Roman army had undergone a tactical revolution. The rectangular, comparatively densely packed phalanx was no longer the basic tactical unit on the battlefield. It had been replaced by the maniple, a miniature phalanx that could operate independently. The maniples of heavy infantry were divided among three lines each of ten maniples: from front to back the *hastati, principes*, and *triarii*, and within each line they were separated by intervals equal to the frontage of the maniple. The maniples were arranged in checkerboard fashion so that each line covered the intervals between the units of the line to its front. The maniples of the *hastati* and *principes* were 120-men strong while those of the *triarii* contained half that paper strength number. The maniples of the *hastati* and *principes* were rectangular in form while those of the *triarii* were arrayed in column. This tactical arrangement allowed the Romans to commit their troops to battle in successive waves while retaining a reserve force (\textit{figure 10.1}).

![The Roman Legion in the mid-2nd Century B.C.E.](image)

\textbf{Figure 10.1} Tactical arrangement of the Roman legion in the mid-second century. Drawing after M. Sage.

The change in the battle line was accompanied by a change in weaponry. The heavy thrusting spear was replaced as the main offensive weapon in the front two lines by a combination of a javelin, the pilum, and a short sword effective both for thrusting and slashing. The round shield of the first class was exchanged for a large oval shield, the scutum, with a central handgrip that allowed it to be quickly turned in any direction. The *triarii* retained the long thrusting spear until the end of the second century.\textsuperscript{8} These weapons allowed the maniples to quickly redeploy and face a threat from any direction. As Polybius points out in his comparison of the Macedonian phalanx to the manipular formation, maniples could fight successfully in the kind of rough terrain which broke the cohesion of the phalanx, rendering it vulnerable. The Roman system committed only a portion of its troops to the initial attack and allowed independent maneuver of units that was far more effective in countering such threats. The use of the sword and pilum reduced the need to disengage the entire formation to meet flank attacks. The comparatively small size of these units also increased their mobility as smaller units could move more quickly.\textsuperscript{9} Even Hellenistic armies that depended on the phalanx normally operated in separate divisions (Polyb. 18. 29–32 compares the phalanx to the legion to the advantage to the latter).

This adoption of new weaponry increased the value of the infantry in battle. The pilum appears to have been an effective substitute for other types of missile. Within its limited range (about 28 m) it was highly effective in penetrating both shield and armor. In addition, it was designed to bend on impact so that the enemy could not return it. It also could be used to repel cavalry attacks as Caesar did at Pharsalus in 48 (Caes. \textit{B Civ.} 3.93.5–6; Plut. \textit{Caes.} 45.2; the pilum in battle: Zhmodikov 2000: 67–78). The standard \textit{“Spanish sword”} of the legionary was more lethal than the heavy thrusting spear of the phalanx. When Philip V had the cavalry killed at Cynoscephalae buried, the public was appalled by the horrific wounds inflicted by the legionary sword (Livy 31.34.1–5).
In addition to the heavily armed legionaries the legion of the mid-second century contained twelve hundred light-armed troops. Although Polybius (6.24.2) states that forty were assigned to each maniple, this must have been for administrative purposes only. In battle narratives they operate independently of the heavy infantry and from the mid-third century often worked in conjunction with the cavalry. Their offensive weapons were a lighter equivalent of the legionary’s. They carried the same sword along with multiple javelins which were lighter versions of the pilum (Polyb. 6.22).

Three hundred citizen cavalry, a preserve of the well-to-do, were also attached to the legion. They were organized in ten turmae or squadrons including two officers and twenty-eight troopers. Their small numbers and the inability of ancient cavalry to ride down organized heavy infantry relegated them to subsidiary roles on the battlefield. They were normally stationed on the wings of the infantry to protect their flanks and one of their most important tasks was to drive off enemy cavalry so as to expose the enemy’s. They were useful as a screen for infantry movements, protecting foraging parties, as scouts, and, if the enemy broke, in pursuit (cf. McCall 2002: 13–21 who argues that Roman cavalry were effective).

These changes in equipment and tactics placed greater emphasis on skills of the individual soldier and the need for discipline and cohesion as the army was now required to carry out more complicated maneuvers in battle. However, there is no evidence in the Republican period for any regularized course of training. Historians do mention training but it appears to have been conducted at the discretion of the commander. After his capture of Carthago Nova in 209 Scipio Africanus instituted training in marching and weapons practice at his own initiative (Polyb. 10.20; Livy 26.51). Training methods as well were dependent on the commander. There does seem to have been a standard pattern. Livy mentions (24.58) that a Roman centurion, Q. Statorius, was sent to drill Numidian recruits in the Roman manner in 213. This must have included some weapons drill. The sources mention the introduction of weapons training based on the methods employed in the gladiatorial schools in the face of the impending German threat in 105 (Frontin. Str. 4.1.12). Nevertheless, Roman commanders must have regularly trained their men and were conscious of the limitations of new and relatively untrained troops. In 193 one of the consuls, Q. Minucius Thermus, while operating in Liguria, refused to engage in a decisive battle because his troops were new recruits and insufficiently trained (Livy 35.5.3).

The reasons for, and the stages that marked, the transition from the hoplite phalanx to the manipular legion are, except for scattered references, ignored by the sources. The one exception is a topos found in Greek sources that the Romans borrowed their fighting methods from their enemies and then used them to defeat them (the theme appears in Sall. Cat. 51.7 and must have been a Roman commonplace; cf. Ineditum Vaticanum 3 [FGrH 839 F1], Diod. Sic. 23.2.1, Ath. 6.273). It connects the change from phalanx to maniple to the fourth-century conflicts with the Samnites as it ascribes the earlier adoption of the phalanx to wars against the Etruscans. The artificiality of this is clear. The adoption of the phalanx was far more likely due to Greek influence in central Italy. The only plausible explanation for the development of the manipular formation in the Samnite Wars was the need to engage the enemy in the irregular and mountainous territory of the Samnite highlands. Such an explanation ignores the successful wars of the fifth century against the Aequi of the Anio valley or the conflicts with Celtic tribes in the first half of the fourth century. The link in this account between the adoption of Samnite weapons and tactical change also appears weak. It is extremely unlikely that the Romans lacked suitable swords or missile weapons before the late mid-fourth century.

Perhaps the more important question is why the Romans were ready to accept such changes. The
fourth century was a time of other important military developments. The most striking was the increase from one to two legions in 362, the popular election of military tribunes in the same year, and a doubling of the legions to four in 311 (cf. Livy 7.5.9, 9.30.3). The increase in army size implied the need to extend the reach of the levy down the economic scale. This was made possible by the institution of army pay at some point in this period. Such a step also implies the abandonment of the census classes as the basis of the levy and its replacement by a levy based on tribal membership. This may form the background to the first attested levy of *capite censi* in 281/280 (Cassius Hemina, in Peter fr. 21). The need to enroll the less wealthy in the legions may have served as one motive for the development of new tactics. Other reasons remain unclear.

It seems likely that this change in tactics was accomplished gradually. Certain references in the sources point to the period between 311 and the war against Pyrrhus as the time when the transition began. Dionysius of Halicarnassus singles out the second line of the manipular legion as those who wield cavalry spears and prevail in close order fighting (*Ant. Rom.* 20.11.2; see Rawson 1971: 25–6). Plutarch’s *Life of Pyrrhus* (21.6) mentions the Romans fighting fiercely with their swords at Asculum. Together such passages imply that the first line of the legion had separated and was now fighting with the weapons of the manipular army.

Further support for this view comes from the name of the first line, the *hastati*. Fragments of Livius Andronicus and Ennius indicate that the term *hasta* could be used of a throwing spear (see Enn. *Ann.* 284 Vahlen; Liv. Andron. F35 Morel). The javelin of the later light-armed Roman troops was called the *hasta velitaris* (Livy 26.4.3). One further piece of evidence is provided by Polybius (21.6). By his time the levy was generally based on age and presumably experience. He tells us that the youngest and poorest were drafted into the light-armed *velites* while those somewhat older formed the *hastati*. Men in the prime of life were enrolled as *principes* while the oldest men were brigaded as *triarii*. This suggests the possibility that the *hastati* were originally formed from the light-armed of the original phalanx. The standard offensive equipment of the manipular legion was in essence a heavier version of the standard equipment of the light-armed. The need to expand the legions might well have acted as the impulse behind this development.

It appears that at first only the *hastati* fought in the new manner. Sometime after the Pyrrhic War the first two lines adopted sword and pilum as their offensive weapons while *triarii* retained the heavy thrusting spear and their formation in column. As the oldest soldiers the *triarii* were ill suited to the physical demands that sword fighting required. This is illustrated as well by their frequent use as a reserve or as a camp guard (Dion. Hal. *Ant. Rom.* 8.86.4). The retention of the thrusting spear allowed them to more effectively face cavalry and that may also explain their being arrayed in columns which eased the problem of forming up to face attacks on the flanks or to the rear.

Additionally, Roman armies included substantial numbers of allied forces in the Republican period. By the late third and second century a rough estimate is possible despite the fact that the sources give widely different figures. The ratio between allied and Roman forces varied 2:1 to 1:1 with an apparent decline from the beginning of the second century (see Brunt; his figures are accessible in Nicolet 1977: 446ff). Their tactical organization differed from that of the legions and anticipated changes in legionary organization in the first century. The allied infantry units were organized in cohorts of four to six hundred men. In a normal consular legion of the middle Republic these units were brigaded in two *alae* or wings of ten cohorts each. Polybius (6.26.7) claims that there was substantially more allied cavalry in a legion than Roman. He gives a figure of 3:1 but this is an approximate figure; the figures for individual armies are much more variable.
The cavalry were organized in *turmae* as was the Roman cavalry and it is a reasonable estimate that these units likewise consisted of about thirty men. There is general agreement that the *turmae* were both tactical and organizational units but the status of the infantry cohort is less clear. The evidence implies that the allied cohort was both an organizational and tactical unit. There are references to allied cohorts operating as battle groups. At Pydna in 168 the battle began as a skirmish between Thracian troops and an outpost consisting of two cohorts of Paeligni and Marrucini and a unit of allied cavalry (Livy 37.40.4; Plut. *Aem.* 18 differs slightly in detail). A *cohors Paeligna* accompanied Sulla on his mission to the Mauretanian king Bocchus in 105. It is likely that allied cohorts were used as tactical formations when they participated in independent operations as appears to have been the case for Roman troops by the end of the third century. The familiarity of the men with each other and shared ethnicity would have strengthened the group’s cohesiveness and eased problems of command. Further support for such a view can be found in the practice of brigading Italian cavalry together on one wing while Roman cavalry was deployed on the other.

The use of the allied cohort within the battle line is more problematic. Livy’s description of the Roman battle line at the battle of Magnesia in 190, which represents the normal Roman deployment of allied forces on the wings of the line with the legions in the center, is frequently paralleled elsewhere in the sources. Livy also mentions (37.39.7–9) that the allies were armed in identical fashion to the Romans. This implies that their tactical formation was divided into the same lines and maniples as the Roman legions were, and presumably had the normal contingent of light-armed troops as well. The cohort could still have formed the basis for the arrangement of the maniples in line. The Roman cohort can be used as a comparison. Its three maniples, one from each of the three lines and its light-armed troops, are approximately the strength of known allied formations. It seems likely that allied cohorts were structured in the same way and were brigaded as cohesive units in the battle line. The tactical organization of allied cavalry is less of a problem. Its tactical divisions were identical to Roman formations and it too was probably brigaded by place of origin.

The chronology of the increasing assimilation of allied formations and tactics to the Roman model is unknown. There is little information about the fighting styles of other Italian peoples and much has to be inferred from archaeological finds. The long-standing system of military alliances and the preponderance of Rome in central Italy probably resulted in the early Romanization of allied forces. Livy’s statement (8.8.14–15) that at the time of the Latin War Roman and Latin equipment and formations were identical is probably correct. The annalists’ descriptions of Roman battles with the Samnites are full of anachronisms, but equipment finds and pictorial representations point to a more open battle order than the phalanx that would have not made the transition to the manipular formation difficult (Salmon 1967: 102–10). Polybius mentions (18.28.10) that at the battle of Asculum in 279 Pyrrhus interspersed his southern Italian allies organized in manipular formation between units of his phalanx. The common military tradition must have made for a rapid assimilation of allied forces.

Overall command in battle was normally vested in a consul, praetor, or promagistrate with imperium. In campaigns where the two consuls were operating jointly overall command was rotated on a daily basis. Such a system could and did lead to disputes between the commanders as at Cannae in 216 between the two consuls C. Terentius Varro and L. Aemilius Paullus over the decision to give battle against Hannibal (Polyb. 3.110.1–3; Livy 22.44–45). Legates and military tribunes could command detached forces. In 168 when the Macedonian king Perseus had taken up an entrenched and well-protected position near Pydna, a force of 8,200 infantry and 120 cavalry placed by Aemilius Paullus under Scipio Nasica serving as military tribune successfully turned the king’s position (Plut.
Delegation of command increased with the growth of the Empire. Caesar, faced with the need to control large areas in Gaul, routinely used legates in detached commands. The allied infantry *alae* were under the command of Roman *praefecti socium* of equestrian rank. Since each *ala* was of legionary size it has plausibly been suggested that it had six praefecti in parallel to the six military tribunes of the legion (Keppie 1984: 23). Both Roman and allied cavalry were normally placed under subordinate commanders as they often operated independently of the infantry (later legates are often found commanding the whole of the cavalry).

Given the limitations in communications and signaling in ancient armies the battle line was divided into a center and two wings since it was impossible for a single commander to control the entire line. Military tribunes often exercised such subordinate commands before the beginning of the second century, but that role was increasingly taken over by senatorial legates. In the climatic battle of the war against Antiochus III at Magnesia ad Sipylum in 190 the Roman force consisting of two legions together with the Italian and Greek allies was under the overall command of the consul L. Cornelius Scipio who directly commanded the right of the line while his legate commanded the left (App. *Syr.* 31.6).

The deployment of the manipular battle line in general followed a standard pattern with the legions in the center, the *alae* of the allied infantry on their flanks, with the cavalry stationed on the wings. The placement of the light-armed *velites* varied according to circumstances. They were normally placed in the gaps between the maniples of the first two lines, but either at the opening of battle or during its course they were often brigaded with the cavalry and acted in conjunction with them. The capabilities of the manipular battle formation are best revealed by Scipio Africanus’s major battles in Spain. At Baecula in 208 he reversed the normal battle line by holding the enemy’s center with his light infantry and extending his heavy infantry on the wings of his lines to attack the enemy’s flanks (Polyb. 10.39.3–6). These tactics were developed further at Ilipa in 206, where Scipio placed his unreliable Spanish allies in the center, which deprived the Carthaginians of the effective use of their best troops, and as he neared the enemy marched his right and left wings out beyond the enemy line and successfully attacked the Carthaginian flanks (Polyb. 11.22.6–23.9). The advantages of a segmented formation are also evident at Cynoscephalae when twenty maniples were detached from the victorious Roman right wing, marched behind the battle line, and then delivered an assault against the flank and rear of the Macedonian right (Polyb. 18.26.1–3; Livy 33.9.8–9).

Once the decision for battle had been taken the first task facing the army was the deployment from column of march into line formation. It seems likely based on imperial evidence that the march to the field of battle was carried out under the supervision of the centurions with each of the three lines separated from each other and intervals left between maniples to avoid disordering their formation. This would allow the maniples to quickly wheel into line.

The maniples of all three lines would then take up their positions in checkerboard or *quincunx* fashion. The maniples of *triarii* containing thirty men or half the strength of the other two lines would take up an essentially defensive position in column, kneeling with their left leg extended, resting their shields on their shoulders. References to their being moved forward to the front of the formation during a battle are extremely rare, though Scipio Africanus did place them on the wings of the other lines in the second phase at Zama (Polyb. 15.14.3; Livy 30.34.11). The striking power of the legion was concentrated in its first two lines. Usually the maniples would be separated by gaps equal to their frontage but their width and the spacing between the lines could be varied according to circumstances.
The two centuries of the maniple were commanded by two centurions, the *prior* and *posterior*. The *prior*, the senior of the two, commanded the maniple’s right and was in overall command of the unit while the *posterior* commanded its left. The *signiferi* who carried the unit’s standards could exercise command if the centurions were unable to do so.

The sources provide no help in understanding how the maniple itself was deployed. Various arguments have centered on the question of whether the centuries in the maniple were arrayed behind one another or side by side. No definitive answer is possible. The titles of the centurions offer no help as we cannot be certain of their origin. The fact that one centurion commanded each side of the maniple makes it more probable that each centurion would be directly commanding the men who belonged to his unit and so it is likely that the centuries were arrayed side by side. The depth of the maniple presents a similar problem. Certain considerations support a depth of six men. The use of the sword, pilum, and scutum limited the useful depth of the maniple. Too great a depth would not allow the rear ranks to use their pila for fear of striking the men in front. The Roman short sword could only be effectively wielded by the first line and perhaps the second rank in support. The central handgrip of the Roman shield was not suitable for transmitting pressure along a line of men and so the rear ranks could not have contributed to any attempt to break through the enemy ranks by pushing or shoving. The rear ranks must have served to replace those who had been killed or injured at the front as the battle developed. Too great a depth would simply have removed a number of men from any effective role in the early phases of the struggle. Marching formations provide some other evidence. Usually the three lines marched abreast of one another in separate maniples. A deep maniple would have reduced the usefulness of such a marching formation especially in rugged terrain. Imperial evidence suggests a width of six men in column of march and there is no reason not to assume the same width in the Republican period.\textsuperscript{11} This would support a depth of six men in the maniple.

Light-armed troops and cavalry were sent forward in the opening phase of the battle to protect and screen. The light infantry engaged the enemy’s light-armed but such contact was never decisive. It then withdrew filtering through the intervals between maniples and to the wings where it fought with the cavalry. Once the enemy infantry was held in front by the legionaries the cavalry and light-armed could deliver attacks on the flanks and rear of the enemy.

The crucial role in a set-piece battle was played by the heavy infantry. The Roman preference was to take the offensive. This attitude is clear from Caesar’s critique of Pompey at Pharsalus for keeping his inexperienced legions on the defensive to receive Caesar’s charge. He claims that by doing so Pompey forfeited the effect of the excitement and enthusiasm that accompanies the desire for battle (Caes. *B Civ.* 3.92.4–5).

The maniples of the first line must have advanced fairly slowly to keep their ranks dressed until they came within pilum range of the enemy. A halt at this point has been denied by some scholars as it checked the infantry’s impetus. This would be more significant for a phalanx formation than for legionaries who depended on the short sword as their primary offensive weapon. At this point the maniples must have been in more open formation to allow the pila to be used effectively. The function of the pilum was to inflict casualties and disorganize the enemy line. After discharge of pila the maniples must have closed up and moved forward to contact at a quickened but controlled pace to keep formation. Debate has arisen on whether the Roman line encountered the enemy as an unbroken line or with intervals between maniples maintained. The sources are silent on the matter but certain considerations can be advanced.

It has been claimed that the maintenance of intervals of whatever size would expose the maniple to
flank and rear attacks. The rear ranks of the maniple and the presence of the second line would quickly meet such threats. If the line was closed at contact the second line would not have been able to come up to replace the first as it would have been impossible to easily disengage once the battle had started. Initially contact must have been made with both shield and sword. The initial spacing between men was probably two feet to either side to allow free use of the large shield and for swordplay.

The Romans preferred to fight in a semi-crouch which allowed the preferred stabbing stroke while minimizing exposure (Dion. Hal. Ant. Rom. 14.10.18; their helmet seems to have been specifically designed to protect troops fighting in a crouched position; see Bishop and Coulston 1989: 203). Sword fighting is exhausting and the battle must have ebbed and flowed with periods of intense fighting alternating with lulls to allow the soldiers to recuperate. The intervals would have permitted men from the rear ranks of the maniple to replace the dead or injured in the front lines. It must also have been during such pauses that the *hastati* withdrew and the *principes* came up through the intervals in their line to replace them. The use of these fresh troops against an already tired enemy must often have been decisive in throwing the enemy into disorder and breaking his cohesion (Goldsworthy 1996: 171–249 offers a convincing account of the nature of Roman battle; for morale as a factor see Lee 1996: 199–217). In ancient massed battle once cohesion was lost defeat was certain. It was in the course of the pursuit, most often by the cavalry and light-armed, that the heaviest casualties were incurred by the losing side (see Sabin 2000: 5–6; Brunt: 694–7).

Sometime at the end of the second or beginning of the first century the basic tactical unit of the Roman battle line underwent a major change (see Bell 1965: 404–22, for the classic account of the development of the cohort as a tactical unit). The maniple of 120 men was replaced by the cohort of four to six hundred men that had been standard for allied infantry.

Tracing this new development presents the same problems as those that arise in examining the rise of the manipular legion. The imprecision of the sources and the difficulties in understanding their terminology for various tactical units is compounded by historical anachronism. Livy anachronistically mentions legionary cohorts as early as 446 and they appear sporadically in his account of Rome’s early wars (3.69.7). None of these early references can be accepted as they are the result of his anachronistic picture of the early army.

The first secure attestation of the unit occurs in Polybius’s description of Scipio’s tactics at Iliipa. He says that Scipio performed his maneuver with a unit of three maniples and their attached *velites* which the Romans called a cohort. Polybius refers again to Scipio’s use of cohorts at a battle near the Ebro later in the same year (11.23.1–2, 11.33.1 [Ebro]). Polybius’s reference appears to indicate that this was not a new formation. Livy most frequently refers to cohorts operating in Spain although he also mentions maniples. Maniples dominate his account of warfare in Greece and the eastern Mediterranean (Bell 1965). The most reasonable explanation for this difference can be found in the needs of these two theaters. In Spain campaigns were often conducted against widely dispersed tribes that waged irregular warfare as opposed to the formal set-piece battles and sieges characteristic of warfare in the East. Warfare in the West required operational groups smaller than the legions, capable of quick movement and able to protect themselves. Individual maniples were too small to operate independently. The cohort was in effect a miniature legion composed of maniples that normally fought together and supported each other in battle (Fraccaro 1975: 142). It was large enough to defend itself and fight as an independent unit and when necessary could be easily re-formed into a legion. In the Spanish campaigns cohorts fulfilled many different functions. They are mentioned as
city garrisons, formed a reserve, or were dispatched on independent operations (garrison \[B Afr.\ 9\]; reserve \[Frontin. Str. 2.3.22\]; independent operations \[Val. Max. 2.7.10\]).

The dating of the transition of the cohort from a unit of maneuver to the basic tactical unit of the Roman battle line remains problematic. The last clear reference to the use of the maniple occurs in Sallust’s account of Metellus’s operations against Jugurtha.\(^{12}\) Cohorts are also mentioned. In North Africa as well as Spain units were needed that could operate against a dispersed and elusive foe. By the time of Caesar’s campaigns in Gaul the cohort had become the standard tactical unit. One change seems to have already taken place by the 120s. All of the legion’s lines were now armed with sword and pilum. The fact that the war against Jugurtha contains the last explicit reference to maniples has prompted the suggestion that Marius was responsible. However there is no ancient evidence for this despite the fact that the sources credit other military reforms to him. It has been suggested that the change should be linked to the campaigns against the Cimbri and Teutones and the training reforms of 105, but again there is no necessary connection. Roman forces had defeated Celtic forces fighting in a similar manner for several centuries before Marius (Parker 1958: 27–9).

Although there is no definite evidence the period of the Social War seems the most likely time for the transition. The Italian allies had long been formed in such units. They also were equipped in the same manner as legionaries. The difficulties the war presented may have provided the impetus to utilize the cohort in a new way to match the Italians. After the granting of citizenship to the allies the need to integrate Italians into the legions would have facilitated a process. The changes in the order of battle would have required new training methods and the creation of a new chain of command.

The division of the legion into ten tactical units in place of the thirty of the manipular legion offered certain advantages. It simplified the chain of command and so must have speeded the transmission of orders and facilitated the movement of troops in the course of battle. This must have been especially significant in the larger armies that were fielded in the last century of the Republic. Strangely, unlike the praefectus cohortis of the earlier allied formations no commander of the cohort is mentioned. The general view is that command belonged to the senior centurion of the cohort. The cohort also offered a greater concentration of force and a larger number of troops to support the front line at its point of contact with the enemy.

The change to the cohort did not lead to major differences in the way that the elements of the line were deployed. Typically the cohorts of a legion were deployed in three lines with four cohorts in the first line, three in the second, and a third line with three cohorts. The first two lines remained the main striking force with the third as a reserve. Other formations were possible which would not have been the case with a manipular line. At Ilerda in July 49 Afranius drew up the cohorts of five legions in two lines with auxiliary cohorts in reserve (Caes. B Civ. 1.83.1–2). At Pharsalus in 48 Caesar drew up his legionary cohorts in four lines with the rear rank assigned to counter Pompeian cavalry (Caes. B Civ. 3.89.1–4). Once in Africa in 46 Caesar drew up his cohorts in a single line (Caes. B. Afr. 13.2). This highly unusual formation was employed to extend Caesar’s line as much as possible to counter attacks by the enemy’s light infantry and cavalry. These examples make clear the greater flexibility that the cohort offered as well as its ability to allow the mixing of formations from different legions as need arose.

The deployment of the cohort raises as many problems as that of the maniple. Its normal size appears to have been between four and five hundred men, but the number varied far more than was the case with the maniple; at Pharsalus Pompey’s cohorts numbered about four hundred men while Caesar’s numbered 275 (so Brunt: 691–2). The depth and frontage of the cohort are problematic.
Frontinus, not the most trustworthy of sources, informs us that at Pharsalus Pompey’s cohorts were arrayed ten deep (Str. 2.3.22). Even if this number is right it cannot serve as a basis for generalization. Pompey’s legions were far less experienced than Caesar’s and he employed this unusual depth to steady his men. Josephus in recounting Vespasian’s march into Galilee during the Jewish rebellion (ad 66) mentions that the legionaries marched in six columns (BJ 3.124). If this were the normal depth of the cohort it would have simplified and quickened the transition from column into line. It seems likely that depth must have varied greatly depending on a host of variables such as the experience of the troops, the ground, and the length of the opposing line. Although it has been suggested that just before contact with the enemy gaps between the cohorts were closed up, it seems as unlikely as in the case of the maniples and for the same reasons.

The period that witnessed the transition from the maniples to the cohorts as the standard tactical unit was also marked by two further important developments in the way Rome waged war. The first was the disappearance of the velites. As in the case of the maniples, the last clear reference to them occurs during Metellus’s campaign against Jugurtha (Sall. Iug. 46.7). Frontinus’s *Stratagems* mentions (2.3.17) them serving with Sulla at Orchomenus in 86, but his accuracy is often problematic. The disappearance of the velites has also been ascribed to Marius but there is no evidence that he was responsible. It is more likely that it was the indirect result of his levying men from the capite censi and Rome’s increased military needs in the first century that resulted in their disappearance. The light-armed had been levied from the youngest and poorest. With the disappearance of a minimum property requirement for service the prospect of serving in the more prestigious and probably better-rewarded legions would have reduced the number of those willing to serve. In addition, the number of legions in service increased in the first century. In the period after 167 there were probably about eight legions in service, while in the period down to 50 the number had risen to twelve to fourteen. The greater need for legionaries must have made the Roman state more willing to enroll men as legionaries who earlier would have served as velites.

A third element in this transformation was the growth of Rome’s empire and her increasing influence outside its limits. We have little information on the use of non-Italians in Rome’s armies before the Second Punic War. Scipio Africanus extensively employed Spanish and Numidian troops in Spain and North Africa. The Aetolians and other Greek allies played a major role in the course of the second century campaigns in the Balkans and Asia Minor. With the granting of citizenship to the Italians after the Social War the use of foreign troops must have substantially increased now that Italians were no longer available. They had two important advantages over Roman light-armed infantry. They normally did not receive pay and many of the peoples employed could supply skills that Roman troops lacked, such as Balearic slingers or Numidian light cavalry. The value of such troops varied tremendously. During the civil war Caesar’s German and Gallic cavalry played a major role in his success while the eastern levies that Pompey assembled at Pharsalus seem to have been ineffective.

The final major change of the period is the disappearance of Roman and Italian cavalry (McCall 2002: 101–39). Dating the end of such service is difficult. There is good evidence for the service of Roman and Italian cavalry in Spain in 140 and in the war against Jugurtha. In addition there is strong evidence for service by Roman cavalry against the Cimbri in 102. There is none for cavalry service in the Social War, and Roman cavalry did not reappear until the extraordinary conditions of the civil war of 49–45 (as evident in Caes. *B Gall.* 1.42 where he is forced to mount the Tenth Legion as a cavalry escort for his parley with Ariovistus). The disappearance of Italian allied cavalry after the
enfranchisement in the wake of the Social War points to a definite policy of not employing Roman cavalry. Men of equestrian rank still saw service as officers and there is evidence that the requirement of ten years’ service remained in effect, but service as an organized body of cavalry ceased.

The sources are silent about the reasons for this change. It has been suggested that the superiority of non-Roman cavalry was the driving force behind this transformation. However, the superiority of foreign cavalry had been clear since the Second Punic War. In fact, a strong argument has recently been made for the continued effectiveness of the Roman cavalry (McCall 2002: 13–52). Moreover, it seems likely that efficiency and effectiveness in a branch of service whose contribution was usually not decisive would not have been the crucial consideration. It is probable that the answer should be sought in social and political factors. The cavalry must have been as reluctant to serve in the long sequence of Spanish wars as the infantry. Further, certain developments point to a changed view of the nature of equestrian rank in this period. It is likely that it was in the mid- or late second century that admission to equestrian status came to depend on a fixed minimum census rating. The staffing of the extortion court under Gaius Gracchus by equestrians must have further attenuated the connection between cavalry service and equestrian status. Two further factors may be of significance: the prolonged and distant service now required of Roman armies and the lower prestige of military service in the wake of the acceptance of capite censi into the legions. A definitive answer is impossible, but the reappearance of legionary cavalry in the Imperial period supports the view that it was social rather than military factors that lay behind the change (see further Harmand 1967: 349–407).

Certain constants underlay Roman tactics. The practice of constructing fortified marching camps was of prime importance. They provided a secure base as evidenced by the fact that they were rarely assaulted successfully and could be used to tactical advantage in launching attacks on the enemy. A well-developed logistical system was also essential to army operations. Pre-modern armies could rarely support themselves completely by foraging in enemy territory. The logistical system of the Republican period allowed Roman armies to operate in areas such as the Syrian deserts where local resources could not have sustained them. By the beginning of the third century the Romans were able to field the largest army yet seen in Italy: approximately thirty-six thousand citizens and allies (see Erdkamp 1998 and Roth 1999). The consular armies of the mid-Republic normally consisted of two legions and an equal or greater number of allies. At Cynoscephalae Flamininus had an army of about twenty-six thousand Romans and allies, and at Pydna Paullus’s army totaled about the same number excluding Greek allies (Walbank 2: 167). The armies of the last century of the Republic were considerably larger. During his last years in Gaul Caesar was operating with a force of twelve legions, while at Pharsalus Pompey had eleven legions while Caesar fielded eight. These increases in army size significantly enlarged the tactical possibilities available to the Roman commander. The reserves of manpower available also allowed multiple armies to be fielded simultaneously. As early as the battle of Telamon in 225 the Romans were able to defeat a large army of Gauls by concentrically converging on the front and rear of the enemy (Polyb. 2.27–30).

Early Roman tactics were usually aggressive and designed to break the enemy formation by a frontal assault. This approach is most obvious at Cannae where the maniples were drawn up on a narrow front and with greater depth with the intention of breaking through the Carthaginian front (Polyb. 3.113.1). The disaster that ensued resulted from Hannibal’s ability to take advantage of Roman weakness in responding to attacks on the flanks and rear. This difficulty was compounded by
the limitations of Roman cavalry until late in the war. The new tactics developed by Scipio Africanus were an answer to this problem. He was able to take advantage of the ability of the units of the manipular line to operate independently. At Ilipa Scipio was able to extend his line while it was in motion toward the enemy line and attack the Carthaginians on both flanks (Scullard 1970: 91–2). This tactic appears to have become standard maneuver. It reappears again the Roman victory at Cynoscephalae (Polyb. 18.26.1–3; Livy 33.9.8–9). Most battles in this period were no longer decided by a frontal attack but by flank attacks and ambushes (Sabin 1996: 59–79).

The first century witnessed a number of tactical developments. There was an increasing use of fortifications and entrenchments in the field as part of battlefield tactics. At Chaeronea in 86 Sulla countered the Mithridatic general Archelaus’s overwhelming numerical superiority by constructing a series of trenches and towers to protect his flanks (Plut. Sull. 18.1, 21.1; Frontin. Str. 2.3.17). Perhaps the most extensive use of such field fortifications was by Caesar during the civil war. At Dyrrachium he was able to place the much larger army of Pompey under siege using fortifications even if he failed in the end. At Uzita during the civil war in Africa both Caesar and Scipio used a series of field fortifications to gain tactical advantage (Caes. B. Afr. 49). The most spectacular use of such fortifications came during the siege of Alesia during the Gallic revolt of 52 (Caes. B Gall. 7.69, 72). In addition to the greater flexibility the cohort allowed in deployments on the battlefield, the other major development in the period is the improved handling of combined arms, especially marked in a greater use of both heavy and light cavalry.

The continued Roman reliance on heavy infantry as the decisive arm had its limitations and could end in disaster as it did for Crassus at Carrhae (see Garzetti 1944: 35–54, Goldsworthy 1996: 61–6). The most striking example comes from Caesar’s African campaign. At Ruspina Caesar’s force of 30 cohorts, 400 cavalry, and 150 archers was subjected to such a continuous and effective missile barrage by Labienus’s force of Numidian light-armed infantry and cavalry that Caesar’s infantry was forced out of formation and it suffered numerous casualties before Caesar dealt with the threat by having every other cohort face to the rear, move forward, and sweep the enemy from the field (Caes. B. Afr. 14–18). Dealing with a highly mobile enemy or a guerilla force remained a serious problem for slow-moving heavy infantry that continued into the Imperial period in campaigns in Germany and on the eastern frontier (note, for example, Caesar’s struggle with the Menapii and Morini who resorted to guerilla warfare, causing Caesar a number of problems [B Gall. 3.28, 6.5]).

Finally, the growth of the semi-professional army in the late Republic permitted the development of legions of veteran soldiers like Caesar’s famous Tenth that gave the commander a tactical advantage, which could be especially effective against formations of new recruits. In the final battle of the civil war at Munda Caesar’s right wing was held by a weakened Tenth whose reputation inspired such fear in the enemy that this psychological advantage played a crucial role in Caesar’s success (Caes. B Hisp. 31). There were many reasons for the development of a professional army in the Imperial period but one must have been the obvious effectiveness of well-trained veteran units on the battlefields of the civil wars.

**BIBLIOGRAPHY**


IMPERIAL legions ordinarily maintained a standard marching order in theater, although that could easily be modified by the theater commander for local circumstances. Josephus, for instance, describes Vespasian’s advance with three legions and a total of sixty-six thousand combatants from the coast into Galilee in 67. Lightly armed and armored auxiliary forces preceded so that they could rapidly deploy on the tactical offense to meet any attempt at harassment. They pursued attackers even into woods, which, as noted below, challenged the abilities of legions to maintain their order. These light and missile-wielding forces were followed by mounted and unmounted Romans, presumably to provide cover for those next in the column, if the skirmishers had gone off in pursuit. They were followed by units which might be needed to clear a route for the advance or to build a camp in the face of resistance, including surveyors to straighten routes and level campsites. Then cavalry escorted the equipment of the generals; maps, documents, furniture for the praetorium in a camp, even the payroll were presumably included there. Vespasian himself came next in the column, escorted by specially selected foot, horse, and spearmen. Mules pulled rams and artillery. Then came the legionary commanders and prefects with more picked troops accompanying the legionary standards, followed by the trumpeters. Next the legions themselves were marching ahead of their servants and baggage with mules. They were followed in this particular case by mercenaries, behind whom trailed a rear guard of more Roman infantry and cavalry, presumably detailed from legions (Joseph. BJ 3.115–126).

Auxiliaries usually supplemented legions as lighter and more mobile forces. Put less kindly, they were likely to bear the first contact with the enemy and to screen legions. Conservation of force was a hallmark of Roman Imperial warfare, and the necessity for engaging legions in combat was always seriously weighed. Mere mercenaries were not left in the back of that column for their protection but because they were not relied on in an emergency. Rams and artillery were included routinely in such an order of march, since, as explained below, the usual grand tactical (theater-level) assumption was that the war itself was likely to resolve into a series of sieges.
The road builders and surveyors were toward the front of the column for a reason. A great premium was placed on the ability to move along with the artillery, some of which might even have been needed on camp walls in hostile territory, and on the ability of the legions to march in good order, ready to form fighting units. Vespasian’s advance required the leveling of a mountainous route from Gabara into Jotapa at the rate of six miles in four days (Joseph. BJ 3.35). Varus’s disastrous march through what he believed to be allied territory in Germany required leveling and building. This required cutting trees, building bridges, and clearing roads even before his strung-out forces reached the dense Teutoburg forest in which the column was ambushed (figure 11.1). He was not advancing in regular order, and combatants were mixed with noncombatants and vehicles in such way that they could not form into units, exactly what Arrian tried to prevent later (Dio 56.20.2–21.1; Joseph. BJ 3.91, 93 on general necessity to keep the combatants clear of the rest when advancing). Varus was able to construct a camp while under attack, although it had to be adapted to the terrain. Varus supplies a worst-case scenario for an advance, just as Vespasian’s advance into known, hostile territory can serve as the state-of-practice model (Onos. 6–9 emphasizes the commander’s personal responsibility for order in a march).

The formula could vary, as Germanicus illustrated east of the Rhine a few years later in 14, when that territory was better understood. Of course, he bridged the Rhine before crossing with about fourteen thousand men; then he built a camp on a site already used by Tiberius. He set out from that down a long, rough route less likely to be watched by Germans who knew how Roman columns needed to advance, even without artillery, sending a subordinate ahead with auxiliaries to clear a marching route through the woods. He did not hesitate to divide his forces to wreak terror on a broader front. His marching order on the way back was informed by his knowledge that ambushes awaited in the woods. Cavalry and auxiliaries again led the march, with three legions advancing abreast and one behind, in something resembling a battle order rather than a column. The legions
were followed by more auxiliaries in a sandwich arrangement preserving the legions as an asset. They met no resistance until, as in the case of Varus, the forested land had caused gaps in their order. The main attack was directed at auxiliaries in the rear, but the legion on the left of the advance was able to turn away the attack, while the forces in the lead were able to emerge from the woods and establish a camp (Tac. Ann. 1.48–52). This incident highlights both reliance on construction capabilities even under the wildest conditions as well as adaptability in maintaining unit cohesion and tactical deployment.

In another instance of adaptability, when Germanicus set out to attack the Chatti in the next year, leaving with light arms and auxiliaries so that he could move rapidly, he had a subordinate build roads and bridges after him, since he anticipated returning in a rainy season (Tac. Ann. 1.56.1). In both of these seasons, Germanicus’s targets in his advance had been German villages and their populations. Terror was often an effective force multiplier, since it did not risk legionaries in battle and might obviate resistance even before it appeared. Germanicus probably also intended to shore up his men’s morale (he had some of Varus’s survivors in his army) by allowing sheer revenge, which might also have aided him at the strategic level by deterring further actions against Roman interests.

Arrian’s advance to confront invaders in the mid-130s, in Cappadocia in Asia Minor, differed slightly from Germanicus’s two previous advances into hostile territory, yet a similar pattern still appears. The differences between Arrian’s advance and Vespasian’s, besides those of scale, are mainly that he had even more auxiliaries out in front and counted on German horsemen to support skirmishers rather than on Roman cavalry, and Arrian did not bring engineering units in his effort to catch mounted invaders. The core of the advance still sounds familiar: selected Roman units, Arrian with elite cavalry, artillery, standards, legion. At the tail a provincial militia replaced mercenaries, and the baggage train was sandwiched between auxiliary units (cf. Bosworth 1977: 251). Arrian claimed to see it as his primary function (and that of his centurions) during the advance to encourage order and prevent any disorder. Arrian’s most detailed planning addressed the problem of how to preserve order and avoid risk to Roman forces pursuing a routed enemy. He also allowed for the problem which typically confronted Romans: attempted encirclement by tactically more numerous forces; he was going to respond with cavalry and archers. His planning for the expected rout, however, reached as far as considering how the cavalry might change to fresh horse during the pursuit and destruction of the invaders (Arr. Scripta Minora 1895: 80–5; translated: The Roman Army Page http://members.tripod.com). In short, legions in the Principate were highly protected assets, even during an aggressive advance. Romans preferred to advance in a standardized column yet were capable of highly adaptive tactical deployment.

**Campaigns and Asymmetrical Warfare**

Varus and Germanicus also point to the topic of the obvious danger during an advance: attempts at ambush, not merely harassment. Roman commanders in theater must have viewed this with ambivalence. Armies of the Principate more often had to contend with the problem of catching an enemy to defeat. They rarely encountered opponents willing to face them symmetrically in unit-on-unit combat in battle lines. Roman legions were able to win asymmetrical encounters because they were supplemented by more flexible, sometimes local, auxiliary units and sometimes Roman allies; because they kept legions or cohorts from legions in reserve for tactical deployment at critical junctures; and because they were able to maintain unit cohesion which made it very difficult to defeat
them tactically in any significant sense. Varus’s great defeat illustrates the penalty of failing to maintain unit cohesion.

Roman commanders usually sought combatant-on-combatant battle, since that was to the Roman advantage, unless they were extremely outnumbered. For instance, in 16 Germanicus was pursuing Arminius, who had designed the massacre of Varus’s legions. Germanicus’s campaign illustrates both how opposition who did not intend to engage in battle might do so anyway and why Roman legions had to be ready for a variety of combat conditions in one campaign. Germanicus attempted to eliminate much of the requirement for construction before his advance in that year by taking ships up the Ems River. Nevertheless he still landed short of his target and had to build bridges for the infantry, although the cavalry could often use fords.¹ Arminius was a special, hard case who knew well Roman strengths and preferences. In the previous season, he had used woods for ambushes and attempted to force the Romans into bogs, but he was capable of more openly aggressive behavior. He originally intended a night attack on Germanicus’s camp, but that was anticipated, and he made no attempt on a camp on alert. With other chieftains and their forces gathered, he had no choice but to stand and fight to justify his standing in his own coalition.

It is a measure of how much battle per se favored Romans that Germanicus even let Arminius choose the ground, Idavisto, a plain on the Weser River, with hills and forests on the other sides. Arminius preset tactical dispositions with men on the plain and the edges of the forest, placing himself on the hill, ready to come rolling down when it would do the most damage. Germanicus predictably sent auxiliaries into first contact in a marching order ready to deploy as a fighting front. Bowmen followed, although later Roman preference was for archers behind Roman legions to provide covering fire. When Arminius’s own force charged down very early, Germanicus had time to order the chosen cavalry, which typically accompanied the commander, to attack the flank Arminius presented to the Roman advance and to order the rest of the cavalry to ride up the hill behind him. Arminius escaped wounded; German forces were slaughtered.

Nonetheless, tactical victory on one plain did not give Romans control of the area. Enraged, grieving Germans, including some who had not been previously hostile, inflicted many casualties on the Romans’ departing marching order. Hastily assembled Germans tried a trap at a narrow, swampy space between a river and a forest with an earthwork on one side, meant to mark a tribal frontier. But masses of Germans in a small clearing were unable to take advantage of numbers by charging with force; nor could they effectively wield weapons which were much bigger than the short Roman sword; nor could they defend themselves against legions in close combat without helmets and armor (Tac. Ann. 2.5–23). The first engagement argued against fighting where Roman cavalry wings could use their mobility; the second argued against fighting legions densely confined. One of the biggest differences between the armies of the Principate and those of the Punic Wars and mid-Republic was the solid performance of Roman cavalry (such as the Batavians, on which see below) attached to each legion.

Nothing about these encounters encouraged subsequent enemies to oppose Romans openly in battle. Nor could Romans believe that even a complete tactical destruction of enemy combatants in the field would give them control of an area or even the ability to pass through it safely. Through Germanicus’s efforts, Romans secured the symbolic victory of digging up one of Varus’s lost standards; prisoners supposedly reported that Germans feared Romans and thought they were unbeatable (Tac. Ann. 2.25.4). Revenge, honor, and terror had probably been the Roman strategic objectives all along, and battle aided mainly the first and especially second of those. Arminius was
the first example of a problem that emerged infrequently but always dangerously in the Principate, namely, what today would be called blowback. Varus considered Arminius a personal friend and would not listen to warnings about him, as he had long advised the Romans about other Germans (Dio 66.19.2–3). If such a Roman “friend” or client turned back around, he brought a more sophisticated understanding of Roman warfare to subsequent combat, for example, Arminius’s respect for Roman marching camps and ability to build something like them himself; note too his keeping of reserves. Romans courted and rewarded local elites and preferred client princes on their frontiers because they were low-cost force multipliers. Clients also supplied additional capacities in asymmetrical conflict. There were dangers to that practice, but Germanicus’s campaigns to exterminate potential opposition did not Romanize the region thoroughly either. Germanic levies were trusted sufficiently to catch Germans raiding across the Rhine later in 50, although the Roman commander was unable to trap the marauders into a battle with legions (Tac. *Ann.* 12.27.3–4). Britons proved more prone to tackle legions in battle.

Certainly, Claudius’s incursion into Britain did not accomplish control of the population or even unchallenged ability to live in and move about the territory. As early as 47, the allegedly allied Iceni were leading other tribes in resistance, albeit not in battle, thinking Romans would not fight in winter. They took a (familiarly sounding) stand behind earthwork with narrowed approaches in one case and otherwise refused open engagement, attempting ambush instead. The Roman governor, P. Ostorius Scapula, went on to set permanent camps among other tribes (Tac. *Ann.* 12.31–32). These represented grand tactical, aggressive positioning in an attempt to train allies and erode a resentful population’s will to resist. The result among the Silures was the emergence of Caractacus as a coalition leader. He took a stand in battle behind allegedly improved stone and earthworks which could not withstand a Roman unit hacking on it in *testudo* formation (Tac. *Ann.* 12.33, 35). After Caractacus, the Silures fell back on even less symmetrical tactics of picking off encamping legions and foragers. Even Roman “picked men” could be caught in those situations. Although Ostorius consistently tried to conserve force and rely on first use of auxiliaries, they were not always up to the job (Tac. *Ann.* 12.39).

Perhaps the fact that Romans overcame the traditional hill forts so easily, along with confidence in fervor and numbers, influenced Boudica of the Iceni in 61. She had been able to gather forces in the absence of the governor, Suetonius Paulinus. Her initial targets were Roman veteran settlements like Camulodunum, which were indeed instruments of Romanization and Roman control. Camulodunum relied on local false friends, little Arminiuses, and the Ninth Legion was almost wiped out while attempting relief (Tac. *Ann.* 14.32). Paulinus, we are told, was atypically reluctant to engage in battle, since he “feared their numbers and their insanity.” Sources tell that the Britons were torturing and taking no prisoners, also emphasizing that their attacks focused on economic sites rather than outnumbered Roman units (Dio 62.8.1; Tac. *Ann.* 14.33.4–6). Probably Paulinus met Boudica on a road toward her next target. He was unable to extend his line far enough to counter (allegedly) 230,000 Britons. Tacitus attributes to Paulinus a simple, memorable set of instructions: hurl javelins, knock down opponents with shield boss, kill with sword; do not try to collect loot. While Boudica’s forces sang triumphantly, Roman forces advanced in good order and then charged. Of course, they broke into the less practiced mob and, equally predictably, were surrounded by forces with various weaponry, including chariots. Roman order eventually prevailed (Tac. *Ann.* 14.34).

Nonetheless, Dio claims that revolt was ended not by success in battle, since survivors were reforming, but by the death of Boudica soon afterward (Dio 62.12; cf. Tac. *Agr.* 16). Although Paulinus unleashed a campaign of terror not only upon hostile tribes but on the unaffiliated, and famine was
severe because the war had precluded harvest, Nero still blamed him for delay in the war. Tacitus claims that his successor simply ended hostilities and called it peace (Tac. Ann. 14.39). Nor was it easy to maintain Roman morale on the British frontier. Dio’s account of Claudius’s initial advance into England stresses that Romans resented the driving rain and that Roman soldiers feared a trip to England as a departure from the oikoumene, the known world. Predictably, Plautius had trouble simply finding the opposition and then had to contend with rivers, lakes, and swamps. So much water left Mediterranean forces disgruntled (Dio 60.9.3; 60.19.1–5; cf. Tac. Ann. 1.30.1–3 in which Roman forces take a hard, winter rain as divine punishment for a mutinous mood).

Tacitus makes that very distinction between overrunning an area and actually ending opposition there when discussing his father-in-law, after whom he named the Agricola (Agr. 17). In the Principate, the smallest unit one could evaluate to see if an objective had actually been obtained was the campaign and not the relatively infrequent battle. In Agr. 18, Agricola set out in 75 with a classic carrot-and-stick campaign of unprovoked destruction followed by the practice of clementia, namely, acceptance of hostages and pledges from peoples who did not want to be next. Seasonal campaigning against Roman winter camps was subdued via the persistence of terror inflicted in the summers. When Agricola came across an exiled Irish prince, he “befriended” him with an eye to subsequent campaigns on that island. He made effective use of a fleet for power projection along untouched coastlines. Agricola met the threat of a joint assault by tribes who outnumbered him by moving forward to meet them, and they responded by reducing their plans to a night attack on a Roman camp (Agr. 22, 24–6).

The next campaigning season anomalously led to battle. Agricola set out again with both fleet and army on a campaign of terror, only to find that he had provoked so much resistance that more than thirty thousand men were waiting across his line of advance on Mons Graupius. Agricola set a camp and placed the legions in front of it to preserve a chance of retreat. Trusted British auxiliaries faced the danger as the center in front of the legions. The opponents were on a hillside on the other side of the small plain, while their light charioteers dashed about in front of them in maneuvers meant to intimidate. Agricola did what most commanders of the Principate were to do in similar situations; he extended his line, so thinly that some staff officers wanted him to bring the legions into the line and not keep a reserve (Agr. 35). The actual battle began with an exchange of missiles, and Agricola ordered the outstanding Batavian auxiliaries forward. They were wholly successful in pushing opposition back up the hill, and Roman cavalry completely defeated the light chariots but could not sweep on up the hill on the rough ground. Massed forces began to descend from the hill and enveloped successful Roman auxiliaries driving forward, but Agricola’s reserved cavalry enveloped the mass now fighting on the plain. Survivors who reached the woods were able to turn and ambush the first pursuit. Agricola withdrew to winter quarters in a slow, systematic marching order, simply to show that he had no fear (Tac. Agr. 35–9).

This illustrates again how little Roman opponents profited from the relatively infrequent battle, even when they picked the ground, often choosing hillsides for gathering momentum. The engagement also demonstrates their usual preference for attacking Roman armies when they were on the defensive (e.g., encamped at night), hoping for confusion which might disrupt unit cohesion (a trend which began with Gauls against Caesar). Even in these British campaigns, the Romans’ Mediterranean habit of seasonal campaigning seemed intractable. It encouraged resistance by Britons who believed, rightly or wrongly, that Roman forces were more likely to respond with less force in winter. Persistence of this habit might have been encouraged by another Roman predilection, namely, trying
to ensure that Roman forces were reasonably comfortable and fresh. Auxiliaries played their usual role of bearing the first shock. A Roman author ascribes the domination and deterrence of the enemy through fear not to tactical victory in battle but to the cumulative effect of campaigns of terror. It is not surprising that commanders who rely militarily on terror consider morale of their own forces important. Both Romans and their northern opponents tutored one another with each contact. Romans after Varus were hyper-organized while advancing and well-prepared to move from marching to fighting order. Northern opponents responded to long-term hostilities, including campaigns of terror against local populations, by coalescing behind dynamic leaders who often led them directly against Roman armies. Romans in turn developed a repertoire of responses to numerically superior enemies and to local earthworks yet remained highly adaptable to local conditions.

CAMPAIGNS AND SYMMETRICAL WARFARE

The ultimate potential of Roman legions against an equally trained, symmetrical enemy could emerge most clearly in civil war. Appian had already claimed that, at the battle of Pharsalus in 48 BC, Greek units fled the field in horror at the ferocity of legion-on-legion combat, both sides killing with the short sword (B Civ 2.11.79). In the civil war of 68/9, the battles at Cremona, near a confluence of strategically significant, northern Italian roads, must have been equally terrifying. The first battle, between forces loyal to the contender Vitellius and those of the short-lived Otho, illustrated two different approaches, the innovative and the conservative. Caecina for the Vitellians had planned to lure pursuers into a trap, but his overconfident forces approached too close, when no one rushed out against them, and were surrounded themselves. Paulinus on Otho’s side showed extraordinary devotion to the by-the-book Roman advance; he stopped pursuit to fill in ditches and to level the ground! This also demonstrates how fast his engineering units must have been able to work in the vineyards and fields around Cremona.

As Caecina’s men fled, lines broken, Paulinus sounded retreat, fearing that more Vitellian forces would arrive fresh from Cremona and that his own tired men could not withstand much more if caught in pursuit. Paulinus represented perhaps one extreme on the relatively short Roman spectrum of circumspect, controlled deployment, keeping forces fresh versus daring deployment and maneuver. Tacitus reports that some armchair commentators approved, but Paulinus’s men did not (Hist. 2.24–26; 25 allows him the epithet *cunctator*, the “delayer,” in describing his devotion to planning and reason). The ability to order an end to pursuit of a rout was as remarkable in antiquity as the fact that Paulinus chose to do it. The contemporary Josephus was certainly struck by Roman unit cohesion so strong that they retained a capacity for maneuver even in the midst of battle (BJ 3.88, 105).

The second battle of Cremona was between Vitellian forces and legions loyal to Vespasian after the death of Otho. Antonius Primus, for Vespasian, encountered the Vitellian legions earlier than he anticipated and had to recall foragers with a signal, and some cavalry arrived frightened and disordered from a skirmish. Disorder spread, especially since units were jostling each other on the narrow road (perhaps justifying Paulinus in the first battle). Antonius threw his spear through a fleeing standard bearer, catching up the standard himself and turning it to face the enemy. About a hundred witnesses were stricken with shame and turned with him. His men realized that the narrow roads prevented escape, formed themselves up, and drove away the overconfident, increasingly disordered Vitellians (Tac. Hist. 3.16–18). The second battle of Cremona demonstrates the effects of both cohesion and lack of cohesion. Even when a clear, legal command structure was absent, veteran
legionaries, realized (with reminders) that safety lay in unit cohesion as well as their ability to
generate such cohesion en masse from their small units. It even demonstrates their ability to respond
to a signal in dangerous and deeply distressing circumstances. Since this was a Roman-on-Roman
action, the description cannot simply be counted as a literary topos of unique Roman discipline over
the fabled indiscipline of barbarians.

A contemporary, dangerous conflict on the Rhine exhibited both symmetrical and asymmetrical
features. This devolved from a nightmarish blowback situation in which individual, well-trained
Roman auxiliaries, loyalty to their own peoples, became players in the Roman civil war.\(^5\) Other
auxiliaries defected to Civilis throughout the conflict, often in the midst of battle with dangerous
consequences to Roman units, although some Romans were able to maintain their unit’s integrity even
when Batavians turned on them suddenly. Civilis’s initial successes fed even higher expectations, and
Roman morale sank in correspondence to how well Civilis was doing. Civilis was as sophisticated
as Romans in attracting allies with a combination of force against resisters, bribery, and selective
clemency. He paraded captured Roman standards for audiences of both non-Romans and Romans, the
latter discombobulated by seeing ranks of modified Roman standards in the opposition alongside
what Tacitus describes as tribal animal totems (demonstrating that Roman auxiliary units had such
group identity that they would keep their Roman unit’s standard even in revolt, only removing the
imperial portrait). Batavians used complex tactical formations against well-defended Roman camps
and ran legions off the field at Bonn and Vetera; they later built siege engines to attack Vetera and
Gelduba, although they were outdone by more sophisticated Roman engineers (Tac. Hist. 4.30).
Tacitus even describes Civilis as leader of a “real army” (Hist. 4.21). Predictably he attracted trans-
Rhine German support, although his forces exhibited particular hostility toward Romanized peoples
of German descent.

This blowback-induced conflict drew Gallic combatants into its draft. Julius Classicus was,
predictably, a descendant of royalty among the Treviri. He joined a relief expedition to Vetera only to
defect when he got there. Civilis himself began to worry about the rise of a Gallic confederacy (Tac.
Hist. 4.61). Classicus displayed captured Roman standards along with Gallic tribal pennants; he also
donned the insignia of a Roman commander (Tac. Hist. 4.59). Q. Petilius Cerealis probably had
multiple reasons for sending Gallic levies home, saying that legions could see to the defense of Gaul
(Hist. 4.71). Not only might the Gauls have been liable to turn in battle, this dismissal might also have
been a morale-boosting display of confidence in the arrival of reinforcements, a show of generosity,
and a fear of removing all men of military age from loyal communities. The war was finally resolved
in a battle which began without Civilis’s personal presence. The Romans only defeated their own
former auxiliaries who had breached their camp, when the Twenty-first Legion was able to find space
to form up, to resist, and then to push out, another testimony to the significance of unit cohesion.

**LONG WARS**

Talented generals and perhaps a majority of imperial legions saw campaigns which did not feature
battles nor even any clear outcomes or rewards. It is not surprising that morale became even more of
an issue in such campaigns. Tacitus’s *Annals* offers a precise catalog of conditions Roman armies
wished to avoid: absence of roads, lack of ports, ferocious chieftains, wandering peoples, country
one could not live off. No less a concern were forces deteriorating through boredom, endangered if
acting precipitously, given no credit for winning against “barbarians” but disgrace in defeat (12.20).
Germany was such a frontier. Entanglement with German tribes even as allies sometimes opened new gates to conflict. Germans had always settled and resettled back and forth across the Rhine and were not inclined to defer to the Roman sense of a frontier. When Frisians in 58 resettled right on the Rhine where Romans wanted a demilitarized zone they began to plow without attacking Romans. Nero handed their chieftains citizenship and an eviction notice, and auxiliary cavalry was good enough to serve the eviction papers. But more Germans moved right back in, and their chieftain was an old ally against Arminius. A sadly sympathetic Roman governor had to dismantle their whole allied coalition in order to run them off (Tac. Ann. 13.54–56). The long-term consequences of Roman involvement in cross- and supra-Rhine shifting, German tribal alliances were becoming clear.

Tiberius spent much of his life and energy on two such frontiers, the Rhine and the Danube. According to Dio, problems on the German front pushed the Danube/Adriatic region into the next level of conflict in 6. Forces under Bato of Dalmatia looted the Greek cities of the Adriatic coast and marched on Roman Salona once. They did stand and fight one legate, but otherwise it is not clear what their purpose or strategy was, despite that move toward Salona and Bato the Pannonian’s attack on Sirmium. They kept themselves very lightly armed to move quickly and would not defend any territory or populations. They simply hid in their fortresses in the karst and raided from them. Resistance activities on this Adriatic front foreshadow Vespasian’s later difficulties in Judaea in distinguishing nationalist or other ideological resistance from brigandage. Augustus, as distant emperor, could not tell what was taking Tiberius so long and supposedly began to suspect that he might just want to retain a command under arms, which must have been immensely frustrating for Tiberius (Dio 55.29.–55.31.1).

Velleius Paterculus was a sympathetic comrade in Tiberius’s problems. He notes that the Pannonian Bato spoke Latin, understood Roman military discipline, and drilled his forces, illustrating how the Romans were always training potential opposition simply by exhibiting their disciplina. He also knew, as did Boudica later, to try to reduce colonies of Roman veterans early on, when raiding. This Bato also went in for ambushes, trying one on a full five-legion force. When Tiberius had to manage this theater later as emperor rather than as combatant, he did not think more forces covering more ground were the answer; he considered ten legions too big (Vell. Pat. 2.110–113). The “resolution” came under Tiberius’s successor when the population was demoralized by famine and disease, and the two Batos turned on each other.

Dio comments sourly from his vantage point more than a century and a half later that the supposedly pacified region was left with a brigandage problem, which “always” happened in such cases (Dio 55.34.7). He might have been thinking about such instances as Tacfarinas in Mauretania in 17 who appeared to be interested in both political resistance and profiteering from the beginning (Tac. Ann. 2.52.1–2). Predictably, he had served with Roman auxiliary forces; he even developed his own more lightly armed auxiliary forces. Marcus Furius Camillus was anxious to get him into battle from the beginning, which was not difficult given his confidence. After a defeat by Camillus, he became a more typical brigand for a while, although surrounding Roman cohorts and killing their commander in 20 was a mistake if he wished to remain a low priority criminal rather than an insurgent. He finally made the classic mistake of weighing himself down with too much loot. The base to which he retired was overrun, and he was driven into the desert.

He escaped attention for two more years until he demanded lands for settlement in a prefiguring of Marcus Aurelius’s problems on the Danube. A clever offer of amnesty to his men isolated him with a hard-core remnant. Romans used the technique of pre-positioning far forward camps from which to
harass him; other Roman forces were deployed to defend economic targets like cities. Quintus Junius Blaesus actually decided to campaign through the winter. Tacfarinas fled into the desert after his brother was captured. To Tacitus’s disgust, Tiberius was again willing to consider his flight out of the imperium a solution and to reduce the number of Roman forces in the area (Ann. 3.74.5–7). Tacitus even used the phrase Long War (longum bellum) two years later when Tacfarinas reemerged and was able to attract other auxiliary units to join him, as Civilis could later. At that point, Tacitus ascribes to Tacfarinas the political rhetoric of revolt, speaking of liberty versus slavery (Ann. 4.24.1). King Ptolemy of Mauretania, a Roman puppet, supplied high-quality local forces for counterinsurgency and was greatly praised for it later. Finally, Tacfarinas was caught literally napping in the ruins of an old Roman camp, and Tacitus ascribes the consequent butchery to Roman resentment of hardship in that theater (Ann. 3.25.3). Yet a form of Long War persisted over a generation later in 69, when Tacitus comments in passing on the excellent military skills of some Mauretanian auxiliaries who had had much practice as brigands (Hist. 2.58). This case demonstrates why asymmetrical conflicts could not always be easily categorized as economic/criminal or political/military, and how it might have been reasonable to hope to turn some possible insurgents back to loyalty.

Marcus Aurelius’s activities in the 170s illustrate the nature of Long Wars most forcefully. He juggled the complex factors of military assets, raiders, migrants, and money on the Danube front with sophistication, aiming at the great goal of conservation of force. It was a constant guessing game as to what each people really wanted, and many did not know themselves. He agreed to some peoples’ desire to resettle. Some might have preferred to resettle but agreed to accept funds to be “friends” beyond the frontier. Of course, most wanted both lands and subsidies, but Marcus Aurelius had to exercise the art of the possible. Some peoples who were addicted to raiding might still be offered incentives, if he believed that they could be turned around against more dangerous peoples. He sometimes placed a cash bounty on especially nefarious leaders (Dio 72.1–14). Some like the Iazyges he would have preferred to “destroy,” but he agreed to a settlement which moved them back even further from the Danube (Dio 72.16.1). He followed precedents noted above in placing permanent camps right among the Marcomanni and Quadi in an attempt at controlling the region, and their attempt to move farther away demonstrates that the Roman encampments must have inhibited them.

In other words, Roman military deployment on the northern frontiers had to account for immigration control, refugee management, river patrol, and prevention of crimes against property. A case can be made that the limes system of roads, stockades, and towers was meant to prevent brigandage and to protect movement of persons and goods as much as for strategic defense against threats beyond the Rhine, Danube, and Euphrates (Shaw 1984: 12). Here, as in Britain and Africa, Roman forces might be relegated to dispersed, permanent camps among the most suspect peoples. Yet it was a mistake to assume that Roman legionaries were not always ready to fight and were not adaptable to environments much unlike the Mediterranean world, as the Iazyges found out when they turned for an offensive charge on the frozen Danube, thinking that Romans would not fight on ice. The Romans supposedly put down their shields to stand on and formed a compact unit, grabbing bridles and pulling down horses whose momentum would not allow them to stop. On foot, Roman armor won (Dio 72.7, plausibly vouched for by Tac. Hist. 1.79).

**COLD WAR AND LONG WAR**
The Parthian frontier presented a different kind of problem in asymmetric and Long Warfare. Roman emperors and Parthian kings generally observed political settlements respecting something like a Euphrates Line, but ambitious leaders on either side could upset understandings at will. Both sides found it generally advantageous to settle into Cold War punctuated by tests, raids, and attempts to co-opt buffer states, continuing a Great Game through cats-paws, proxies, and clients. The Parthian king could reach full mobilization only by calling upon other Parthian nobles for forces. Since the dry expanses of the Near and Middle East competed with the requirements of the Rhine and Danube fronts, force conservation, especially of Roman legionaries, was vital. The situation was sometimes simpler than that on the Danube, since Parthians often aimed expeditions at targets which could be anticipated by Romans. They would then calculate in ways understood by Romans, withdrawing when massed against so that risk outweighed possible gains. Tacitus claims that the great Cnaeus Domitius Corbulo once urged his forces on against this “wandering enemy, ready for neither peace nor war” (Tac. Ann. 13.39.14–15).

Corbulo arrived on the Parthian front in AD 58 with a reputation for disciplinary severity. Armenia, a perpetual soccer ball bounced between both sides, was claimed by the brother of the Parthian king, Tiridates. Typically, Corbulo very much wanted a battle; he could not force one. The term “Parthian shot” referred to their highly skilled tactic of firing back over the shoulder while avoiding close combat with armored Romans. Then they could regroup at a distance. Tacitus describes Corbulo as forced to follow the “example of the enemy” and to widen the scope of the war by dividing his forces (Tac. Ann. 13.37.2).

Corbulo was reduced to attacking stationary targets, namely, Armenian fortresses Tiridates could hole up in. He targeted Artaxata, the major city of Armenia, knowing it would make a problem for Tiridates: he could not afford to appear to leave a Roman siege undisturbed, nor did he want to engage with Romans in close combat. Tiridates used the standard Parthian tactics of seeming to advance against Roman forces, then seeming to withdraw. Corbulo had also read the playbook and was too careful to pursue. The next day Artaxata opened its gates and surrendered. Corbulo destroyed the site without doing violence to the residents, under his policy of destroying strongholds he could not hold (Tac. Ann. 13.41.3).

Tacitus claims that the destruction produced terror among Armenians, sending much of the population fleeing into caves or hills, so Corbulo set out to evoke more fear by taking Tigranocerta. Corbulo’s forces spent the heat of summer showing sympathy to those who surrendered, chasing those who ran, burning fugitives out of caves, and harvesting local crops rather than in battle. Tigranocerta finally surrendered, saving its citizens’ lives and property.

When Corbulo had to see to the survival of the puppet regime in 62, he articulated the unusual nature of the Cold War by saying that he would rather “have a war than make war,” instructing his commanders not to rush to the front (Tac. Ann. 15.3.1). Instead he seized his pen and wrote the Parthian king Vologeses telling him to break the siege or he would plant Roman camps on his turf. Since Vologeses had a long-standing, iron-clad policy of avoiding actual combat with Roman legions, he stopped challenging the Roman claimant (Tac. Ann. 15.5).

Tacitus claims that Corbulo’s successor as a special commander for the Armenian front, L. Caesennius Paetus, refused to count the installation of a client as military success (Tac. Ann. 15.6.6). According to Tacitus, Paetus “overran what he was not able to hold,” foreshadowing the campaigns of Trajan, and certainly outran his supplies. As Corbulo knew, it was also long-standing, iron-clad Parthian custom to raid wealthy Syria at any sign of Roman weakness. When Corbulo got the news...
that Paetus had gone back to a winter camp in which he had not invested sufficient initial engineering, he reinforced the bank of the Euphrates, set out a series of lashed boats as artillery platforms to ward off the Parthian horsemen already gathering there, and built a bridge for seizing the offensive. Of course, Vologeses backed off where Romans were prepared and went for Paetus’s camp.

Paetus held to his own long-standing custom of not thinking and sallied. Emboldened by a typical Parthian withdrawal from a minor skirmish, he made a bigger investment the next day and was run off the field. Corbulo was again in no hurry to launch a rescue; he waited for a second note from Paetus urging him to save the standards of his legions. Corbulo would not move into the theater before organizing a camel-train of food. Tacitus claims that Paetus’s men could hardly bring themselves to leave their tents and were thinking of the famous disasters of the Roman Republic at the Caudine Forks (Livy 9.6.1) and Numantia (App. Hisp. 46–7).

Subsequent Roman-Parthian combat was on a broader strategic and even political front but continued in the same vein. Trajan’s massive invasion in 114 was an unprovoked, impossible attempt to take, hold, and reshape the region as part of Rome’s Mediterranean empire. The superb engineering units of Trajan’s army built ships near Nisibis and moved them to the Tigris. They were able to assemble the bridge while under Parthian missile fire (Dio 68.26.2). His attempt to hold Parthian territory, as opposed to merely overrunning it, would not have been any more permanent had Trajan not died in winter quarters in 117. Trajan had attempted what might now be called “regime change” in his ambition to replace Parthian dynasts by Roman governors throughout the fertile crescent and the Parthian homelands. It became clear that the Roman Empire could not support the continuous economic and military investment it takes to hold territories against the will of their long-term inhabitants. Septimius Severus’s more modest security goals might have done more damage to the Parthian dynasty generations later.

As noted above, Marcus Aurelius directed his personal attention to the Danube front, leaving the Parthians to Lucius Verus. They had not changed, and in 162 another Vologeses enveloped a Roman legion in Armenia and killed them with missile weapons. Verus sent out forces which were able to pursue the typically retreating Parthians all the way to Ctesiphon, destroying Vologeses’s palace in 165. So those Roman forces also took Ctesiphon, but brought the plague back with them (Dio 71.2).

When Septimius Severus launched an advance across the Euphrates in 198, he did not suffer from the delusion that he could hold much Parthian-dominated territory. Revenge was an honorable motive among Romans, and this invasion might reasonably be described now as retaliation with the aim of deterrence (cf. Germanicus’s “revenge, honor, and terror” directed at the Germans; see above, pp. 238–41). Dio comments on how well-constructed Septimius Severus’s boats for the Euphrates were. He introduced a new practice by not only overrunning Ctesiphon but massacring its inhabitants. In keeping with his strategic aims, he assaulted Hatra too, a site which had also given Trajan trouble (Dio 76.9; for sieges see below). Severus’s province of Mesopotamia was confined to the region of Assyria; he did not try to hold anything east of the Tigris or south of Syria’s frontier on the Euphrates, that hot border in the Cold War, although his punitive invasion extended deeply into the fertile crescent. Some modern scholars have guessed that his sweep of the region, which cost the Parthians prestige, economic assets, and population without a long-term Roman investment enabled the rise of the Sassanid Persians who supplanted the Parthians a generation later. Thus Severus’s focus on revenge per se was the superior strategy. Yet even that “shield” for Syria was too much, Dio predicted. He claims that Severus thought his acquisition a great territory, but it promised to be a cause of war, loss, and entanglement with strange, neighboring peoples (Ep. 75.3).
Romans and Parthians engaged in warfare nearly as ritualized as the Greek or Roman “pitched battle” with infantry. Parthian behavior at the strategic level matched that at the tactical level. At the tactical level, they would respond by returning and picking off, if their retreat were incautiously pursued. At the strategic level, they would retreat, harassing, waiting it out. A generation later, in 217, Macrinus even managed to entrap Parthian cavalry, including camels, in a field of caltrops by using a false retreat (Herod. 14.15.1–3).

**Sieges**

Since insurgents rarely opposed the advance of Roman legions openly, the alternative to a Long War against an elusive enemy was often the siege. Roman commanders and armies undoubtedly preferred that alternative. Sieges were also desirable in that they offered opportunities to kill combatants, terrorize populations, eroding their will to resist, and acquire strongholds all in one efficient operation with safely massed forces.

Masada and Jerusalem are rightly famous as sieges, although they are hardly representative operations, given the special difficulties they presented in terrain and extent and sophistication of fortifications. The towns of Galilee and environs offer examples of combat among municipal populations, illustrating the importance even there of small unit cohesion, engineering, integration of cavalry and missile forces, adaptability under extreme conditions, and command and communication in rapidly evolving situations. Actual sieges were often preceded by a campaign of terror, which must have presented municipal populations with a stark if hasty choice as Romans approached. Before Vespasian even set out from Ptolemais with the main column in 67, Placidus had overrun Galilee, killing all he encountered, including the elderly left behind as people fled. Vespasian then halted his column right at the frontier of Galilee to let the population contemplate the possibilities. Placidus found that the more warlike were gathering at Jotapata, so that is where Vespasian went first (Joseph. *BJ* 3.110–111).

Just as Vespasian’s advance offered the most detailed model of that phase of war-in-theater, Jotapata supplies the most inclusive study in siege warfare. Vespasian sent forces ahead to surround the city to prevent escapes. He operated typically in constructing a camp on a hill less than a mile away but out of missile or sally range. The sight of a fortified Roman camp was itself terrifying. Having decided to make an example of Jotapata, Vespasian saw no need to proceed straight to an assault. The Roman custom of entering combat thoroughly prepared, rested, and adhering to plan worked well at sieges. Jewish combatants remained in a camp outside the town to protect it; five days’ worth of sallies kept the Romans from simply assaulting the walls.

Vespasian called a planning council. They decided on the classic technique of felling trees and gathering stones to build up to the top of the wall’s shortest section. Construction units built props for a cover against missiles from the walls to protect men composing the ramp. A chain of men kept feeding dirt forward for the project. When the defenders dropped large rocks on the shelter, Vespasian used the big artillery to drive the defenders off the wall. Catapults fired missiles, stone throwers flung large rocks, and burning brands were hurled. Arab bowmen and artillery swept the top of the wall with arrows. The defenders responded with small, stealthy sallies to attack the shelter. Vespasian decided to leave no openings for missiles from above and linked the sections of shelter.

Typically attack spurred innovation, which sparked more innovation in turn. The defenders
stretched oxhide screens deflecting missiles while they built the walls higher and added towers. Emboldened, their sallies set some artillery on fire. Then they found out why Romans typically wanted to be on a high point some distance away. Watching for targets, Romans aimed artillery at the site in town at which the evening water ration was issued. Some messengers sent out to get help and supplies made outside contact, but Roman pickets caught on to the routes in the ravines and stopped the rest.

As the mound was completed, Vespasian called up the rams, which were suspended from a framework, not handheld. Artillery moved forward first to drive defenders off the walls. Defenders lowered stuffed bags in front of the rams; Romans attached their standard-issue reaping hooks to poles and cut the ropes to the bags. As the rams were shattering the hastily built extension on the wall, defenders hurled every piece of wood they could light on fire and set both the attacking pieces and the protective screens on fire. Legions farther back covered their equipment and even buried it. Vespasian himself was scraped on the foot by an arrow and then had to show himself prominently to prevent panic among Romans. As night fell, the defenders were outlined by the fires behind them, so they were getting the worst of the exchange of missiles, a common problem in sieges.

Dawn came up as chunks of wall fell out, and defenders tried to fill the gap with their bodies and equipment. Uncharacteristically, Vespasian allowed his forces only a short rest from the night before. He dismounted “picked cavalry” with their armor and long javelins to go up gangways to the gaps first with specially selected infantry behind them. Cavalry circled the operation to catch any fugitives who came pouring out. Slingers, bowmen, and artillery were standing by in support. Other men were to go over siege ladders, assuming that defenders would come off the walls to fight in the town once Romans had entered a breach and were behind them. All the trumpeters sounded the attack; clouds of arrows flew into Jotapata. Josephus is undoubtedly not overstating the terror among the population. No defenders believed that they could survive; they charged out as Romans tried to enter. At least one Roman unit was broken by flaming oil which ran under Roman armor, even in testudo formation, but fresh Roman units kept coming forward.

Clearly the narrowness of the gaps was a problem, as was to prove true at Jerusalem and for Septimius Severus at Hatra. Engineering units came into play even in mid-engagement. Vespasian ordered construction of three iron-clad towers manned by missile forces, knowing that they would be hard to set on fire or to turn over. Josephus claims that Jotapata held out for an additional forty-seven days. Finally, as so often, a traitor told Vespasian that the defense was exhausted; the sentries slept. Titus, Vespasian’s son, led Roman units over the walls on ramps which had been built up all that time in the depths of the nights. Romans killed everyone except for women and babies, spending days searching the sewers and caves. Some of the defenders committed suicide; some held out to the end in one tower. Josephus estimated forty thousand Jewish dead (Joseph. BJ 3.141–340). This operation offers a compendium of siege and counter-siege tactics, and Josephus’s account is a daunting picture of the maiming and death on each side (figure 11.2).

Siege warfare in this theater terrorized populations and led many towns to reject or betray resistance, reducing the number of havens. It also simply reduced the numbers of the resistance, catching them where they were gathering to organize. As the will to resist was broken, Romans could acknowledge situations in which resisters occupied a town against the will of its residents. At Tarichaeae, whose unfortified side was on a lake, Titus, his engineers, and legions displayed versatility by building rafts to pursue fugitives in a unique small craft battle. Sometimes, as at Tarichaeae, Titus and Vespasian tried to distinguish residents from those who had entered recently
Most towns and fortresses subsequently surrendered; many had holes knocked in their walls anyway, since increasingly desperate resistance might have occupied the sites after Roman forces had moved on. This demonstrates that sieges were not simply tactical operations at one site but nodes in grand tactical campaigns to “pacify” theaters, and each siege in theater would change the next for both assailants and besieged.

The pattern of Jotapata is visible again at Gamala, even where the town itself was nearly vertical on a camel-backed ridge, although this operation also offers rarer snapshots of Roman vulnerabilities in urban combat. Vespasian was unable to encircle the city first because of its site, but he could put the standard camp on a nearby hill which overlooked it. He filled in ravines and trenches in order to start constructing ramps at the complex site. He moved engines up; artillery drove defenders off the wall; rams opened the wall; trumpets sounded. As at Japha (Joseph. BJ 3.302–303), Romans met dangerous resistance on narrow streets, while objects could be thrown down from above. Urban warfare was even worse at Gamala, where Romans had to force their way up extraordinarily steep streets against the sheer weight of defenders. They tried to move on the roofs of houses which collapsed under heavy Roman armor. Collapsing houses offered a supply of stones for defenders. It was nearly a failed siege; Romans had to leave and regroup. Many residents fled, knowing that the very success of the defense deterred any offer of clemency. The operation finally succeeded via Roman undermining, which often simply removed stones from the base of walls instead of dangerous tunneling (a mere three soldiers rolled five stones out of the base of one tower [Joseph. BJ 4.4–83]).

Titus’s subsequent operations at the extremely complex site of Jerusalem were troubled by familiar factors: the influx of criminals, desperate refugees, ideological resistance, local factionalism whose effects could be for or against Roman interests. In spite of the scope and scale of the defenses, Vespasian had encircled the site with camps, some at cities like Gerasa which had to be taken to complete the circle. He meant to ensure that no one left without surrendering himself. Titus adapted to
the great scale by moving camps, constricting the circle as the nature of operations changed, and using information from the captured to direct artillery to sites within. He also repeated errors in sending men through too small a breach in the second wall into the New City. Only a covering fire of arrows got him and his men out safely to regroup (Joseph. BJ 5.333–341). Rapidly adapting defenders even undermined Roman platforms by tunneling (Joseph. BJ 5.468–471, 302–521). Roman legions could suffer greatly even in this sphere of warfare in which they most excelled.

Hatras, the caravan city on the Arab-Persian frontier, became notorious for testing the limits of Roman siege warfare. Dio is oddly dismissive of Hatra’s size and importance, given the wealth collected in offerings to its great Sun temple (cf. 68.31, 76.12.2). There was very little potable water locally and no wood, ruling out building operations like Vespasian’s. There were also insects which probably bore disease (Dio 68.31; Hdn. 3.1.2–3 may be confused with the hurling of jars of stinging insects). Dio claims that Trajan simply assaulted the walls with cavalry. The locals were particularly good archers who also had some sort of ballista or scorpio which could deliver a very high rate of fire, presumably making it nearly impossible to approach the walls, as well as some naphtha-based flame-throwing device, which must be what destroyed Severus’s artillery later.

Severus did breach a wall at one point, and supposedly his troops became outright mutinous when he would not exploit it, but the experiences of Vespasian and Titus justify his position. His troops’ anger presumably resulted from the very high casualties among Roman forces combined with the lost opportunity to loot a shrine city. The chronology is much debated, but if Severus attacked Hatra on his way east, failing and sweeping by it to the south, that illustrates that sieges could have objectives other than holding territory or terrorizing populations. If he attacked it for either the first or the second time during his withdrawal from Mesopotamia, that would indicate that he was aiming at the Sun’s treasury and, if it were the second time, to recover from a blow to his military prestige. Jotapata, Hatra, and Gamala all lead to the topic of the next section.

**DEFEAT AND RETREAT**

Morale issues could be cumulative, witness mutinous riots against Germanicus in 14, a mass phenomenon perhaps combined with a conspiracy to desert or to kill officers. The complaints were those which would surface repeatedly during the Empire, especially on the northern frontiers: excessive length of service before demobilization; insufficient rewards. To demonstrate the personal costs of such long service, men pushed Germanicus’s hands into their mouths to feel their missing teeth and ripped off clothing to show the scars from wounds and flogging (which cannot, therefore, have been too shameful). Germanicus wisely rejected mobilizing auxiliary forces against legions, but asking the legions to turn on hard-core mutineers in their own small units had horrible results. Tacitus describes their subsequent fervor to set out against Germans as atonement for their earlier madness (Ann. 1.29–49).

It was these legions, already mobilized for a campaign of terror against German villages, which Germanicus led on a detour in the next year to the site of the massacre of Varus in the Teutoburg forest where Romans had been left unburied. His units included men who had escaped the slaughter or captivity among the Germans. In a pointed contrast to Varus, Germanicus entered the marshes preceded by scouts, bridge builders, and builders of camps. They found not only Varus’s camp but Roman bones attached to trees and what they identified as altars at which Roman officers had been sacrificed.
Tacitus reports criticism of Germanicus’s participation in the burial project, both because Roman forces might have been demoralized and terrified by the sight of the Roman dead and because Germanicus should not have been handling any funerary articles as an augur (*Ann. 61–2*). Roman literature more conventionally features the laments and dire fates of Roman opponents, but Tacitus intended his depiction of the aftermath of civil warfare in Italy to be affecting when he offered another scene of contemplation of Roman dead. At the site of the first battle of Cremona, bodies of the defeated, some, Tacitus claimed, dismembered, lay in heaps together with horses. Tacitus depicts Vitellian officers as offering a battlefield tour of what each unit did. Tacitus clearly approved of the “few” observers moved to tears by the sight of mounds of Roman dead, but Vitellius supposedly did not have the sensibility to avert his eyes (*Hist. 70–71*).

Casualties, of course, could occur even in winning engagements, as the siege at Jotapata demonstrated. Trajan’s Column, commemorating victory in wars in Dacia, admits to Romans wounded in combat. It exhibits a slumped soldier, propped up by a comrade, reaching out to a medic and a legionary with a steely expression having a leg bandaged by another medic (*Lepper and Frere 1988: casts 102–3*). Dio claimed that Romans ran out of bandages at Tapae, so that Trajan had to rip up his own clothing. He then honored the losses by establishing an altar and annual sacrifices on the spot (*68.8.2*). Some casualties probably occurred in the aftermath of battle, when fates contrasted most starkly. The column juxtaposes Trajan’s distribution of awards to auxiliaries with bound Roman captives, tortured by Dacian women (*Lepper and Frere 1988: casts 115–16, 117 respectively*). This may be connected with the Roman posting of Dacian heads on poles outside a stone fort later and heads offered Trajan as trophies (*Lepper and Frere 1988: casts 140, 183*). Pride in this head-hunting suggests some degree of desensitization to dismembered bodies as well as supporting a recent argument that Roman military sensibilities in particular did not call for the self-control or restraint in self-assertion lauded by philosophically inclined texts. Insult was likely to lead to vengeance (*Lendon 1997: 247*).

Others reading this literature have looked for some evidence for Roman post-traumatic stress disorder, given the horrible intimacy of death inflicted in legionary combat, not to mention the perpetration of campaigns of terror against civilian populations. These included rage-enabled explosions of violence and also directed extermination of populations carried out systematically over days, extended scenes of which are distressing to modern military personnel even in print. Highly personal violence and ambiguity as to who is or is not a combatant are factors which increase the prevalence of PTSD (*Garbutt 2006: 21*). Yet the main indication of PTSD may be the very numbness in the aftermath of battle for which Tacitus expresses disdain. PTSD routinely involves anger, lack of concentration, “overall numbing of responsiveness” as well as “a marked disinterest in important activities, feelings of either detachment or alienation.” Confusingly, numbness could alternatively have been a symptom of pathological depression, if “only” situational depression in some cases, for example, perhaps, Crassus in the Republic, unable to come out of his tent in the aftermath of Carrhae. Instead of reassuring his men, still trapped deep in hostile territory after Carrhae, after the death of his son, he lay in his tent alone with his face covered. Subordinates were unable to rouse him and held a council of war and issued marching orders on their own (*Plut. Cras. 27*; depression is frequent post-combat, yet depression and PTSD reflect two different anomalies of brain chemistry).

Both reactions violated cultural norms among the Roman elite who eschewed the restraint recommended by Greek philosophers. Instead they valued a sensibility open to the grief of others, so Tacitus’s disdain for those inured to violence would have been widely shared (*MacMullen 1980:*)
Germanicus’s battlefield tour as well as that of Vitellius might have counteracted psychological trauma rather than worsening it. Debriefing (analyzing the sequence of events in detail for others) sometimes allows individuals to process events through group discussions when their own mental functions are too traumatized. Such debriefings operate as rituals moderating emotion and lending meaning to events; they make the military unit a source of meaning again (i.e., as long as no blaming occurs; cf. Shalev 1991: 5).

Later in that eastern theater, Paetus’s men could not be lured into another ambush by the Parthians. They would hardly leave their tents except to take their turns on the walls. Tacitus claims that some were simply very obedient to orders, while others were cowards. He adds that Paetus himself was “unable to overcome adversity” and began to neglect all military duties, perhaps with a pathological degree of detachment (Tac. *Ann.* 15.15). It is, nonetheless, oddly impressive that Paetus built a bridge for the route for his own retreat. Parthians walked into the Roman camp before they had even evacuated it and picked out Roman-acquired loot. Tacitus concedes that some stories might have been invented later to heap disgrace on Paetus, yet repeats the claim that Romans were also subjected to marching under a yoke. He vouches for the fact that Paetus marched back at forty Roman miles per day, abandoning wounded as he went, which Tacitus considered just as bad as fleeing a battlefield. Corbulo had pointedly met them without any of the display of arms which Roman legions might expect to greet them on return from combat, but his men, Tacitus claims, saw their fellow soldiers through tears, a suitably sensitive reaction to their plight (Tac. *Ann.* 15.16–17).

Paetus’s soldiers evoke the topic of *infamia*, disgrace, and the need for some redemption via *piaculum*, an expiation. Tacitus depicts Roman commanders as studying the minds of their men (e.g., *militum animi* in *Ann.* 2.12.3). Experience of or even the fear of disgrace certainly influenced behavior deeply. An individual considered a coward might commit suicide (Tac. *Hist.* 2.30). Indiscipline, even that inspired by powerful grievances, might later be experienced as an unbearable disgrace, as in the case of Germanicus’s mutineers (Tac. *Ann.* 1.3, 49). The greatest disgrace was defection to an enemy, a lesser people, and legions drawn into revolt by the Batavians and Gauls on the Rhine suffered not only *infamia* but *conscientia flagitii* and *ignominia*. Roman commanders protected them from insult by other troops, perhaps fearing something like a mass depression or even an attempt at group expiation as non-rebels killed them to recover unit reputation (Tac. *Hist.* 4.62, 72).

Motivation for enduring combat has often been studied since World War II, and the standard claim of the literature into the twenty-first century is that men endure combat because they will not abandon the other men in their units. That means that unit cohesion is not simply an outcome of combat or of training but the primary motivator in a tactical encounter. Even when ideological motivations are present, unit cohesion is the sole motivator which does not erode under the stress of combat (Steckel 1990: 300). In fact, cohesion is, in general, enhanced by group experience, especially by group success, that is, victory helps. In spite of recent studies which attempt to divide unit cohesion into task cohesion and social cohesion, it now appears that task cohesion builds social cohesion. Unit cohesion is one of the best protections against PTSD since it enhances psychological resilience in general (Garbutt 2006: 29). This cumulatively suggests that Romans largely achieved resilience and avoided collapse at the strategic level after a tactical or even grand tactical defeat through a synergistic interaction of factors including a military culture of adaptability to local tasks, unit cohesion, and prior success.


The military character of the Roman Empire changed dramatically from the Republican period to the early Imperial. While the Empire still expanded, especially in the reign of Augustus, this was not at the same level as in the third and second centuries B.C. During the Imperial period the nature of war changed from one of expansion to, gradually, defense of Imperial boundaries (although campaigns were launched: Claudius in Britain, Trajan in Dacia and Parthia, for example). There came a change in the nature of the army: how it functioned within the Empire, its organization, and its relationship with society in Italy and the provinces.

The root of all these changes, of course, was the presence of an emperor. Where the Senate had failed to bind the army to itself in the late Republic, Augustus made no such mistake. Army and emperor were bound each to other (Campbell 1984; Hekster 2007), by an oath of allegiance and by right of command on the one hand, and on the other through pay, donatives, and other privileges. The relationship may not always have been easy—the Emperor Tiberius, an experienced and seasoned general, compared it to “holding a wolf by the ears” (Suet. Tib. 25.1). Emperors went to great lengths to ensure the loyalty of the army. Fundamental to this was pay (Hopkins 1980: 124–5; Campbell 1984: 161–74; Alston 1994; Rathbone 2007: 158–65). The cost of the army was substantial—perhaps as much as 40 percent of Rome’s income from the provinces (although the relative expense would have varied from province to province, and in some, such as Egypt, the relative cost would be low [Adams 2007b])—and a structured approach to military finances (unknown in the Republic) was created with Augustus’s establishing of the aerarium militare in 6 (Dio 55.24–5, Mon. Anc. 17.2). Alongside a substantial grant from his personal funds, for the first time in 150 years, a tax was levied in Italy to help defray costs. There was a regular demand for increases in pay, testament to an almost permanent undercurrent of unrest (James 2001: 79), and so Domitian, Septimius Severus, and Caracalla introduced substantial pay raises. Above and beyond regular pay came irregular donatives, especially important in times of political crisis: Claudius and Marcus Aurelius both granted substantial donatives on their accession.

The monopolization of control of the army in the hands of the emperor radically changed the dynamics of the relationship between the Roman aristocracy and the army, and had a profound effect on military careers in general. These are political considerations, and beyond our remit here, suffice it to say that commands came to be centered in the hands of members of the Imperial household or trusted individuals—no longer would senatorial magistrates have influence. But underneath the highest levels of command, profound changes in structure came, and with it for ordinary soldiers some chance of social mobility. What marked the soldier of the Imperial period from his Republican
counterpart was his professional status, and membership of a professional standing army. Soldiers continued to be recruited from low socioeconomic backgrounds, and recruitment in the provinces gathered pace. Military pay was reasonable, and soldiers and veterans were often considered privileged in relation to civilians, but this should not be exaggerated; pay and discharge bonuses may have seemed generous in rural society, but compared with, say, property qualifications for the equestrian class, a soldier’s or veteran’s wealth was modest indeed. They were probably influential at only local levels; they might appear privileged in a small Egyptian village such as Karanis, but they rarely took up local magistracies, as these were expensive (see Alston 1995). As a group, as will become clear, they were seen as abusive and ignorant. The upper classes looked down on them, but could remain relatively untouched by their influence; the lower classes feared abuse.

The bias of the upper classes and fears of the lower are certainly clear in our evidence. Anecdotal derogatory remarks are common in literary evidence of the Empire, but for the Imperial period, unlike the Republic, we have an ever-growing corpus of documentary evidence providing a rich picture of the army and the society with which it interacted. Documents also provide important information about the complex military bureaucracy and systems of supplying the army, along with features of its relations with local populations absent from literary sources. Any treatment of the army and society must take this into account, and, importantly, also consider the wealth of archaeological evidence available (especially perhaps where archaeology and documents can come together).

**Effects of War**

Rome’s wars of the Imperial period, with the exception of campaigns of expansion under Augustus or Claudius in Britain and those into Dacia and Parthia under Trajan, were different in character from the huge expansion of the third to first centuries B.C. To say that the Empire reached its greatest extent by 117 may disguise complexities, but it is not short of the mark. Wars now, more often, took place within Roman territory, defending it against foreign incursions, rebellions and revolts, and civil war (in 68–9, Morgan 2006), and especially during the turbulent third century (de Blois 2007).

Foreign incursions or attacks on military forces were a serious matter. Augustus may not have mentioned the *clades Variana* in his *Res Gestae*, but the silence is telling, and in reality it at least threatened the loss of the German provinces (Cass. Dio 56.23). For perhaps more than a century, the Marcomanni and Quadi tribes posed an enormous threat, not just to the provinces of Pannonia and Noricum, but to Italy itself; in the late second century especially, during the reign of Marcus Aurelius, the threat was real indeed. The problem was that the Roman army was small in comparison to the territory it protected, it was spread thinly, and internal defenses were weak or nonexistent. Once raiding parties had punched a hole into Roman territory, cities and their inhabitants were vulnerable. We have no certain figures for casualties or those taken into captivity, but, for example, incursions into Baetica in Spain in 171 may have seen as many as 150,000 taken into slavery. Archaeological evidence from around the Empire supports the view of a desperate situation.

The effects of civil war and rebellion could be profound, indeed the socioeconomic effects and implications for the societal fabric of communities could be much worse. The ambitions of commanders and undisciplined license of soldiers at times of political and social uncertainty could get out of hand, and Tacitus provides a vivid picture of this during the civil war of 68 to 69, when Otho’s troops treated Italy as though it was enemy territory, and he describes the devastation of Italy during Vitellius’s march on Rome (*Hist*. 2.56.87–8). Rebellions against Rome could be equally
devastating, even if their effects tended to be more localized. As early as the reign of Tiberius in 22, the revolt of Tacfarinas, threatening Africa, lasted for seven years (Tac. Ann. 3.74); and also serious was the revolt of Florus and Sacrovir (Ann. 3.40–46). More so was the revolt of Boudica in Britain in 60, where Tacitus’s figure of seventy thousand civilian dead may not seem exaggerated (Ann. 14.37). The Jewish revolt in the reign of Trajan was much more widespread and demanded the deployment of significant resources (Smallwood 1976). Literary sources, Dio especially, clearly portray the cost: in Hadrian’s reign between 132 and 135 perhaps as many as half a million lost their lives. Arguably more interesting is documentary evidence, for example the archive of Apollonios, the *strategos* from Egypt, whose mother writes to her son expressing her worry about his fighting against the Jewish rebels (ca. 115–117): “I do not refrain night or day from my prayers to all the gods and goddesses that they might keep you safe” (*P. Alex. Giss.* 58). The seriousness of the situation is further underlined in this case, for civilians have clearly been drafted to assist soldiers.

Finally, challengers to emperors demanded speedy and revengeful treatment. Especially in the late second and third centuries, these could range to localized affairs, such as the challenge of Avidius Cassius governor of Syria, to highly disruptive and damaging wars of some duration, such as the struggle between Septimius Severus and the pretenders Pescennius Niger and Clodius Albinus (193–197). It was a difficult choice for communities to decide whom they supported, and the wrong choice could be catastrophic: the case of Antioch and Laodicea in Syria is illustrative (Hdn. 3.3.3), and shows how intercity rivalry could further exacerbate problems; traditionally more important, Antioch’s status was reduced to that of a village, while Laodicea’s was increased to *colonia* (see generally, Potter 2004: 101–10).

But it is all too easy to dwell on the negative. Certainly there were trying times, but these were sporadic both in time and location (even in the third century, when crises were certainly localized and there is good reason to think that there was no universal crisis). There were almost certainly benefits to being part of the Roman Empire. The pax Romana offered opportunities for trade and interaction throughout the Mediterranean and beyond (Woolf 1992, 1993). Aelius Aristides, writing in the second century, praised Roman rule and citizenship as a binding link throughout the Empire. Many other benefits of empire are also listed (*Or. 26 On Rome*). Huge numbers of citizens and noncitizens benefited from its rule (especially among the elite). However, it is all too easy to be swept along by the rhetoric of Aelius Aristeides and forget the often miserable and horrific circumstances of the initial conquest, and we should be mindful of the famous speech Tacitus attributes to the British chieftain Calgacus in response to Agricola’s attempt to invade Caledonia: “They rob, butcher, plunder and call it ‘empire’; and where they make it a desolation, they call it ‘peace’” (Tac. Agr. 30). But for every Calgacus, there would be many more who embraced Roman control and profited from it.

**Army and Society**

By the end of the second century, a professional standing army was permanently based in the provinces of an empire spanning Northern Europe, the Mediterranean, and North Africa, an army made up of some 400,000 troops. Thus the army came to be the most visible feature of Roman control and authority. Whether the force in a province was viewed as a peacekeeping force or an army of occupation varied not only from province to province, but also according to the outlook of particular groups within provinces (Isaac 1992). So the relationship between the army and provinces varied
over time and place. However, generally it was at once exploitative but also provided both social and economic opportunities for provincials.

The character of the physical presence of the army in the Roman world varied according to place. In the Imperial period, unlike the Republic, the Praetorian Guard formed a permanent garrison in Italy, with one unit based in the city of Rome itself. This had a profound and widely felt effect, not least at times of political unrest. In the East, units tended to be situated in or near major urban centers. The best evidence for this is from Dura Europus in Syria, occupied from 165 to 256 (Pollard 2000). The presence of the army had a profound influence on the economic and social life of the city. In Egypt, legions were based at Alexandria and Memphis (the former well known for unrest), while garrisons were placed throughout the province at strategic points, and were used to monitor the desert routes. Indeed it was common for soldiers to be disbursed throughout provinces and sometimes beyond, something which is clear from, for example, a duty roster of the very early second century preserved on papyrus (the so-called “Hunt’s Pridianum,” Fink no 63 = Campbell 183) and a wooden tablet from Vindolanda in Britain (= Campbell 182).

What marked the western Roman provinces from those of the east was a much lower level of urbanization. In the east, soldiers enjoyed the benefits of an urban life; in the west, military bases were established at strategic points, which became fixed, and in turn led to the development of civilian communities nearby. Military bases provided traders with opportunities to sell goods, and as bases became more permanent, these communities became more sophisticated, with quasi-municipal structures. These settlements, called canabae, were located on the territorium legionis and were made up of Roman citizens. Non-Romans settled in communities around auxilia bases called vici; these tended to be smaller, and although they were ubiquitous, there is no good understanding of their pattern of development. However, it is clear that these settlements were central to the development of the urban landscapes of the Western provinces.

The presence of the army in provinces naturally leads to the question of how integrated soldiers, and in turn veterans, who came to settle in regions in which they had been based, became with the local population. Recent studies have stressed that soldiers became well integrated into provincial life (Alston 1995, 1999: 175–9; Pollard 2000), but at the same time could maintain a separate identity. While archaeological evidence can suggest patterns of habitation, it is to documents that we must turn, in order to provide a picture of the dynamics of the relationship between soldier and civilian. For the Egyptian village of Karanis in the Fayum we have valuable evidence in the form of family archives. We see that soldiers had diverse social connections, and as time went on, especially due to the increase of local recruitment, networks of relationships developed. In this way, for example, soldiers retiring from service could arrange an entrée into the village:

Receive with my recommendation the bearer of this letter, Terentianus, an honourably discharged soldier, and acquaint him with our villagers’ ways, so that he isn’t insulted. Since he is a man of means and wants to live there, I have urged upon him that he rent my house for this year and the next for 60 drachmas, and I would like to use the 120 drachmas to buy for me from our friend the linenmerchants by the temple in the city. (SB VI 9636 [136])

We know from other letters that Terentianus was himself the son of a veteran, that he served in the fleet at Alexandria, and that his introduction into the village must have been smooth, for he eventually bought land there. But while the letter can be taken as evidence of social integration, it also hints at separation and strained relationships. The writer mentions his fellow villagers’ “ways” in such a fashion as to hint at distaste and difference. Such a notion is further illustrated by the examples we
have of veterans complaining to officials about their being beaten (SB XII 11, 114), in one example being flogged on the orders of a magistrate (SB V 7523), or their privileges were ignored and they were illegally required to perform liturgies (BGU I 180 = Campbell 339). While it is certain that soldiers and veterans were integrated into society, we should not underestimate levels of tension between them and Egyptians. They represented the power of the state. They were also comparatively wealthy, enjoyed legal privileges and exemptions, and often easier access to officials. A good example of this is the veteran Lucius Bellenus Gemellus, who also lived in the Fayum. Gemellus cultivated good relations with local officials and was not above offering gifts to ensure favorable decisions:

Lucius Bellenus Gemellus to his son Sabinus, greeting and continual good health. You must know that Elouras the royal scribe is become deputy for the strategos Erasus, in accordance with a letter of his highness the prefect. If you think it well, send him an artaba of olives and some fish, as we want to make use of him. (P. Fay. 117 [108])

It is likely that such conspicuous privilege would have rankled other members of the community. Additionally, they may also have remembered the abusive treatment experienced at the hand of soldiers either collecting taxes or otherwise enforcing the will of the state, or malfeasance so commonly associated with soldiers.

Brutish, abusive soldiers are not just a literary topos. Epicetus, in his Discourses, for example, advised his readers not to resist attempts by soldiers to illegally requisition mules, as they would be beaten and the mule taken regardless (Discourses 4.1.79 = Campbell 298). We know from legal sources that edicts and laws were regularly passed to prevent abuse: the lawyer Ulpian, writing on the duties of provincial governors, states that a governor had to see that “nothing is done by individual soldiers exploiting their position and claiming unjust advantages for themselves” (Dig. 1.18.6. 5–7). Ulpian also notes that governors were to make sure that no illegal financial exactions were made (Dig. 1.18.6.1). An edict of M. Petronius Mamertinus, prefect of Egypt from 133 to 137, forbade requisitions without certificates, for “private persons are subjected to arrogance and abuse, and the army has come to be censured for greed and injustice” (PSI V 446 = Campbell 293). Such edicts concerning abuse are common throughout the Empire, but their efficacy can certainly be questioned, and they were probably little comfort to provincials.

Some of our best evidence for relations between soldiers and civilians is the New Testament. John the Baptist advised soldiers (probably those of King Herod) not to “extort money from anyone, do not act as an informer, and be satisfied with your own pay” (Luke 3.14). Elsewhere in the New Testament soldiers who displayed kindness or humanity were praised, because they were exceptions to the rule (Campbell 1984: 248). Just how common extortion and abuse were is evident from some remarkable documents preserved from Egypt. The most striking is a list of disbursements in a private account. We find twenty drachmas for a suckling pig, one hundred drachmas to two police agents, a further one hundred drachmas to another police agent, and finally 2,200 drachmas “for extortion” (SB VI 9207 = Campbell 297).

Compounding the problem of abuse and extortion was the fact that it was difficult for individuals and communities to seek redress. Soldiers enjoyed legal privileges, and were difficult to prosecute (Campbell 1984: 253–4). This was certainly the view of Juvenal, for in a satire he suggests that the outcome of a prosecution of a member of the Praetorian Guard would always end in acquittal (Juv. Sat. 16.32). A further complicating factor is the complicity of local officials in soldiers’ misconduct; their judgments are unlikely to have been impartial (McGing 1998). Further, one category of evidence
central to this issue is the large number of petitions directed to officials, where in one sample roughly a third were directed to centurions operating in a local police role (Hobson 1993). The sheer number of petitions suggests that abuse was widespread. A still further complication could be that a centurion was petitioned concerning abuse by a soldier. How likely is fairness in this regard? Such was the case for Aurelius Sarapion in a petition to the centurion Aurelius Marcianus:

> there is nothing more dreadful or harder to bear than maltreatment. At the time of life I have reached, being over eighty years, I served faithfully as an Arab archer. A sow having escaped from my daughter in the village and being reported to be at the house of the soldier Julius, I went to him to demand his oath about this matter, and he laying hands on me, despite my age, in the village in the middle of the day, as if there were no laws, laboured me with many blows. (P. Graux 4 [248])

He goes on to list witnesses and to seek redress.

Although there is no reason to doubt that soldiers enjoyed some legal privilege, the picture is not universally bright. Until the time of Septimius Severus, soldiers were unable to enter into a legal marriage (Campbell 1978). It is clear, however, that the change in the law under Severus to allow marriage merely ratified the status quo, for it is clear that soldiers were involved in relationships and that women were present at military bases, even the most far-flung outposts such as Mons Claudianus in the Eastern Desert of Egypt. Other matters such as the restriction on soldiers owning land in the province in which they served being lifted, and the right of the soldier to control his own property (rather than his father), eased restriction for soldiers and had profound effects on status and inheritance. Several other measures were introduced by emperors to ease the legal difficulties for soldiers drawing up wills, and they enjoyed other privileges such as inalienability of their property during their years of service and exemptions from compulsory public services (which applied also to veterans in the first five years of their retirement). Thus reasonable pay, regular donatives, and legal privileges and perks formed a package intended to make military service attractive. In terms of the auxiliary forces, perhaps the most attractive aspect of service was the award of Roman citizenship at the end. This, then, had a profound effect on the social mobility of recruits and on their cultural identity. The orator Aelius Aristeides put it thus: “on the day they joined the army, they lost their original city, but from the very same day became fellow-citizens of your city [Rome] and its defenders” (Aristid. Or. 26.75).

So all of this, more than average wealth, donatives, citizenship of legionaries and citizenship upon discharge for auxiliaries, and, with this, exemption from poll tax and exemptions from liturgies for five years, legal privileges, and the ear of officials all of the way, theoretically, to the emperor, served to make soldiers the focus of jealousy.

The Role of the Army in the Provinces

The main role of any army is to fight wars, certainly in a militaristic society such as Rome. In reality, as mentioned above, wars were limited in time and place, and they rarely would have affected daily life in most of Rome’s provinces, and certainly this was the case in the longer established ones under the authority of proconsuls, where there was a limited military presence. The maintenance of law and order within provinces was more important, and the central responsibility for provincial governors (Ulp. Dig. 1.18.13). Guard duty and surveillance took up most of soldiers’ time; Pseudo-Hyginus, writing in the first or second century, stated that, at any time, about 20 percent of a legion might be involved in such duties (Ps. Hyginus, De munitionibus castrorum 1), and this tallies with duty rosters.
Banditry was a serious problem, perhaps especially in more remote regions (MacMullen 1966; Shaw 1984; McGing 1998), and this is amply shown by a recently published ostracon from the presidium of Krokodilo in the Eastern Desert of Egypt (esp. O. Krok. 87). It preserved reports dating from March and April 118 detailing violent encounters with Bedouin tribesmen. On the night of March 13, there was an attack on the nearby presidium of Patkoua involving sixty “barbaroi” which lasted the whole night; two soldiers were killed (and at least one seriously wounded), a child was killed, and a woman and child abducted.

A series of ostraca from the Eastern Desert provide good evidence for the daily routine of soldiers. They contain lists of individuals on watchtower duty, providing protection from the kind of incursion just mentioned; for it was not only the presidia and watering stations (hydræumata) which demanded protection, but the caravans of luxury goods of the Red Sea trade which also utilized this desert infrastructure (Bagnall 1977, 1982; Alston 1995; Adams 1999, 2007a). Travel on these desert routes was therefore carefully regulated (see O. Claud. I 48–82 for passes), charges for their use were levied (OGIS 671 [A.D. 90]), and communication was at a premium, demonstrated clearly by accounts of letter deliveries preserved from Krokodilo (esp. O. Krok. 1). As time went on, and legions became more permanently based in particular provinces, soldiers could find themselves at such outposts for a considerable period of time. A good example is the case of Aelius Dubitatus, a soldier of the Ninth Praetorian cohort based in Numidia in North Africa in the third century, who served as a guard at the outpost of Veneria Rustica for nine years (ILLS 9073 = Campbell 187). Clearly some posts were better than others. This also goes some way to explaining why women and children were at the presidium of Krokodilo, and why we find women being charged high toll fees for using the Eastern Desert roads. The Koptos Tariff inscription (OGIS 671) records charges of twenty drachmas for a woman (four times that for a sailor) and 108 drachmas for a prostitute. The loneliness of the desert clearly created good business, and the state taxed accordingly.

More senior soldiers, centurions, and decurions were dispatched to investigate crimes in Roman Egypt, and were the main feature of maintaining law and order in the province—and there was much to do (Bagnall 1977; Alston 1995: 86–96). A good example is the case of Paternuthis, son of Heracleus, who was involved in a dispute with shepherds. When he complained “about the damages they owed to me because of their flocks grazing over my lands, they gave me a severe beating and abusively stated they would not pay.” He applied to the centurion Gaius Trebius Justus for redress (P. Oxy. XIX 2234 = Campbell 286 [31]). This was common in other provinces too, where beneficiarii or stationarii took on a similar role, especially in areas less easily controlled by magistrates. Soldiers, too, could be called on by magistrates to enforce their decisions or to act as arbiters in disputes. A good example of this regards a dispute between two villages in Asia over their respective responsibilities to provide for transport for officials on state business using local roads traversing an imperial estate. The procurator responsible for the estate sent a soldier on police duty to the village of Anossa (Campbell 188). Another example is from Dalmatia in the reign of Gaius: “Lucius Arruntius Scribonianus, legate with pro-praetorian power of Gaius Caesar Augustus Germanicus, appointed Marcus Coelius, centurion of the seventh legion, as adjudicator between the Sapuates and the [La]matini, in order to establish boundaries and set up markers” (ILLS 5950 = Campbell 285). It seems that in some instances the presence of a soldier could be welcome. However, there was a clear opportunity for abuse: soldiers being used by corrupt officials to enforce their will, as in the case of Lucilius Capito, a crooked procurator in Asia during the reign of Tiberius who was “impeached by his province, was tried by them, the emperor vehemently asserting ‘that he had merely given the man authority over the slaves and property of the imperial establishments; that if he had taken upon himself
the powers of a prætor and used military force, he had disregarded his instructions; therefore they must hear the provincials.’ So the case was heard and the accused condemned” (Tac. Ann. 4.15).

Soldiers were also engaged in a range of activities in support of local administrative officials, especially given that one of the main features of Roman provincial government was the absence of a large provincial bureaucracy (even if this did not necessarily mean a reduction in the amount of paperwork generated). The administration of justice in local disputes is the obvious function, and thus communities were encouraged to foster good relations with individual soldiers to ensure support. Often they came to be local benefactors given the honor of votive inscriptions as “friend and benefactor,” and communities celebrated sons who became soldiers, perhaps because of their influence. A third-century inscription from Sebaste in Asia is a good example: “In accordance with the decisions of the council and the people, his native country (honors) its benefactor Aurelius Atticus, veteran of Legion X Gemina, like his ancestors an ex-magistrate and city councilor” (Campbell 34). More typically, however, soldiers were given jobs requiring force, or its implication. We have evidence, principally from the Roman East, of soldiers supervising local markets, where we can imagine them suppressing heated arguments over prices; they were especially responsible for the oversight of the weighing of goods (e.g., CIL VIII 18,219 = ILS 2415). They also supervised the weighing of tax grain and acted as guards on ships (epilooi or “supercargoes,” Alston 1995: 79–81; Adams 2007a: 192). We know from a letter of Pliny the Younger, when governor of Bithynia-Pontus, that soldiers were attached to the staff of a freedman in the office of an imperial procurator, and this compares favorably with the evidence cited above for soldiers being sent to settle a dispute in Annossa by a procurator (Pliny, Ep. 10.27; Pollard 2000: 100–4). Some soldiers had particular administrative skills which encouraged their deployment in this way. A good example of this is found in a letter, again from Karanis in Egypt, but written in Bostra in Arabia, of a soldier to his father: “I have asked Claudius Severus, the governor, to appoint me as a clerk on his staff, and he said: ‘There is no vacancy; nevertheless, in the meantime I shall appoint you as a clerk of the legion with expectation of advancement’” (P. Mich. VII 466 = Campbell 36).

Perhaps the most visible and important role of soldiers’ internal administrative duties was in the collection of taxes (Alston 1995: 79–80; Pollard 2000: “tax collection”). It is here that their ubiquitous brutality was most evident. Soldiers, as we saw in the personal account mentioned above, could extort money directly from civilians, but were also often complicit in fraudulent activities of tax collectors, who sought to profit from tax-farming contracts by collecting more than they required to fulfill them. We know from a first-century archive from the village of Philadelphia in the Fayum, belonging to the tax collector Nemesion, that soldiers and other bodyguards were used to assist collection (Hanson 1989: 435–6). From internal evidence in the archive, we know that Nemesion was struggling to collect his taxes during a time of economic hardship, so soldiers provided a necessary lever, and perhaps also protection for Nemesion.

Soldiers also manned customhouses throughout the empire. A merchant’s handbook of the mid-first century mentions the probable presence of a centurion at the port of Leuke Kome on the Red Sea, supervising the collection of the 25 percent portorium tax on luxury goods (Periplus Maris Erythraei 19, with Young 1997). We know also that soldiers were based at customhouses in Dura-Europus, and indeed it is no surprise that they were stationed at these points, not only because of the importance and value of tax collection, but also because they were often located at strategically important locations.
Soldiers provided much more than military might within the Empire. They were certainly responsible for the creation of new provinces through force, but their role did not end there, or even merely with keeping peace. They also contributed to the establishment and maintenance of provincial infrastructures in the form of roads, fortresses, and other buildings and structures. In many provinces outside the East, these may not have existed before. So soldiers were also responsible for the development of the fabric of provinces and means of government, for empire was not possible without efficient communication. A good example is an inscription preserved on a milestone from near Thoana in Arabia, dating to 110/11: “when Arabia had been reduced to the position of a province, opened up a new road from the borders of Syria right up to the Red Sea, and paved it, through the work of Caius Claudius Severus, legate of the emperor with propraetorian power. 54 miles” (ILS 5834 = Campbell 198).

The army needed roads and buildings for its own use, but in turn soldiers could use their skills as engineers and builders to other ends. We are told by Suetonius, for example, that Augustus used soldiers to repair the canal and irrigation networks in the Egyptian Fayum, which had fallen into disrepair under the later Ptolemies (Suet. Aug. 28; cf. SHA, Prob. 9 for the third century). We know from the Digest that provincial governors had the responsibility for the upkeep of public buildings in their provinces, and were sanctioned to appoint soldiers to assist in the inspection of buildings (Dig. Ulpian 1.16.7.1 = Campbell 193). This is clear too from the letters of Pliny the Younger as governor of Bithynia-Pontus, where we are told that city finances and their relationship to public building were some of his central concerns, that he requested specialist military surveyors and architects to supervise building and roads in his province (Pliny, Ep. 10.41, with Talbert 1980).

Of course soldiers engaged in the building of their own camps, which over time in the western provinces developed into extended communities and cities. In Britain, legions were based at Caerleon, Chester, and York, and throughout the western provinces, in Cologne, Bonn, Mainz, Vienna, Budapest, and Belgrade, to select only a few. Soldiers in the eastern provinces we have seen were based in cities, and here they were often engaged in the repair of city walls (Pollard 2000: 244–5), and soldiers with specific skills, such as stonemasons, could employ them in the building of bridges (AE 1973: 473 = Campbell 200).

Soldiers could also use these skills in mining, and given that all mines and quarries were part of the emperor’s property after the reign of Tiberius (Suet. Tib. 49.2). The work was arduous, as is shown by the account of Tacitus of a mine in Germany:

The output from this mine was small and did not last for long. But the legionaries endured much costly toil as they dug channels and laboured underground in a way which would have been onerous even if they had been out in the open. Exhausted by this, and because troops in several provinces were undergoing similar toils, the soldiers wrote secretly to beg the emperor that when he was about to appoint a commander, he should grant him an honorary triumph before he took up his command. (Tac. Ann. 11.20 = Campbell 194)

The lot of soldiers working in mines and quarries was probably better than that of their civilian counterparts (even though they were still well paid [Cuvigny 1996]), and for officers, as we know from a letter from Karanis, written by a soldier based in Bostra in Arabia: “I give thanks to Sarapis and Good Fortune that while all are laboring the whole day through at cutting stones, I as an officer move about doing nothing” (P. Mich. VIII 465 [107]).

All of these issues are central to the role of the army in the construction and maintenance of provincial infrastructure. But this was largely in the interests of the state, even if there were incidental benefits for provincials. However, it is fair to say that this reinvestment by the state in such
infrastructure could not make up for the systematic exploitation of provinces by Rome.

The presence of soldiers in provinces had profound economic effects, both direct and indirect. The army itself had direct demands in terms of food supply, equipment, and weapons, and their transport and delivery, but also indirectly in that the presence of soldiers naturally provided trading opportunities for provincial inhabitants, whether riding on the back of supply or independently.

The army was not self-sufficient, and the professional army of the Empire, as it became more permanently based, could not rely on foraging and other temporary measures as the army of the Republic had done; such techniques were, at any rate, not suitable for peacetime (on logistics generally, see Erdkamp 1998 and Roth 1999). Land was attached to legionary bases, and on this small amounts of food could be grown, but certainly not enough to provide for all. At outposts, small-time gardening by individual soldiers provided extra food, and perhaps for some helped to relieve boredom. A good example is the soldier Rustius Barbarus, assigned to a desert post in Egypt, who grew vegetables (Davies 1971); similar activities are seen at Mons Claudianus (van der Veen 1998a, 1998b) and, on the other side of the Empire, at Vindolanda (Bowman 1994: 44–5). But this was a drop in the ocean, for an army of some 300,000 legionaries and auxiliaries demanded some 150,000 tons of grain per annum (Garnsey and Saller 1987: 89–95; Campbell 2002: 92). The burden on provinces varied according to relative productivity; the burden in Egypt for example (about the only province with which it is possible to make such estimates) was small: some 192,000 artabas of grain needed compared to an annual yield of 81 million (Adams 2007b).

Supply on such a scale naturally demanded considerable logistical enterprise. Despite this no universal system of supply was ever developed, rather methods varied throughout time and place, but two important constants can be determined: first, that overall supervision of supply was a responsibility of provincial governors; second, increasingly the burden of not only producing supplies (in the form of tax grain for example), but of transporting them, fell more and more on provincial populations. Our evidence is rather limited—technical treatises such as Vegetius’s *Epitome of Military Science* are of little use—but supply demanded accurate record keeping (the presence of which in itself distinguishes the Imperial army from the Republican). In this respect we are lucky to have good evidence from Egypt, Dura-Europus, and Vindolanda, and the geographical spread suggests similarities in documentary practice.

Although there seems to have been no universal system of supply, the following basic format can be determined: legionary commanders assessed the requirements of their legions and units within them (that may have been based away from the mother legion); the provincial governor was informed and sanctioned their collection (Adams 1999). Once approval had been given, soldiers were sent out to collect supplies. Our best evidence of this process is from the dossier of the *strategos* Damarion, where a soldier named Antonius Justinus spent a considerable period of time in the Fayum gathering supplies (Daris 1992; Adams 1999; the central text is P. Amh. II 107 = Campbell 235 [A.D. 185]). We also possess a document showing men from the *Cohors I Hispanorum Veterana* in Moesia sent to Gaul to collect clothing and grain (Fink 63 = Campbell 183 [105 or 106]).

A final example from Egypt concerns a soldier (who calls himself a procurator—an unmilitary title) who had paid hay contractors (*conductores faenarii*) who were probably civilians for the transport of fodder to his unit (P. Lond. I 482 = Campbell 236 [105]). The transport of the supplies seems in the main to have been carried out by civilians. This is certainly implied in the case of *P. Lond.* I 482 just cited, but is clear in the case of remote outposts in Egypt and Libya (see the *ostraca* from Douch; O. Petr. 245, with Adams 1995, 2007a: 210–19; and ostraca from Bu Njem, Maricha
1992). Such transport was carried out over short and long distances under contract, but over time this may have gradually turned into liturgical service (Adams 1999: 123–4). It could be onerous, as we see in an example where a veteran performing a liturgy has delivered blankets to the praefectus castrorum of Legio II Traiana Fortis, but has been detained in Alexandria so long that he had to petition the Prefect of Egypt for his release from duties (P. Oxy. XXXVI 2760 [179–80]). Thus it was not just food supplies that were levied, but also blankets and clothing, fodder for animals, and even materials for weapons.

The development of communities around military bases was largely because soldiers provided a focus of trade. The production of both staple goods and other commodities would have been encouraged, to say nothing of opportunities for entertainment. In Britain, for example, the Vindolanda writing tablets show a “flexible and sophisticated local economy” (Bowman 1994: 68; Whittaker 2002). Paul Middleton has noted that in Gaul the army’s presence afforded “networks of contact that resulted in the interplay of Roman and native groups” (Middleton 1983: 75); this is both societal and economic interplay. We also have evidence for longer distance trade. At Vindolanda, Gallic wine was favored over local drink, perhaps not surprisingly, and it is possible that an individual on one tablet, who described himself as a hominem trasmarinum (“a man from across the sea”), was a dealer in wine (Tab. Vindol. II 344). Amphorae at Mons Claudianus show a remarkable range of wines from around the Mediterranean—Spanish, Gallic, Syrian—being transported to this remote site (Tomber 1996). It seems clear that the presence of soldiers in a province could have a profound effect upon patterns of trade and the wider economy.

CONCLUSION

War created the Roman Empire, and Roman society was profoundly militaristic. Within the provinces soldiers were the most visible sign of Roman control. They protected Roman territory from attack, which came to be the most important overtly military function as expansion slowed down. The army provided internal policing, which was not universally popular; to some it was a peacekeeping force, to others an army of occupation. Soldiers were at once thought of as brutish thugs, largely untouchable due to their status, but they also provided, at times, welcome protection. As military units came to be more permanently based in particular areas, communities developed around them—those units based in cities of the East enjoyed the benefits of city life and their links with civilian society grew. This resulted in integration, which was not always an easy situation. Integration had dividends for both soldiers and civilians. These communities provided new recruits for the army, and the presence of the army, even if it did place many burdens on local populations, who had to provide food and supplies as tax, also provided a range of economic and social opportunities: trade and the possibility for some of the grant of Roman citizenship after service in the auxiliaries. Roman soldiers thus were at the center of both the physical and societal fabric of the provinces of the Empire.

BIBLIOGRAPHY

PART III
IMPACTS AND TECHNIQUES

War in the Classical World
As the fighting raged between Athenians and Persians on the plain of Marathon, a Persian of great height—so big that his beard covered his shield—confronted the Athenian Epizelus. As he would recount to the end of his days, this giant passed him by and killed the man next to him. With that Epizelus was struck blind and remained so the rest of his life (Hdt. 6.117).

This story, reported to Herodotus as he reconstructed the Persian Wars generations later, reveals as few do the horror and trauma of battle in the ancient world. Until recently students of Herodotus did not recognize that what struck Epizelus was hysterical blindness, a physiological response to terror and trauma that transcends place and time (Tritle 2000: 63–5). Similar responses to battlefield trauma may be found elsewhere, including Xenophon’s description of the Spartan soldier Clearchus (Xen. An. 2.6.1–15; Tritle 2004) and testimonies recorded on the Epidaurian miracle inscriptions (Edelstein and Edelstein 1945/1998; LiDonnici 1995). Similar horrors were experienced by Roman soldiers too as seen in Livy’s account of the Punic Wars (Livy 22.7, 51) and Virgil’s Aeneid. Examination of this evidence substantiates not simply the cliché “war is hell,” but that its physical and psychological manifestations are unchanged over the millennia. The killing fields of two world wars, those of Korea and Vietnam, as well as contemporary Afghanistan and Iraq, have made the modern diagnosis of post-traumatic stress disorder a commonplace, but there can be little doubt that such human response to war and violence occurred in the ancient world too.

Until the 1976 publication of John Keegan’s innovative work, The Face of Battle, the study of war and battle had largely focused on grand strategy and tactics. Ranging from the strategy-laden Germanic handbooks of Delbrück (1920), Kromayer and Veith (1928), the academic studies of Anderson (1970) and Pritchett (1971–91), to such popularized works as Sun-Tzu (e.g., Sawyer 1994) and Roots of Strategy (Phillips 1940), the study of war seldom considered what happened to those who fought, how they died, and certainly not how they survived and coped with the horrific aftermath of battle. Such topics were left to novelists and memoirists, but not to scholars. Keegan’s example has inspired scholars to look afresh at the Greek “face of battle” (Hanson 1989/2009; Lazenby 2004; Rawlings 2007; van Wees 2004; Wheeler 2007) and the Roman experience also has not been neglected (Campbell 1994; Goldsworthy 2000; Lazenby 1978; Sabin 2000).

Writers of war today then are not like those of earlier times who wrote what was often dismissed as “drum-and-bugle” history. These writers of the “new” military history (a term now rather dated since its mid-1970s minting) inform readers and students alike of the intersection of society and culture amid the experience of war, who now learn not only how armies were organized, how they marched, and how they were fed, but also what they experienced at the sharp end of the spear.
Teasing out from the sources available to the ancient historian accounts that might tell what the experience of war was like is neither simple nor uncontroversial. Looming in the background, for example, is the shadow of Homer, whose great poems of men, women, and war certainly influenced the Greek authors who followed him no less than the Roman, if we are to include, as we should, Virgil. Literary accounts of battles then are sometimes construed merely as topoi, commonplace themes that reveal more about literature and style than anything else. One example of this perhaps is the “Battle of the Champions” that Herodotus reports between the Argives and Spartans, a battle that lasted until nightfall, the duration expected by readers of Homer (Hdt. 1.82).

Yet Homer also provides insights into the experience of war that until recently have remained unappreciated. In 1994 Cambridge, Massachusetts psychiatrist Jonathan Shay published *Achilles in Vietnam*, a book that illuminated the nature of battle trauma through careful analysis of Homer’s *Iliad* and the personal accounts of Vietnam War veterans (followed up by Shay 2002 on which see below). Different from anything before, Shay’s work provides psychological and medical explanations not only to passages in the *Iliad*, for example, Achilles’s reaction to Patroclus’s death—his inability to sleep or eat, his preoccupation with revenge—but to the blindness of Epizelus and Xenophon’s war-loving Spartan companion and friend, Clearchus. Critics may dismiss such comparative approaches, but to do so seems overly conservative if not reactionary. The historical discipline has long made use of ancillary studies (e.g., archaeology, economics, linguistics) to aid in understanding the evidence of the past, and now, in the early twenty-first century, human physiology and psychology are opening new windows as researchers learn more. Lastly, the idea that a text can mean only what it says seems a trifle naïve.

**GREEKS AT WAR**

Striking contemporary confirmation of battlefield trauma in the fifth-century Greek world comes from an unexpected source, the Sophist Gorgias from the Sicilian town of Leontini. Gorgias arrived in Athens early in the Peloponnesian War (ca. 427) on a diplomatic mission, requesting Athenian aid for his town against Syracusan aggression. After an initial visit to Athens, Gorgias traveled extensively, giving speeches and lessons throughout Greece. One of his offerings was the *Encomium of Helen*, a rhetorical showpiece that absolved Helen of any blame in abandoning Menelaus for Paris (MacDowell 1982; see also Guthrie 1971: 192). The moment of composition is uncertain, but the wartime conditions of the ongoing Peloponnesian War seem certain. In the course of his defense, Gorgias notes (17) that simply seeing frightening things causes people to stop thinking. He then elaborates this argument, placing it in the context of battle, and how many of those who have experienced combat and survived have fallen “victim to useless labor and dread diseases and hardly curable madnesses.” An oblique reference to the trauma of war in the middle of a rhetorical exercise (and its subordinate, unconscious reference validates its primacy as evidence), Gorgias’s reference complements the stories of the Athenian Epizelus at Marathon and those preserved in the Epidaurian miracle inscriptions. One of the latter records how a Greek warrior named Anticrates left the sacred precinct cured of his blindness, the result of a battlefield wound to the face by a spear. The text makes clear that Anticrates had been left blind, suffering a psychic wound: “inside his face” he carried the image of the wounding spear, as clear an example as we can find of hysterical blindness resulting from battle in the ancient world (LiDonnici 1995: 109; Tritle 2003: 132–3).
Written amid the trauma of war, Gorgias unconsciously reflects the sights and conditions of wartime Greece. Survivors’ tales of battle would have been commonplace (Greek houses, as in the village of Megalochori in Thira today, were tightly packed and voices would have carried easily) and these stories would have been repeated on the streets, sometimes openly, sometimes in whispers. One such story was that told by Plato in his *Symposium* of Socrates calmly walking off the battlefield of Delium as so many other Athenian soldiers ran for their lives (Pl. *Symp.* 221B). Some humorous examples of war stories include those that appeared in Attic comedy, as in the gibes Aristophanes throws at such well-known commanders as Demosthenes and Nicias in his play *Knights*. But even tragedy reveals the trauma of war, as in Euripides’s *Heracles*, where the greatest of Greek heroes returns home from war only to go berserk and kill his wife and children (*HF* 821–1162; Tritle 2010: 127–8). Were it not for the Fort Bragg murders of June and July 2002, we might think that such happenings were literary and imaginary, not tragically real.

Gorgias’s testimony is clearly valuable as it puts a human face on the terror of the Peloponnesian War, complementing the more rational accounts given by Thucydides, as in his description of the Athenian retreat from Syracuse, or his account of the terrible stasis in Corcyra. But Gorgias’s reference is actually richer in that it reveals a connection between going into battle, seeing horrific things, and how this affects the soul and changes the man—something that today is defined as post-traumatic stress disorder, or PTSD (Shay 1994: xx).

While Gorgias and other ancient authors may not have understood why men sometimes acted strangely or were, conversely, unable to do anything at all, they did see these things and meet these men. Examples may be found in Xenophon’s mini-biography of the Spartan commander Clearchus, a man who loved war, who lived for war, and thought of nothing else (Tritle 2003). Such seems also the case with Alexander the Great who after a long evening of drink, killed one of his oldest friends, Cleitus the Black, a man who had saved his life in battle years before (Tritle 2003). In these two examples may be found such symptoms of PTSD as the persistence of combat survival skills, the potential for explosive violence (e.g., Clearchus), excessive alcohol use, the persistent expectation of betrayal, and the inability to trust (e.g., Alexander).

**ROMANS AT WAR**

Hannibal’s defeat of C. Flaminius’s army at Lake Trasimene (217) continued to claim victims for weeks after the battle. The historian Livy reports accounts of Roman mothers, thinking their sons dead, dropping dead themselves from shock on seeing them return home alive (Livy 22.7.13). Such accounts might seem to be dramatic inventions, but are in fact real, the result of stress-induced sudden cardiac death. Such testimonies make clear that the trauma of war touched noncombatants no less than combatants, a reality brought to life by the Roman response to Homer’s saga of the Trojan Wars, Virgil’s *Aeneid*.

Virgil’s contemporaneity to the savageness of Rome’s civil war era enabled him to acquire full knowledge of the horrors of war committed against soldiers and civilians alike. An intimate in the circle of Maecenas, confidant of the Emperor Augustus, Virgil surely knew others in this group, including Marcus Agrippa, Augustus’s field commander, son-in-law, and, for a time, presumptive heir. Gatherings with these men, and others such as the soldier-poet Horace, would have provided Virgil with the raw materials of war’s violence. While R. J. Tarrant (1997: 179) acknowledges that “the compassion with which Virgil depicts war’s human cost has long been recognized by critics,”
the reality of his war reporting seems unappreciated. In many ways what Virgil reveals of war may be seen as a creative complement not only to Homer but to Gorgias’s revealing comments on the impact of war in fifth-century Greece.

Virgil’s sensitivities to the realities and traumas of war abound throughout the *Aeneid*. At the poem’s beginning, Aeneas refers to the Trojan dead at Ilium, how he wishes he too could have died (*Aen*. 1.131–144), a commonplace among survivors of violence. On reaching Carthage Aeneas tells of the fall of Troy (*Aen*. 1.632–664) and as he does, tears fill his eyes. Are his tears authentic or is Virgil simply imitating Homer’s Odysseus in the land of the Phaecians (Hom. *Od*. 8.521–34)? The reality of such emotions among the Romans finds confirmation in Livy’s account of Rome after the defeat at Lake Trasimene (22.7.11), as well as additional evidence drawn from modern times. When the film *Saving Private Ryan* played in both the United States and Germany in 1998, newspaper accounts in both countries appeared with stories of veterans emerging from theaters with tears in their eyes.

On reaching Italy the goddess Allecto stirs up the Latin prince Turnus to fight Aeneas and the Trojans (*Aen*. 7.623–653). Later Virgil relates how two armies facing one another and not anxious to fight, suddenly do so as the goddess Juturna assumes human form and incites the Latins to war (*Aen*. 12.297–383). In each case Virgil invokes an external device, a god, whom he uses to explain one of the oldest problems in the study of war, why men fight. Such divine explanations for unexplainable human acts find a counterpart in Euripides’s attribution of Heracles’s madness to Iris and Lyssa, again an explanation for the unknown and unknowable (see *HF* 822–874).

No less a mystery is how men face the prospect of war and the realities of death in battle. Many who go to war are only able to function, as the Etruscan king Mezentius admits to a vengeful Aeneas, by admitting they are dead men already (*Aen*. 10.900–902). Yet this truism of war finds a counterpart in the excitement, the adrenaline rush of battle, as with Evander, Pallas’s father (*Aen*. 11.212–215). Similar statements by Achilles in Homer (*Il*. 18.110) and Xenophon’s description of his war-loving friend Clearchus (*Xen. An*. 2.6.1–15), attest an emotion so familiar to many veterans.

Acts of courage are no less mysterious, and writers from Plato (in his dialogue *Laches*) to William Miller (2000) and Vietnam veteran and author Tim O’Brien (1975) have also attempted to unravel its depths. Virgil reflects on this also in the characters of two Trojan soldiers, Nisus and Euryalus, who incite each other to acts of courage (*Aen*. 9. 252–304). But their plan to attack the Latins heroically and unaided miscarries and both are killed (*Aen*. 9.660–669). The Latins place their heads on stakes for the Trojans, including Euryalus’s mother, to see, just as happened at Munda in Spain during the Roman civil wars (see below).

At the funeral of Pallas (*Aen*. 11.108–111) Virgil relates similar brutalities, in this instance human sacrifice, as bound prisoners are slaughtered as offerings to the dead hero below. Such scenes might appear as literary tropes (cf. Achilles’s sacrifice of prisoners at the funeral of Patroclus, Hom. *Il*. 23.19–23) or anachronisms. But the traditional punishment of unchaste Vestal virgins, the live burial of a Gallic and Greek couple in the Forum Boarium after Cannae (Livy 22.57.6), not to mention Octavian’s brutal murders at Perugia, would have given a true sense of reality to what Virgil tells (App. *BCiv*. 5.32–49).

Such savagery occurs in the midst of battle too. Aeneas is about to let Turnus live when he sees that he wears Pallas’s sword belt, having stripped it from the body of his friend (*Aen*. 12.1276–1298). On seeing this, an enraged Aeneas shows no mercy, sinking his sword into Turnus’s chest. Virgil here reflects a truism among combat soldiers that items belonging to the enemy are not carried
into battle for fear of suffering Turnus’s fate. Author and veteran Paul Fussell (1975: 120) reports the letter of a First World War British soldier who threw away German trophies out of fear that some German might act like Aeneas.

**TRAINING FOR BATTLE**

Preparation for battle in the ancient world was, relatively speaking, approached as carefully as in the modern world. In earliest times, hunting was a dimension of war, teaching, among other things, endurance, stealth, and patience. In the fourth century B.C., the Athenian Xenophon, a veteran soldier and commander, would write *On Hunting* and *On Horsemanship*, texts with a clear military orientation. Preparation for battle may also be seen in events of the Olympic Games, particularly the race in heavy armor known from the fifth century, a contest with unequivocal military application. Through the classical and Hellenistic periods, communities trained their youth in the ways of war (at Athens the *ephebeia*, at Sparta the *agoge*); individual preparation became increasingly sophisticated, with instructors and instruction becoming available to individuals with money to pay for lessons in weaponry and drilling (see Pritchett 2: 208–31; Rawlings 2007: 209–11; and Xen. *Mem.* 3.12.5; Pl. *Lach.* 182a-b). Communities also sought out such instruction, particularly for the training of elite or picked troops and as new weapons such as catapults came along in the course of the fourth century B.C. and later.

In classical Sparta the instruction and training for war achieved a near mythical level in the *agoge*, and many modern scholars perpetuate the idea that the Spartans were the “professional” soldiers of the day; all other Greeks mere “amateurs.” Such argument is anachronistic and incomplete: anachronistic in that the professional-amateur concept is modern in its origins, incomplete in that the abilities of other Greek soldiers were hardly less than the fabled Spartans (cf. Hanson 2009, Hornblower 1991: 303–4). A few examples of the later will illustrate: at First Mantinea (418 B.C.) the victorious Spartan army included not only Arcadians, but also freed Spartan helots and *perioikoi*; at Marathon (490) the Athenians executed a brilliant tactical success against the Persians, deliberately weakening their center, strengthening their wings, and then trapping the Persians in an enveloping maneuver, tactics similar to what Hannibal would do to the Romans at Cannae.

The training required for such maneuvering is evident too in the technique of advance taken by many Greek armies against their enemies: the run. Hoplites advancing at the run are often recorded (e.g., Xen. *Hell.* 4.3.17 [Coronea]; An. 1.8.18 [Cunaxa]) and have also been depicted in art (the Athenian Megacles [renamed Glaucytes, after the former’s ostracism?] after 490 B.C. [?]; see Robertson 1959: 94). What has gone unnoticed is that the length of the spear—some eight or nine feet—dictates that advancing ranks must be separated minimally four to five feet otherwise men will impale themselves on each other’s spears (cf. Pritchett 1: 134–43 who discusses phalanx depth but seemingly overlooks the spears of running hoplites). As experienced soldiers know, maintaining distance and interval between ranks while marching is difficult; doing so while running demands a level of training that makes certain significant, if not extensive, preparation for battle. Finally, the battlefield success of amateurs seems unappreciated—not only at Marathon, but those of the U.S. Civil War, and the Western Front in World War I.

Military training in Rome was no less severe and regimented than in early Sparta. A witness to the Roman way of war was the Greek political leader, then prisoner of war, Polybius, whose exile in Rome and later friendships with Roman elites enabled him to observe firsthand and then record
Roman military and political practices. Not only did Polybius describe the tactical structure of the Republican army, its legionary structure (including tactical units and command structure), but also its weaponry, the pilum and “Spanish sword” (Polyb. 6.23, 18.29–32; Campbell 2004: 24–5, 28–31).

But it was perhaps the carrot-and-stick approach to discipline that distinguished Roman preparation for battle from Greek. Officers awarded their men for conspicuous gallantry, particularly killing and stripping the enemy, for being the first to scale a wall, for saving the life of a fellow citizen (Polyb. 6.39.1–3, 5–11; Campbell 2004: 27). Winning such distinctions sometimes began political careers as in the case of Republican general and consul Gaius Marius (Plut. Mar. 3.3–4). But no less distinctive was the brutality of Roman discipline. What is known as decimation was in reality the practice of the *fustuarium*: here soldiers accused of cowardice were assembled, lots were drawn by their officers who then ordered them beaten to death by their comrades (Polyb. 6.38; Campbell 2004: 26).

Such harsh discipline continued into the Roman Imperial period where its practice extended into the drills that prepared Roman soldiers for battle. A first-century A.D. witness to this was the Jewish soldier-historian Josephus, who famously described the Roman way of war: “their drills are bloodless battles, their battles bloody drills” (Joseph. BJ 3.75; Campbell 2004: 35–7). Such discipline perhaps survived into the late Empire as seen in the crushing defeat inflicted by the Goths on the Emperor Valens at Adrianople, as recorded by another soldier-historian, Ammianus Marcellinus (31.13). A defeat no less in scale or loss of life than Cannae, Ammianus’s description of Adrianople, while surely influenced by Livy’s account of another great disaster, depicts Roman soldiers standing, fighting, and dying in place. While desperation and circumstance explain such resistance in part, the demands of discipline played no less a role.

**IN THE KILLING ZONE**

Ferocity and brutality in the killing zone of battle have no limits. As early as Homer the reality of fighting meant traumatic amputations and destructive wounds which have been studied and confirmed by scholars (Robertson 2002; see further Salazar, 294–311). Real-life examples of these begin with Marathon. On pushing the Persians from the battlefield, the victorious Athenians pursued them to their ships and here the fighting was no less vicious. Cynegirus, brother of the playwright Aeschylus, struggled for possession of one of the Persian ships and in the fighting was mortally wounded, his hand chopped off by a Persian ax (Hdt. 6.113). At Plataea, the final battle of the Persian Wars, Mardonius, the Persian commander, inspired a stout resistance among his men who bravely charged into the Spartan ranks, grabbing spears and wrestling them away. This ended when Arimnestus killed him with a rock (Plut. Arist. 19.1). A little-noticed detail, this only makes sense if in the heat of battle the spear and sword that Arimnestus carried had already broken, and, in a frenzy, he grabbed whatever object he could for lethal effect (cf. Eur. HF 193 and shivered spears). That spears and swords did break also finds confirmation in the 1939 excavations at Thermopylae where archaeologists found among the Persian arrowheads a spear butt, clearly the last weapon wielded by one of Leonidas’s three hundred (Burn 1984: 420). Stunning evidence has recently resurfaced in the remains of the Theban dead of Chaeronea, most notably in Theban soldier Gamma 16 whose face was nearly cut away by the downward stroke of a cavalryman’s sword (**figure 13.1**; Ma 2008: 75–6). The skulls of others, punched through by spear butts, tell that these dead and dying men each received a coup de grace. Similar scenes were brought to light in the 1934–1939 excavations of Maiden Castle.
in Dorset, England, where archaeologists not only found dead Celts finished off by attacking Roman legionaries of Vespasian’s *legio II Augusta*, but also defenders of that hilltop fortress killed by catapult arrows fired into the fort to soften it up before attack (figure 13.2; Wheeler 1943: 61–3, with plates).

![Figure 13.1 Gamma 16, Theban soldier killed at Chaeronea (338/7), possibly by the downward stroke of a cavalryman’s sword. National Archaeological Museum, Athens (Photo Archive). Photo Credit: J. M.](image)

*Figure 13.1* Gamma 16, Theban soldier killed at Chaeronea (338/7), possibly by the downward stroke of a cavalryman’s sword. National Archaeological Museum, Athens (Photo Archive). Photo Credit: J. M.
Death in battle is a reality all soldiers past and present contemplate, but no less an anxiety is the prospect of being wounded. The wound histories of the Macedonian kings Philip and Alexander exemplify what soldiers in antiquity could expect to suffer and see in battle. Both kings were wounded on multiple occasions: Philip four times (eye, collarbone, hand, leg), Alexander at least four times (leg, shoulder, chest), and there is no denying that the women who married or bedded them would have seen some nasty scars (so Harding 2006: 242; also Tritle 2003: 134). These purple-heart stories have numerous Roman parallels, from such Caesarian centurions as P. Sextius Baculus (Caes. B Gall. 2.25, 3.5, 6.38); Scaeva (Caes. B Civ. 3.53); Cratinus (Caes. B Civ. 3.91), to the scenes of wounded Romans and Dacians on Trajan’s Column (Lepper and Frere 1988: plates 30–2). As in today’s wars, the type and nature of wounds is nearly unlimited.

All battle is fierce, sharp, and cruel, but in all of antiquity there is possibly no more brutal example of this than Cannae, Hannibal’s great victory over the Romans that left some sixty thousand Romans dead in a day. In a poignant description of the battlefield, Livy notes piles of dead, infantry and cavalry (and horses) mixed together, mortally wounded men unable to walk, pleading for a quick death (22.51.5–9). Adrian Goldsworthy adds perspective to this, noting that while the sixty thousand British casualties of July 1, 1916 fell along a sixteen-mile front of the Somme, over fifty thousand Roman dead and dying lay heaped over a few square miles of open plain (Goldsworthy 2000: 213). Livy provides authentic descriptions of these Romans, many crippled with severed thigh muscles and tendons (22.51.7). Such wounds would have been the result of the Spanish espada falcate, a Western version of what the Greeks called the kopis, or cleaver, the weapon of choice of Hannibal’s Spanish infantry. This sword type has a curved or arched blade that enables the warrior wielding it literally to reach over or around a man, for example, slice the backs of his legs, severing the muscles, just as Livy relates. Livy’s account of the battle of Cannae might strike some as rhetorical, but its account of the aftermath of battle in fact preserves realistic details of the horrors of war.
Battle often brings out the worst in man and the accounts of Greek writers and historians, as also those of their modern-day counterparts, surely underplay the frequency with which such incidents occur. Examples of atrocity and mutilation are at the beginning of Greek literature. Homer tells such stories ranging from Achilles’s humiliation and mutilation of Hector’s body (Il. 22.367–404), to the lesser Ajax beheading a Trojan then throwing the head, “spinning like a ball,” to Hector (13. 201–205). These acts of brutality find a parallel in a line of the Spartan soldier-poet Tyrtaeus, who refers to an old and grizzled veteran lying on the ground holding his bloodied genitals in his hands (10.21–5). The picture is a macabre joke and not one of a wounded man: combat veterans will recognize that Tyrtaeus clearly describes a dead man, as a wounded man will instinctively hug the ground with his belly (cf. Hackworth 1989: 685; Tritle 2000: 40; cf. van Wees 2004: 136, 288 n. 23).

It might be objected that these instances of violence in Homer and Tyrtaeus are poetical and so metaphorical references. But after Xerxes forced the pass at Thermopylae he gave orders that the body of Leonidas be beheaded, his head placed on a stake for all to see (Hdt. 7.238.1). After Plataea the Spartan commander Pausanias refused to treat the body of Mardonius in similar fashion, arguing that it was un-Greek (Hdt. 9.78–79). But such restraint was not always exercised. The Athenian Xanthippus, father of Pericles, ordered the crucifixion of Artaÿctes, the Persian governor of Thrace and Macedonia, who, as he slowly died, watched his son stoned to death (Hdt. 9. 120). In the fighting after Cunaxa (399 B.C.), Greek soldiers mutilated Persian dead without provocation, simply to intimidate their enemies (Xen. An. 3.4.5).

Mutilation of the dead is an example of what the modern world knows as payback or revenge, and a ritualistic form of this comes in stripping the dead of their armor (and weapons) after battle. Left dead, mutilated, and naked on the battlefield is an act of humiliation (cf. Hector’s stripping and [proposed] mutilation of Patroclus, Achilles of Hector, Hom. Il. 125–26, 22,367–71; Eur. Andr. 1152–55, mutilation [and stripping?] of Neoptolemus). Yet it was not always done. In his account of the Athenian civil war of 403, Xenophon reports that after the battle in the Piraeus, Athenian democrats did not strip naked the bodies of the fallen oligarchs (Hell. 2.4.19).

Similar acts of mutilation may be found in Julius Caesar’s account of the Spanish War of 46/5 B.C. (in his corpus but likely compiled by a soldier at the request of Aulus Hirtius). In this struggle the fight for Munda was particularly fierce. On the defeat of Pompeian forces, the Caesarians built a rampart of bodies of the enemy dead around the town and then took shields and javelins from among the enemy’s weapons to serve as a palisade; on top, impaled on sword points, severed human heads were ranged in a row, all facing the town. The intent of the Caesarians is plain to see. Not only did they surround their enemy with a palisade, but it was clearly one designed to intimidate their rivals while creating an awe-inspiring, if horrific, spectacle of their own valor. Such barbarity is not unknown to the twentieth century. Horrific treatment of the enemy was a commonplace in both the World War II Pacific theater as well as in Vietnam, as seen in both historical accounts Lindeman (1997) and fiction (O’Brien 1975). Such actions are timeless and go far in explaining the outrageous conduct of Homer’s Achilles and the Caesarians at Munda.

**PRISONERS**

Other passages from the account of the Spanish War include killing and mutilation of envoys and the
summary execution of the enemy (B Hisp. 12, 26). Similar accounts come from the African War where, for example, after the battle of Thapsus, Caesar’s officers were unable to stop their own men from slaughtering thousands of fellow Romans who had surrendered (B Afr. 85–86).

Those taken prisoner in battle are always at risk, be it from vengeful enemies, or commanders eager to exploit a victory. Simply put, prisoners are a nuisance: they have to be guarded, fed, and otherwise looked after while also complicating whatever plans a victorious commander has in mind. Lysander, after his crushing defeat of the Athenian fleet at Aegospotami, is but one example. Lysander solved his prisoner problem by simply conferring with his allies—Boeotians, Corinthians, and others who hated the Athenians and had many scores to settle. Their response to his consultation was simple—kill them—and shortly afterward some three thousand Athenians paid the price for their city’s acts of imperial aggression (Tritle 2010). Sources seldom tell how such killings were managed. A few illustrations on pottery reveal bound prisoners seemingly led to execution, while other scenes suggest a simpler method: bound men being thrown into the sea to drown. For a large and ready Spartan-Peloponnesian fleet, such a technique would seem the likeliest choice.

Sometimes prisoners serve as sacrificial victims for the victorious. In the aftermath of the Teutoburg Forest disaster in A.D. 9, hundreds of Roman captives were sacrificed by the Germans in various and creative fashion. The throats of some were slashed, their heads nailed to trees; others were hanged, and still more were drowned in bogs: all this done to appease and honor the wrathful and hungry gods and spirits the Germans worshiped (Wells 2003: 190–2). Such rituals are known from other places and times. North American Indians regularly mutilated their dead enemies in order to disable them in future combat in the afterlife; when the relief force reached the camp at Isandlwana after the sensational though costly Zulu victory of 1879, the dead of the British army’s 24th Regiment were found to be similarly mutilated and for similar reasons (Keeley 1996: 102–3; Snook 2005: 301–2). While such practices may have religious explanation, to outsiders and those who must collect and cover the bodies of friends or countrymen, they will appear as simple acts of barbarism demanding retribution, what we know today as “payback.”

**Policing the Battlefield**

Wellington remarked after Waterloo that only a battle lost was a sorrier sight than a battle won. Carl Sandburg’s *Grass* (1918) and Robert Southey’s *The Battle of Blenheim* (1796) and their graphic battlefield vistas find reality in the battlefield at Busta Gallorum and the whitening soil-enriching bones of the Cimbri and Teutones (see further Hughes, 130–1), or that at Plataea where for years after the battle Herodotus (9.83) tells that local people found valuables and remains (just as today World War I and II battlefields continue to give up their dead and relics too). The battlefield also produced amazing sights—accounts of Persians at Marathon dropping to their knees in poses of surrender that baffled their Athenian enemies (Plut. *Arist.* 5.7); Spartans at Marathon marveling at the battlefield, complimenting the Athenians on their handiwork (Hdt. 6.120). But these stories mask much uglier scenes of carnage that lie behind Wellington’s stoic comment.

In early winter of 424, two armies, one Athenian and one Boeotian, tangled in a fight now known as Delium. It was a crushing defeat for Athens as nearly one thousand men were killed, but worse was to follow. Thebes, which had led its Boeotian neighbors to victory, claimed that the Athenians had violated a sacred precinct and on that account refused—in violation of tradition—to surrender the field and allow the bodies of the fallen Athenians to be collected. For some seventeen days the dead...
lay as they fell and the wrangling continued. Finally the Thebans relented and the dead were brought home. A few lines from the third century playwright Menander (Aspis 69–79) make clear that what the Athenians found would not have been pretty: bloated, blackened bodies, difficult to identify if at all. This horror left a mark too in the literary tradition, as Euripides in his Suppliant Women (c. 420–415) gives prominent mention to the rituals for the war dead and their refusal. His reference to Thebes makes clear that it is the Thebans he has in mind and their conduct after Delium provides the context.

While the Athenians might have been shocked and outraged by the sights of Delium, they would have paled in comparison with what the soldiers of Germanicus found when they finally reached the Teutoburg Forest and Varus’s destroyed army in A.D. 15. In his Annals Tacitus graphically describes the scene: piles of bones scattered across a wide area giving some idea of how the fight unfolded and how some units, or more likely individual soldiers, grouped together and stood and fought as long as they could. Elsewhere nastier scenes came into view: heads now skulls, nailed to trees; bodies now skeletons laid out in ritualistic fashion and also horses and mules sacrificed just like their owners. Tacitus makes clear that the scene angered Germanicus’s men at what the barbarian Germans had done to their friends and comrades. Of course these men probably did not know what their own side had done at Munda and other civil war engagements in Africa and elsewhere. The Roman response was to bury as many of the remains as they could and offer the usual rites to the dead (in which Germanicus himself played a part, much to the annoyance of the emperor Tiberius). But the place was dangerous, and Germanicus, acting more cautiously than had Varus, moved his troops out quickly before any complete accounting of the dead could be done (Tac. Ann. 1.61–62; Wells 2003: 196–7).

COMING HOME

Few of the men who went into the Teutoburg Forest with Q. Varus ever saw home again. For Roman Imperial soldiers the camp was home and if they survived their lengthy terms of enlistment (sixteen years, later expanded to twenty-five), most would settle locally, finding work as military contractors in various capacities. Men who ascended the ladder of command, centurions for example, might assume comparable position in local municipal life, playing various roles as community leaders, as seems to be the case of the veteran soldier who calms a raging mob in Virgil’s Aeneid (1.150–152: meritis, i.e., service to the state; who else but an old soldier could do this?). This was a big change from the days of the Republic when common soldiers returned to their homes and farms after celebrating victories over Greeks, Macedonians, and Carthaginians.

These Roman survivors of violence find their counterparts in the Greek world. Thucydides remarks that of the men who sailed off to fight in Sicily as part of the Athenian expedition, few ever returned home (Thuc. 7.87.6). Others, like those observed by Gorgias, were left incapacitated by war physically and psychically; their counterparts are to be found in the tresantes, the cowards, of Sparta, the Athenian Epizelus, and the men of the Epidaurian miracle lists (Tritle 2010: 159–60, 163–4). These after effects of war may explain too the Athenian Socrates, who had witnessed the carnage at Delium and other fights, and later remarked that he would rather suffer injury than injure. Even Alexander, the greatest warrior of the Greek world, was not untouched by the sights and sounds of battle. When death came in Babylon it was the product not only of alcohol, malaria, and exhaustion, but also a body weakened by fatigue and multiple wounds, a mind burdened with the deaths of Hephaestion, Cleitus, and Parmenion, among others. Few too would have been the Macedonian and
Greek soldiers who returned home from Alexander’s *Grand Armée*, including the Greek mercenaries massacred in the east after Alexander’s death as they struggled to return home (Diod. 18.7.2, 5). But some of these men did make the journey: the Boeotian cavalymen who dedicated a memorial to their service and survival (*IG* vii. 3206; discussion in Heckel 2006: 345), the Macedonian elites who returned with enough wealth to provide grand tombs for their burials (e.g., the “Great Tomb” at Lefkadia [Hatzopoulos 1994: 178–81] and Thessaloniki [Tsibidou-Avloniti 2002]).

A truism of war: surviving battle, survivors always remember the experience. This manifests itself in the stories they tell, the memorials they build, the literature and histories they write. Evidence of these abounds in our modern world and did no less so in the ancient one (see further Shay 2002).

**Bibliography**


O'Brien, T. 1975. *If I die in a combat zone, Box me up and ship me home*. New York.


CHAPTER 14
TREATING THE SICK AND WOUNDED

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Battle wounds have been an inevitable consequence of warfare in any historical period, and one that is reflected in the medicine of its time. The frequency of armed conflict and the nature of warfare (at least in classical Greece and early Republican Rome with their citizen armies) meant that for most men in antiquity being wounded was a distinct probability. At the same time, any Greek or Roman doctor was likely to be called upon to treat war wounds on some occasion during his life, and he had to know how to do so, especially since specialization was not common until late antiquity, and doctors had to be able to deal with all emergencies. Conversely, treating those who had been wounded in combat was also a way of acquiring medical knowledge, especially of anatomy and physiology, and of developing new surgical techniques.

As far as the medical aspect is concerned, there was little difference between Greek and Roman wound treatment (allowing for the increased knowledge of anatomy from the Hellenistic period onward). Most Roman medicine, and surgery in particular, as it appears in our sources, was in fact Greek medicine, and therefore it seems legitimate not to discuss wound treatment in Greece and Rome separately.

Sources
An extraordinary variety of sources yields information about wounds and wound treatment in antiquity. The most obvious are of course medical authors, beginning with the so-called Hippocratic Corpus, a collection of anonymous medical writings spanning the fifth to approximately the third centuries B.C. Wound treatment in general is mentioned in several of the roughly seventy works, in particular Wounds in the Head (VC), Epidemics (Epid.) 5 and 7, Diseases (Morb.), Prorrhetics (Prorrh.) 2, the Aphorisms (Aph.), On Wounds (also translated as On Ulcers; Ulc.), In the Surgery (Off.), Fractures (Fract.), and The Physician (Medic.). Of these, only the case histories in Epidemics 5 and 7 deal with what are unambiguously battle wounds. Tantalizingly, there are references in later sources to a lost treatise about the treatment of war wounds, perhaps called On Wounds and Arrows (or two treatises with similar titles; for more details, see Salazar 1997).

Numerous wound remedies can be found in the work On Materia Medica by Pedanius Dioscorides (who may have been a Roman army doctor), written in the first century A.D., at approximately the same time as the earliest extant Roman medical treatise, Aulus Cornelius Celsus’s On Medicine (the only surviving part of his encyclopedia). Celsus, an upper-class Roman, certainly
did not practice medicine professionally, but he appears to have had hands-on experience of medical
treatment. Book 7, on surgery, contains one of only two detailed passages about the treatment of
arrow wounds to have come down to us from antiquity, and is presumably based on Greek material
that was available to Celsus but is now lost. Although Pliny the Elder, who died at the eruption of
Vesuvius in A.D. 79, was not a “medical” writer, his Natural History also contains a large amount of
medical information, especially on remedies.

The most prolific medical writer of antiquity, Galen, was born in Pergamum in Asia Minor circa
A.D. 129, and eventually became physician to the emperor Marcus Aurelius. He stands out among
ancient medical authors not only by the bulk (twenty-two volumes in the nineteenth-century Kühn
edition with Latin translation) and the literary quality of his writings, but also by their strong
individual flavor (compared to the rather impersonal style of most others) and the wealth of
biographical information he inserts at every turn, along with rants against colleagues or predecessors.
Thus Galen also tells his readers that, when still only twenty-nine, he was appointed doctor to the
gladiators at Pergamum, a prestigious post, which he retained for five seasons and which would have
given him great expertise in the treatment of wounds. Although he appears never to have written a
work entirely dedicated to surgery or wounds, relevant details appear in many of his works, and he
specifically cites the treatment of arrow wounds as a reason why it is important to have a thorough

Although the work is small in volume, the Medical Questions (Quaest. Med.) by the second-
century author Rufus of Ephesus conveys some valuable information about medical practice. The
passages at 50f. and 55–62 are particularly relevant, dealing with arrow wounds and head wounds
respectively. Two lost works by Rufus, On Wound Remedies and On Wounds of the Joints,
presumably contained more about the topic.

Among the medical writers of late antiquity and the early Byzantine period, one ought to mention
Oribasius (fourth century), the friend and court physician of the emperor Julian, as well as Aetius of
Amida (sixth century). Paul of Aegina (seventh century) is a very late source as far as ancient
medicine is concerned, but he makes extensive use of earlier authors, preserving excerpts from
writings that are otherwise lost. His medical handbook—perhaps called Pragmateia (one of several
words for “treatise”)—contains the only detailed chapter on the treatment of arrow wounds to survive
in Greek, which may be based on the lost Hippocratic work (see Salazar 1998b for a translation of
the entire chapter).
While medical writings would be the first category to come to mind, they are by no means the only one, and literary texts, too, are a rich source of references to wound treatment. Doubtless the most important non-medical source is the *Iliad*, which abounds not only in realistic descriptions of death and wounding, but also in scenes of wound treatment that show considerable medical knowledge (figure 14.1). The amount of medical detail is such that it has even been suggested that Homer was an army surgeon (Frölich 1879:64).

The historians writing about Alexander the Great (in particular Plutarch, Arrian, and Quintus Curtius), who often present his life in Homeric terms, form another important group of authors. Alexander was wounded several times, and some of the descriptions go into great detail about his wounds and their treatment.

Given the constant presence of war in the ancient world, and with it the possibility of being wounded, it is not surprising that mentions of wounds can be found in just about any genre of literature, be it historiography (Herodotus, Xenophon, Polybius, Dionysius of Halicarnassus, Cassius Dio, Ammianus Marcellinus, etc.), philosophy (Plato, Aristotle, Seneca, Cicero), epic poetry modeled on Homer (Virgil, Quintus Smyrnaeus, Nonnus, etc.), tragedy (Sophocles), or even comedy (Aristophanes, Menander, Plautus). A certain amount of medical knowledge could be expected among the educated elites. In addition, the military writers (Aeneas Tacticus, Philo, Vegetius, etc.) deal with issues arising from the presence of casualties or the prevention of disease, and inscriptions or papyri also contain useful information. Archaeological finds, especially of weapons, surgical instruments, and even artistic representations of wounded warriors, can provide further insights.
The treatment to be given depended on the nature of the wounds that the doctor would encounter. These were in turn determined by the weapons used and by the armor that the combatants wore. (For details about arms, armor, and weapons see further Jarva and Campbell, 395–418, 419–37.) The majority of wounds—made by swords, spears, javelins, or arrows—would have been to the arms and legs, which were exposed whatever the armor (with the exception of the scale armor of late-antique cataphract cavalry). The left arm was usually protected by the shield, and the heavily armed hoplite infantry wore greaves, leaving the right arm (when not in close phalanx formation) and the thighs as the easiest targets. It was common empirical knowledge that simple flesh wounds were the least dangerous—that is, wounds that were not too deep and did not involve major blood vessels or any of the structures covered by the Greek word *tenon*. This is one of many terms in Greek medicine that defy translation and that cannot be translated by any one English word. The meaning of *tenon* fluctuates between “tendon,” “sinew,” and “nerve,” so a wound to it was potentially disabling.

A wound deep enough to reach the bone was considered even more serious. This may not have happened very frequently with sword wounds, but spears (either in hand-to-hand fighting or hurled from a distance) and arrows easily had sufficient impact to penetrate as far as the bone (cf. Paul 6.88 or Procop. *Goth*. 6.1.26f., where an arrow grazes the tibia). Battle axes like those wielded by Amazons on Greek vase paintings (presumably based on weapons actually used in the Near East) and by the Dacians on Trajan’s Column were also likely to injure bones or even sever them. What we do not find in ancient sources are descriptions of bone-shattering wounds; these become common after the introduction of firearms.

The most dangerous—and again this was clear to medical as well as non-medical writers—were head, chest, and abdominal wounds. Bronze helmets gave reasonable protection, but they could be cracked by the force of a heavy blow, for example, a sword cut coming from above, and they were not worn by the majority of soldiers. The more lightly armed troops (e.g., peltasts or archers) were more likely to be wearing leather caps or no head protection at all.

Even though the cranium might be protected, every type of helmet left part of the face, and certainly the eyes, exposed. Surprisingly, eye wounds were not invariably fatal: there are many references to men losing an eye in battle and surviving the injury, for instance at Hdt. 3.78.2 or, more famously, the case of Philip of Macedon, shot in the eye at the siege of Methone in 353 B.C. (Diod. 16.34). In the case described at *Epid*. 5.49/5.236 K. L., the arrow that has struck a man’s eye is removed and he recovers without losing the eye. (The passage does not make it clear, though, whether he also retains his eyesight.)

Blows with blunt objects, or stones shot by slingers or catapults, could also cause head injuries, especially cranial fractures (although these forms of trauma could occur also in a civilian context). *VC* 4–8/3.194–210 K. L., and Paul 6.90 distinguish between five or six types of head injuries respectively, showing great wariness of the concomitant dangers.

Together with head wounds, the most likely to be fatal were penetrating chest and abdominal wounds, in particular those made by spears or arrows. Given sufficient strength of impact, even body armor was no reliable protection: Alexander the Great, whose armor must have been of the highest quality, sustained a near-fatal wound when an arrow pierced his breastplate in India in 326 B.C. (e.g., *Arr. Anab*. 6.10.1–11.2). The Theban general Epaminondas survived a spear wound to the chest in his youth (Plut. *Pel*. 4.5), and then died of a similar wound at the battle of Mantinea. Survival after chest
wounds was obviously not unheard of, and there is evidence for the long-term consequences in *Morb.* 1.21/6.180 L., where the author describes *empyema*, that is, a collection of pus in the chest, resulting from spear, dagger, or arrow wounds having healed only on the surface. One of the miracles described in the Epidaurian *iamata* inscriptions tells of Gorgias, who comes to be healed by Asclepius, with the arrowhead still in his chest a year and a half after being wounded, and with the wound having become chronically purulent (LiDonnici 1995: 30).

In the case of large gashes to the abdomen, there was the additional problem of intestines prolapsing through the wound. In Galen’s discussion of wounds that he treated when in charge of the gladiators at Pergamum—in *On the Method of Healing* (MM/10.410–23 K.)—he also describes how to reposition the intestines and suture the wound. Although these wounds were dangerous, they were not considered necessarily fatal.

In all the different categories of wounds, the presence of foreign bodies—arrows, javelins, spears, and the lead bullets, stones, or shells used by slingers—was an aggravating factor. This clearly made the treatment a job for a well-trained surgeon, who also needed to have the necessary instruments.

Along with these typical battle wounds, the same injuries as in civilian life would of course also have occurred in an army, as would illness, especially if the fighting continued over a long period. On the campaigns of Alexander the Great, for example, battle wounds will have accounted for only a small percentage of casualties and fatalities. The majority would have been caused by accidents, drowning, heat, dehydration, malnutrition, hypothermia, exhaustion, snakebite and various diseases (fevers, typhoid, eye infections, etc.). However, treatment for these cases was not in any way specific to war or to armies, so I shall be concentrating on war wounds for the purpose of this chapter.

Brief mention should also be made of an issue that has only come to be acknowledged (reluctantly) in recent conflicts, namely the psychological impact of warfare. It would of course be unwise to look for modern nosological categories in ancient medicine, and no Greek or Roman author ever suggests a link between psychological problems and the experience of battle. However, some stories found in ancient authors, such as Alexander the Great’s killing of his friend Cleitus in a sudden rage (e.g. Arr. *Anab.* 4.8) or the spontaneous blindness of Epizelus amid the carnage of Marathon (Hdt. 6.117) show great similarity with modern accounts of PTSD.  

**Diagnosis and Prognosis**

Greek and Roman medical writers stress the importance of making a correct diagnosis and, based on it, an accurate prognosis. In the absence of any kind of official medical qualifications, these skills were useful tools for winning a patient’s trust, especially if the doctor had not yet made a reputation for himself. In a military setting, there was a more immediate motivation for getting the prognosis right. In a scenario where there were many casualties after a battle, the number of available doctors was bound to be insufficient, and efficient triage was paramount. Surgeons could not afford to waste time treating fatally wounded soldiers, perhaps depriving others of their chance of being seen to in time. It is not surprising, therefore, that several authors provide lists of fatal and life-threatening wounds.  

These lists are based on empirical knowledge, and although there are slight divergences, the authors largely agree, in particular on the brain, the heart, the liver, the bladder, and large blood vessels (presumably arteries). *VC* 19/3.250–54 L. also describes the signs of approaching death from head wounds. Along with knowing which of the wounded were likely to live, it was also useful for
the doctor to be able to prognosticate on loss of function or disablement resulting from a wound (cf. *Prorrh. 2.15/9.40f. L* or *Art. 9/4.100 L*).

A further reason why prognosis was important was that it was a means of avoiding blame if the treatment was unsuccessful or ended in death, and various authors state this fact unabashedly. According to Celsus (5.26.1.C), “it becomes a prudent man first not to touch one who cannot be saved, and not to appear to …have killed one whom his own fate has destroyed.” Paul (6.88.5) explains the reason for refusing treatment even more bluntly as “so that we do not, in addition to being of no help, offer the laymen an excuse for reproach.” When death is not certain, both advocate taking on the treatment, having first warned the patient or those around him. Where the casualty was a king or a general, it could be more than the doctor’s reputation that was at stake. When Alexander’s friend Hephaestion died of an illness in Ecbatana, Alexander had his doctor executed (hanged in *Arr. Anab. 7.14.4*, or crucified according to *Plut. Alex. 72.2*). In the light of this risk, the hesitation of Alexander’s doctors to treat him on the occasions of his illness before the battle of Issus (a detail mentioned by all the Alexander historians with the exception of Diodorus Siculus) and of his most serious wound (Curt. 9.5.25–27) may be more than a narrative device.

**Treatment**

Treatment obviously varied a great deal according to the type and gravity of the wound. Many wounds needed only cleaning, usually with water. This gesture appears as early as the *Iliad*, where Patroclus washes Eurypylus’s wound with “luke-warm water” (11.846). Larger or more serious wounds necessitated more extensive pharmacological and/or surgical treatment.

With any major wound, the greatest immediate danger is from hemorrhage, and it was common knowledge that unchecked bleeding could kill very quickly. Therefore hemostasis was an urgent concern; detailed instructions can be found, for example, in Galen (*MM 2.1–7/10.318f. K*), Celsus (5.26.21), and Paul (6.53). They variously recommend raising the limb, applying pressure (with a dry dressing) or cold water, pulling up and twisting the bleeding vessel with a hook, applying styptic substances, or cauterizing the wound with caustic substances or a red-hot cautery. The doctor could also ligate the blood vessel in two places and then cut it between the ligatures (this was not done before the Hellenistic period). More surprisingly, from a modern point of view, it was also believed (e.g., Celsus 5.26.21.C) that phlebotomy or cupping on a different part of the body would divert the blood flow. While these measures were aimed at stopping excessive bleeding, too little was also considered dangerous. According to Celsus (5.26.22), blood should be let from the patient’s arm if there had been less bleeding than one would expect.

As head wounds required a very specialized approach and were also potentially fatal, it is not surprising that an entire treatise in the Hippocratic Corpus (*VC*) is dedicated to them. Celsus (8.4), Rufus (*Quaest. Med. 55*), and Paul (6.90) also list the symptoms of cranial fractures, which in absence of modern diagnostic means were difficult to recognize. (The author of *Epid. 5* admits at 27/5.226 L. that he once failed to do so.) If a fracture was suspected, one way of verifying was to pour writing ink (Paul 6.90.3) onto the skull and scrape the bone on the subsequent days. If the black line indicating the crack in the bone did not disappear, it was a case for trepanning. This meant removing part of the cranium by means of chisels, drilling, or a crown trepan (i.e., a circular saw). Although this was a dangerous operation, it appears that a considerable number of patients survived it.
One of the most demanding tasks for an army surgeon was the extraction or excision of a missile. This is also the activity that defines medical treatment in the *Iliad*, in the much-quoted verse (11.514f.): “For a physician is a man worth many others, for cutting out arrows and applying soothing remedies.” Given that most ancient armies had contingents of archers, and arrow wounds were frequent, it is surprising that in extant medical literature there are only two step-by-step instructions (Celsus 7.5 and Paul 6.88.3–9) for removing an arrow. (On the other hand, it should perhaps surprise us that there are any, since these skills would have been passed on by apprenticeship rather than by books.) Judging from archaeological finds, a large percentage of arrowheads used in war were barbed in order to make them harder to extract. Paul (6.88.2) and Cassius Dio (36.5) also mention arrowheads with separate pieces of metal attached to them, which would stay behind in the wound and cause complications, as well as poisoned arrows.

When a man was hit by an arrow, his first impulse was often to pull it out himself or to ask a comrade to do so, as we see in the *Iliad* (e.g., 5.112 or 13.598). Rufus (*Quaest. Med.* 51) warns that the soldiers must be told to wait until they can have the arrows removed by an expert. Apparently it could happen quite easily, “even to an altogether experienced man” (*Quaest. Med.* 51), to pull out only the shaft and leave the arrowhead behind. (This happens to the doctor in *Epid.* 5.95/5.254 L.) In most cases the surgeon had to probe (figure 14.2) the wound to obtain more information about its depth or direction, whether the arrow was barbed, whether it had struck a bone, and—if the shaft was no longer attached—whether the arrowhead ended in a tang or in a socket. If no bone was involved, the arrow (or arrowhead) could be withdrawn by grasping it with the fingers or with a forceps (figure 14.3), having made a preliminary incision where necessary. Celsus also describes an arrow scoop called the “spoon of Diocles,” but it sounds impractical and is not mentioned by any other writer. If the arrow was stuck in a bone and would not respond to traction, the bone had to be scraped, drilled into, or excised. If an arrow had almost pierced a limb, it could alternatively be removed through a counter-opening in a technique called *diosmos* (literally “pushing through”). Slingers’ bullets could also produce deep, narrow wounds. Having located the missile by probing, the surgeon then had to enlarge the wound by cutting, and lift out the object with the fingers, a spoon probe, a forceps, or a lever.
Figure 14.2 Roman probe excavated in London (1st–5th centuries A.D.). One end is an “olivary” probe (purēnomêlê), the other a “spoon probe” (kuathiskomele). Science Museum, London: A63490. © Wellcome Images.

Figure 14.3 Roman forceps, perhaps a “root forceps” (rhizagra) or a “bone forceps” (ostragra), from Pompeii. National Museum, Naples. This image is © Wellcome Images, but has been altered into a Derivative Work by C. Salazar by clipping.

Large, gaping wounds were sutured, usually with flax or linen thread, but Celsus (5.26.23.B) distinguishes between this sutura and what he calls fibulae, which appear to have involved some kind of metal pin. Both he (7.16.4f.) and Galen (MM 6/10.415f. K.) describe abdominal suture separately (in Celsus’s case a two-handed technique).
Wound dressings could be linen bandages or sponges, either dry or soaked in water, vinegar, wine or oil, or wool, which could be either greasy (supposed to keep the wound warm) or washed. A moist dressing would often be covered in fresh leaves to stop it from drying out.

While only the most serious wounds needed surgery, pharmacological treatment of some kind was usual for nearly all wounds. Wound remedies, which can be found in many medical writings, ranged from single plants or mineral substances to composite drugs with complex recipes. The Hippocratic Corpus does not contain many such remedies, with the exception of a list in Ulc. (11/6.410 26 L.), but their number increases rapidly in later writings, for example, Dioscorides, Galen, Oribasius, Aetius, and Paul. Pliny, too, lists the medicinal qualities of many substances. The remedies were usually divided into various categories, and a widespread system was to classify them by their properties. The three most commonly mentioned groups are styptics, agglutinants, and anti-inflammatory drugs—although there was no general consensus on the properties of individual pharmaka.

The term styptic (styptikon), like ischaimon and similar expressions, refers to substances that would staunch the bleeding from a wound, but it covers a wider semantic range. It could also mean a remedy against internal hemorrhage, excessive menstruation, or even diarrhea, so it is often difficult to know which pharmaka were specifically intended for wounds—if the Greeks made that distinction. Among the styptics are charred oak gall extinguished with vinegar, spider’s web, or frankincense. The agglutinants (kolletika) were substances supposed to make wounds “stick together,” that is, to promote wound healing. Some examples are bitumen, oak leaves, or egg white, all applied externally.

As one of the stages of wound healing, inflammation was an expected and natural process, as long as it was not too severe or too prolonged, and a range of aphlegmanta was used to control it. These included verdigris, celery, and achilleion (Achilles’s wound wort? With many plants mentioned by ancient authors, identification is problematic.). One also finds remedies for the more dangerous complications that could arise, such as sepsis, gangrene, or tetanos (not necessarily what we mean by tetanus). As a certain amount of suppuration was considered a necessary part of the cleansing process—not surprisingly in a preantiseptic age—there were also drugs that promoted the production of “good pus,” the pyopoïka or kathartika, for example, lard or pitch.

However, no internal (and hardly any external) analgesics appear in the extant texts. When painkillers are mentioned, this is usually in connection with colic, pleurisy, and similar painful conditions, but not with pain resulting from a wound. The analgesics include wild lettuce and anise, but also powerful substances, such as sleepy nightshade, henbane, mandrake and various kinds of poppy, in particular opium poppy, so that it is sometimes suggested that the Greeks and Romans used anesthetics for surgery (Dioscorides [4.75.7] even claims that surgeons use mandrake before surgical operations). While it is true that very effective drugs were available to them, most doctors would simply have considered them too dangerous, opium for example being listed among the lethal poisons (e.g., Galen, De Antidotis 2/14.138 K.). Not only do medical writers never mention any kind of anesthetics, but there are also casual references to having one’s patients bound or held down (e.g., Off. 6/3.288 L. or Aetius 15), as well as Celsus’s famous passage (7.proem 4) about the ideal surgeon being impervious to the patient’s screams. The stories about the fortitude of Alexander the Great (Curt. 9.5.27f.) and Marius (Plut. Mar. 6.3) undergoing surgery without having to be restrained also only make sense in a world without anesthetics.

Care for the wounded continued after the first surgical or pharmacological treatment, often in the form of a special diet. Wine was generally considered bad for the wound, unless the casualty was so
weak that he needed it as a restorative, and usually during the first few days very little food was allowed. Purges and phlebotomy were also commonly used, adding up to a fairly debilitating regime.

**MEDICAL SERVICES IN GREEK ARMIES**

With good reason, research on medical services in ancient armies has usually concentrated on Imperial Rome. As far as the armies of the various Greek city-states and kingdoms are concerned, there is very little information available about anything that one could call a medical service, but the way in which doctors treating the wounded are mentioned in passing in non-medical literature suggests that their presence was not considered out of the ordinary (for a more detailed survey and further sources, see Salazar 1998a). Thus, for example, Xenophon, who knew Sparta well, describes the marching order of the Spartan army (*Lac. 13.7*), the “soothsayers, doctors and flute-players and those commanding the army” marching after the first three *moirai*. This suggests that doctors were part of the standard non-combatant staff of the Spartan army.

![Wounded Aeneas attended by a doctor, between Venus and Ascanius. Fresco from the Casa di Sirico, Pompeii, first century A.D. Museo Archeologico Nazionale, Naples. Photo: Erich Lessing/Art Resource, New York.](image)

**Figure 14.4** Wounded Aeneas attended by a doctor, between Venus and Ascanius. Fresco from the Casa di Sirico, Pompeii, first century A.D. Museo Archeologico Nazionale, Naples. Photo: Erich Lessing/Art Resource, New York.

In the specific situation of a city under siege or serving as the basis for military operations in its vicinity, it is likely that the city physician (*iatros demosios/iatros demosieuon*) would treat the sick and wounded at the city’s expense. Two inscriptions corroborate this conjecture: the first (fifth/fourth centuries B.C.) comes from Cyprus, and thanks several members of a medical family for their care for those wounded in battle. In the second (late third century B.C.), the city of Gortyn honors the doctor...
Hermias—sent from Cos at their request—for treating the casualties of a civil war. It seems that in either case the doctors were employed by the city for a specific emergency. This is precisely the advice of Philo of Byzantium (probably second century B.C.) when discussing the preparations for a siege (Mechanica Syntaxis 5.96.15–29). As he puts it, the city has to hire doctors “who are experienced in the treatment of wounds and in the extraction of arrows.” These experts in army surgery need to bring their own drugs and instruments, while the city “must provide cerate, honey, dressings and bandages.” From the doctor’s point of view, on the other hand, war was an excellent opportunity to acquire expertise, as the author of Medic. (14/9.220 L.) puts it: “He who wants to practice surgery, must go to war and follow mercenary armies, for thus he will be[come] experienced for this necessity.” The author(s?) of Epid. 5 and 7 may also have been hired especially for the war, either by one of the cities in northern Greece (e.g., Daton) or by the advancing Macedonians.

As one would expect, most of the passages dealing with medical treatment in Greek armies are about kings and commanders, and the sources tend to be silent about what care common soldiers received when wounded. The king or general is carried back, usually to his tent, or at least to the camp, where “doctors” (usually anonymous and in the plural) examine and treat his wound. We know that Alexander had his own doctors, and this was clearly the norm for kings and emperors. It seems also that these doctors could then be ordered by the commander to treat the latter’s friends or high-ranking officers.

When it comes to treatment for the rank and file, we have very little information. There were no ambulances going out on the battlefield in classical antiquity, so casualties were carried back by their comrades, sometimes on their shields (like the fallen). Xenophon’s vivid description (An. 3.4.32) of many being unable to fight, “the wounded and those carrying them, and those who had taken on the weapons of those carrying [the wounded]” gives an idea of the effect that the presence of even a few casualties could have on an army. It appears that—at least in the army of the Ten Thousand—there were no people whose job it was to transport the wounded. Slightly earlier (An. 3.4.30f.), Xenophon provides a curious piece of information: in the hills west of the Tigris, the Greek troops, retreating after the defeat at Cunaxa, “appointed eight physicians, for the wounded were many.” It is not explained by whom the doctors are appointed, nor whether they are Greeks or locals, but the reason for their appointment is clearly the large number of casualties. (It is unlikely that up to then the Greeks had no doctors at all, but rather that their number was no longer sufficient.)

There is also no indication in our sources as to where the wounded, with the exception of the leaders, were treated. There are descriptions of generals visiting them, presumably in their tents, but this may be just where they were recovering, not where they had been treated. There are no records of surgeons going out on the battlefield, and casualties were carried (or walked) back to the camp. The sources do not make it clear whether there was a central place where they would be treated, but this seems more likely than the doctors moving about, with their assistants carrying the instruments and other equipment. The aftercare for the wounded is also never described in terms of who did the nursing and where, and whether it took place under medical supervision. Given that slaves were taken along to war for menial tasks, the most likely answer is that they (or the helots in the Spartan army) provided basic nursing care.

Many uncertainties still remain, regarding for example the number of doctors in different armies, the way in which they were hired, who paid them and how (a salary or a share in the booty?), whether foreign doctors would be recruited locally, and how the necessary drugs were supplied. Unfortunately the surviving material offers no answers to these questions.
Here one needs to distinguish between Republican and Imperial Rome. For the Republic, the available sources—admittedly not contemporary—do not supply proof for anything that could be called an army medical service. Livy (2.47.12, speaking about the war of 480 B.C. against the Etruscans), Dionysius of Halicarnassus (5.36.3, about Etruscan soldiers), and Tacitus (Ann. 4.63, in a comparison) refer to the wounded being billeted on patrician families, who presumably did not provide medical treatment themselves. As long as Rome’s wars were geographically limited to Italy, taking the wounded home or leaving them in friendly towns was feasible, but as they became more far-flung, an organized medical service became necessary.  

The development of such a service cannot be seen in isolation from the history of Roman medicine in general. If there is a grain of truth in Pliny’s story about Archagathus, the first Greek doctor to practice in Rome as early as 219 B.C. (HN 29.6), supposedly soon reviled because of his cruel methods, then it could be an echo of Romans finding Greek medicine incompatible at that stage. With the Roman victory at Pydna in 168 B.C. and Greece becoming a Roman province in 146 B.C., all aspects of Greek culture became available (and fashionable), including Greek medicine, often in the form of Greek doctors.

The first literary evidence for a *medicus* in the army is in Cicero (Tusc. 2.16.38), in a discourse contrasting the battle-hardened soldier’s reaction to being wounded with the panic of the raw recruit who has been wounded for the first time. The surgeon is mentioned in passing, not as something extraordinary or new, so at least Cicero did not find his presence unusual. The earliest clearly dated piece of epigraphic evidence is A.D. 82: a votive tablet with the dedication *Asclepio et saluti commilitonum* by the *medicus* of the 5th Praetorian cohort, Sextus Titius Alexander (*CIL* 6.20 = *ILS* 2092; see Wilmanns 1995:141–259 for the most complete collection of all the inscriptions of military *medici*). Like the names of many other army *medici* (e.g., Hymnus, Symphorus, Asclepiades, Alcinus, or Callimorphus), his cognomen seems to point to a Greek ethnic background.

In the epigraphic sources, *medicus* is often qualified by a variety of epithets. Some indicate the doctor’s medical specialization (*medicus clinicus* or *medicus chirurgus*) or the unit to which he was attached (*medicus legionis, medicus cohortis, medicus alae*). It seems likely that the *medicus castrorum* or *castrensis* belonged to the medical services in the context of the *castra*, and that the *medicus duplicarius* (found only in the navy) received double pay. Some terms appear to refer to the doctor’s rank, such as the *miles medicus* (not an officer?) and the *medicus ordinarius*. The meaning of the latter has given rise to some controversy, but Nutton (1969: 268) and Wilmanns (1995: 56) both convincingly suggest a *medicus* with the rank of a centurion. It seems that there never was an autonomous medical corps with its own hierarchical structure, but that doctors were attached to specific military units.

Alongside the *medici*, the inscriptions also refer to *capsarii*, who were subordinate to the doctors and presumably “medical orderlies,” their name being derived from the *capsa* in which they carried the bandages. These were clearly not trained doctors, but the term *discentes capsariorum* on an inscription from Lambaesis (*CIL* 2438) suggests that becoming a *capsarius* involved some form of instruction or apprenticeship. In North Africa, the medical personnel also included specialists in the treatment of snakebite, the *Marsi*.  

We do not know how army doctors were recruited, but it seems likely that some doctors joined the military for the full term of service, while others only signed a contract for shorter periods. Given that
there were trainee *capsarii* in the army, it is likely that some *medici* only started their medical training after joining. They would then be apprenticed to a fully trained doctor, just as they would in a civilian context. As for the number of doctors available at any given time, it can only be conjectured from the numbers per legion, cohort, and so on, as they can be found in the epigraphic material. J. Wilmanns (1995: 69f.) calculates a ratio of roughly ten doctors per legion for the second century A.D., but the numbers will have fluctuated.

While the highly organized medical corps in itself was something that had not existed before Roman times, the greatest Roman innovation in this field is the *valetudinarium*, or army hospital. As the Empire expanded and the troops often found themselves far away from any settlements where the sick and wounded could be left to recover in safety, it became necessary to have appropriate facilities in the army camps or forts. The idea of a military hospital is without precedent in the ancient Mediterranean world, but there may be a clue to its origins in the ground plan of the earliest (mid-Augustan) *valetudinarium*, excavated at Haltern in Westphalia. V. Nutton (1969: 266, n. 1) points out that it resembles a collection of tents, so the embryonic form of the *valetudinarium* may have been a hospital tent. In keeping with the reason for their creation, all the *valetudinaria* that have been found are at the edges of the Empire, especially along the Rhine-Danube limes and in Britain.

The *valetudinarium* not only had its place within the standard layout of a Roman camp, it also had a recognizable ground plan, even if it varied because of the size of the camp or the terrain. Characteristically, it had a large entrance hall, possibly for the initial treatment, and behind it a courtyard with peristyle. The building forming the other three sides of the courtyard was subdivided into small rooms opening off both sides of a central corridor. The small size of the rooms—which are assumed to have been wards—would have contributed to the necessary peace and quiet, as well as making it easier to control the spread of infections.

Archaeological and literary/epigraphic evidence for the *valetudinarium* is mutually corroborative. As well as in the inscriptions, it appears also in the *Digesta* (50.6,7). There the *optio valetudinarii*, presumably the official in charge of the hospital and not a doctor, is listed (together with the *medici* and *capsarii*) among the *immunes*, that is, those who are exempt from fatigue. Medical instruments have been found in several *valetudinaria* (e.g., the large find from Vindonissa/Windisch in Switzerland; cf. Künzl 1983), indicating their use there, and the charred remains of medicinal herbs discovered at Novaesium/Neuss are evidence of pharmacological treatment.

It should not be forgotten that the Romans not only provided treatment for the sick and wounded, but that prophylactic measures were also taken into account. According to Vegetius (*Mil.* 3.2f.; cf. 1.22; 3.8), the generals needed to ensure—probably with the doctors’ advice—that the troops were well fed and well trained, and that the camp was constructed in a salubrious place and kept clean. He also (*ibid.* 3.1) stresses the importance of clean water, warning that bad water can cause diseases.

The famous scene on Trajan’s Column that clearly depicts two men in the outfit of auxiliaries, providing medical care to two soldiers, has often been taken as evidence of field dressing stations because of its apparent proximity to the battlefield (Cichorius 1896: plates 30–31). However, it should not be assumed that it was intended as a realistic representation of medical personnel in Trajan’s army. In the absence of literary evidence, the relief cannot be regarded as proof for medical treatment available on, or close to, the battlefield while the fighting was still going on.

The earliest reference to something resembling an ambulance service comes in a very late source, which deserves to be mentioned as a coda. The sixth-century *Strategicon* of Mauricius (2.9) describes the *depotatoi*, whose task it is to retrieve the wounded and those who have fallen off their
horses, and to revive them with water from their flasks if necessary. The *depotatoi* have no medical
training, but they are soldiers assigned to this duty, with the incentive of a reward for every soldier
they manage to save. Their saddles have extra stirrups, so as to allow the casualty to mount behind
them, but the passage does not make it clear what they are to do with those who are too badly
wounded to mount a horse.

Neither Greek nor Roman sources mention medical assistance given to enemy casualties, other
than in exceptional cases,11 and it is more likely that in general they were merely dispatched. It seems
equally likely that prisoners who were considered valuable—either for the purpose of negotiations
and ransom or because they were likely to fetch a good price when sold as slaves—would have had
their wounds treated, but there are no sources to confirm this.

Summing up, one can say that the medical treatment of casualties itself did not change very
dramatically in the roughly ten centuries between classical Greece and late antiquity, as far as we can
tell from its reflection in medical literature. (Neither did the wounds that had to be treated.) The main
changes would be arterial ligature, more adventurous surgery and a trend toward polypharmacy from
Hellenistic times onward. The way in which the care for the sick and wounded in armies was
organized, on the other hand, progressed dramatically, from the random provisions of Greek antiquity
to the establishment of a professional medical corps and of army hospitals in Imperial Rome.

**BIBLIOGRAPHY**


International* 160: 207–16.

Altertum am Rhein 115. Cologne/Bonn.

LiDonnici, L. R. 1995. *The Epidaurian miracle inscriptions: Texts, translation and commentary*
.Atlanta.


A fragment (10 Edmonds) of the Spartan poet Tyrtaeus makes clear the brutal nature of infantry battle in the Greek and Roman world. “Let each man hold, standing firm,” he says, “setting foot against foot, and resting shield against shield, … [and] let him fight his man breast to breast, grasping the hilt of his sword or of his long spear.” This bloody work, Tyrtaeus concludes, identifies the agathos man, the man able to endure bloody slaughter.

With all the horrors of the battlefield, several dimensions of what is generally defined as discipline help us comprehend how soldiers were willing, or made willing, to fight and to ignore (at least enough so that they could function) the real threat of injury or death, possibly a lingering and painful death, to themselves and their comrades. Specifically, discipline goes a long way toward helping soldiers stand together on the battlefield. Sometimes it enables them to execute certain tactics in the face of the enemy, inflict casualties, and create sufficient panic in the opposing force to cause its disintegration and defeat. While weapons and tactics have evolved over time, the importance of discipline has remained unchanged, often deciding battles, wars, and the course of history. The process, however, by which citizens or subjects of various states, kingdoms, and empires were transformed into disciplined soldiers willing to stand united and face the horrors of the battlefield has changed over time. Unsurprisingly perhaps, what constitutes discipline both reflects a society’s values and ideals as well as its response to those within who fail to meet the standard of behavior.

Discipline has usually been equated with harsh punishment and the punitive measures of a government or general to keep soldiers under control while on campaign and, more importantly, to instill in them the fear necessary to force them to fight. But discipline also encompasses a wide range of meanings and involves such factors as training, the nature of leadership practiced by a general, rewards bestowed by officers and communities for proper military behavior, and the social and martial values of the soldiers themselves which inspired bravery in battle. Both the positive and the negative, the proverbial carrot and stick, played roles in military discipline. This discussion aims to provide a brief history of military discipline in ancient armies, to explain how and to what degree societies imposed discipline on their soldiers or how, in various ways, soldiers imposed discipline on themselves. It will also follow the evolution of military discipline from Greece until eventually something similar to a modern system developed in the early Roman Empire.¹
The earliest insight into military discipline comes from Homer. The *Iliad* and *Odyssey* provide fascinating glimpses of a society emerging into a more settled form of social-political organization. This transition had a large impact on military organization. In the epics the great heroes are termed *basileis*—“kings,” but in reality “big men” or “chiefs.” At Troy *basileis* commanded their own contingents of soldiers, such as Odysseus and his Ithacans. Though called kings, they were not absolute monarchs like Egyptian pharaohs, and did not administer complex political and economic machinery like the Mycenaean kings. There were no military codes or laws, no official chain of command. Instead a *basileus* attained his position through inheritance and the sanction of both the gods and to some extent the people. To maintain his position he relied on his abilities to control dependents and followers by inspiring loyalty, specifically through military and oratorical skills. Above all, he was expected to be the bravest in battle by leading from the front. This conferred the legitimacy he needed to demand submission to his authority. As the Lycian hero Sarpedon said, “Why in Lycia, Glaucus, do we receive special honor?…it is because we take our stand at the head of all the Lycians and bear the brunt of the fighting, so that our people say to each other ‘Our princes are fine fellows, they fight well and are ever at the front of battle’” (Hom. *Il*. 12.290–328).

A king was also expected to be wise in council and able to persuade his men to follow him. His position did not allow him to simply command his men to move, nor could he threaten them with punishment; instead he often had to convince them that his strategies were sound. For example, it is evident that Odysseus does not have the power to order his men about. In some cases he is able to persuade them to follow his lead; in others his men refuse to obey his orders. On one occasion, after sacking the town of the Cicones, Odysseus, sensing danger, tries to tell his men that “we should be off, but my foolish men refused; there was plenty of wine so they kept drinking and eating by the shore” (Hom. *Od*. 9.50–53). Soldiers in the epics enjoyed the freedom to speak out against and argue with their leaders. For example, Odysseus’s companion Eurylochus protested in open assembly against Odysseus’s plan to avoid the Island of the Sun. When Eurylochus finished speaking he was greeted with applause. Odysseus was forced to give in because, as he put it, “I was one against many” (Hom. *Od*. 12.322). Subordinate officers and even the average soldier enjoyed and demanded certain freedoms and rights and a certain independence from their leaders. There was in fact a “constant tension” between leaders and followers as the soldiers jealously guarded their prerogatives against the encroachment of royal authority (Donlan 1999: 350). Even Agamemnon, the overall commander of the Greek forces at Troy, was unable to lead autocratically. He cannot force Achilles or anyone else to fight. He is rebuked on numerous occasions by his fellow kings, such as Odysseus, and on one famous occasion by Thersites, a common soldier. Diomedes clearly articulated a vital privilege he and others possessed and frequently exercised: “We are privileged in open debate, and you Agamemnon cannot get upset” (Hom. *Il*. 9.36–37).

Despite the lack of a command structure or military code, discipline was not unknown. In Greek armies much of the discipline came “from within the soldiers themselves” (Phillips 2001: 326). Character traits such as bravery and excellence, and their opposite numbers, shame and cowardice, played a huge role for Homeric soldiers. They wanted above all else to distinguish themselves in battle, to achieve deeds that would enhance the honor of their family and their name, while avoiding doing anything that would bring dishonor. These values helped deter them from abandoning their comrades. Desire for glory and fear of dishonor, rather than fear of some form of disciplinary punishment, was their main motivation. These values would outlive Odysseus and the other Homeric heroes and continue to play a role in war in the classical and Hellenistic periods. Alexander was only the most famous Greek soldier driven by these values.
The hoplite armies that emerged along with the *polis* during the archaic age changed the nature of Greek warfare. The scale of battle increased along with the size of armies; no longer did forces consist of wealthy men, their dependents, and companions. Yet important elements of the Greek battle experience remained the same. Specifically, there were no military codes or laws by which commanders or individual city-states could impose discipline through the exemplary punishment of recalcitrant soldiers. Instead, the heroic values of the Homeric era filtered down and were in some ways transformed to fit the new phalanx warfare. Soldiers no longer fought in small groups of noble warriors, with an Achilles or Diomedes in front demonstrating their bravery. Instead hundreds, sometimes thousands, of hoplites fought shoulder to shoulder in the phalanx. The cardinal rule of war still applied: they must at all costs hold their phalanx together while forcing the disintegration of the enemy’s.

Though there was little or no formal training or disciplinary system in the archaic or early classical periods (outside of Sparta), men were still inspired to hold their position by the same values as the Homeric heroes. Bravery in battle was still prized, but it was bravery of a different sort. From within a soldier came the same urge to fight well, to win honor for himself, and to uphold his family name. There was now, however, a more patriotic motivation to fight well: to defend the *polis* and the people. Therefore glory was not to be won on an individual basis, out in front of the ranks against opposing aristocratic heroes; instead glory was to be won in the service of the state. The soldier fought to secure a good reputation among his comrades with whom he fought; cowardice in battle was not only shameful in itself, but flight could cause panic and bring about defeat for an entire army. As Tyrtaeus wrote, “a man is not *agathos* in war unless he endure seeing the bloody slaughter, and standing close reach out for the enemy … this is a common good for the whole *polis* and the people when a man holds, firm among the fighters…never will his fame die, nor his name…since he acted bravely and was fighting for his land and children” (Tyrtaeus fr.10 Edmonds). Though performance did not always match expectations, this was the ideal to which hoplites aspired.

The dread of the shame which would be incurred if he did not fight well, the contempt of his fellow citizens and soldiers, was a powerful force to maintain discipline despite the horrors of hoplite warfare. The fate of Aristodemus and Pantites, the two Spartan survivors of Thermopylae, seems to indicate that even in early fifth-century Sparta there were still no laws governing military behavior nor specific tribunals organized to hear cases for breaches of military discipline such as cowardice (Hdt. 7.231–232, 9.70–73). Shame, however, remained a powerful coercive force: none of Aristodemus’s fellow citizens would speak to him, and he was derisively referred to as “Aristodemus the Coward.” This provided the motivation necessary for him to perform more bravely at Plataea than any other Spartan, though his fellow Spartans refused to bestow any award for bravery on him, arguing that his exploits merely balanced the scales. Unlike Aristodemus, Pantites could not endure the harsh treatment he faced upon returning home, which prompted his suicide. Certainly the fate of both men would make a great impression on other Spartan soldiers and help them overcome their fears and stiffen their resolve in combat.

It should be noted that outside factors sometimes dictated military punishment. For example, demographic pressures in the late fifth and early fourth centuries would force the Spartans to deal more leniently with cowardice in battle. The survivors of Sphacteria in 425, at first shunned, were eventually restored to full citizenship. For similar reasons, the survivors of Leuctra fifty years later
would be spared when the harsh laws for cowardice in battle were allowed to “sleep” for a day (Plut. Ages. 30.6).

As phalanx warfare continued into the classical period campaigns became more frequent and battles were fought on an even greater scale. Armies were far larger, with thousands of soldiers serving under commanders they could not know well. Conflicts, especially the great Peloponnesian War, were no longer relatively short and fought against a neighboring state. Greater discipline seemingly would be needed, and apparently disciplinary systems did develop in some cities, possibly due to the pressures of ongoing war, by which certain military offenses were punished. In many ways these laws standardized what had before been custom. By the end of the fifth century, at Athens, for example, penalties had been established for refusing service and desertion. Citizens could be punished for four acts relating to military service: 1) treason; 2) refusing to join the army when called; 3) abandoning a place in the phalanx line; and 4) throwing away a shield in battle to flee more quickly (Lys. 14.6). Treason was a crime whether a citizen was in the army or not. The last three were all variations of an action that predated polis armies: cowardice. The difference now was that this was apparently written into law in some cities and could lead to legal consequences rather than public disgrace alone. Such penalties represent a change since the time of Aristodemus and Pantites: not only shame but specific punishments apparently prescribed by some sort of court could be imposed.

Examples survive from the Peloponnesian War. The polemarchs Hipponoïdias and Aristocrates were officially tried and banished for cowardice after the battle of Mantinea (418 B.C.), and Thucydides implies that there was some sort of formal procedure involved (Thuc. 5.71, with Hornblower 3: 189). On the eve of the second fight off Naupactus (429 B.C.), one of the Peloponnesian commanders warned his men that cowardice would be punished “as it ought to be” (Thuc. 2.87.9). Political-military turmoil in Argos also in 418 B.C. suggests that a military court had been established which, at the conclusion of a campaign, tried military offenses. Apparently this was not something done on an informal basis: there was a specific procedure for organizing a court, arguing strongly that there were specific laws for such crimes (Thuc. 5.60.6, with Hornblower 3: 158).

After the great Peloponnesian War of the fifth century, the fourth century witnessed further developments. Xenophon’s works, especially the Anabasis, seem to indicate an increasing concern with discipline and good order. The Spartan commander Clearchus demanded discipline from his men and sometimes used physical force to get it (Xen. An. 2.6.9–10). In Sparta, by the time of Leuctra, specific penalties were imposed on tresantes (“runaways,” “cowards”), such as disqualification from office and random beatings from fellow citizens. There were personal humiliations as well: they were forbidden to bathe, were forced to wear ragged clothes, and were obliged to shave off half their beard and leave the other half uncut (Plut. Ages. 30; Xen. Lac. 9.4–5).

Even though there was a general trend toward greater training and discipline in Greek armies during the fifth and fourth centuries, examples of the actual imposition of specific punishments are still rare, and those punishments were usually inflicted only in cases of some form of cowardice. Exemplary punishments to enforce orders and obedience were rarely imposed, except perhaps in the case of mercenaries. The Athenian general Iphicrates once found a sleeping sentry and killed him, later remarking, “I left him as I found him.” Such savage discipline was perhaps unusual among the Greeks, though Epaminondas was said to have acted similarly (Frontin. Str. 3.12.2–3).

The freedoms enjoyed by Homeric soldiers had in many ways been retained through the centuries. Freedom of speech and the freedom to disagree or even to disobey a commander were in many ways
still a part of the Greek military experience. There was little to differentiate a citizen from a soldier so most of the rights enjoyed by a citizen were maintained when that citizen became a soldier. Generals in any Greek city were citizens, not professionals, elected by their fellows to command. Once their service was over, they went back to civilian life along with their men. More importantly their conduct could be reviewed and charges could be brought against them in the assembly or in a court before a jury, as often happened in Athens. Sitting in the assemblies and juries could be the very soldiers the generals had recently commanded. This was the great deterrent to any commander who may have wished to impose harsh discipline or maintain order through various punishments. Xenophon’s speech to the army after Cunaxa is highly illustrative (Xen. An. 3.2.30–31). Like Odysseus before him, he is forced to try to persuade the men to follow orders and maintain discipline. By highlighting the gravity of the situation he was in some ways attempting to scare them into being more obedient than was usual. Xenophon even asks for the men’s help to uncover and report acts of disobedience. Even in what was essentially a professional army, and despite the efforts of Xenophon and other officers, the march up-country provided many examples of the freedom of the independent soldiers. They often refused orders, they spoke out against their officers during councils and sometimes rejected their advice (that they were being advised rather than ordered was of course significant), they were insolent, they sometimes even physically attacked their superiors, and they often deserted from one Greek officer to another. Officers, like Xenophon, could even be brought before a tribunal if their men had complaints (Xen. An. 5.8). This was indeed a mobile polis, with the soldiers continuing to exercise many of the same rights they enjoyed as citizens.

MACEDONIA

In archaic and classical Greek armies training and discipline (again outside of Sparta) were almost nonexistent. In most cities citizens were usually expected to train on their own, and any formal, public training was of the most “elementary” kind (Pritchett 2: 238). Philip II created a new type of army in which new weapons, frequent exercises including long marches, specific training designed to pull off complicated maneuvers on the battlefield, and obedience to orders were more important. In addition the Macedonian chain of command was far more complex than those in the poleis. A chain of command, especially with junior officers in close proximity to the men, enabled Philip to control his units. Also, the very nature of monarchy gave Philip (and his successors) advantages Greek generals did not enjoy. Though his powers were limited by custom and by the Macedonia nobility, the king held office for life. He was not in command for only one year or one campaign, nor was he subject to any type of review or trial after a battle was concluded. He would continue to be the commander far into the future, as long as he won battles and avoided assassination. Soldiers could not be consistently disobedient to a commander whose term would not soon end. This permanence allowed Philip and his successors, especially those who wielded greater powers in the later Seleucid and Ptolemaic states, an increased ability to demand a higher standard of obedience than other, earlier Greek generals.

All this would suggest that a disciplinary system was emerging, one in which obeying orders, especially during complicated battle maneuvers, was of greater importance. Yet much of the success of Philip and Alexander was of a personal nature. Their Homeric-style leadership, their willingness to lead from the front, and their obvious military talents and charisma, in large measure created the discipline in the Macedonian army and legitimated their rule. Their achievements were further rooted
in a deft touch that balanced possible rewards (promotion, greater percentage of plunder, cash or land bonuses, and other honors) with the possibility of royal displeasure. They were able to convince their men to obey them and to follow them continuously; in the case of Alexander, all the way to India.

Though training was increased, and the greater duration of the campaigns essentially made these soldiers into professionals, evidence of specific punishments for the breaking of orders is rare. Macedonian soldiers still inherited certain rights from the past. Like Homeric warriors they did have the freedom to speak out to the king, though sometimes their freedom of speech could have tragic results, as in the cases of Philotas and Cleitus. The challenge to Alexander’s leadership raised by the rank and file of his army at the Hyphasis, and seconded by some of the elites, demonstrates again the tentative nature of leadership and discipline in Macedonian armies. Though aspects of this episode have been questioned (see Heckel 2003), for the story to work it must have been believable that Macedonian soldiers could make demands of this type on their commander. And, though the army was more sophisticated in terms of training, the motivation for discipline still largely rested on internal inspiration, as it had for centuries. Soldiers overcame the terrors of the battlefield to try to win or maintain a reputation for bravery among their comrades and countrymen for themselves and for their families, and to win honor in sight of the king, along with possible rewards his appreciation might bring.

**Hellenistic Armies**

The death of Alexander in 323 precipitated almost fifty years of continuous warfare that ultimately led to the creation of the Hellenistic monarchies. This contributed to increased professionalism in Macedonian and Greek armies, whether at home or abroad, and therefore had a direct effect on discipline. It is in this period that the first military law codes develop. The surviving examples date to the reign of Philip V (r. 221–179) but may have been part of Hellenistic armies before this; it may be possible too that contact with well-disciplined Roman armies hastened reforms. An inscription discovered at Amphipolis, though fragmentary, provides some insight into efforts to improve on discipline in the Macedonian kingdom, suggesting a new way of military thinking (see Austin 136–8 for texts).

For the first time we see a Greek military code with specific rules and regulations that govern a far greater spectrum of behavior than just cowardice. No longer is this an informal system, governed by custom. Now discipline was to be maintained by a strict obedience to orders, enforced by specific punishments. As the Amphipolis code clearly states, soldiers guilty of even minor military crimes will be “punished according to the written rules.” Specific offenses are spelled out. Soldiers are not to sit or sleep while on guard duty, they must be in possession of the proper armor, weapons, and other equipment at all times, they cannot plunder or destroy property without orders, and they are required to report any transgression of the code by their fellow soldiers.

Generally, monetary fines were imposed as punishment. Those asleep on guard duty paid one drachma, someone guilty of witnessing a crime and not notifying their superiors was penalized a quarter of a drachma, and the penalty for not having the proper equipment varied from two obols to one drachma. Informants who reported these and other breaches received monetary rewards, which would probably make them more diligent in uncovering offenses. An elaborate chain of command had evolved from older Macedonian models allowing greater control of individual soldiers through the enforcement of the code.
Various officers were given specific duties related to the discovery, reporting and punishment of indiscipline. Tetrarchs were responsible for making the rounds to check on those on guard duty. The hypaspists, who had traditionally been an elite battlefield unit and royal bodyguard, now seem to take on the job of military policemen. They were to discover when offenses went unreported and punish those responsible both for the crime and those who failed to report the crime; they were to collect fines which they were allowed to keep as a reward; and they were to compose “written denunciations” of specific offenders which were to be sent up through channels to the general. All officers were to punish unauthorized plundering and destruction by individual soldiers. Beyond that, provisions were made for military courts to hear cases, and for an officer (exactly who is not clear) to act as a judge.

The Amphipolis code represents a fairly substantial evolution from earlier Greek armies in regard to discipline. To some extent this process had been slowly building from the Homeric period through the Persian and especially Peloponnesian Wars, to the Persian expedition of Xenophon and his Ten Thousand, and the increased emphasis on discipline and training in the fourth century at Thebes and elsewhere. Only in Macedonia, however, has an actual military code emphasizing strict adherence to specific orders and regulations been discovered. Yet even Macedonian discipline paled in comparison to that of Rome. One example will suffice. A Macedonian soldier guilty of either sitting or sleeping on guard duty was fined one drachma; a Roman soldier guilty of the same offense was beaten to death with clubs (fustuarium). An awed Polybius (6.37) explains that this was why the Romans kept night watches better than anyone.

ROMAN REPUBLIC

The Roman army represents something completely new in ancient Mediterranean warfare. Certainly Homeric-like desires would be present here to inspire men from the inside to fight well for themselves, their comrades, and their country. Discipline, however, now takes on a whole new meaning since in addition to internal motivation, Roman military custom provided plenty of external incentives to compel, if necessary, Roman soldiers to obey orders and fight well. Numerous military infractions would be systematically punished, sometimes with brutal effectiveness. No longer would shame alone keep men in line. Fear of punishment by their own officers or the state would help keep the men in place and deter them from flight.

As in Macedonian armies, the Romans employed a system consisting of both rewards and punishments. First was positive reinforcement. There were the financial rewards of loyal service, including plunder, specific monetary rewards for bravery in battle, and monetary bonuses at discharge. There were promotions that could be won, soldiers could work their way up to the centurionate with increased authority and higher pay and plunder, and later, with the founding of the Empire, there would be the opportunity to move into elite units such as the Praetorian Guard or evocati, which meant higher pay and exemption from fatigue duties. There were other intangibles which played a role: various honors and symbols for bravery in battle could be bestowed, often in ceremonies at which the whole army might be assembled. Honors included various crowns, such as the corona civica. There were other motivating factors involved as well, such as pride in one’s century, cohort, or legion.

Often the discipline of the men depended on leadership. A number of Roman authors had specific ideas on what constituted a good leader. Cicero said a general must possess military ability and
proven success, prestige—by which he meant a noble family background—previous military success, and good luck (Cic. Leg. Man. 27). Caesar too believed that luck played a large role in keeping the soldiers loyal, as did a general’s willingness to share the wealth with his men (Caes. B Gall. 1.40). A general also was expected to share the same hardships and face some of the dangers his men did, which meant eating, marching, and living with them.

If these positive methods were not successful there was always the harsh discipline for which the Romans were famous. Roman legend was full of relevant examples, such as Manlius’s execution of his own son for disobedience. In book four of his Stratagems, Frontinus provides forty-six examples of discipline in ancient armies; thirty-eight come from the Roman Republic (Frontin. Str. 4.1). As Carney and others have noted, the Roman disciplinary system generally bore a “much greater resemblance to modern armies” than did Greek armies (Carney 1996: 20). Pritchett concurs: “disciplina militaris” was a Roman not a Greek virtue (Pritchett 2: 244–5). The military oaths, sacramentum and the ius-iurandum, sworn by Roman soldiers had a direct bearing on this discipline. By the first century B.C., the importance of the sacramentum to military service, religiously, historically, and legally, had long been established. Sacramentum, with all its important ramifications, was employed only for the swearing in of soldiers either when they first began service or when they received a new general. Caesar, who should have known, used it only in this context (Caes. B Gall. 6.1, b.c. 1.23, 1.86, 2.28, 2.32). No man could serve without taking this oath; he had to be “sworn into service with the sacramentum” or “he could not legally fight the foe” (Cic. De Off. 1.36–37; Livy 3.53). Once a citizen had sworn the oath he was transformed into a soldier, subject to military law, without many of his civilian rights. His service had officially begun. The distinction between citizen and soldier was illustrated by Caesar’s speech before his mutinous soldiers in 47. According to legend he was able to regain their loyalty simply by addressing them as Quirites—“civilians”—rather than miles, implying that they were no longer in his service (Suet. Iul. 70).

Though the exact formula is unknown, the sacramentum required the men to swear by the gods to assemble when called by their commander, to obey their commander, to do nothing contrary to military law, neither to desert nor disband until discharged, never to flee the battlefield and never to abandon the battle line except to retrieve a weapon, strike an enemy, or save a friend (Dion. Hal. Ant. Rom. 10.18, 11.43; Polyb. 6.21; Livy 22.38; Frontin. Str. 4.1.4; Serv. ad Aen. 8.614; Veg. Mil. 2.5). Though it was essentially a very brief formula, it covered all aspects of military behavior. The Romans had a very definite chain of command and very definite ideas on what constituted proper military discipline. Almost any act contrary to military discipline was a breach of the oath. If soldiers violated the oath they could be punished because they had committed sacrilege by breaking the religious sanctity of the oath and were now considered nefas.

The sacramentum is not to be confused with the second oath sworn by Roman soldiers, the ius-iurandum. A mandatory ius-iurandum was sworn in camp when the military tribunes paraded the men and compelled them to vow they would not steal from the camp and would return anything they might find (Polyb. 6.33). A voluntary ius-iurandum was sometimes sworn as a means of extending and enhancing the original sacramentum by boosting morale among the men and increasing their cohesiveness, especially during times of crisis (Caes. B Civ. 1.76, 3.12–13, 3.86–87).

The presence of these oaths distinguished Roman armies from earlier Greek and Macedonian forces. Comparisons with early modern armies can provide illumination. During the sixteenth century Tudor armies became modern in the sense that feudal and personal aspects of the military service
were replaced with impersonal military codes and punishments. Most important was the introduction of the military oath, the breaking of which made the soldiers liable to well-defined punishments. As Phillips notes, “the swearing of the oath” was “the basis for the military disciplinary system” (Phillips 2001: 327).

In Rome the mandatory oaths sworn by the men to their commander forbade certain types of behavior. Offenses included mutiny, disobeying the orders of the commander, cowardice in battle, desertion, loss of a weapon in combat, lying to superiors, homosexuality, sleeping on guard duty, and camp theft. Breaking the oaths meant a guilty miles or centurion was no longer protected by Roman law, and punishments, sometimes brutal, could be imposed. Pay could be withheld or reduced, or fines could be imposed. Soldiers could be reduced in rank. They could be dishonorably discharged or even exiled. They could be sold into slavery. Various humiliations could be imposed. Scourging and flogging were common. A soldier’s hand could be chopped off. Individual executions were often carried out, in some cases by the particularly horrible method of the fustuarium (cudgeling to death). Decimation was also employed throughout the Republic. Usually discipline was inflicted in public at a camp contio, not only to punish the guilty party or parties but also as a warning to the others.

The elaborate, formal chain of command in the Roman army played a large role in the discovery and punishment of these offenses. First, the small number of men in each century would sometimes make it difficult for soldiers to hide transgressions from the nearby centurion. Also, military tribunes were designated to hear cases in the principia and had the power to impose fines, restrict pay or supplies, or order corporal punishment. It was the military tribunes who tried soldiers accused of major crimes in a court martial.

While discipline played a large role in Roman army life and in Roman military success, a certain balance does need to be maintained. Contrary to the picture painted by Polybius and many modern historians, the Roman republican soldier was not always a robot unquestioningly obedient to his commander (Ziolkowski 1993: 86–9). He did not demonstrate “absolute, mindless obedience” at all times (Goldsworthy 1996: 281). As Messer long ago noted, the Roman soldier “arrogated to himself an amount of independent thought and action which was quite on par with that claimed by the Greek soldier and far beyond that with which the Roman soldier is credited” (Messer 1920: 174).

As both catalyst and product of such events as the Struggle of the Orders, the secessions of the plebes, and the political victories of the plebeian order through the intervention of the army, the Roman soldier was first and foremost a citizen vested with certain important rights. He inherited too a long tradition of independent thought and action. As such, despite the oaths and various military regulations, soldiers expected to be able to express their opinions freely on literally any matter about which they were concerned, especially, obviously, matters pertaining to their military situation and their conditions of service (for the scores of examples of soldiers speaking freely in camp, and the ramifications of this speech, see Chrissanthos 2004: 341–67).

Though it has been argued that “neither the questioning of orders nor the attempts to negotiate the course of a campaign was generally tolerated,” this traditional view is simply not supported by the evidence (Brice 2003: 64). There were apparently no restrictions, legal or otherwise, that might prevent the average Roman soldier from exercising freedom of speech in camp. All Roman soldiers swore the sacramentum when they were inducted into the army. The soldiers, however, swore no oath that deprived them of their freedom of speech. Also, there was no known military law during the Republic that restricted freedom of speech in camp or mandated any punishment of “guilty” soldiers. Much later writers do speak of specific military laws to restrict freedom of speech in camp during the
Empire. Those guilty of participating in loud, disorderly meetings would be beaten and discharged. Those guilty of clamoring and complaining would be reduced in rank (Rufus, *Military Laws* 17; *Corpus Juris Civilis* 20).

Yet nothing is found in Polybius or Caesar or even Livy that indicates there was ever any formal or informal discipline imposed by a commander, lower-ranking officers, or centurions on soldiers who were guilty merely of speaking their minds during the Republic. The famous example of L. Aemilius Paullus before Pydna is the exception (Livy 44.34). Even later authors such as Frontinus and Valerius Maximus preserve no anecdotes of such a military law being invoked. Roman political and military history dating back to the first secession provides many examples of this freedom in action. Though these may or may not be true, they represent what the Romans believed to be true. Therefore this encouraged the exercise of free speech in camp, not just for the officers but also for the common soldier.

Therefore, Roman citizen-soldiers (and not the *socii* or foreign auxiliaries) could and did express opinions on any matter pertaining to military service and army life. They expressed their views on the course of a campaign and debated, praised, or criticized the military strategies and tactics of their superiors (Caes. *B Gall.* 5.31, *B Civ.* 1.47). Sometimes, they did not agree with a commander’s strategy (Livy 27.26, 44.3–8; Polyb. 3.89). Soldiers often expressed rage and indignation among themselves at the unwillingness of their commanders to lead them into battle (Caes. *B Gall.* 3.24, 6.36, *B Civ.* 1.7, 1.64, 1.71, 1.72, 2.33, 3.6, *B Af.* 82; Livy 7.12). There are examples of soldiers being afraid of impending conflict (Caes. *B Gall.* 1.39–1.41, *B Civ.* 1.20, 2.29, 2.43–44). Sometimes rumors flew freely through the camp, exaggerating an already bad military situation (Caes. *B Civ.* 2.27–2.43, *B Af.* 10). Soldiers often complained among themselves about the conditions of service regarding pay, plunder, length of service, and harsh discipline (Cass. Dio 36.6; Plut. *Luc.* 32–34, *Caes.* 37; Livy 28.24). Soldiers were sometimes concerned with dire religious omens (Plut. *Crass.* 19, 23). Sometimes soldiers even discussed the mood of their commander (Sal. *Iug.* 82). In every Roman army, on an almost continuous basis, these concerns and issues were discussed.

The setting of the camp facilitated the exercise of *libertas* and with it free expression by citizen-soldiers. Camp geography highlighted a link between a Roman citizen and a Roman soldier. Political assemblies in Rome and military assemblies in camp were both labeled *contiones*. They were both held in a forum, either the *Forum Romanum* or the camp forum. The platform from which politicians spoke in Rome and the platform from which generals spoke in camp was usually referred to as the rostra. The purpose of the camp *contio* was often the same as the *contio* in Rome: information was to be relayed, decisions to be explained, and Roman citizens to be convinced of something.

The way in which a general presented himself in camp rostra was hardly different from a politician speaking in Rome, and the behavior of the soldiers in the camp forum was little different from the behavior of the people in the Roman Forum. There was an obvious “political meaning to the assemblies” in camp (Polo 1995: 215). Discussions among the soldiers would sometimes lead to free expression at these meetings as soldiers could make their opinions known at official camp *contiones*. They could cheer or voice their approval. They could remain silent as a sign of respect. They could speak directly to their commander on the tribunal. They could jeer the speaker, and even drown him out by shouting their disapproval. They could remain silent or wander away from the meeting to show their displeasure. The soldiers could even resort to violence at *contiones*, attacking or even killing their commander.

In short, the camp *contio* could represent an important expression of *libertas* by providing the men
with a forum in which to express their grievances (see further Chrissanthos 2004: 341–67). In addition, the soldiers’ tents were usually some distance from the tents of the commander and the officers in the principia, encouraging freedom of expression. There were open spaces next to the soldiers’ tents, in which many routine duties were carried out. Since their tents were small, the soldiers spent much of their time in those open spaces. It was here that the soldiers talked, commiserating, complaining, and speaking out. The camp chain of command also provided an avenue of expression. Often soldiers used their centurions or even their military tribunes to relay requests, concerns, or demands up through the ranks to their commander.

On many occasions the soldiers were able to convince their commander to redress certain grievances or even to change his military strategies. Roman soldiers unable to change the minds of their officers often resorted to more forceful methods. Mutiny, the ultimate breakdown of discipline, occurred sixty times in the Roman Republican army. Forty-five of these mutinies happened between the Social War and Actium, meaning 16 percent of all Roman armies during this period experienced a mutiny. Not only did these incidents occur quite often, they usually achieved their goals: 72 percent of all mutinies (43/60) ended in success for the mutineers and, maybe more tellingly, despite widespread belief in Rome’s harsh system of military discipline, mutineers were actually punished on only ten occasions (17 percent). Of these ten cases, we know of nine specific acts of punishment, including: trials in Rome to punish officers, decimation of the army or decimation of the ringleaders alone, execution of all ringleaders, and the execution of all the mutineers. In these instances the famed Roman discipline was employed successfully. Yet, despite the Roman system of discipline and reputation for harshness, when the numbers are analyzed it becomes clear that the actual punishment of mutineers was rare.

**Roman Empire**

Once in power Augustus implemented wide-ranging reforms and by 13 B.C. he had created Rome’s first professional army. No longer would temporary armies be created to deal with temporary threats. Now there would be twenty-eight legions of 5,500 men plus cavalry reinforced by a similar number of auxiliary units. Altogether, there would be a permanent standing force of about 300,000 men. These men would serve for defined periods of time. Originally the term called for sixteen years of active service followed by four years in reserve. Those periods were extended in 6 B.C. to twenty and five years (Cass. Dio 55.23).

The key to this system, in enticing volunteers and in keeping soldiers happy while performing a difficult job, was, of course, money. One of the most frequent causes of trouble during the Republic had been money. Problems included irregular pay, unfair or infrequent distribution of plunder, and dissatisfaction with discharge bonuses of cash and land or the lack thereof. Augustus was able to make significant economic improvements to military service. He provided pay of 225 denarii, the same amount distributed by Caesar, which was itself a doubling of the previous stipend provided by the state. This pay would be distributed regularly, and would not be subject to the whim of a general or the senatorial government.

This was important because Republican soldiers often did not receive pay in a timely fashion. Donatives were granted by Augustus, but were usually not large or frequent. Though the pay was not extravagant, the key to the system was the retirement benefits. Augustus provided either a cash bonus or land or both to men who had served their time. It seems that after 13 B.C. men often received money
instead of land: 12,000 sesterces or about twelve years’ pay (Cass. Dio. 54.25). Estimates vary, but possibly as many as 200,000 men received benefits during the first three decades of Augustus’s reign. These included mass discharges in 30 to 28 and 14 B.C. To cover all these expenditures, Augustus established the aerarium militare in A.D. 6. To help fund this military treasury, Augustus donated his own money, and later supplemented that with sales and inheritance taxes (Mon. Anc. 17). These steps were fundamental to the creation of a permanent, professional army. The soldiers would now receive these economic benefits “as a right and no longer as a privilege” (Watson 1969: 147). These economic reforms, at least for much of the Principate, helped keep the soldiers happy, or at least happy enough that one important cause of indiscipline was removed.

Money aside, a soldier’s willingness to overcome the fears of battle was still at least partially based on his desire to fight courageously in front of his comrades and earn a reputation for bravery, as it seems to have been since Homeric times. But other positive incentives that rewarded disciplined conduct included a large number of decorations such as the various coronae (aurea, vallaris, muralis), torques, armillae, and phalerae (for an exhaustive list of decorations, for both men and units, see Maxwell 1981). Whole units or even whole legions could receive rewards for bravery, an honor known too in modern armies. Soldiers also now attached even greater loyalty to the legion itself as each unit now had a specific number and name, and often nicknames as well, to denote special honors or achievements or the favor of a particular emperor. Further positive incentives included hopes for promotion, especially to the centurionate. A promotion not only recognized a soldier’s valor and the respect of his comrades and superiors, it also represented an opportunity for an increased salary and percentage of the plunder. Lastly, an honorable discharge was extremely important because only then could a soldier collect his rewards of land and money, and if he were in the centurionate or above, he could step into an elevated social position in civil society. All of these potential rewards would not only entice volunteers to enlist but generally would also help keep them obedient to orders.

If these positive incentives were insufficient, Roman military discipline could still be used to coerce proper behavior. Josephus, like Polybius before him, recognized that fear played a large role in the discipline, and the effectiveness, of the Roman soldier. The range of possible punishments actually remained very similar to the Republican period. Decimation could still be enforced. Execution of individual soldiers for the crimes of mutiny, desertion, or insubordination still took place. Lesser punishments were inflicted for lesser infractions, including corporal punishment, monetary fines, increased fatigue duties, demotion, reduction of pay or plunder, dishonorable discharge, and other punishments designed to publicly humiliate the soldier. Tacitus’s account of the mutinies of A.D. 14 demonstrates that harsh discipline was still imposed which, not surprisingly, often led to bitterness among the men. Centurions were “the customary targets of the army’s ill-will” since they carried out the various punishments (figure 15.1). One famous example was the centurion Lucilius who was nicknamed “cedo alteram” or “Give me another” by his men because whenever he broke a rod over a soldier’s back he would call again for another and then another (Tac. An. 1.23).

Though many harsh punishments were within the legal purview of the commander, it is unknown how often extreme measures were actually inflicted. Of the forty-six episodes in Frontinus’s discussion of discipline (4.1), only two date to the Empire compared with thirty-eight from the Republic. The two imperial examples both occurred in armies of Corbulo, who was renowned for his “old-fashioned” discipline. In A.D. 14, Aufidienus Rufus, one of the camp prefects who was attacked by the mutinous men, was hated, Tacitus tells us, because he favored “strict old-fashioned service
conditions.” Because of the major revolts in Illyria and Pannonia in A.D. 6, it had been necessary to conscript unwilling citizens, some off the streets of Rome, into the army. These unwilling soldiers may not have been nearly as obedient as willing volunteers necessitating harsher discipline than was the norm. Yet it is possible that Corbulo and Rufus were exceptions and that commanders generally did not always adhere to the strict letter of the law and that mitigating factors were sometimes considered. In an army requiring large numbers of volunteers, a slight relaxation of discipline may have been necessary to entice recruits.

Figure 15.1 A Roman centurion with cudgel in hand. A modern reconstruction from Römerwelt, Rheinbrohl/Bad Honnigen, Germany. Photo Credit: L. Tritle.

Though no written military codes from the early Empire have survived they must have developed at some point. Military law would later become a branch of the general study of law. P. Taruttienus Paternus, a Praetorian Prefect during the reign of M. Aurelius, was the first known jurist to write on military law (see Watson 1969: 71, 76, 182, n.179). By his time, formal military laws were in place, and most likely were far older. The professional and permanent nature of Roman military service from the time of Augustus necessitated a new and comprehensive set of rules and regulations to govern life in the camp and on campaign. Due to the revolutionary nature of this new Imperial army as the first and certainly the largest permanent and professional force in Greek and Roman history, the Principate represented a major step in the evolution of ancient military discipline.
CONCLUSION

This discussion has outlined the evolution of discipline from its humble beginnings in Homeric Greece through its refinement and codification in the Hellenistic period to the creation of a more modern system in Republican and especially Imperial Rome. Rome’s fall would bring this type of military disciplinary system to an end in the West as things came full circle. Medieval Europe was characterized by armies more similar to Homer than to Rome. Not until the sixteenth century would modern systems comparable to Rome’s again develop (see Phillips 2001). Paralleling ancient times, this process was caused in part by the breakdown in feudalism and the decline of feudal military arrangements and the concomitant rise of more sophisticated governments. It may also have been inspired by the rediscovery of the classics which chronicled in great detail the success of the Roman army and the legendary discipline upon which that success was built, or on the acquisition of Byzantine texts which included numerous military codes. Machiavelli argued from ancient historical precedent that a state could only survive if it possessed good laws and a good army, and that there “can be no good laws where there are no good armies” (Prince 12). Undisciplined mercenary armies were ineffective and dangerous, and states which employed them were doomed to destruction. In contrast, armies filled with patriotic citizen-soldiers were disciplined and provided reliable defense and preserved freedom. Rome was his ideal.

BIBLIOGRAPHY

“The professional soldiers of the ancient world were mercenaries” (Griffith 1935: 2). Before there was coined money warriors received gifts and shared booty. Allies (symmachoi) fought under oath and reciprocal bonds of friendship; friends (philoi) and guest-friends (xenoi) fought under traditions of reciprocity; subjects and retainers (therapontes) fought under compulsion. It is impossible to gauge when the first mercenaries appeared in the Greek world. Isolated references to Greeks in the service of the Assyrian and Babylonian kings occur around 700 (all dates are B.C. unless indicated otherwise). Alcaeus praised the service his brother Antimenides gave to the Babylonians, as an ally (symmachos), in the early sixth century. Herodotus (Hdt. 2.152, 163.1–3) described thirty thousand Carians and Ionians appearing in service with the Egyptian pharaoh Psammetichus around 664. These men were wanderers who took service with the Egyptians after offers of great things and settled the country. Perhaps these men provided the historical context for the ancient belief that the Carians invented mercenary service (schol. Pl. Lach. 187b). As contacts grew in the sixth century between Greeks and the East so did mercenary service, which became a firmly established aspect of cultural exchange between the peoples of the eastern Mediterranean.

**Terminology**

The Greeks had no word to describe the mercenary. In the archaic age euphemisms and related terms sufficed. Allies had always existed, but some allies received payment and served for more than friendship. The Greek word xenos—foreigner—applied equally to strangers and to ritualized guest-friends bound closely to their allies by mutual bonds of reciprocity. The earliest word identified with Greek mercenary service, helper (epikouros), seems euphemistic. Homer describes the Lycian allies of Priam at Troy as epikouroi, but in epic there is little to suggest they were mercenaries acting purely for payment. About 650 the poet Archilochus (15.216) sings unashamedly that he shall be called an epikouros like a Carian. Eventually epikouroi become associative with mercenaries. Epikouroi appear regularly in Herodotus, serving both for payment and as hirelings of an employer. Thucydides too lists epikouroi, but from book five exclusively uses a new word to describe paid military allies, the misthophoros or wage earner. Misthos meant a wage, usually in coined money.

The misthophoros described any man who took a wage in coin. These included jurymen, sacred-ambassadors, or soldiers on state service, as well as the foreign mercenary. This term became
increasingly common in the sources of the fourth century and later to describe mercenaries. The world after Alexander blurred the lines between professional, mercenary, and amateur further. Citizen militias remained (Chaniotis 2005: 20–6), but largely professional armies dominated the Hellenistic world. Alexander’s empire fragmented, but Macedonian, Greek, and huge numbers of local troops served his successors in their constant rounds of warfare across his divided empire. All these soldiers served for pay as professionals and became increasingly tied to the great individuals who dominated the age. It becomes almost impossible to identify the mercenary from the professional soldier. Many years ago H. W. Parke (1933: 208–9) wrote, instead of simplifying our task, this prevalence of the mercenary makes it the more difficult. For when once all soldiers have been reduced to one professional type, our authorities cease often to distinguish the mercenary as such. All fighting men are stratiótai and pezoi or hippeis.

The Romans had similar problems identifying the mercenary. The Roman term socius meant an ally, usually one serving under obligation of treaty. Auxilia provided additional forces, usually in specialist areas of the battlefield, light troops, or cavalry. Of course the mercenarius underpins the modern word mercenary. In essence it means a mithrophoros, a wage earner, derived from the Latin word merces for mithos or wages, from which comes the French term mercenaire and the English mercenary. It can refer to one who serves a foreign power for remuneration that is independent of the state of which he is a citizen. It appears sparingly in the sources and is mainly a late Roman word. The German word for mercenary (söldner) comes from the late Latin solidarius, from the Latin solidus, the solid gold coin paid to the troops in the Empire.

THE ARCHAIC AGE: TYRANNY, MONEY, AND THE EAST

Many of the Greek states in the seventh and sixth centuries became dominated by tyrants (tyrannoi). These often employed military support from outsiders to protect themselves and their regimes, thus mercenaries became tarnished with the brush of tyranny. Tyrants and mercenaries shared common interests against free citizen populations. Aristotle (Pol. 1285a, 1311a, 1313b) regularly identified tyranny with mercenaries, juxtaposing them with benign monarchs supported by the citizen body. Several tyrannies in Herodotus (3.45.14, 54.6, 145.15, 6.39.14) required mercenary support and the Pisistratids established their tyranny in Athens with military forces hired from Argos and Thrace (Hdt. 1.61.4, 64.1–2; Arist. [Ath. Pol.] 15.1–3). Later writers like Diodorus associated mercenaries with early fifth-century autocracy in Sicily (11.48.3, 53.2, 67.5). The association of tyrants and mercenaries continued into the Hellenistic age, with a plethora of tyrants employing mercenaries for their own ends alongside dangerous social reformers also styled as tyrants like Agis, Cleomenes, and Nabis (Griffith 1935: 89, 93–5, 97; Livy 34.27.2, 28.8). Roman emperors too employed foreigners as bodyguards, for example the Germans serving under Augustus.

Crucially, coins had appeared in the Greek world in the early sixth century and money transformed relationships within the Greek communities. Chrêmata—money—provided wages to a variety of civil servants as well as outsiders, often mercenaries employed by the state or by individuals. Coinage facilitated the appearance of large-scale mercenary service and mercenary armies. The fifth century saw the monetization of warfare on an unprecedented scale. This was driven by naval warfare and the development of navies of a new warship, the trireme. Poor men rowed these and required payment in coin. These payments led the way in land developments, professionalizing
warfare among the infantry and opening the way for the inclusion of poorer insiders as light troops and sometimes as heavy infantry and specialist outsiders in several areas of warfare.

Eastern influence in the Greek world also drove mercenary service as powerful non-Greeks themselves paid for the services of outsiders, often from the Greek world in a military capacity, as we have seen with Antimenides among the Babylonians. Small numbers of Greeks appeared in mercenary service with the Persian satraps through the latter part of the fifth century. Money, tyranny, and the influence of the East on Greek affairs fueled mercenary numbers in the Aegean basin. By the late fifth century Persian politics played an increasingly significant role in Greek affairs. Persian money had determined Sparta’s victory in the Peloponnesian Wars and in turn Persian money facilitated the enormous rise in mercenary numbers at the end of the century.

XENOPHON’S ANABASIS

In 401 a seminal event occurred. The Persian prince, Cyrus the Younger, son of the late Darius II, attempted to overthrow his brother and become Great King. His coup represents the major event in the development of Greek mercenary service and illustrates much about mercenary activity in the ancient Greek world. Cyrus gathered together a large army and marched into the heart of the Persian Empire to challenge for the throne. His death at the battle of Cunaxa ended the coup. In addition to his myriads of native levies, Cyrus had brought to Cunaxa a little over ten thousand Greeks (about thirteen thousand in total), which inspired their nickname, “The Ten Thousand.” Xenophon, an Athenian accompanying the expedition, immortalized their story in his literary account called the Anabasis. The single most important source for mercenary service, the Anabasis provides invaluable information on almost every aspect of Greek mercenary life. The army’s hierarchy and relationships were rooted in tradition. Cyrus hired his army through existing networks of garrison commanders (phrourarchoi), ritualized friendships (xeniai), and his alliance with the Spartans. His personal guest-friends became the army’s generals, only one of whom was a professional hiring officer (xenologos). Pay was hierarchical as the generals (strategoi) received four times the wage of the men and the captains (lochagoi) twice, while booty was shared through a common source (koinon). The army formed its own community, a mobile polis of soldiers with a supporting cast of women, children, and slaves, and displayed elements of democracy within an oligarchic framework of leadership. The men heard speeches from their commanders and voted on decisions, rather like decrees in the assembly. Xenophon provides information on provenance, as most of the men came from Arcadia and Achaea, as well as motivation and aspirations.

In this epic tale Greeks and native troops assembled at Sardis and marched with Cyrus east to Babylon. At Cunaxa the Greeks, brigaded independently, successfully charged the Persian line, which broke before them. But with the battle won, Cyrus died charging his brother’s position. Unsurprisingly Cyrus’s native levies melted away, leaving the Greeks isolated and far from home. In the negotiations that followed the generals offered themselves to the victors for military service against Egypt, but the Persians treacherously captured and then murdered them at a parley, leaving the army leaderless. New generals, including Xenophon, now led the Greeks north over the Taurus mountains of central Anatolia to the Black Sea. The winter took its toll and many died of cold and frostbite. There was dissent too, chiefly from the Arcadian contingents, but overcoming cold and revolution the army moved onward. Xenophon records a stirring moment as the vanguard gazed upon the Black Sea and shouts of “The Sea, The Sea!” echoed through the army. As the ocean was like a
highway connecting Greek communities from Italy to Asia. Returning to the Greek world, the army became embroiled in Thracian politics, hiring on with Seuthes raiding and plundering in his service. Finally in spring 399, the Spartan general Thibron recruited the remnants and put them to work fighting the Persians, now at war with the Spartans (Xen. An. 6.6–7).

An enduring story, the Anabasis represents a landmark moment in Greek mercenary activity. It illustrated what a large body of heavily armored Greeks could do in Persia especially when supported by a number of specialist light infantrymen, slingers, and peltasts. Their role at Cunaxa and their successful escape from the Persian Empire made plain to later Greeks Persian military weaknesses. Greek hoplites in mercenary service had been growing steadily through the fifth century. The Anabasis of Cyrus at the end of the century represents a well-established and sophisticated stage in the development of mercenary service, but also an important moment in that process in its own right (Roy 1967: 292–323).

### Mercenaries in Mainland Greece

Mercenaries filled gaps in the military needs of their employers. Greek hoplites found service with Persian kings and satraps in need of a heavy infantry arm. The traffic in mercenaries also flowed into the Greek world in the form of light infantry, another product of Greek interaction with the East. In particular, the Persian Wars showed the Greek cities the qualities of well-trained and properly equipped light troops and cavalry. The poor and disenfranchised members of Greek communities turned out to throw stones or carry baggage, but never played a central role in battle (van Wees 2004: 62–5). Thus cities tended to hire peltasts from Thrace armed with wicker shields, long slashing swords, and javelins, or archers from Crete and Scythia. Greek ideology viewed peltasts, like many other light infantry, ambiguously, as both foreigners and mercenaries. Peltasts had first appeared in Greek cities in the sixth century, but became an important arm of Greek warfare in the later fifth and early fourth centuries. They did much to transform the battlefields of the Greek world. The most famous peltast achievement came in 390 at Lechaeum near Corinth during the Corinthian War. Here a group of peltast mercenaries defeated a division of Spartan hoplites. Tradition remembered these peltasts for this action far better than the hoplites who supported them. Plutarch (Ages. 22.2; see Xen. Hell. 4.5.10–17) sums up the blow to Spartan and hoplite ideology simply: “This was the greatest disaster that had happened to the Spartans in a long time.”

The juxtaposition between the Spartan hoplite and the mercenary peltast branded the victors with a double stigma of light, not heavy, infantry and hirelings, not Spartans. The peltasts of Lechaeum made light infantrymen famous. Their nickname, “The Foreign Band” (to xenikon) promoted their fame and their mercenary nature.

Despite the growing number of peltasts in the classical period they never replaced the hoplite as the principal type of soldier on Greek battlefields. In a wholly erroneous passage, the historian Diodorus (15.44.3) claims that around 374 the Athenian general Iphicrates rearmed hoplites with smaller shields and longer spears and that from that time on hoplites became peltasts. This transformation never occurred. Hoplites continued in service throughout the Greek world and citizen-heavy infantrymen were central to all the major pitched battles of the fourth century, but peltasts appeared in increasing numbers. The lessons of the later fifth and early fourth century illustrated the needs of armies to contain a variety of mutually interactive arms, from shock battalions of hoplites, to different kinds of light troops and cavalry. Mercenaries proved invaluable in providing specialists to
Men had no qualms about military service and the status of the mercenary carried no stigma. The anonymous speaker of Isaicus II, On the Estate of Menecles (5), proudly informs a jury that he and his brother served in Thrace with Iphicrates. The deceased subject of another case, Astyphilus, had served for Athens at Corinth, in Thessaly, and in the Theban War and wherever else he heard of an army being collected (9.14). So common became the tide of service that states had to prohibit their citizens from enrolling. An inscription (Tod 2: 154, 10–15) dated to 357/6 perhaps attempts to bar Athenians from mercenary service against Eretria. The Theban authorities prohibited their citizens from joining the Spartan army marching through Boeotia in 383 (Xen. Hell. 5.2.27). Most of the Athenian generals of the fourth century found service with one or more of the Persian, Egyptian, or other foreign kings. Thus Iphicrates served with the Persians and the Thracians; Chabrias in Egypt; Chares with the Persians; Timotheus with the Persians and in Cyprus; Charidemus with the Persians; and even Phocion “the Good” served with Evagoras of Cyprus.

Other evidence supports the ubiquity of mercenaries in the fourth century. Orators and philosophers commented upon the itinerant soldier. Isocrates’s works are full of references to mercenaries. The growing number of outsiders driven to mercenary service concerned him greatly. As early as 380 in his Panegyricus (4.168) he expressed his concerns about those wandering with women and children fighting for their enemies against their friends. In a letter written in 366/5 he showed even more concern about such outsiders (Isoc. Ep. 9.9.8). His oration, On The Peace, produced in 355 after the Social War, rebuked the Athenians who, like the Great King of Persia, employed mercenary armies who “when others offer higher pay will follow their leadership against us” (Isoc. 8.44–47). Aristotle (Eth. Nic. 3.8.9) looked askance at such dependence on unreliable professionals for defense, but still praised the mercenary’s fighting qualities. Aeneas Tacticus’s treatise entitled How to Survive Under Siege takes it very much for granted that a besieged city would have mercenaries within its walls. He warns his readers against giving too much freedom to mercenaries in both movement and association within the city, but the assumption that cities will employ mercenaries for their protection is implicit and unquestioned (10.7, 9, 12.2, 13.1–3). Finally, comic plays indicate the commonplace of the professional soldier. Around 351, Antiphanes wrote a comedy about a mercenary. Entitled The Soldier (Stratiôtes), it appears to tell the story of the life of a veteran. Aptly, its alternative title was Fortune’s Child (Ho Tychon). Only four fragments of this play survive (Kassel and Austin 1983–1998: 2, frs. 200–203), the longest of which highlights a conversation between the soldier and an interrogator. The passage (fr. 202; Ath. 6.258) imagines ludicrous wealth and eastern luxury and a foreign king capable of bestowing every favor to those in service.

The Third Sacred War (356–346) in which the Phocians occupied and held the sanctuary at Delphi for a decade against the combined armies of Thebes, Locris, and the Macedonians epitomized the political chaos of the fourth century and mercenaries’ role within it. The generals of Phocis used the sacred treasuries to mint coins and so maintained a large mercenary army. Offers of high pay attracted men to them and they raised pay to double the usual rate (Diod. 16.25.1, 30.1, 36.1). Had their resources held out their cause might have too, but they lost to Philip and his new Macedonian army. The sources labeled their commanders tyrants (Aesch. 2.130–1; Plut. Mor. 249F, 401F; Ath. 6.231D;
This process of professionalization and growth of mercenary numbers culminated with Alexander the Great’s conquests. Alexander might have used as many as 100,000 mercenary auxiliaries in support of his conquests. Thousands of professionals marched into Asia. The Macedonian phalanx and cavalry spearheaded the major battles, but the mercenaries and auxiliaries conducted specialized campaigns and manned the garrisons and new colonial cities sprinkled throughout the growing empire. Many found garrison life tedious, distant, and isolating as major revolts in the far east just prior to (Diod. 17.99.5; Curt. 9.7; Paus. 1.25.5, 8.52.5) and at the end of Alexander’s life illustrate (Diod. 18.7). Several thousands of Greek troops sought to march back to the Greek world. The events after Alexander’s death, dominated by the Successor Wars, meant opportunities for military service abounded. Decades of warfare followed. These internecine wars saw a peak in the use of Greeks (and Macedonians) as professional soldiers fighting for the many claimants to Alexander’s throne.

Alexander’s conquests had transformed the Greek world. They professionalized Macedonians and Greeks. Many now found themselves in distant lands as garrison troops permanently defending the empire and their own newly formed communities. The new empire facilitated travel; mercenaries illustrate this mobility and “emigration, exile and mercenary service provided the main stimuli for the spread of Greek power to the Near East” (Shipley 2000: 58).

The Hellenistic age provided a new framework for relationships as kings and their friends dictated the destiny of many. The image of the army serving only the absolute figure of the king, Alexander, set the tone for the Hellenistic monarchs and their relationships with their soldiers. If anything the major developments in Greek warfare had already occurred under the Greek cities and Philip’s Macedonians. Most Hellenistic wars were not long. The professional soldiers of the day cared more for securing pensions than destroying their enemies. Standing armies probably made an enormous economic impact on the Hellenistic world. Most of the themes of mercenary service continued under the Successor Kings. They valued Macedonian and Greek troops at a premium. No doubt they could not yet trust local levies alone (Griffith 1935: 50–2). This demand meant that Greeks probably reached the acme of their employment in the period immediately after the death of Alexander. The sources highlight the troubles and poverty of Greece in the very late fourth century fueling mercenary interest from the mainland. Diodorus (20.40) states how Agathocles the Syracusan tyrant easily recruited Athenians and not a few other Greeks for his enterprise against Carthage with promises of land allotments (kleroi) and wealth, noting the Greeks’ desire to escape the evils of the mainland.

The professional soldier, mercenary, and recruiting officer became common features of Greek life. New comedy plays like their middle comedy predecessors continued to reflect realities of life in the cities of the Greek world. So ubiquitous were mercenaries in the period after Alexander’s death that the professional soldier developed into a type of character in these plays: a figure of fun and derision as much as one of fear and hatred. The Miles Gloriosus “type” of later Roman comedy, based as it was on Hellenistic models, appears as a figure of boastful ridicule rather than fear. Perhaps a fragment (fr. 4) of the Hellenistic playwright Phoenicides supports this while also illustrating several other themes of mercenary service, like the ever hoped for rewards from patronage and the absence of a fixed income. The speaker, a flute player, describes how she tried to end her career as a courtesan and so took a lover, a mercenary. He boasted of battles and showed off his wounds. He never paid,
but claimed he was getting a gift from the king. She stayed with the soldier for a year because of the gift that never came, and eventually replaced him with a doctor. Apparently, the doctor was worse than the soldier: he made corpses, while the soldier only told stories. The worst of the woman’s new lovers was the last: a philosopher. All, including the woman, are specialists in an age of money and professionals.

The decline in the numbers of urban mainland Greeks in the armies of the kings and the rise of non-Greek peoples as mercenaries represents a shifting focus of the Hellenistic period. Even in the later third century Hellenistic kings still hired Greeks. Before his victory at Raphia in 217, the poor state of Egyptian military resources forced Ptolemy to recruit Greek mercenaries (misthophoroi) who subsequently fought in the battle (Polyb. 5.65.3–4) in addition to the incorporation of Egyptian heavy infantry, which secured victory. Nevertheless Greek mercenary numbers did fall and Polybius (36.17.4) highlighted the growth of sophistication and wealth among Greeks, which he related to their pursuit of smaller families. A smaller citizen population probably meant fewer men qualifying for military service as heavy infantry which would have no less effect on the supply of mercenaries. But opportunities for military service probably declined for mainland Greeks. While Macedonian human resources ebbed after the conquests of Alexander, the Macedonian kingdom continued to draw the majority of heavy infantry from its own population. While the Ptolemies and Seleucids valued Greeks, they must have found it increasingly difficult to recruit men from the Greek mainland. By the early second century, Roman victories over the Antigonids and Seleucids had denied these kingdoms access to mercenary recruitment in the Greek world. Antiochus could not even hire men who came to him of their own accord from the Roman sphere (the Aegean) let alone hire within it (Polyb. 21.43.15; Livy 38.38.10; App. Syr. 39).

As the number of urban Greeks in mercenary service declined, new recruiting grounds blossomed. These tended to represent less urbanized areas of Greece: Thessaly, Crete, Aetolia (Shipley 2000: 57). Additionally, Hellenistic armies sought specialist troops hired from specific regions of the ancient world. Rhodian slingers, Cretan archers, Thracian peltasts, and, increasingly, Balearic slingers all appear in Hellenistic armies throughout the period. The Cretans remained prominent in all Hellenistic warfare until the island’s conquest by the Romans in 67. Strabo (10.477) tells of his grandfather recruiting on the island. Aetolians also provided numerous mercenaries in the third and second centuries, so much so that Livy (31.43) cites official regulation on Aetolian numbers serving in Egypt (Griffith 1935: 80–2). By the mid-third century, after their eruption into the Greek world and subsequent defeat and settlement in Galatia, Celts (Gauls) appear in the armies of Pontus and the Seleucids (Memnon FGrHist. 434 F11; Austin 140). Antiochus Hierax hired them as mercenaries in 241. Celts played an increasing role in Hellenistic warfare. They were perhaps the cheapest, and certainly the most plentiful, soldiers in northern Greece (Griffith 1935: 66).

**Mercenaries in the West**

Sicily was proverbial with mercenary service. The preconditions of tyranny, internecine warfare, and coinage all flourished on the island from the late archaic age. The tyrants of Syracuse attracted Peloponnesians into their service from at least the early fifth century. Dionysius I established diplomatic links with Sparta for this purpose and was one of the principal employers of mercenaries, not just Greeks, in the early fourth century. A series of wars against Carthage led to a boom in mercenary service on the island. Later tyrants of Hellenistic Sicily also hired mercenaries in great
numbers, as much in response to Carthaginian hostility as for their own personal protection, and many came from the Greek mainland. Agathocles initially armed the poor of Syracuse for his own purposes (Diod. 19.5–9) and then in 316 hired a largely mercenary army to fight Carthage (Diod. 19.72.2). A generation later, Hieron recruited mercenaries for his own security (Polyb. 1.9.6). In addition to Greeks, these tyrants employed Celts and Italians. Just after Agathocles’s death circa 289, a large group of Campanians proved particularly troublesome in returning to Italy from Syracuse when they seized the city of Messana and became a permanent thorn in the side of their neighbors (see Diod. 21.18 and 22.7.4; Polyb. 1.7.2–8; Plut. Pyrrh. 23–24). They styled themselves the “Mamertini” after an Italian war god, Mamers. Their success burgeoned along with their numbers and ultimately they caused the first war between Carthage and Rome. As Roman allies they survived the Punic Wars and prospered. These mercenaries illustrate that the transition from renegade wanderer to established city dweller, though violent in its process, did happen (Griffith 1935: 194–207).

The Carthaginians had long held interests in Sicily and other western islands. Ancient sources, written by their enemies, principally the Romans or Greeks with Roman affiliations, stress the reliance Carthage had on mercenaries. Polybius (6.52.2) regularly implies that mercenaries made up Carthaginian armies. Griffith (1935: 225 n. 1) states “the Carthaginian armies were very like mercenary armies in practice, even if they were not actually mercenaries.” The heart of most Carthaginian armies, along with the officers, remained Carthaginian, and like the Greek cities, Carthaginians served in a citizen militia when necessary. But Roman prejudices tainted the Carthaginians as hucksters and traders rather than as land-holding farmer-soldiers using their wealth to buy fighters for their protection. The language of the pro-Roman sources often paints most Carthaginian soldiers as mercenaries (not subject allies). Roman auxiliaries fought under compulsion as much as for love of Rome, but are styled as allies (socii, auxilia). During the Second Punic War, for example, Livy (29.4.2) notes that Carthaginians hired (conducere) African auxiliaries (Afrorum auxilia), and he calls the African soldiers mercenaries (28.44.5, 29.3.13). In Spain also the Carthaginians hired Spaniards (Livy 23.13.8) and Livy (23.29.4, 24.49.7) notes specifically Spanish and Celtiberian mercenaries. But in both Africa and Spain Livy (24.42.6; cf. Polyb. 10.35.6) notes the existence of a levy (dilectus). Hannibal calls his Spaniards allies (Livy, 21.11.13, 21.3). These Roman references to Africans and Spaniards cover the range of relationships from mercenary to ally and no doubt the reality was more complex. Carthaginian forces may have been like mercenary armies, but so were the armies of the Hellenistic monarchs.

Carthaginian armies with their Hellenistic style and elaborate makeup of men from all over the Mediterranean must have presented a varied image to Roman adversaries. Carthage drew its armies from the many peoples in the western Mediterranean: local Libyans and Numidians, Gauls, Baleares and Celtiberians, while Sicilians, Etruscans and other Italians, Greeks and Macedonians and Indians were to be found too. The army which Hannibal led into Italy included the full array of Mediterranean peoples (Polyb. 11.19.3). Small wonder Romans saw this diversity as mercenary service in action.

The image of Carthaginian armies was not helped at the end of the First Punic War when their mercenaries, recently returned from Sicily without pay, revolted. Thus Carthage paid the price for its dependence on professionals. The Truceless War supposedly unparalleled in atrocity brought Carthage close to destruction (Polyb. 1.73; Diod. 25.3). The mercenaries fought for three years in Africa, until the genius of Hamilcar Barca, the resolve of the Carthaginian Republic, and the divisions of the rebels finally saw Carthage victorious. The war reveals that Libyans made up the majority of the “mercenaries” of Carthage, but all manner of men served, including Greeks from different regions
The number of Libyans suggests a less mercenary and more subject-ally status of these men, and certainly the Libyan subjects of the Carthaginians contributed both men (Polyb. 1.70.8) and money (Polyb. 1.72.5) to the revolt.

**Mercenaries and Rome: Socii, Auxilia, and Foederati**

The independent farmer-soldier dominated Roman Republican ideology as it had Greek thinking. Unlike the Greeks, Romans had little tradition of mercenary service either as employers or soldiers. Livy (43.7.1–4; see Lendon 2005: 196) notes Roman displeasure and hostility that Cretans served both sides in the Third Macedonian War. Diodorus (29.6) explained that Roman reluctance to hire men stemmed from lack of money. But this may reflect an idealized notion of self-sufficiency in farming and fighting and mercantile loathing. Polybius used the struggle between Rome and Carthage to juxtapose the two approaches to war. He claimed that the reason the Romans had better infantry than the Carthaginians “is that the Carthaginians employ foreigners and mercenaries while the Romans employ natives and citizens” (Polyb. 6.52.2–8).

Despite this, Polybius saw advantage in having many foreigners with which to fight: citizens, he thought, even if they won a battle, faced more dangers, but if a citizen army suffered only one defeat, the war was lost. Money could keep a war alive indefinitely. Ironically, Roman citizens suffered near crippling defeats in Italy and still won the war with Hannibal. Money, allies, and mercenaries could not save Carthage.

The crucial difference between Romans and Carthaginians lay in their use of professional allies and auxiliaries. The Romans used them to plug specialist gaps in their armies, like Cretan archers, Rhodian and Balearic slingers, and other light troops from various places in the periphery of the Empire, and in particular cavalry. Numidia and Mauretania became staple sources of recruitment for light troops and cavalry. The protagonists of battle, the heavy infantrymen at the center, remained Roman in the Republican period. The Carthaginians used outsiders for this role. In Hannibal’s major victories the Spaniards and the Celts formed the center of his line. The Carthaginian core lay in reserve, on the wings at Trebia and Cannae and in the middle line at Zama. This fact alone may explain Polybian stereotyping of Carthaginian armies. Even the Greek citizens of the fourth century, at the height of the mercenary explosion and despite much rhetoric to the contrary, fought their pitched battles themselves. The Macedonian phalanxes of Alexander and his successors led the way at the center of the battlefields of Persia. Mercenaries were often relegated to less glamorous roles, guarding the rear and garrisoning distant provinces.

The Italian allies had since the early Republic supplied troops to the Roman army. This system extended into the Imperial conquests of the Mediterranean. Rome rarely fought overseas wars without the support of local allies. Spaniards and Numidians played crucial roles in the defeat of Carthage, while Greek and Hellenistic allies supported Roman conquests in the great wars of the East. Even later Republican Roman armies bolstered areas of weakness from such allies. Caesar’s conquest of Gaul made full use of Spanish light troops, including Balearic slingers, and Numidian and Cretan archers for reinforcement at speed and ambushes.

By the early first century A.D. the emperor Augustus had established a professional Roman army. The auxiliaries of this army, presumably men who had seen service as Rome’s allies and mercenaries, made up half the standing army of the Empire and received formal terms and conditions of service which integrated them into the Imperial system. Auxiliaries theoretically received Roman
citizenship after twenty-five years of service completing this integration. Trajan’s Column reveals the regularity with which the foreign auxiliaries spearheaded attacks compared to the legionaries whose roles appear as engineers and builders. Irregular troops continued to serve alongside the more formal auxiliary arm. In the Dacian Wars, Lusius Quietus, a Moorish prince, led his tribesmen, not regular auxilia, into battle (Cass. Dio 68.32.4; SHA Hadr. 5.8). By the later Empire this process had extended further as Roman frontier troops (limitanei) found themselves increasingly replaced by tribesmen from outside the Empire. These troops defended their territory and that of the frontier under oath, hence they became styled as foederati. Even the late Roman armies led by Belisarius for Justinian employed large numbers of Huns to spearhead his attacks in North Africa and Italy in efforts to reestablish control over former territories of the old Roman Empire.

**Hiring Mercenaries**

The first mercenaries met and served their employers through existing networks of ritualized friendships and alliances. Gelon, the Sicilian tyrant, had established relations with Arcadian nobles in the early fifth century perhaps to assist in hiring mercenaries (Pind. Ol., 6.7, 74, 101–105; Paus. 5.27.1). Tyrants supported one another with money and mercenary troops, thus Lygdamis sent both to Pisisstratus for his final coup at Athens (Hdt. 1.61.4; Arist. Ath. Pol. 15.1–3). Warfare and overseas connections in early Greek societies, especially with regard to early Arcadia, extended relationships of gift exchange and raiding. The connection with Homeric-style ritualized friendships appears strong in assisting the interaction of mercenaries even in later periods. Naming commonly signified a ritualized relationship among traditional Greeks, and we find in the inscribed names of a group of mercenaries who served Psamettichus in the sixth century at Abu Simbel a soldier called Psamettichus (Tod 4; Hicks-Hill: 3). Many years later an Amyrtaeaus of Rhodes dedicated a sacrificial table at a temple in Egypt alongside a group of Greek mercenaries in the early fourth century; he shares his name with an Egyptian rebel leader, Amyrtaeus, from the later fifth century (Thuc. 1.110; Hicks-Hill: 122; CIG 3.4702). Perhaps these names signify ritualized family relationships.

Personal relationships, guest-friendship, and friendship between ordinary Greeks and the powerful men of the eastern Mediterranean facilitated mercenary service. Xenophon’s *Anabasis* reveals the importance of networks of relationships to the mercenary army’s formation and maintenance. He highlights the decisive role of the noble and generous nature of Cyrus in attracting men to him (1.9.11–13). He emphasizes the importance of Cyrus’s patronage. Thus, men thought the friendship of Cyrus worth more than his native state (3.1.4) and by association that the friendship of Cyrus was more valuable than any wage (1.9.17). Xenophon (1.7.4) reports that Cyrus told the Greeks that few would wish to return home after he had become king because of the life he could provide for them. Even after Cyrus’s death this theme continued. Clearchus told Tissaphernes (Xen. An. 2.5.11),

*I set my heart on having Cyrus as my friend because I thought he was best able of all the men of his time to benefit whomsoever he pleased.*

Mercenary service provided opportunities to befriend the powerful throughout the history of the Greek world. The careers of the Rhodian generals Mentor and Memnon, who each served Darius III, illustrate well what mercenary commanders might achieve. Networks connecting men to power and the potential of reward attracted many into service overseas.
As coinage spread and wars grew larger so mercenary service permeated down the social ladder. Ludmilla Marinovic (1988: 267) thought that a system of *louage* had developed by the fourth century, and this system may well have had earlier roots. The Peloponnese and the Greek mainland became a center for hiring mercenaries. Peloponnesians served in greater numbers than any other regional Greek people in the later *polis* period. The Spartans controlled the flow of mercenaries from the Peloponnese (Diod. 14.44.1–2, 58.1; Xen. *An*. 1.4.3). Sicilian tyrants, Alexander, the Athenians, the Persians, and Egyptian pharaohs all went to the Peloponnese for their mercenaries (Diod. 15.29.1, 30.8, 16.81.4; Plut. *Tim*. 30; Arr. *Anab*. 1.24.2). These fourth-century rulers plied an old tradition of service.

Apart from diplomatic ties, traditional friendships, and *louage* systems, states developed sophisticated reciprocal means for hiring mercenaries in the fourth century within their own framework of liturgical responsibilities. Aeneas Tacticus (13.1), in his treatise on surviving a siege (see further Millett, 65–7), states that wealthy citizens should provide for mercenaries, both paying and boarding them, though later compensated for their expenses.

Hiring based on traditional patterns of diplomacy, *louage*, middlemen, and money continued throughout the Hellenistic age. In 318 Eumenes sent hiring agents into the cities of Asia Minor with much money to recruit an army (Diod. 18.61.4–5; Plut. *Eum*. 12). Cities, like Ephesus, continued as hiring centers (Polyb. 33.16.12; Ephesus provided the set for *Miles Gloriosus*). At the end of Alexander’s life and briefly thereafter, Cape Taenarum on the southern coast of the Peloponnese became a base where mercenaries found employment (Diod. 18.9.1–3; Paus. 1.25.5, 8.52.5; Griffith 1935: 259–60). Sparta remained an agent of mercenary recruitment in the Peloponnese as it was in the classical age. Antigonus Monophthalmus’s officers enrolled men with Spartan permission in 315 (Diod. 19.60.1), while the Greeks of Italy drew Spartan kings into service with Peloponnesian soldiers against their Italian neighbors (Diod. 20.104.1–2). Ties of alliance and friendship continued to facilitate mercenary service. Thousands of Athenians served Demetrius the Besieger and his father at Ipsus due to his good deeds (see *IG*² II.1.657). Philopoemen appeared as the general of Gortyn and no doubt this service provided a useful recruiting connection with Crete (Plut. *Phil*. 13.1). Similar connections resound down the centuries. Strabo (10.477) recalls Dorylaus of Pontus, one of the friends of Mithridates Euergetes, who, while visiting Cnossus on a recruiting mission, found himself made general when war broke out with Gortyn. With the war won and news of Euergetes’s death he stayed in Cnossus, leaving behind his wife and three children in Pontus.

Under the Romans recruitment of mercenaries continued to come from the periphery of the Empire’s growing boundaries. Wilder parts of the Mediterranean provided the mainstay of hired personnel as they had for many of the Hellenistic rulers. Aristocratic networks between Romans and chieftains facilitated the use of such troops. We should note that many of Rome’s enemies had once fought as their friends, like Jugurtha of Numidia who had served in Spain with his Numidian horse and light troops, long a staple of auxiliary service among Hellenistic and Roman armies. Caesar used the military position he had established over the German tribes across the Rhine to summon cavalry and light troops to his service in Gaul (*B Gall*. 7.65).

This continued into the Roman Empire. Lusius Quietus exemplifies the means by which Romans incorporated aristocrats into the Empire. His Moors gave service to Trajan and he achieved lofty heights within the Imperial administration in Judaea. This process of recruitment and assimilation reflected Roman social processes and continued into the later Roman Empire as chieftains brought troops with them en masse to serve the needs of the Imperial administration in return for status within
the Empire. This was not too different from the ways in which powerful Greeks had climbed the administrative ladder of the Persian Empire many centuries earlier. We should remember that one of the services provided by the Rhodian commanders Mentor and Memnon was mercenary recruitment.

**Remuneration**

Remuneration defines mercenary service. Pay came in coinage and in kind. Late fifth-century commanders variously provided wages, payment to buy food (*sîteresion*), and food for subsistence (*sitos, ephodia, trophe, epitedeia*). Pay attracted men into service. Cyrus the Younger offered a daric a month, the equivalent of at least twice and perhaps three times a regular daily wage at the end of the fifth century, which he raised in order to keep the men on the campaign (Xen. *An. 1.3.21*). The fabled wealth of the Great King, Egyptian pharaohs, and Thracian princes clearly attracted volunteers to them. Diodorus (16.25.1, 30.1, 36.1) claimed that offers of high payment attracted many mercenaries to serve with the Phocians in the Third Sacred War.

The value of mercenary wages remains a problem, as the limited evidence across all periods makes assessment difficult, especially through the fourth century and even into the Hellenistic period. Parke (1933: 231–3) and Griffith (1935: 273, 298) both saw pay as low and getting lower through the fifth and mid-fourth century, and Miller (1984: 155) concluded that “on the whole formal wages were low.” Some scholars discuss pay more optimistically (McKechnie 1989: 89). Fifth-century references to military pay, both naval and land, and pay for civil servants, give insights to likely mercenary equivalents. These range from two obols to one drachma per day (Ar. *Wasps*, 682–685, 1188–9; Xen. *An. 1.3.21*). The sources provide just three inferences to the daily amount paid to mercenaries from 399 to 334. Xenophon (*An. 7.6.1*) states that Thibron promised one daric a month to his men in 399; in 383 the Spartans required their allies to pay three Aeginetan (four and a half) obols a day in lieu of providing each soldier to their alliance (Xen. *Hell. 5.2.21*); and Demosthenes in 351 suggested two obols as the rate of food payment for mercenaries in Thrace (*First Philippic*, 28). Pay appears to have fallen by as much as half prior to the conquests of Alexander. Thus pay had probably reached one peak during the Peloponnesian War, culminating with Cyrus and Thibron paying about a drachma a day around 400, an amount which Loomis (1998: 48) recently described as “extraordinary.”

The Successor Wars after the death of Alexander probably saw a second peak in wages as the generals fought each other for the empire with plenty of resources at their disposal (discussed more fully below). Lucrative wars kept mercenaries fat, but any assessment of pay and its value to recipients relies on many variables, from cost of living to bonuses and hidden additions about which we know little. Generals might have added food and other necessities of life on top of pay. Thus, Griffith (1935: 267) believed that Cyrus provided additional rations for his mercenaries, while Loomis (1998: 40–4, 47–50) asserts that *misthos* referred to both wages and rations. The buying power of coin payments is impossible to gauge. Generals might provide a subsidized market for the soldiers who were often in situations and places where food prices no doubt fluctuated greatly.

In any event, pay, even good pay, remained only a day-to-day means for living. Plunder provided opportunities to generate wealth and rations (Krasilnikoff 1992: 23–36; see Dem. 4.28). Even noncombatants followed armies to get their share of war. Epaminondas’s invasion of the Peloponnese attracted such a following in 369 (Plut. *Ages. 22*). In 350, when war threatened Cyprus, rumored as very wealthy after years of peace, many hopeful mercenaries traveled to the island (Diod. 16.42.8).
Light troops, and peltasts in particular, made excellent plunderers. Without endless resources states reliant on mercenaries committed themselves to offensive plundering warfare. Defense would end in defeat.

As with the classical age, details regarding payment and maintenance in the Hellenistic world remain a vexing problem. The surprisingly limited evidence given the amount of papyrus finds from Egypt means that examples drawn from civilian life must supplement bare anecdotes about mercenaries or professional soldiers. For example, Diodorus (5.17.1–5) states that native law forbade the Balearic Islanders from receiving their payment in coinage so they got women and wine for their services and came home with nothing. New, and less ambiguous evidence, appears in military terms of the Hellenistic age (Griffith 1935: 274–80). Opsônion replaced misthos for wages, a euphemism that was identical to misthos (see Hom. Od. 3.480). Opsônion traditionally referred to the sauce which flavored one’s bread and inspired the proverb that mercenaries did not see their sauce (opsónia amartias) at death. This suggests that it represented something additional to mere provisions.

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Three inscriptions reveal the amount paid to soldiers (not necessarily mercenaries) in the third century. A treaty (SIG i.421) between the Aetolians and Acarnanians of 270 decrees that a cavalryman should receive one Corinthian stater (nine Corinthian obols or sixteen Attic obols) a day, a hoplite twelve Corinthian (eight Attic) obols, a peltast nine Corinthian (six Attic) obols, and a light-armed soldier seven Corinthian (four and two-thirds Attic) obols as maintenance (sitarchia not opsônia). A second treaty (BCH xiii 1889) dated to 228 between Antiochus Doson and the Cretan city of Hierapytna sets payment at one Alexander drachma a day, while the last (SIG 2.581), between Rhodes and Hierapytna, cites eight obols a day for soldiers and two Rhodian drachmas per day for a commander (hegemon). Importantly, this inscription reveals that citizens and mercenaries received the same amount. In the third century payment lay between six and eight obols a day, an improvement upon fourth-century wages certainly, assuming that these figures represent everything soldiers might receive in each century, but buying power and therefore standards of living once again remain an enigma.

Egypt reveals much about standing payments for military purposes. Several third-century letters reveal the processing of payment under the Ptolemies (Preisigke 1912: 2, 103, 104, 108). One letter (103) sent by a military secretary to a civilian overseer of finance requests payment at the end of the month for a garrison, stating the numbers of men and the amount required. In another a junior clerk of the overseer requisitions (104) the money to pay the secretary from the cashier. Finally, a third (108) rectifies a mistake by the clerk in the amount. The men received opsônion at the end of the month. What about ration money (sitëresion, sitarchia) or food (sitos, sitônia)? Doubt remains as to whether opsônion meant composite wages including subsistence rations or only part-pay augmented by rations. Certainly subsistence and wages were very different things in the Hellenistic period (Griffith 1935: 269; Arist. [Oec.] 2.29.1351b). A letter of 130 differentiated pay from food and other documents confirm this division. Subsistence was paid at the beginning of the month and pay at the end. First-century Egyptian papyri (BGU 8.1749–50) demonstrate that monthly rations (sitometria) came to soldiers via a granary official (sitologos) at the same time as opsonion, explaining its absence from letters requesting pay (opsônion). Cash advances (prodomata) in Egypt both for hiring and to those in service illustrate flexibility in the system. Advances to clothe soldiers properly might also be made (IG² 2.1304.31). Some Hellenistic employers provided their men with arms as well (Polyb. 5.64; see App. Proem 10 apud Ath. 5.206 for arsenals of arms). Generals continued to solve...
fiscal problems with ruses and warfare. When Pyrrhus returned from his wars in the west he went straight into a war in Macedonia just to keep the troops paid (Plut. Pyrrh. 26.2). Land remained the greatest gift of all and many mercenaries were made citizens in the communities in which they lived.

The Hellenistic monarchs surrounded themselves with friends at court and with specialists of every sort. Soldiers became prized commodities. Competition among the kings for resources inevitably led to competition for the best mercenaries and to retaining Greco-Macedonians in military service. Ptolemaic Egypt attracted mercenaries through its vast financial resources and by allowing them plots of land (kleroi) and special status. Griffith (1935: 111) saw that “money was in fact at the root of the highly artificial military system which so clearly reveals itself in Egypt.” Theocritus (14.58–59) promoted Ptolemy II Philadelphus as the best paymaster for a freeman. Mercenaries received land, tax relief, and other incentives to remain in Egypt.

Military settlements (apoikiai, klerouchoi, and katoikiai) and garrisons (phrouroi) in all of the kingdoms created special circumstances for military service on a more uniform and stable footing than previously (Cohen 1978: 45–60; Chaniotis 2005: 84–93), though even these garrisons had their forerunners in those of the western Persian Empire. Egypt, about which we have the most information, provides a detailed picture of the allotment of land to military settlers in order to create a permanent and hereditary military class upon which the Pharaoh could rely. The whole system in Egypt aimed to bind men to the king and to link manpower to agriculture in Egypt. Yet Egypt illustrates starkly the decline in Greco-Macedonian soldiers and the incorporation of native troops into the national army. Most famously at the Battle of Raphia in 217 twenty thousand Egyptians made up a phalanx that effectively won the battle and laid the foundations for political reform within the kingdom. Polybius (5.62–65) explicitly notes the weakness of Ptolemaic forces prior to this conflict and the efforts made to enroll new mercenaries from Greece and train Egyptians to fight.

In Asia Seleucus and his successors created a system of military settlements similar but different from the pattern found in Egypt. In such a vast empire differences abounded. The diverse evidence provides clues, but few concrete conclusions. A core of Macedonian phalangites remained the basis of the Seleucid army. The settlements probably accommodated active soldiers, not veterans. This made it different from Egypt. Asian settlements were city based, while Egyptian settlements were rural. New Greek cities grew up all over Asia, while Egypt had only two Greek cities, with scattered rural settlements across the countryside. This explains the long life and strength of the military settlements in the Seleucid Empire (Griffith 1935: 163). The Seleucid system created an Asian Macedonia. The men who grew up in it produced a standing army.

An important inscription from Pergamum illustrates contractual relationships between mercenaries and their commanders in this era (OGIS 1.266). Dated to between 263 and 241, it details the formal ending of a mercenary revolt by two garrisons on or near the borders of Pergamum in northwestern Anatolia. The inscription includes the oaths sworn by soldiers, commanders, and paymaster to each other and seven clauses outline terms and conditions of service. The seven clauses that detail the resolution of the dispute are worth quoting (translation pace Griffith 1935/1981):

1) To pay as the cash value of the grain (allowance) four drachmas for twelve gallons, and of the wine (allowance) four drachmas for nine gallons.
2) Concerning the year: that it be reckoned as having ten months, and he will not reckon an intercalary (month).
3) Concerning those who have given the full number (of campaigns) and who are no longer in service:
That they receive the pay (*opsonion*) for the time they have previously served.

Concerning orphans (*orphanikon*): that the next of kin take them over, or the one left behind (the heir).

Concerning taxation (*telos*): that there will be freedom from taxes (*ateleia*) in the 44th year. If anyone goes out of service or asks to be dismissed, let him be released, removing his own belongings free of impost.

Concerning the pay which was agreed for the four months: that the agreed amount be given, and let it not be reckoned as part of the pay.

Concerning the “Poplar Brigade” (*leukinon*): that they receive the grain for the period for which (they were granted) also (maintain) the garland (*stephanos*).

Commentators argue about the meaning of several of these clauses. Clearly pay was significant alongside maintenance and the price of grain and wine. The treatment of the children of soldiers and tax exemption with the ability for relocation outside of Pergamum (perhaps a retirement package) each reflect new Hellenistic circumstances. By the Hellenistic age care of families became a key part of an employer’s responsibilities. Ptolemy Soter protected soldiers’ families in Egypt and other examples abound of such Hellenistic behavior (see Chaniotis 2005: 85–8). Finally, a clause concerns the length of the year and the campaigning season, regulating the ability of the paymaster to incorporate unpaid months of service into the year. Perhaps this document sought to advertise Eumenes as a good employer to attract men into service or perhaps it represented a guarantee to the men of concessions they had won. Other inscriptions usefully detail mercenary conditions in the cities of Greece. One (*IG²* 2 379) dated to about 320 illustrates that Athens employed a general in charge of foreigners overseeing the mercenary battalion, while other inscriptions demonstrate Athenian use of mercenaries as garrison troops in Attica.

Romans paid their allies with plunder, at least in earlier periods. Polybius suggests that the allies received food while on campaign rather than payment. This was also probably the case for many of the regular Roman forces. Like their Greek counterparts, booty remained the primary interest to those serving with the Romans. By the Imperial period more formal means of payment came into existence. We are well informed about the pay raises of the Roman legions, but there is little evidence about actual rates of pay (only eight documents from the whole Roman Imperial period). The auxiliaries received regular pay as well. Suggestions are that auxiliaries received about five-sixths that of a legionary, around 250 drachmas a year or four obols a day, though this thesis has been challenged and they may well have received comparable rates of pay to the legionaries (Alston 1994: 120–3). Either way their wages appear similar to those of mercenaries in the Classical age and were determined in large part by their citizen counterparts.

**Mercenary Loyalty**

The significant role played by friendship and traditional alliances in mercenary service may explain the remarkable loyalty of Greek mercenaries. The sources show that men served together with family members (*SEG* 31.1552, 1554), they served in units formed at home (the Arcadians display a strong sense of national feeling in the *Anabasis* [e.g., *Xen. An.* 6.2.11]), and men followed commanders who acted as hinges between them and the paymaster. Greeks fought with Persians or Egyptians against
other Greeks with remarkable abandon and frequency. On very few occasions did a sense of
panhellenism show itself. Supposed mercenary causes usually coincided with alliances or foreign
policy. The Greeks who served Darius III against Alexander the Great, for example, hated the
Macedonians. Ultimately these Greeks proved more loyal to the Great King than his fellow
countrymen (Arr. Anab. 3.21.4; Diod. 17.27.2; Curt. 5.8.4).

Mercenaries also continued to remain loyal in later periods. This again reflected the traditional
connections of patronage and friendships that underpinned mercenary relationships. Demetrius
Poliorcetes led eleven thousand men into Asia, the remnants of his followers after his loss of the
Macedonian kingdom, where he won over several cities, marched on to Armenia, and finally south to
the Taurus range. Many died along the way until the survivors surrendered, but only when the great
Seleucus took the field against them (Plut. Dem. 46.1–3, 47–9). Griffith (1935: 60) writes that “they
had shown that mercenaries can be heroes, and had endured far more than any commander has a right
to demand of his men for pay alone.” But of course these men saw in Demetrius far more than pay
alone and as always the line between the true mercenary and the mutually benefited friend gets lost in
the sources. Many mercenaries in the ancient world, like those who followed Darius III to the
Caspian long after most of his Persians had left him, had deep bonds with their employers. Some, no
doubt, supported a losing cause for less than noble reasons, like the Cretans who followed Perseus
after the disaster of Pydna in hope of their pay (Livy, 44.43.8), but most had closer connections than
money alone. Traditional networks of patronage and friendships continued to underpin mercenary
interaction long after the fall of the western Roman Empire. Mercenaries in the ancient world, like
professional soldiers anywhere, demonstrated a high degree of military honor and spirit, despite their
mercenary nature. Their use through classical antiquity illustrates the esteem which hired troops
enjoyed among the peoples of the Mediterranean in the face of hostile ideologies and often biased
sources.

CONCLUSION

Mercenaries played a central role in the wars of the Greco-Macedonians. Citizen traditions of
responsibility and obligation held mercenaries, like all outsiders, in contempt. Aristocracies despised
them as tools of tyrants and slaves to money. But mercenaries came from all strata of society and
interacted with every aspect of ancient life. Mercenaries spearheaded change in the ancient world: as
wartime professionals and specialists, in their influence on the economy and the development of
coinage, on the nature of contracts, on emigration and racial interaction, on the formation of empires
and of new communities. Thucydides (1.10–11) once claimed that wars in the past were small
because of a lack of money. Money made victory in war more likely as well-drilled professionals
outdid their citizen counterparts. Diodorus (29.6.1) recognized this fact despite Roman and
aristocratic bias against both money and mercenaries:

In warfare, a ready supply of money is indeed, as the familiar proverb has it, the courtesan of success since he who is well
provided with money never lacks men to fight.

BIBLIOGRAPHY

The need to maintain an army’s material welfare is an essential aspect of successful military leadership. The provision of food and supplies to men and animals is critical for an army’s morale and combat capability, whether on campaign or stationed along a frontier. It is a basic element of strategic and tactical success.

In this chapter, the basic literature on ancient logistics will be reviewed for both the Greeks and the Romans, noting opportunities for further research. Secondly, the significant limitations of ancient overland transport of food and water will be considered, as revealed by our primary sources and recent research. Next, the responses of military commanders, especially Alexander the Great, to these limitations will be examined. In this context, the value of accurate military intelligence will also be discussed. Finally, we will examine two actual cases, where terrain, climate, weather, troop numbers, and the capabilities of land, sea, and river transport had a major impact on overall strategy. The first case will be Alexander the Great’s crossing of the Gedrosian Desert in southern Pakistan and Iran in the summer of 325 B.C. The second case is the logistic considerations that influenced the establishment of the Roman frontier along the Rhine River in Germany during the first century A.D. Since the proper storage and protection of supplies once they reach a military base is also important, a brief section on this topic will end the chapter.

Logistic Studies

There has been a welcome increase in the study of the logistic factors that influenced the tactics and strategy of Greek and Roman armies, but there still remains much that can be done. For the Greek world, while no specific work has been devoted to the topic, many recent books on military history have included logistic considerations for ancient campaigns. Arthur Ferrill (Ferrill 1985: 82, 112, 122, 146; cf. Farrokh 2007) has noted that the logistics of the Persian army has been underrated and little studied. The establishment of a vast empire stretching from Macedonia in the west to the Indus River in the east could not be accomplished without considerable logistic expertise.

The provisioning of Xerxes’s army during his invasion of Greece in 480/79 B.C. was one of the great achievements of logistical organization in any era. Persian planning, preparation, organization, and distribution of supplies, as well as the march itself from Sardis in April of 480 to Athens in September, are all impressive feats. The work of F. Maurice (Maurice 1930) remains an excellent
basis for analysis. The estimates of the numbers in the expedition vary widely, but whether the
numbers used are conservative or expansive, the sheer magnitude of the Persian army and navy’s food
requirements was staggering. Maurice estimated that there were about 180,000 infantry. In addition, a
conservative estimate for the numbers of servants and followers would be at least 20,000, and
perhaps 75,000 pack animals and cavalry horses. J. B. Bury and R. Meiggs (Bury and Meiggs 1975: 169),
who also accept Maurice’s numbers for the infantry, suggest that the fleet may have numbered
some eight hundred triremes with approximately two hundred sailors and marines per vessel, or
another 160,000 personnel. So the total number of personnel may have been around 360,000.
Herodotus’s numbers are far higher. B. Strauss (Strauss 2004: 269) is right in stating that Herodotus
was an honest and accurate historian. But he may not have always been correct, because his sources,
the Greek veterans and their families, whose stories he faithfully recorded, may have exaggerated
their opponent’s numbers, as veterans of many wars have tended to do. All these individuals and
animals would need to be fed for approximately six months, from April to September of 480. The
total grain requirement alone (not counting fodder or water) for the six-month period for personnel
and animals would be around 164,700 tons.

This is a huge amount of supplies for a preindustrial state to organize, collect, and distribute
throughout the route. All this had to be done before the army advanced from Sardis and the navy from
Ionian ports. Indeed, one of the reasons it took four years to launch the expedition was all the advance
planning, preparation, organization, and collection necessary to distribute the provisions. Also, it may
have taken the surpluses of four years’ harvests from areas of the Persian Empire accessible to sea
transport to feed the expedition. Provisions from these regions would be brought to the campaigning
area. One thinks especially of Egypt.

One may also suggest that a shortage of supplies contributed to the Greek decision for a quick,
decisive battle at Salamis. The Greeks were cut off from resupply from the mainland which was
controlled by the Persian army all the way south to the Megarid. They were also cut off from the
Saronic Gulf and the Aegean by elements of the Persian fleet which blockaded both ends of the Bay of
Eleusis.

Likewise, the Greeks were deprived of their water supply when the Persians choked up the spring
of Gargaphia before the Battle of Plataea in August of 479. The Persians also occupied the main route
of resupply over Mount Cithaeron and the Gulf of Corinth, now under Greek control. The only way
the Greek army could be resupplied was over mountain passes across Cithaeron from the gulf. This
would be extremely difficult, especially for water. This situation probably contributed to their
decision to stand and fight. The Persians themselves were probably running low on food, now that
they were cut off from resupply by sea. Both facts influenced the development of the battle.

The effects of hoplite warfare on the agricultural fields of the combatants during wartime are
discussed by V. D. Hanson (Hanson 1989: 33–5, 2005: 35–64). Ancient references to the destruction
of an enemy’s fields were probably exaggerated. Such tasks would have involved huge expenditure of
labor and would not have been thorough or effective.

The logistical limitations of naval operations have also been elucidated by V. D. Hanson and L.
Casson (Hanson 2005: 258–62, 283; Casson 1959: 102–3, 1994: 70–3). Warships were very limited
in their carrying capacity, especially water, the daily ration being about two gallons, or twenty
pounds. With about two hundred rowers and marines per vessel, this was a considerable weight.
Food provisions needed to be provided every few days, usually a fifty-mile distance. Many naval
operations were impeded or abandoned from a lack of advance preparation in obtaining supplies.
Recent research has further illuminated the logistic problems confronted by Alexander the Great during his Asian campaigns, especially in India. Of special interest is the colossal task of moving hundreds of vessels in the Macedonian fleet across the rivers of the Punjab during the monsoon season of 326 B.C. The vessels had to be dismantled, carried by ox carts at two miles per hour, first from the Indus River to Taxila, a distance of some forty miles, then to the Hydaspes (Jhelum), another 120 miles, and presumably further east to the Chenab and Beas. Each time the fleet was dismantled, transported overland by oxen, and then reassembled at the next river (Bosworth 1996: 12–13; Heckel 1992: 58–64). This problem needs further analysis and may help explain Alexander’s decision to stop his eastward progress and return south down the Indian rivers to the ocean. His men (as well as the animals) may have suffered significantly from the onerous burden of transporting the boats, and it may have made them refuse to march farther.

There were major military campaigns undertaken in the Hellenistic era. One notes the campaigns of Antiochus III to restore the borders of the Seleucid Empire in the east. However, there is little study specifically on logistics, as the original sources are poor (Bar-Kochva 1976). For the Roman army, there is a vast literature on logistics (Erdkamp 1998; Goldsworthy 1996, 2003). The most comprehensive study is by J. Roth (Roth 1999). Every aspect of army logistics is considered in the context of Roman military campaigns from 264 B.C. to A.D. 235. For Hannibal’s campaigns, we have the important works of J. Peddie (2005), and A. Goldsworthy (2000), who give the most comprehensive study of his formidable logistic problems. Admirable analyses of the logistic difficulties confronting Julius Caesar’s campaigns in Gaul have been undertaken by Goldsworthy (2006) and Labisch (1975). Logistic problems are considered in the context of intelligence gathering and diplomacy. Like Alexander, Caesar appreciated the value of good military intelligence.

The logistic problems confronted by the Romans during the Empire have received extensive study. Supplying the frontier army along the southern border of North Africa presented formidable problems which have been thoroughly analyzed by I. D. Taylor (1997). The frontier itself was some 1,600 miles long and was the responsibility of one legion, the III Augusta, some five to six thousand men stationed at Lambaesis in Numidia. Approximately thirty auxiliary units may have increased the total strength along the southern border to thirty thousand.

The auxiliaries were mainly cavalry units, *cohortes equitatae* and *alae*. A *cohors equitata* consisted of approximately one thousand men and an *ala* around five hundred cavalry. These small cavalry units were ideal for patrolling such vast regions and could quickly respond to danger. In this region, the limits of Roman power were not so much defined by political boundaries, but by the agricultural limits of the area, climate, and geography. Roman forts were situated in the most fertile agricultural districts, since the supplies were acquired locally. Finally, J. P. Adams has elucidated the campaigns of Trajan, Septimius Severus, and other commanders undertaken by the Romans in the Near East during the first three centuries A.D. (Adams 1976).

**LOGISTIC PRINCIPLES AND MILITARY INTELLIGENCE**

In this section we will consider the limitations of overland transport of food and supplies in antiquity, and, actually, before the age of steam. The net amount of food carried by a pack animal (horses, donkeys, mules, camels, oxen, minus their packs) varied under different circumstances. The type of animal, the weight of the pack saddle, the length of time the animal was expected to travel per day, the length of the total campaign the animal would be expected to travel, speed and rest periods for the
army, terrain, climate, and presence or absence of water along the way, all contributed to the army’s capacity to carry food and supplies. The type of wagons used (if any), the harnessing techniques for different animals, and the variety of animals, also contributed greatly to the ability of an ancient army to feed itself while on campaign (Engels 1978: 11–25, 119–30).

The amount of food required by the force, pack animals, cavalry horses, and the men and followers, was also an important logistic factor. The amount of food and water found along the route, and the amount that needed to be carried will also have been significant. If men and animals are not fed properly, they will be unable to perform their tasks effectively, rendering them inadequate if not useless.

Because of the limitations of overland transport in antiquity, most provisions had to be obtained from a limited region through which the army moved. Perhaps we can understand these limitations best by considering the following hypothetical examples.

First, let us calculate that a pack horse can carry two hundred pounds of food net. This excludes the weight of his pack, which often weighed around fifty pounds. Let us further assume that the horse had to walk the entire day with a few breaks for rest and adjusting the saddle. We also assume that the animal consumes twenty pounds of food per day, ten pounds of grain and ten pounds of fodder, and that this food must also be carried by the animal as it is unavailable along his route. This would often have been the case in many parts of the Near East and North Africa. However, the animal’s water ration of ten gallons per day, or eighty pounds, can be obtained along the route.

Let us assume that one thousand pounds of food needs to be moved by packhorses for a one day’s journey or about twelve to fourteen miles depending on terrain and climate. Six animals would be needed for the trip. They could carry twelve hundred pounds, but they would consume one hundred and twenty pounds on the journey. This would leave 1,080 pounds for delivery.

Now let us consider a nine days’ journey to deliver the thousand pounds. Here fifty animals would be needed to carry the load. During the trip, the fifty horses would consume 180 pounds apiece or nine thousand pounds. This would leave them with twenty pounds of food apiece or one thousand pounds total when the trip was over. The food needed for the horses, plus the one thousand pounds of food that was delivered, would weigh ten thousand pounds total. As the examples illustrate, it would be difficult to transport food under these circumstances for more than five days as the horses would consume more food than they could carry. If water needed to be carried in addition, the range would have been considerably shorter, a day or two at the most.

The supply of an army at a fixed location presented even greater limitations. Here the pack animals would have to move from the source of supply of the food to the point of distribution and back again. If the animals were abandoned or starved at the point of food distribution, a valuable resource would be wasted and future transport needs would not be met. To supply a point at a one-day radius (about thirteen miles) with one thousand pounds of food would require seven animals; each would consume forty pounds of food on its two-day round trip, and have one hundred and sixty pounds left at the point of delivery. They would deliver 1,120 pounds altogether. A four-day radius (about fifty-two miles, eight days’ round trip) would require twenty-five horses. Each horse would consume 160 pounds on the round trip and deliver forty pounds at the distribution point, or one thousand pounds altogether. The twenty-five animals would have consumed four thousand pounds in order to deliver one thousand pounds of food. A trip of five days’ radius, ten days’ round trip would have been impossible. Once again, in actual practice, the radius of resupply would be limited to around two-and-a-half-days’ journey, since on a longer trip the animal would consume more food than it would deliver. Thus,
large amounts of food could not be carried for long distances overland. Supplies had to be gathered locally wherever possible.

The most important factor affecting an army’s logistic capability was the total number of men, pack animals, cavalry horses, and followers. A small force of a few hundred may rapidly march through an arid region with little problem, gathering what supplies were necessary along the way. A force of fifty thousand might suffer a catastrophic loss of life crossing the same area unless advance preparations were made.

In recognition of the limitations discussed above, many capable commanders, including Philip II of Macedon, Alexander the Great, and Gaius Marius, all required their soldiers to carry the maximum amount of arms, food, and other supplies that they were able. Indeed the latter’s Roman soldiers were called “Marius’s Mules.” This, of course, would limit the amount of pack animals, wagons, and servants needed by the army and thereby reduce its food consumption. Since smaller forces are faster and more maneuverable than larger ones, these factors would significantly increase the element of surprise.

Another way to save food was to limit the use of wagons. Wagons were banned by Philip II and Alexander although they still made intermittent appearances. The harnessing techniques used in antiquity did not effectively utilize the horse’s pulling potential. But occasionally they were necessary. An army with fewer wagons would also be more maneuverable than ones that were restricted to the roads, which were often poor, before the Roman Imperial era.

Because of these limitations, commanders would try, if at all possible, to transport provisions by sea or river. Oceangoing ships and riverboats had a far greater carrying capacity than pack animals, and the amount of food necessary to feed the crews was a small fraction of their carrying capacity.

But often such transport was not available and so the provision of supplies had to be arranged in advance with local officials. Thus, diplomacy and alliances were often needed before the army could move into new territory. In recalcitrant areas, hostages would be taken and garrisons established before the army moved through to insure that the supplies would be provided. If the inhabitants of a region had not surrendered or made an alliance with the commander before he entered their territory, this would require that the army would split up into smaller units and traverse the territory. Or a light force would strike out from a base well stocked with provisions where the majority of the troops were stationed. Under such circumstances, supplies would not be provided by markets, gifts, or requisitions, but by pillage, plunder, and foraging units.

The army would also have to await the harvests before it moved. The limited productive capacity of ancient agriculture compared to today (although this should not be exaggerated) meant that adequate food would only be available in the weeks or months after the harvest dates. This remained true up to World War I.

Above all, the army itself or units of the army would have to keep moving; if they remained stationary for very long they would soon strip bare the thirty-mile radius of resupply for a stationary force. But on occasion the army would have to cease campaigning and enter its winter quarters. Often this was not so much to avoid harsh weather but to await the harvests which occurred in the spring, May or June in the Mediterranean region.

Under these circumstances, commanders would choose regions that could be supplied by river or sea transport for their winter quarters. If such facilities were not available, then the army would be split up into small units that would only make modest demands on the local supplies. Any halt of more than a few days would require the same procedures.
Ancient commanders were well aware of these facts and so the collection of military intelligence about the road ahead was of paramount importance (see further Russell, 474–92). Because of the limitations of overland transport, wherever possible the collection of supplies had to be arranged before the army moved through a region. They could not be carried long distances from place to place. Alexander the Great and others, including Hannibal and Julius Caesar, collected vast amounts of strategic intelligence before embarking on a campaign. Alexander collected strategic intelligence about the Persian Empire, the lengths of its routes, terrain, climate, attitudes toward Persian rule in various regions, before he left Macedonia (Engels 1980: 327–40). This information was essential for overall logistic planning. In Alexander’s case, all military intelligence and counterintelligence was directly under his control. As Napoleon said, “A general who has to see things through other people’s eyes will never be able to command an army as it should be commanded” (Engels 1980: 33). This practice enabled Alexander to obtain the information he wanted directly without intermediaries, except interpreters when necessary. No important tactical decision was made by any capable commander without advance intelligence. Indeed, the methods used by Alexander and Caesar in the collection and use of intelligence and conduct of logistical operations were very similar (Goldsworthy 2006: 213–18). The use of military intelligence by Germanicus in his campaigns in Germany from A.D. 14–16, is also worthy of note. Notable too is the absence of such intelligence in the disastrous expedition of Varus in Germany in A.D. 9.

If a region had surrendered in advance to Alexander, both tactical intelligence and supplies were easily available. Guides, usually of the highest rank, led his army along the route. They would also serve as hostages for their own good behavior. Often more than one guide would be used to check the other’s veracity and reliability.

If a region had not surrendered in advance, the collection of tactical intelligence was complicated. In Alexander’s case, guides might be obtained from neighboring regions that were hostile to the province he was crossing. This may have enhanced, but not proved, their veracity. Often such individuals were not available and locals had to be seized. Sometimes several locals would be used to independently verify the information of their colleagues. Failure to provide accurate information often had fatal consequences. Sometimes family members would be taken as hostages to assure accuracy. Until guides could be captured, mounted skirmishers would precede the army at a considerable distance. Even after the guides were found, mounted scouts and skirmishers were still sent forward from the main army to check the accuracy of the guides’ reports. Deserters and prisoners could also be used, although they might be counterintelligence agents.

When no guides of any sort could be found, and this rarely happened, Alexander organized reconnaissance operations. This occurred in the Gedrosian Desert in the summer of 325. Intelligence failure played a role in this disaster, a failure related to the wind direction in the region, important for the sailing ships which transported the supplies, but not the nature of the terrain.

**The Gedrosian Expedition**

The greatest enigma in Alexander’s campaign will always remain the disaster that occurred in the Gedrosian (Makran) Desert in the summer of 325. A large part of Alexander’s army did not cross the desert but marched west through India and Afghanistan. The remainder, that made the westward crossing of the Makran desert in southern Pakistan and Iran, seems to have numbered between thirty thousand and one hundred thousand infantry and cavalry, plus an indeterminate but large number of
followers. His fleet may have had an additional eight thousand personnel. For the force that would cross the desert, Alexander had collected four months’ supplies before he embarked westward in mid-July 325. The land army began its march west along the coast of the desert, and later it moved inland. The fleet left its harbor in late October or early November. About the same time, Alexander had completed his march through the desert. He reached Pura, the Gedrosian capital (somewhere in the Bampur basin) around late October and the Carmanian capital, north of the Straits of Hormuz around mid-December. Even the apologetic Plutarch, never prone to exaggerate Alexander’s failings, wrote that three-quarters of his army was destroyed by starvation and dehydration in the crossing (Plut. Alex. 66.4–5). Arrian wrote (Anab. 6.25.3), “and so a few, out of many, were saved.” Like Plutarch, Arrian was an apologist and therefore would have no reason to exaggerate the losses suffered on this campaign. These losses must have been generally known or they probably would have been suppressed or underreported by these authors. What went wrong? Or did things turn out as Alexander had planned? Was he deluded about the harshness of the desert because he wanted to emulate Semiramis’s and Cyrus’s legendary crossings centuries earlier? Was he indifferent to the loss of life?

There are two major logistical questions relating to this campaign. The first relates to the collection of four months’ worth of supplies for the army, to be used primarily while it crossed the desert (Arr. Anab. 6.20.5). The term is stratiarch, army; not nautikon, fleet. The fleet did indeed end up eating much of the supplies during its delay of three months but Arrian says they were intended for the army. Why did the army starve when so much was collected, and how was it supposed to be carried and distributed?

The second problem is the advance of the land army in mid-July while the fleet was held up until late October or early November by the southwest monsoon winds (Engels 1978: 110–18, 135–43; Bosworth 1988: 139–46, 1996: 166–85). Why did the land army advance west some three months ahead of the fleet, which was probably supposed to help feed the land army along the route? As it was, the land army completed its march by mid-October, shortly before the fleet began to sail west in late October.

I have reconstructed these events as follows. The fleet was to accompany the land army on its march along the coast of the Gedrosia. This because the four months’ supplies for a force of some one hundred thousand (Arr. Ind. 19.5; Curt. 8.5.4) would have weighed in the vicinity of 52,000 tons. This was carried by the fleet and was to feed the land army as well as itself on the trip. Such simultaneous coordination between fleet and land army was common not only in Alexander’s campaigns in the Mediterranean, but also for the Persian army of Xerxes in his invasion of Greece in 480/79 B.C. The fleet’s cargo ships with their great carrying capacity were supposed to supply the army along the coast with provisions. Meanwhile, Alexander’s army was supposed to dig wells to supply water for itself and the fleet. There would be limited water available in the Gedrosia at this time of year since the monsoon winds would cause rains, however brief, in the region. Indeed, one sudden downpour washed away a considerable number of Alexander’s followers and baggage when they encamped in a seemingly dry riverbed which flooded. The supplies had to be carried by the ships and not the land army because of the limited range of overland transport of food by animals and men that were eating the food as they traveled along as noted above. The carrying of approximately fifty-two thousand tons of food on pack animals that may have carried two hundred pounds net on all-day marches with fifty-pound packsaddles would have required an impossible number of animals. The pack animals would eat approximately twenty pounds of food per day, so their range would only
be ten days at most or 100 to 150 miles under desert conditions. If Alexander had only thirty thousand troops with him plus followers, the range would still be the same. However, the fleet was held up by the southwest monsoon winds (Engels 1978: 110–17, 135–43).

A. B. Bosworth has proposed that the four months’ supplies were only to feed the fleet. Alexander had about thirty thousand soldiers with him on land which would make fewer demands on the desolate countryside than a force of one hundred thousand. Alexander was informed by the natives before the army or the fleet moved west, that the monsoon winds would prevent the sailing of the fleet until late October (Arr. Anab. 6.21.2). So Alexander did not plan to have the fleet feed the army along the way, but, instead, the land army was supposed to have fed the fleet with whatever supplies it could muster from the Gedrosia (Arr. Anab. 6.24.3). The losses along the route were heavy, but not as catastrophic as Plutarch (Alex. 66.4–5) recounted (although Bosworth believes that only about nine thousand of the original thirty thousand survived, which is indeed a loss rate of 70 percent, or 21,000 of 30,000). Thus, Alexander blundered in failing to appreciate the difficulties of the march, because he wanted to emulate Cyrus the Great, but the death toll was not as drastic as it would have been for a larger force (Bosworth 1988: 139–46, 1996: 177–85). This is indeed the basic account of Nearchus the Cretan.

The major problem in interpreting these events lies in the nature of our basic primary source, Nearchus, the admiral of Alexander’s fleet. Nearchus was an eyewitness to events and had a prominent role in the expedition. He must be taken seriously. He was the main source used by Arrian, our best surviving source for these events, writing in the second century A.D. Yet, despite his prominent position, there are serious questions about his veracity that have been raised by many, including Ernst Badian and myself on completely independent grounds (Badian 1975). Here we will note some serious problems with his facts concerning this expedition; I have recounted others elsewhere (Engels 1978: 115, n.83, 141).

I wish to offer some further thoughts about the veracity of Nearchus and the causes for the failure of the Gedrosian expedition. The first problem is his statement that it was the responsibility of the land army, traveling through a desert, to provide food provisions (not only water) for the fleet (Arr. Anab. 6.24.3). This would have been difficult indeed to achieve when the army itself was starving to death. Nevertheless, he does inadvertently provide the only clue that indeed the expedition was to be a coordinated one between the fleet and the land army: “It was then on this account, and also that, being close to the fleet he might supply it with provisions that, according to Nearchus, he chose this route [along the coast of the Gedrosia]” (Arr. Anab. 6.24.3; cf. Strab. 15.2.4). References to this simultaneous coordination do not occur elsewhere in his account.

A second major problem in Nearchus’s account, noted by Arrian himself (Anab. 6.24.2), was that only Nearchus, of all the sources Arrian knew, wrote that Alexander had no knowledge of the difficulty of the route, but wanted to imitate Semiramis and Cyrus. All the rest wrote that Alexander well knew what the desert would do to his army if he was unprepared for the crossing. It suggests that the massive loss of life (pace Bosworth) recorded in all our sources was entirely the fault of the king, and that he, Nearchus, played no role in the debacle. If Nearchus was correct, this would be one of the very few times in Alexander’s campaigns that he failed to collect adequate intelligence about the route ahead (Engels 1980).

The statement becomes all the more improbable when seen from the context of Nearchus’s own description of the preparations for the Gedrosian expedition in Arrian’s Indica (20.7–9). According to Nearchus, he begged the king to give him a position of responsibility for the expedition. Alexander
was at first unwilling to risk the life of his old friend, but Nearchus persuaded him,
till at length Alexander accepted Nearchus’ willing spirit, and appointed him admiral of the entire fleet, on which the part of the
army which was detailed to sail on this voyage and the crews felt easier in mind, being sure that Alexander would never have
exposed Nearchus to obvious danger unless they also were to come through safe. Then the splendor of the whole preparations
and the smart equipment of the ships, and the outstanding enthusiasm of the commanders of the triremes about the different
services and the crews had uplifted even those who a short while ago were hesitating, both to bravery and to higher hopes
about the whole affair.

This does not sound like the efforts of a leader who has no knowledge of, and made no preparation
for, the difficulty ahead. Certainly his experienced commanders were willing to trust him.

In this context we can examine the statement in Arrian, probably based on Nearchus (Anab.
6.21.1–2, cf. Ind. 20.1):

The season, however, was not suitable for sailing; for the trade winds (etesioi anemoi) were blowing continuously, which in
that season blow not, as with us, from the north, but from the ocean and from the south (noton). But from the beginning of
winter, right from the setting of the Pleiades to the winter solstice, it was reported that the ocean here was fit for navigation.

The statement itself occurs before the time the land army left for its march west. It is factually
correct about the sailing season lasting from late October to late December. There are problems
however. The statement has Alexander know ahead of time, “it was reported,” that the fleet could not
move until late October. This contradicts Nearchus’s statement in Arrian (Anab. 6.24.3) cited above,
that Alexander planned for the fleet to be close to the land army so the latter could supply the former (!). How could this have happened if Alexander knew ahead of time that the fleet would be delayed
until late October?

Two passages from Arrian (Anab. 6.24.2, 6.21.1–2) derived from Nearchus completely absolve
him of any role in the disaster. It was all Alexander’s fault for being delusional and not knowing the
difficulties of the land route. Nearchus himself could not have coordinated the fleet with the land
army as was planned because of the adverse winds, which Alexander knew ahead of time would
delay the fleet (despite 6.24.3: Alexander’s planned simultaneous coordination). It was not
Nearchus’s fault that the winds blew from the wrong direction and prevented him from sailing. His
fault lies in not telling the facts about Alexander’s plans and his gathering of accurate military
intelligence about the desert, in order to absolve himself. In short, Nearchus’s account here is self-
serving, contradictory, and probably mendacious.

What of the four-months’ supply of food for the army (Arr. Anab. 6.20.5)? It is never mentioned
again in Arrian’s (and presumably Nearchus’s) account. Again, it never could have been carried by
the army whether it had thirty thousand or one hundred thousand troops as it would run out in ten days.

The intelligence failure here was Alexander’s lack of knowledge about the direction and duration
of the monsoon winds which prevented the fleet from sailing until late October. But there is a final
enigma here, and that is the wind direction recorded by Arrian, presumably based on Nearchus once
again. He records that it blew from the south, notos, and not the southwest in mid-July. Zephyros is
the word for west wind; to have been accurate, both words should have been used for the direction. It
may be wrong to press the point too much. The wind direction was perhaps recorded only
approximately; exactness may not have been considered important.

Nevertheless, the real distinction between a south or a southwest wind was of critical importance
for the actual sailing of vessels in the Indian Ocean from July to October. If this recorded wind
direction was correct, it could have been responsible for the land army marching out into the desert without the supporting fleet. If the wind was indeed blowing from the south (from 180 degrees on the compass) in mid-July of 325, then the fleet could have sailed westward with no problem. With the rigs and square sails in use at the time, the sails could be positioned at a 45-degree angle, facing the southeast, and made a good run to the west. The vessel itself would be sailing 90 degrees from the south wind direction, due west, or 270 degrees on the compass. A sailing vessel whose sail is set on a 45-degree angle to the wind is on a reach (Casson 1959: 115, 220–1).

If, when Alexander left in mid-July, the wind was indeed blowing from the south, then the fleet could have accompanied the army along the coast on its march. But, if the wind later shifted to the southwest (225 degrees), any westward movement of the ships would have been blocked. The ships would have been forced to tack to make any headway westward.

Tacking is a zigzag motion that sailing vessels make to sail upwind. Because of the square sails on ancient sailing vessels, they could not sail closer than seven points from the direction the wind was blowing (Casson 1959: 220). A point is 11¼ degrees on the compass; seven points then would be about (not exactly) 78 degrees. With a wind from the southwest, or 225 degrees on the compass, this means that the vessel could be no closer than 78 degrees from this direction on both the starboard tack and the port tack. A starboard tack means the wind would be on the right-hand side of the vessel as it proceeded and a port tack means the wind is on the left side of the vessel (Maloney 1987: 171–89, 336–8). A 78-degree angle means that on the starboard tack, the vessel would go in a southeast-by-south direction, or slightly south of southeast. On a compass, this would be 145 degrees. This means that the vessel would proceed to the southeast, away from the required direction of west. On the port tack, the vessel would move northwest by west or 305 degrees on the compass, or slightly west of northwest. So the ships would go slightly forward (northwest by west) on one tack and then go slightly backward (southeast by south) on the next, and repeat over and over. Any forward movement would be extremely difficult.

This zigzag motion would add considerable distance to the voyage. Depending on the length of the tacks, it could easily double or triple the length of the voyage. The length of time for the voyage would be greatly lengthened, as tacking would slow the vessels considerably, so the maneuvers would add far more than two or three times the time of the direct voyage. This would drastically reduce any supply of food and water on the fleet. Furthermore, on the port tack, with the ships heading northwest by west toward the shore, the vessels would only intermittently come close to the coast. The nearby coast could be rocky and dangerous or smooth and level. There were no landmarks known to the sailors as this was uncharted territory for them. The locations of landfall for the fleet would depend on the lengths of their tacks. Under such circumstances, any coordination with the land force would have been impossible. The fleet might encounter a rocky shore in heavy weather and be smashed to pieces. The best plan would be to wait until late October.

**LOGISTICS OF THE ROMAN FRONTIER IN GERMANIA**

Recent research by J. Connolly has improved our understanding of the establishment of this frontier (Connolly 2006; cf. Wells: 2003). The strategic and tactical reasons for the decision to establish the frontier at the Rhine rather than the Elbe have often been discussed. However, the logistic problems of supplying the army east of the Rhine, in such a remote region, have not been fully appreciated.

The first problem is the geography and terrain which has changed significantly over the last two
thousand years (see also Hughes, 128–39). The Germany that we see now, “the great green garden” scarcely existed before 1750 (Blackbourn 2006a). A modern visitor would be astounded at how different the “natural” landscape looked in prior centuries:

Much less of it was cultivated, much more of it dominated by sand or scrub, and especially by water. The twentieth century visitor would not need to journey far before stumbling upon ponds and lakes long drained and forgotten, or marshes that contemporaries likened to the wetlands of the New World, even to Amazonia. Filled with snaking channels half-hidden by overhanging lianas, these dwelling places of mosquitoes, frogs, fish, wild boar, and wolves not only looked but smelled and sounded quite different from the open landscape of canals and manicured fields familiar to twentieth century Germans (Blackbourn 2006b: 2).

The great rivers have been transformed the most. The premodern rivers meandered over floodplains or wound through hundreds of separate channels broken by sandbars, gravel banks, and islands. They ran fast or slow depending on the season and were not adapted to year-round navigation. Along either side were not engineered embankments but dense wetland and forests. Vast expanses of peat moor were largely untouched. These rivers, flowing slowly in the winter months, would be prone to freezing, as the Rhine did in the winter of A.D. 406/7.

The historian Tacitus describes the terrain as thickly forested, penetrated by little-known forest passes. There were also swamps and quagmires where roads, presumably of logs, constructed by the Romans would quickly deteriorate. In A.D. 9, Quintilius Varus’s troops frequently experienced problems with terrain and supply (Cass. Dio 56.19–22, cf. 54.33). During the invasion of the country by Germanicus in A.D. 15, his men “were being pushed into a swamp, well-known to the victorious assailants, perilous to men unacquainted with it …” (Tac. Ann. 1.63). Later Caecina, who commanded a division of his own, was advised, although he was returning by a route which he knew to pass Long Bridges with all possible speed. This was a narrow road amid vast swamps, which had formerly been constructed by Lucius Domitius; “on every side were quagmires of thick, clinging mud, or perilous with streams … Everything alike was unfavorable to the Romans, the place with its deep swamps, insecure to the foot and slippery as one advanced, limbs burdened with coats of mail, and the impossibility of aiming their javelins amid the water.” (Tac. Ann. 1.63–64; cf. Cass. Dio 54, 56)

Tacitus’s descriptions have been confirmed by recent ecological research analyzed by Blackbourn and others.

When the Romans attempted to invade Germany from the Rhine River (Rhenus) eastwards, they generally used overland routes and did not attempt to bring supplies or troops east or westward by river. There are three major rivers that flow east to west and empty into the Rhine. These are the Lippe (Luppia or Lupia), Ruhr, and the Main (Moenus). The Lippe was the major river east of the Rhine. The legionary fortress of Xanten (Vetera) was at the confluence of the Rhine and Lippe and another legionary fortress, Haltern, was eleven miles east upriver. These rivers did not penetrate very far to the east and would be subject to the problems of the terrain discussed above and below. So the rivers were not generally used for transport, either for food or soldiers, and the forces attempted to proceed east and westward over land instead. The commanders Drusus in 11 B.C., Varus in A.D. 9, and Germanicus in A.D. 14–16, preferred to leave the fleets on the Rhine, Elbe (Albis), or the North Sea coast and have the armies march inland without naval support.

Drusus’s campaign of 11 B.C., in the region of the Lippe and Wesser rivers, ran low on supplies, something unexpected if they could be brought in by river (Cass. Dio 54.33). In Varus’s fatal expedition of A.D. 9 into the Teutoburg Forest (Kalkriese), near the Ems, the army and its supplies were marched overland far from the rivers (Cass. Dio 56.19–21; Wells 2003: 45–55). The general
Caecina proceeded west overland to return to winter quarters in A.D. 15. Although he passed swamps, quagmires, and woods, a river is not mentioned, and they were short of supplies (Tac. Ann. 2.63–68). In Germanicus’s campaign of A.D. 16, the Roman fleet was left at the mouth of the Ems, while his forces marched up the river valley by themselves (Tac. Ann. 2.8). Only once in Germanicus’s campaign of A.D. 15 was the army transported by the fleet up a river, the Ems.

Another possible supply route for campaigns in Germania was the coastal land route along the North Sea. In A.D. 15, two legions were disembarked to march eastward along the coast to the Weser River delta. This would lighten the load of the vessels sailing through shallow waters. The soldiers on the coastal route were caught in a storm and many were drowned, as Tacitus explains in gruesome detail (Tac. Ann. 1.70). The coastal land route along the North Sea coast proved to be equally or more dangerous than the inland land routes:

After a while, through the force of the north wind and the equinoctial season, when the sea swells to its highest, his army was driven and tossed hither and thither. The country too was flooded; sea, shore, fields presented one aspect, nor could the treacherous quicksands be distinguished from solid ground or shallows from deep water. Men were swept away by the waves or sucked under by eddies; beasts of burden, baggage, lifeless bodies floated about and blocked their way.

After numerous difficulties and provisioning failures using the inland (land and river) and coastal land routes, in 16 Germanicus decided to invade using the North Sea. The sea was used by Roman forces earlier, but now it was going to be the major invasion route.

But by embarking on the sea, invasion would be easy for them, and a surprise to the enemy, while a campaign too would be more quickly begun, the legions and supplies would be brought up simultaneously, and the cavalry with their horses would arrive, in good condition, by the river-mouths and channels, at the heart of Germany. (Tac. Ann. 2.5)

Supplying military campaigns in Germania between the Rhine and Elbe rivers by the North Sea meant that the Romans could enter the large rivers that flowed south to north, the Ems, Weser, and Elbe. From these rivers the Romans hoped they could systematically subdue (if not conquer) the region. So, during the campaigning season of A.D. 16, Germanicus built a fleet of one thousand vessels to transport his legions and numerous auxiliaries and supplies over the North Sea to the Ems and Weser.

However, the North Sea is prone to severe storms at any season, but especially during the winter. So at the end of the campaigning season in 16, Germanicus planned that the army should begin to return to winter quarters in Gaul early, in high summer. They embarked on the fleet of one thousand vessels which was almost totally wrecked in a storm. The vessels were transporting legionaries, numerous auxiliaries, plus animals and supplies:

As this ocean is stormier than all the other seas, and as Germany is conspicuous for the terrors of its climate, so in novelty and extent did this disaster transcend every other, for all around were hostile coasts, or an expanse so vast and deep that it was thought the remotest shoreless sea. Some of his vessels were swallowed up; many were wrecked on distant islands, and the soldiers, finding there no form of human life, perished of hunger … Germanicus’s trireme alone reached the Chauci. (Tac. Ann. 2.23–24)

Like Alexander before him, Germanicus was defeated, not by opposing armies, or lack of knowledge about the terrain ahead, but by a lack of accurate intelligence about weather conditions that proved to be fatal to thousands of soldiers and sailors.

Thus transporting troops, supplies, equipment by the North Sea and up the rivers Ems, Weser, and Elbe represented formidable obstacles, even in the summer months. Transporting supplies along the
land route of the North Sea coast would be equally dangerous, as would transport overland or over the small rivers of the interior. These rivers were frequently not used. In winter, the region would be essentially cut off from reinforcements, supplies, and equipment. These facts probably contributed to the establishment of the Roman frontier on the Rhine, not on the Elbe.

**PROTECTION OF STORES**

The final section of this chapter will treat the proper storage and protection of supplies at military bases of the Roman army. This was of paramount importance. If supplies were collected but later rotted or were spoiled by rodents in storage, the efforts of collection would be rendered useless. Storage facilities were located in the forts or in nearby communities with easy access to sea or river transport. The storage buildings (*horrea*) were purpose-built, raised off the ground on wooden, brick, or stone supports, and well ventilated to prevent moisture from spoiling the grain (Goldsworthy 2003: 87, 99; Taylor 1997: 248–57).

The greatest enemy of the Roman soldier, his military stores, and his food supplies, was *Ratus ratus*, the black rat (*Ratus norvegicus* did not appear in western Europe until around 1600). It is therefore of considerable logistic importance to consider the potential impact of this rodent and measures taken to combat it. This animal has been endemic to the Mediterranean since the first century A.D., and it carries thirty-five dangerous diseases including bubonic plague and typhus. It will gnaw through almost any material, including wood, leather, and grain. Importantly, one black rat will potentially destroy one thousand pounds of grain per year; he will eat approximately ninety pounds and urinate and defecate on the remainder, rendering it unfit for consumption (Engels 1999: 1–17, 136).

The maintenance of the safety of the army’s food supplies and the health of the troops was of paramount importance for any competent commander. Left unchecked, black rats had the potential of inflicting serious, even fatal, damage on Roman military forces through destruction of food supplies and spreading of disease. Since the black rat is a climbing species, also called the roof rat or the tree rat, neither the dog nor the ferret can adequately control it. The raised *horrea* would offer little deterrence to the rats.

Only one natural predator was (and is) available around human settlements, *Felis sylvestris catus*, the domestic cat. This animal has the capacity of killing and eating three small mammals or birds per day or 1,100 per year. If one cat can kill 500 black rats per year, well within its capacity, it will potentially save 250 tons of food per year for a military base, farm, or village. One mummified domestic cat, dating to the second century A.D., found at the Roman port of Quseir el-Qadim on the Red Sea, had no fewer than six black rats in its digestive system before it died. Little wonder it received a formal and respectful burial.

Cats indeed were familiar companions of the Roman soldier when stationed in his fort, and probably of the sailor as well. This relationship can be seen in some soldiers’ names containing the word cat (*cattus, aelurio*). An inscription from the Third Legion Cyrenaica has a figure of a cat engraved on it, and reads *Leg[io] III Cyr[enaica] feliciter invicta*, “The Third Legion Cyrenaica auspiciously undefeated.” Also, the first appearance of the Latin word *cattus*, which became the root for the word cat in most Western languages comes from an inscription from Rome dating to A.D. 144. The sixth century of the third cohort of the Praetorian Guards called themselves *Catti*, “The Cats.” Cat remains are found in Roman military installations throughout the Rhine and Danube frontier.
regions. They are also found at Roman naval installations such as Pevensey in southern England. The connection remained in the British navy until 1975 as cats were considered essential for a vessel’s safety and good luck. This relationship should be considered for our understanding of the Roman soldier, and the protection of his stores and food supplies, to be complete.

**BIBLIOGRAPHY**


35.
In most cases the fleets of classical antiquity were not intended to engage in naval warfare in the modern sense of ship-to-ship combat. Rather they were designed primarily for use in what modern military specialists would term “amphibious strike operations,” involving the rapid movement of troops by sea to assault specific coastal targets, or to spearhead invasions of hostile territory. Nowadays such operations are typically conducted using aircraft as well as ships and ground forces, but the basic analogy remains valid. Clarifying the distinction between naval warfare and the type of amphibious strike operations that were routine in the classical world is important because it enables us to understand how maritime operations fit into the broader picture of ancient warfare. Once the distinction is systematically applied to the ancient evidence it becomes possible to appreciate that almost all the so-called “naval” personnel involved in the sailing and rowing of ancient warships can be categorized as soldiers, not sailors. Ancient warship crews were not, primarily, oarsmen, but infantrymen who propelled their own transportation vessels. Many of them would have been deployed as what are normally termed “light troops” (Greek psiloi or kouphoi, Latin velites), used to ravage and plunder enemy territory, assault poorly defended settlements, construct fortifications and siege works, engage in skirmishes, and provide missile fire and harrying actions in battle. Ship-to-ship combat, while occasionally important, was only a secondary function and was neither the primary purpose of ancient war fleets, nor the typical manifestation of ancient naval warfare.¹

Warship Development

The use of multi-oared ships to transport military forces can be traced back to the Egyptian Old Kingdom period (2575–2175 B.C.), when the pharaohs needed highly mobile forces to assert their control along the length of the Nile and overseas in the commercially important Levantine region, a key source of timber (see de Souza 2007 and Fabre 2005 for surveys of Egyptian naval development; on the New Kingdom see Spalinger 2005). These amphibious units became less important in the New Kingdom period (1539–1069), when Egypt’s primary enemies had chariot divisions at the core of their armies. Nevertheless, maritime operations continued to be a feature of Egyptian warfare, especially against the port cities of the Levant. Other Mediterranean maritime cultures also used fleets on occasion to transport their armies or warrior bands, but there is no unequivocal evidence for purpose-built warships outside Egypt, and combat at sea was extremely rare (see further Wachsmann 1998).
The evidence for the next few centuries is very limited, but representations of ships on painted pottery, relief carvings, and three-dimensional models show that by the end of the eighth century B.C. the Greeks were building ships that were specifically designed for raiding or warfare (figures 18.1 and 18.2). These vessels can be distinguished from other seagoing ships by their low, elongated profile, the prominent forefoot and cutwater at the prow, and by the presence of a fighting platform along part of the ship’s length. They are not uniform in design, and would have carried between thirty and a hundred oarsmen seated on benches. These characteristics suggest that the ships were intended to transport groups of armed men on voyages of short duration. Images of combat between ships are still rare, and those that do survive do not indicate that the ships themselves were used as weapons, being merely vessels from which fighting men engage in combat. Ships carrying warriors feature prominently in the Homeric poems, composed circa 750–700 B.C., but they do not have rams and do not fight at sea. Modern scholars have often assumed that Homeric ships did have rams, but that they were omitted from the Homeric epics to avoid anachronism (figure 18.2). There is no clear depiction of a ram in the ship iconography from the eighth and seventh centuries B.C. and a recent discussion of Homeric seafaring has concluded that it was unknown at this time (Mark 2005: 104–14).

Figure 18.1 This late eighth-century B.C. Attic black-figure drinking cup from Eleusis shows an archer and a helmsman on a rowed ship. The single warriors to either side of the ship appear to carry Dipylon-style shields and three spears. It is unclear whether they are attacking or defending the ship, or even if the scene is meant to represent combat. Photo Credit: D. de Souza, by permission.
One way to increase the capacity and speed of these warships, without making them too long or broad in the beam, was to incorporate a second row of oarsmen, seated higher up. There are representations of galleys rowed by oarsmen sitting on two levels on relief sculptures from the early seventh-century B.C. palace of the Assyrian king Sennacherib (so Casson 1971: figs. 76, 78; Wallinga 1995: 42–3). In the Greek world unambiguous evidence of two-level galleys dates only from the sixth century, although scholars have argued that painted pottery from as early as the eighth century shows ships being rowed on two levels (Casson 1971: 53–60; Morrison and Williams 1968: 38–40; contra Wallinga 1993: 33–65). When a third level of oarsmen was added is a matter of considerable dispute, but it seems likely that a type of warship rowed on three levels, known as the trireme (Greek triērēs), was developed sometime between 600 and 550, perhaps in Egypt, or in Phoenicia, or possibly at Carthage (Wallinga 1993: 103–18 argues for an Egyptian origin).

The case has been made for the invention of the trireme in Greece in the seventh, or even the late eighth century B.C., based on a series of statements about early Greek naval matters made by the historian Thucydides (Thuc. 1.13.2–4; see Morrison 1996: 178–82; Casson 1971: 80–1). According to Thucydides there was a tradition that the first Greek triremes were built at Corinth, and that the Corinthian shipwright Ameinocles built four ships for the Samians around 700. Thucydides also claims that the earliest recorded naval battle, between the Corinthians and the Corcyreans, took place about 640 (on the dates see Hornblower 1991: 42–5). He does not, however, claim that the ships built by Ameinocles were triremes, nor that the naval battle was fought in the manner of naval battles in the Peloponnesian War, which were between fleets of triremes (see Wallinga 1993: 13–16). Furthermore, the earliest literary testimony for the trireme as a ship type is a mocking fragment by the poet Hipponax of Ephesus:

Lazy good-for-nothing Mimnes, never again
paint a snake along a trireme’s many-benched sides
running back from prow to steersman.
For that’ll be disastrous and a bad omen,
you empty-headed son of a slave, for the steersman,
when the snake comes and bites him on the legs!

Hipponax most probably wrote circa 540–520 (FGrH 239 F42; Plin. *HN* 36.11; Procl. *Chrest.* 31). If the trireme was a familiar vessel type by this time, then it would be reasonable to assume that it was invented in the first half of the sixth century B.C. Herodotus says that Polycrates, tyrant of Samos, in addition to his fleet of one hundred penteconters, possessed forty triremes which took part in the invasion of Egypt in 525 by the Persian king Cambyses (Hdt. 3.39; 44). The rapid growth of Persian imperialism under Cambyses (530–522) and his successor Darius (522–486) was the political context for the creation of large fleets of triremes in the eastern Mediterranean. In the west, at the same time, the intense rivalry between Carthage and the Greeks of Sicily encouraged similar developments (on Persia as the catalyst in warship development see Wallinga 1993; on Carthage, Rawlings 2010).

Within a relatively short space of time triremes became the standard warships across the Mediterranean. Like its predecessors the trireme was a long galley, but it could be rowed by about 150 to 170 oarsmen, pulling oars of equal length and arranged in groups of three, sitting one above the other (figure 18.3). The addition of the third tier of oarsmen, who usually rowed through an outrigger, allowed a substantial increase in the total number of men that could be carried by the warship, as well as in the vessel’s size and weight, without drastically reducing its speed.

Figure 18.3 This plaster cast is of a fragment from a fifth century B.C. sculptural relief, known as the Lenormant relief, found on the Athenian Acropolis. It shows the side of an Athenian trireme with all three levels of oars depicted, although the only oarsmen visible are those rowing at the highest level, the *thranitai*. The ship’s full-width fighting deck forms a canopy over their heads. Photo Credit: P. de Souza, by permission.

The conventional explanation for the invention of the trireme is that it offered a significant advantage in naval combat, especially ramming. There is, however, very little evidence for ramming tactics prior to the early fifth century B.C., so it seems unlikely that this was the decisive factor (cf.
Hdt. 1.166 and his account of the battle of Alalia [ca. 540–535]). The fact that the new warship type could also accommodate a higher, more extensive fighting deck than earlier types meant that it packed a greater punch as an assault vessel, because its complement of rowers was larger and it could carry additional heavy infantry and archers. These men also offered advantages in ship-to-ship combat at sea, during the exchange of missiles and the subsequent boarding of enemy vessels.

By the early fifth century B.C. many Greek poleis were equipping themselves with triremes (de Souza 1998: 282–7). They were ideal for the kind of military expeditions that large, prosperous poleis like Aegina, Athens, Corinth, and Corcyra were engaging in as they sought to expand and consolidate their influence overseas. Another reason for investing in triremes was the creation of the large Persian fleets based in Ionia, Cilicia, and Phoenicia (cf. Wallinga 1993: 130–68; de Souza 1998: 285–7; van Wees 2004: 206–9). Thucydides explicitly states that the triremes constructed by the Athenians in the celebrated Themistoclean program in 483 B.C. did not have decks covering the full expanse of the ships (Thuc. 1.14.3), and Plutarch says that they were built to be fast and easy to turn (Plut. Cim. 12.2). The so-called “Decree of Themistocles” gives an allocation of ten hoplites to each ship, plus four archers, which contrasts with the forty or more soldiers on board the decks of the Chian triremes at the Battle of Lade in 494 and the Persian fleet in 480 (Hdt. 6.15.1; 7.184.2, with Jameson 1962, 1963). The Athenian ships probably had a narrow deck running the length of the ship from stern to prow, but not covering the heads of the rowers on each side, offering relatively little space for archers and hoplites. It is likely that Themistocles knew about the failed attempt of Dionysius of Phocaea to drill the Ionian Greeks in ship-to-ship combat techniques (Hdt. 6.12), and had concluded that keeping the new Athenian vessels light and maneuverable would make it easier for them to perform the sorts of circling and ramming maneuvers that the Ionians had tried to use. On the basis of these points it is reasonable to suppose that the Themistoclean triremes were the first warships that were designed, constructed, and fitted out with extensive ship-to-ship combat in mind, probably against local Greek enemies like the Aeginetans as well as the Persians. They formed the core of the Greek fleet that fought with considerable success against the Persians at Artemisium and Salamis in 480 and were instrumental in the dramatic expansion of Athenian power in the mid-fifth century B.C.

In the early 460s the Athenian general Cimon had the triremes of the Themistoclean fleet adapted so that they had a continuous deck extending from gunwale to gunwale along the entire length of the ship stern to bow, above the heads of the oarsmen. In his biography of Cimon, Plutarch describes this as a means of enabling the ships to carry more hoplites, and thus be better equipped for attacking the enemy (Plut. Cim. 12.2). Assuming that the key factor in trireme design was improved ship-to-ship combat ability, modern scholars have argued that Cimon’s innovation was intended to give the Athenians a numerical advantage when boarding enemy ships, at the expense of less speed and maneuverability at sea. A better interpretation is that the extra hoplites were for combat on land. In other words, by increasing the deck area of the triremes, Cimon made more space for non-rowing soldiers and thus improved the ratio of hoplites to light troops carried on each ship, effectively “beefing up” his amphibious assault forces. Such a move makes sense in the context of Cimon’s military operations and his association with the moderate politics of the hoplite class in Athens.

The trireme was, therefore, a warship type that could be adapted to suit the operational needs of a particular fleet or squadron. By the middle of the fourth century B.C. triremes in the Athenian shipyards could be subdivided into different categories, according to their quality and function. Some were designated as “fast-sailing,” presumably at the expense of total carrying capacity, while others
had been specially adapted for “horse-carrying” (Gabrielsen 1994: 126–31). The Athenians also possessed some quadriremes, slightly larger than triremes but with oars on two levels, each pulled by two men, and quinqueremes, much larger ships, crewed by 300 to 350 men, which probably had oars on three levels, with two men pulling the top two. These new types had been invented around 400 and became the standard warships of the Hellenistic kingdoms. A few very big warships were built for the Ptolemaic and Seleucid monarchs, who could mobilize huge numbers of men, in the late fourth and early third centuries B.C. These “polyremes” were slow and cumbersome, but they could carry hundreds or even thousands of oarsmen and marines—forces large enough to capture cities and fight major campaigns inland (see Morrison 1996 for survey and reconstructions and Murray 2012; the Rhodians favored a variant of the trireme called a *trihemiolia*, consisting of two levels of oars operating through the outrigger; Morrison 1996: 319–21).

**NAVAL STRATEGIES AND TACTICS**

In order to understand how ancient warships were used it is important that the modern notion of control of the sea, or even of the so-called “sea lanes,” is not simply transposed to the ancient world (Starr 1989, on which see de Souza 1990). Ancient warships were primarily intended to convey large numbers of men swiftly over long distances in order to attack targets on land. In the Archaic period (ca. 800–500 B.C.) the basic aims of warfare were to obtain booty, do harm to the enemy, and gain wealth and status, as exemplified by the Homeric poems (e.g., *Od.* 9.39–52; 14.222–34; *Il.* 11.669–761). The period between the composition of the Homeric poems and the fifth century B.C. saw the gradual emergence of more centralized governments and an increased capacity for interstate warfare in the Greek world (van Wees 2004: 232–6). While the development in the sixth and early fifth centuries of stronger, more politically cohesive states, capable of deploying large armies and fleets, saw a focus on more long-term, strategic objectives, the “raid mentality” remained a key element of ancient warfare (cf. de Souza 1999: 25–36; Gabrielsen 2001a, Gabrielsen 2007: 248–64).Raids could have multiple functions, including forcing the enemy to divert forces to the defense of vulnerable coastal areas, inflicting military, economic, and psychological damage, obtaining vital funds and materials for the raiders and boosting their morale (de Souza 2010). While major set-piece battles and sieges dominate the narrative histories, these accounts also contain hundreds of examples of such raids, showing the extent to which naval forces were deployed by those states that could command the necessary resources and manpower. Raiding was not just a maritime phenomenon, but what characterized maritime raids was the mobility that ships provided, making them far harder to defend against, especially if the targets were unprepared (e.g., Thuc. 6.62), or territory to be protected was extensive (e.g., Thuc. 4.53–57).

Warfare waged by large, state-operated fleets led the Greek historians of the fifth century B.C. to develop the idea of sea power, expressed by Thucydides and Herodotus with the Greek word *thalassokrateia* (“rule of the sea”), conventionally translated as thalassocracy, and its variations (see further de Souza 1998: 277–88; history of the concept: Momigliano 1944). An important articulation of the concept and practice of thalassocracy is provided by the anonymous Athenian pamphleteer of the late fifth or early fourth century known as the Old Oligarch (see further Marr and Rhodes 2008, 6–12). After characterizing the Athenians’ hoplite force as weak, but nevertheless stronger than those of their allies, the Old Oligarch explains that the key to the Athenians’ domination of those allies is that they are thalassocrats (Xen. *Ath. Pol.* 2.2). In a passage that brings to mind Thucydides’s accounts of
the initial aims and operations of the Delian League and the “Periclean” strategy adopted by the
Athenians in the first stage of the Peloponnesian War (Thuc. 1.55–56; 62; 96–9; cf. Hornblower
1996: 1064), the Old Oligarch describes the advantages that a thalassocracy has over powers with no
significant naval capacity: “the rulers of the sea have the ability to do what the rulers of the land do
not have the ability to do…. For it is possible for them to sail along the coast and put in wherever
there is no enemy, or where there are only a few, and then, if the enemy forces attack, to re-embark
and sail away.” Additionally,

the rulers of the sea have the ability to sail as far as you like away from their own country, whereas the rulers of the land do
not have the ability to undertake a journey of many days away from their country….It is necessary for the one who goes on
foot to travel through territory which is friendly, or else to fight to win his way through, whereas it is possible for the seafarer to
dismount wherever he is the stronger, and, wherever he is not the stronger, not to disembark…but to sail along the coast until
he comes to friendly territory, or to the territory of those weaker than himself. (Xen. [Ath. Pol.] 2.4–5, trans. Marr and Rhodes
2008: 45)

For much of the fifth and fourth centuries B.C. the Athenians deployed hundreds of warships as they
strived to maintain, or, after their defeat in 404, to reestablish a maritime empire. Their efforts, and
those of other Greek states that built fleets to oppose and later to emulate them, made trireme fleets a
central feature of warfare in the Classical period, as the contemporary accounts of Thucydides and
Xenophon attest.

In the early Hellenistic period, when former generals of Alexander vied for control of his vast
empire, huge fleets, featuring larger “polyreme” warships were
used to achieve and maintain control
over the Aegean and eastern Mediterranean (on these fleets see Murray 2008, 2012). For example,
the fleet that Antigonus Monophthalmus assembled in 315 B.C., as enumerated by Diodorus, seems to
have included thirty lemboi, one hundred triremes, ninety quadriremes, and ten quinqueremes, plus a
further thirteen “nines” and “tens,” which between them must have carried in excess of fifty thousand
men (Diod. 19.62.7–8). The larger ships had space on their decks for hundreds of heavy infantrymen,
with siege artillery and other equipment, enabling Antigonus to dispatch a strong force of fifty ships to
the aid of his ally Polyperchon in Greece, while the remainder cruised the islands and coastal cities
to ensure that they remained loyal to his cause (Diod. 19.62.9).

If an ancient maritime power’s opponents possessed their own warships, they might challenge
their attackers at sea, as the Greeks did to the Persian fleet at Artemisium and Salamis in 480 B.C.
Ship-to-ship combats were especially frequent during the Peloponnesian War, in which Athens’s
maritime empire was at issue. This gave victories at sea an exceptional significance. In 413 the
Syracusans, having thwarted the invading Athenians’ attempts at a circumvallation, made their Great
Harbor the scene of a desperate naval struggle, their victory in which forced the Athenians into an
ultimately disastrous withdrawal (Thuc. 7.36–87). In the latter stages of the war the Spartans and
their allies launched several fleets to challenge the Athenians for control in the Aegean and
Hellespontine region, eventually winning a decisive naval battle at Aegospotami in 405 (Xen. Hell.
2.1.13–30).

The likelihood of having to engage other warships at sea is reflected in the fact that rams were a
standard feature on all warships in the classical and Hellenistic periods, and naval powers
developed sophisticated ship-to-ship combat tactics that made the most of their vessels, their sailing
skills, and their fighting men. A captain had two main options available when attacking an enemy ship—striking it with enough force to disable it, or grappling and boarding it to overcome the crew and then capture or disable it. Although many rams must have been broken off in combat, and literary
sources record that rams were regularly taken from captured ships and displayed as trophies, few have been recovered (see Tusa, Royal, and Buccellato 2011, Murray 2012: 31–68). A complete ram found, at Athlit, off the coast of Israel is 462 kilograms in weight and a little over two meters in length. It has blunt-ended fins that are designed to rupture an enemy vessel’s hull at the waterline, splitting apart the timbers and allowing water pressure to widen the breach (Casson and Steffy 1991). The risk to an attacking ship of penetrating too far and thus becoming dangerously entangled with a stricken opponent could be reduced by placing a projecting buffer a short distance above the ram. A warship’s captain and helmsman would need considerable skill and judgment to time their attacks and the oarsmen would have to be adept at reversing their stroke so that the ship could withdraw and attack another target while its first victim flooded and sank, although the lack of heavy ballast in ancient warships meant that most did not sink completely, but floated on, partially submerged, either upright or heeled over.

For ramming to be a primary tactic warships needed to combine speed with maneuverability. The best attack vector would have been from the side or rear, at a relatively acute angle, which meant outmaneuvering the target in open water. The most popular tactic was to break through the enemy line and then turn sharply around to attack their vulnerable sterns or beams (the so-called diekplous [sailing through] and periplous [sailing around]: see further Lazenby 1987; Whitehead 1987). If an entire fleet was to employ such tactics, training and practice were essential. When the fleet of 353 triremes mustered by the rebellious Ionian Greeks prepared to confront the superior Persian fleet at Lade in 494 B.C. their commander, Dionysius of Phocaea, insisted on drilling the inexperienced crews repeatedly, although after seven days’ hard work they refused to practice further (Hdt. 6.12). More direct ramming tactics were favored by ships that lacked speed and maneuvering capabilities. It was easier to ram head-on against the opponent’s prow, or square-on against the hull, but both approaches ran the risk that the ramming ship would incur serious damage, or be unable to withdraw. A variation involved the use of a ship’s stempost, ram, and the projecting beams at the end of the outrigger at a ship’s prow (epotides) to smash an enemy’s oars and outrigger. The Corinthians and Syracusans modified their triremes to make them strong enough for these tactics in the middle of the Peloponnesian War (Thuc. 7.34, 36). The larger polyremes developed in the fourth century B.C. seem to have been designed with frontal ramming in mind (Murray 2012: 3–68).

If fleets were not prepared to ram, or if maneuvering space was restricted, captains would close with their opponents and rely on the troops on deck to attack with arrows, slings, and javelins, often fired or thrown from a crouching position for better stability, to clear space on an opposing ship’s deck, and then try to board their ship. Grappling hooks could be used to secure the enemy ship at close quarters (called “iron hands,” they were routinely deployed in confined spaces; Casson 1986: 120–2). The invention of torsion catapults in the fourth century B.C. introduced a new element into maritime warfare. In 306 Demetrius Poliorcetes placed stone-throwing catapults on his ships, along with arrow-shooting catapults on their prows, for a naval battle against Ptolemy I Soter off the Cypriot city of Salamis (Diod.20.49.4). It is likely that these weapons had earlier been deployed on land against the city itself, and the very large polyreme warships developed at this time seem to have been designed to assault harbors and city walls (Murray 2008; Murray 2012: 69–207; de Souza 2007: 441–4). Catapults would have been most effective against the fighting personnel, and any artillery they may have had, rather than the ships themselves. In 184 B.C. the exiled Carthaginian general Hannibal, commanding the fleet of King Prusias of Bithynia, used his catapults to hurl pots filled with poisonous snakes onto the decks of the warships of Eumenes II of Pergamum (Frontin. Strat. 4.7.10–11).
Whatever the tactics used, crews consisting of well-trained, experienced men would have an advantage over less practiced opponents, which could often compensate for inferior numbers (as Thuc. 2.80–92 reports of the victory of a small Athenian squadron over a larger Peloponnesian fleet in 429 B.C.). The Athenians were felt to be far superior to other Greeks in open sea combat at the start of the Peloponnesian War, but gradually, thanks to the frequency of naval combat in this war, the Peloponnesians and Syracusans acquired the experience and confidence to match or better them. The Rhodians displayed a high level of tactical organization and proficiency in naval engagements in the Hellenistic period. Livy’s account of the Battle of Side in 190 B.C., in which they defeated the Seleucid king Antiochus III’s fleet, commanded by Hannibal, stresses the superior seamanship and sophistication of the smaller Rhodian fleet. At one point the bulk of the Rhodian ships responded immediately to a signal flag ordering them to regroup around the flagship, thereby coming to the rescue of their outnumbered commander (Livy 37.24.4). Such a professional level of discipline and coordination was, however, exceptional and can be directly attributed to the Rhodians’ maintenance of a small, standing fleet that was the core of their military strength (Rice 1991; Gabrielsen 1997: 85–111; de Souza 2002: 84–92).

Although warships were powered by oars, they also had one or two sails, which could be used when speed was not essential. It was standard practice to remove the masts and sails in anticipation of combat, clearing space for soldiers to fight from the decks and making the ships more stable and easier to maneuver (Xen. *Hell* 2.1.29; cf. Hale 2009: 241). A fleet that did not expect combat could, therefore, be put at a considerable disadvantage by a surprise attack when under sail, as happened to Antigonus Monophthalmus’s fleet under Theodotus, ambushed off Aphrodisias in Cilicia by the Seleucid commander Polyclitus in 315 B.C. (Diod. 19.64.4).

**NAVAL INFRASTRUCTURES AND COSTS**

Unlike merchant vessels, warship hulls were protected only by light coverings of pitch and paint, and risked becoming waterlogged, encrusted with barnacles, and riddled with the burrows of marine borers if they were not regularly removed from the water to be dried, careened, repaired, and recoated. In the Mediterranean Sea, wherever a suitably shelving strand was available, ships could be partially beached, stern-first, and made fast with cables or anchors to prevent them drifting away. If they were not in use for a long period they could be drawn up out of the water on wooden slipways, with props to keep them upright, but ready for a swift return to the water (evidenced as early as the Homeric poems: e.g., *Od*. 9.136–51; 10.87–96; *Il*. 2.149–54).

As states acquired large fleets of warships, however, more permanent facilities were required, including shipyards for construction and shipsheds to house the finished vessels. Piraeus, the fortified port of Athens, boasted the most extensive naval infrastructure in the Greek world (Garland, 1987; de Souza 2007b). It was created almost out of nothing after the defeat of Xerxes’s invasion force in 480/79 B.C. Thucydides claims that Themistocles, the driving force behind the swift completion, had a vision of Athens projecting her power by means of a large fleet based at Piraeus, from where the Athenians could defy the assaults of their Greek neighbors and the Persian king, whose own strategy in the eastern Mediterranean involved the projection of military power by sea (Thuc. 1.93).

The Piraeus peninsula encompassed three natural harbors—Kantharos (the largest), Zea, and Mounichia. Between 459 and 457 B.C. the Athenians constructed the Long Walls, linking the main city with the Piraeus in one vast set of fortifications (Conwell 2008). Themistocles’s original concept
was developed into a maritime imperial hub. The harbors were ringed by hundreds of shipsheds—long, roofed slipways where vessels could be dried out, cleaned, repaired, and refitted. In addition there were construction yards for new vessels and arsenal buildings to store naval equipment. As Athenian economic dominance increased, through maritime trading links with the Black Sea and the eastern Mediterranean, warehouses, offices for merchants and bankers, brothels, and many other businesses grew up around the commercial harbor at Kantharos, employing thousands of people. The potential vulnerability of the Piraeus to seaborne attack was demonstrated by a Spartan raid in 429 B.C. (Thuc. 2.93–94), prompting the Athenians to narrow the harbor entrances, install archery platforms, and close them off with movable chains. In 387 another Spartan raiding party penetrated right into Kantharos harbor, seizing merchants and their wares from the quayside (Xen. Hell. 5.1.13–24).

Fortified harbors, shipsheds, arsenals for the storage of equipment and the other paraphernalia of naval activity were to be found at many great cities across the Mediterranean besides Athens, including Corinth, Rhodes, Samos, Alexandria, Syracuse, Rome, and Carthage. The extensive Rhodian and Carthaginian military harbors have been partially excavated, as have some smaller harbors and sets of shipsheds (see Blackman 2008: 654–60; Hurst 1994; Gabrielsen 1997: 37–42; Rankov 2008).

In spite of their possession of an impressive infrastructure and their extensive use of fleets, both Athenian and allied, there is no indication that the classical Athenians evolved a separate naval command structure. Their ten annually elected strategoi (generals) were a panel of supreme commanders whose authority was recognized over all military forces, regardless of their composition. They were expected to have the appropriate strategic, tactical, and logistical knowledge and skills for all aspects of warfare, although their particular abilities and aptitudes varied. Most other states followed suit, although the Spartans regularly appointed a commander for their naval forces, called the nauarchos, at least after they had begun to make regular use of fleets in the Peloponnesian War. They clearly felt that this position was distinct from commanding an army, which was the traditional prerogative of their kings.

The man with the highest authority on a classical Athenian trireme was the trierarchos, unless a strategos was also on board (e.g., Lys. 21.6–8; see Gabrielsen 1994 for detailed treatment of the triarchy). The role of the trierarchos was to ensure that the vessel under his command was appropriately crewed, equipped, and operated during a campaign. These were largely financial obligations, so the trierarchoi were chosen by lot from Athens’s wealthiest citizens, whose military and navigational competence was extremely varied. An inexperienced trierarchos could get a great deal of assistance from his kubernetes (helmsman), a professional sailor whose services could command very high wages (e.g., Lys. 21.10). Similar arrangements seem to have been adopted by other Greek states, including Aegina, Rhodes, and Samos; Herodotus mentions Phoenician trierarchoi (Hdt. 8.90).

The financial aspects of war at sea were often as important as the military ones in determining the nature and outcome of a campaign, or even an entire war. Only very wealthy states, with well-developed fiscal systems, could afford to operate fleets over an extended period (for penetrating analysis of classical Athens and Hellenistic Rhodes see Gabrielsen 2001b). The Athenians recognized that their shipsheds were a superb architectural achievement, and were reputed to have cost the enormous sum of one thousand talents. Modern estimates indicate that the resources required to build them were greater than those needed for the Periclean building program on the Athenian
Acropolis (Blackman and Rankov, forthcoming). Ancient warships were built almost entirely of wood. The construction of a major fleet involved, therefore, the selection, felling, cutting, seasoning, and transportation of huge amounts of timber. In order to build the two hundred triremes that the Athenians possessed in 480 B.C., some, if not all, of the necessary timber must have been obtained at least two or three years previously. In 483, at Themistocles’s instigation, the Athenians had voted to make use of an unexpectedly large surplus of revenues from their silver mines to pay for a fleet of one hundred triremes, which played a vital role in the defeat of the Persians in 480. Themistocles’s proposal was probably passed by the Athenians in the summer of 483. Although we lack details of its contents, it seems to have envisaged the spending of up to one talent per ship by individual Athenians (Gabrielsen 1994: 27–35). As their imperial resources expanded and their fleets grew, the Athenians developed a system that harnessed both public revenues, from tribute and taxation, and private wealth. The state provided the warships, gear, and crews, but the trierarchoi were obliged to use their personal fortunes to pay maintenance and repair costs for the ships under their command. There is good evidence that other maritime powers, like the Rhodians and the Carthaginians, also made considerable use of private funding to keep their fleets operational (Rhodes: Gabrielsen 1997; 2001b; Carthage: Lancel 1995: 178–92; Miles 2010: 174–9, 195–6).

Almost all ancient warships were crewed by men who expected to be paid for their service, which meant that to keep a fleet of any size at sea required plenty of money. The realities of this situation were impressed upon the Athenians by Demosthenes when he addressed them on the subject of the means used by their strategoi to fund the fleets with which the Athenians tried to reestablish their maritime power in the mid-fourth century B.C.:

All your generals who have ever sailed from here…take money from the Chians and Erythraeans, from whomsoever, I say, they possibly can among the peoples living in Asia. Those who have only one or two ships exact less than those who have a more powerful fleet. The providers do not give their large or small contributions for nothing…but on the understanding that they will not be harmed when they leave harbour, nor plundered, or that their ships will be escorted….They speak of favours being granted and that is what they call their gifts. (Dem. 24–5)

The implications of meeting the costs of naval warfare went even further. The enormous costs that were incurred by the Athenians as the Peloponnesian War dragged on for years caused huge political upheavals and prompted radical fiscal reorganization and innovation (Kallet-Marx 1993; Kallet 2001). For the Spartans the price of victory was acknowledgment of the Persian king’s claim to sovereignty over the Greeks of Asia in return for money to pay the crews of the fleets that they needed to challenge and eventually defeat the Athenians. The huge war fleets of the early Hellenistic period were made possible by the availability to the Successors of Alexander of the royal treasuries taken from the Persians. Financial costs certainly played a major role in the conflicts between Rome and Carthage and Rome and the Hellenistic monarchies in the third and second centuries B.C. (Serrati 2007: 464–77, 488–91). Fleets were, of course, only part of the military establishments of these states, but the sheer numbers of men involved, as well as the basic costs of warships and other facilities meant that any attempt to wage war by sea had major economic implications. Indeed, it can be argued that the need to pay such large numbers of men regularly over long periods of time was one of the driving forces behind the emergence of mass production of coinage and the monetization of the economies of the Mediterranean states. This in turn encouraged the more successful, aggressive states to wage wars to acquire, control, and exploit sources of revenue, creating a vicious cycle of war and imperialism from which the Roman Republic emerged as the eventual “winner” (see Trundle 2010 on the Greeks; on Roman imperialism see Harris 1979; Rich 1993; Rauh 2003).
The old view that the early Romans had no naval forces before the outbreak of the First Punic War in 264 B.C. has been successfully challenged, recent scholarship emphasizing Roman maritime development in the early Republican period (so Thiel 1946: 1–31, 1954: 4–29, following generalizations in Livy 7.26.14 and Polyb. 1.20.8; contra Mitchell 1971; Steinby 2007: 29–86). By the end of the fourth century B.C. citizen colonies at strategic coastal locations provided some protection from seaborne raiders (e.g., Livy 7.25–6; 8.26) and from time to time small fleets, organized by elected officials called duoviri navales (“two men in charge of warships”), conducted raids (e.g., Livy 9.30.3–4, 38.2–4). One such operation in 282 B.C. provoked a war with the city of Tarentum which sought the aid of Pyrrhus, king of Epirus (App. Sam. 7–11; Livy Per. 12–14; Dio frs. 39–40). By the mid-third century B.C. the Romans controlled several south Italian cities that had their own fleets, but at the outbreak of the First Punic War with Carthage in 264 B.C. they lacked the resources to mount the kind of large-scale naval expeditions needed. Polybius says that the Carthaginians’ capacity to raid the coasts of Sicily and Italy prompted the Romans, in 261 B.C., to “take to the sea (Polyb. 1.20.5–9). In 260 B.C. the Romans built their first major fleet of twenty triremes and one hundred quinqueremes. To counteract Carthaginian superiority in combat at sea (Polyb. 1.51), the quinqueremes were equipped with a new device known to scholars as the corvus (“raven”), a wooden bridge designed to hold an enemy ship alongside while soldiers boarded it (Polyb. 1.22; Polybius uses the Greek word for raven (korax), but no surviving Latin source describes it; cf. de Souza 2007b; Steinby 2007: 87–104). Both Carthage and Rome suffered huge losses, but thanks to their abundant supplies of timber and greater reserves of manpower, the Romans were better able to replace them. In 241 B.C., following the defeat of a Carthaginian fleet sent to relieve western Sicily, the Carthaginians sued for peace.

Early in the Second Punic War the Carthaginians did not even consider mounting a large-scale maritime invasion of Italy. Aside from the logistical problems of transporting an army of adequate size by sea, as well as the risks from storms and interception by Roman naval forces, the overland route from Spain into northern Italy suited the disposition of Hannibal’s experienced, successful army there and offered the possibility of recruiting further allies among the Celtic peoples of southern Gaul and northern Italy. Nevertheless, naval operations were carried out by both sides, including raids on Italy and Sicily by small Carthaginian fleets, dispatched early on in the conflict, and similar attacks by Roman fleets against Carthaginian territory in North Africa and along the Mediterranean coastline of Spain. Their aim was to plunder, ravage, take prisoners and hostages, or, in some cases, exact payments to forestall such actions (e.g., Polyb. 3.96; Livy 22.20; Livy 25.31).

In 217 B.C., while the dictator Quintus Fabius Maximus and his Master of Horse Marcus Minucius Rufus were confronting Hannibal’s army in northern Apulia, the consul Gnaeus Servilius Geminus led 120 warships on a campaign that was partly a response to Carthaginian naval operations around the islands and Italian coast of the Tyrrenian Sea (Polyb. 3.96.7–14; Livy 22.11.6–9; 22.31.1–7). He began by taking hostages from Sardinia, where the Carthaginians had made a brief landfall, and Corsica. He proceeded to Lilybaeum in Sicily, where he probably embarked additional troops to strengthen his force. Next, his fleet devastated the island of Meninx, off the coast of Tripolitania, before proceeding north to the Cercina islands, whose inhabitants yielded ten talents to avoid a similar fate. Servilius landed the men from his ships on the African coast and dispersed them in raiding parties, some of which were ambushed by local forces, with the loss of about one thousand men, including the quaestor Tiberius Sempronius Blaesus. The fleet then sailed back to Lilybaeum,
stopping at Cossyra to deposit a garrison, and finally returned to Rome. The fact that the expedition was led by one of the consuls at a time when an invading army was menacing southern Italy demonstrates its importance to the Roman war effort. It succeeded in driving a large, troublesome Carthaginian fleet out of Italian waters, secured key islands with garrisons, inflicted considerable harm on communities under Carthaginian protection and amassed a substantial amount of booty (for discussion of Roman naval actions in the Second Punic War see Rankov 1996).

Similar raiding campaigns were carried out against states subject or allied to Philip V of Macedon during the First Macedonian War (214–205 B.C.). The basic Roman strategy was to use coastal raids, in conjunction with their Aetolian allies, to keep Philip V occupied and unable to launch an assault on Italy in support of his Carthaginian allies (e.g., Livy 26.26; Steinby 2007: 143–55). As the Romans’ imperial ambitions drew them into further wars with the Hellenistic kings and their allies, fleets operating as independent amphibious assault groups became common. Rome’s maritime allies, the kingdom of Pergamum and the city-state of Rhodes, operated in a semi-autonomous fashion, while smaller states crewed warships furnished for them by Rome.

Between 198 and 195 B.C., when Rome was at war with Philip V of Macedon and the Spartan tyrant Nabis, a fleet of Roman and allied vessels commanded by Lucius Quinctius Flamininus captured Eretria, Carystus, Leucas, Gytheum, and numerous other coastal towns and cities, eventually cutting the Spartan tyrant off from the sea (Livy 32.16–17, 19–23; 33.16–17; 34.29–30). No ship-to-ship confrontations are mentioned in this campaign; instead the emphasis was on assaults against towns and cities (see further Livy 32–34; Polyb. 18; Errington 1989: 264–77). It is clear that Lucius Quinctius made the most of his fleet’s mobility to move from one target settlement to another, disembarking his men and mounting strong attacks. He deployed siege engines, artillery, and constructed siege works, the crews of his warships doing the excavation and construction. Livy remarks that when the Rhodian and Pergamene fleets arrived to join Lucius Quinctius’s force to assault the Laconian port of Gytheum the preparations were completed in just a few days thanks to the abundant manpower provided by the three fleets (Livy 34.29.4–5; the Rhodian fleet, probably trihemioliae [similar to triremes]: Rice 1991; Gabrielsen 1997; Eumenes of Pergamon: ten decked warships [possibly triremes], thirty lemboi, and a variety of other small vessels [Livy 34.26.11]). Early in the second century B.C. the Romans subdued the Ligurians, depriving them of their warships. Although the ancient sources present this as the suppression of Ligurian piracy, it was probably more about controlling the military reach of local rivals (Plut. Aem. 6; Livy 40.18, 26.8, 28.4, 42.1–5). A similar concern can be seen in the treaty that concluded Rome’s war with Antiochus III in 188 B.C. The king’s fleet was limited to ten warships and confined to Syrian waters (Livy 38.38).
This section of relief sculpture is from the top of a monument honoring Gaius Cartilius Poplicola, who was a prominent citizen and magistrate of Ostia in the late first century B.C. It shows Roman soldiers on and near a warship (not to scale). The warship’s three-pronged ram is raised above the waterline and there is a secondary, lion-headed projection above, possibly a buffer designed to prevent excessive penetration of an opponent’s hull. The warship has three levels of oars and is probably a quinquereme.

Photo-montage: D. de Souza.

Rome had no call to gather large fleets again until 67 B.C., when Pompey the Great assembled around one hundred warships to subdue the independent coastal communities of Pamphylia and Cilicia (Plut. Pomp. 26–8; App. Mith. 95–6; sources present this campaign as the suppression of piracy, but see de Souza 1999: 161–78). Remnants of this fleet may have formed the core of that used by his son Sextus Pompeius Magnus to raid the coast of Italy from his base in Sicily from 42 to 36 B.C. in the struggle with Octavian, Julius Caesar’s heir. Marcus Agrippa, Octavian’s principal commander, drafted twenty thousand freed slaves as crews for an armada of nearly four hundred warships to spearhead an amphibious assault on Sicily in 36 B.C. Agrippa and Octavian eventually defeated Sextus in a series of sea battles (de Souza 1999: 185–95). Agrippa’s fleet consisted mostly of triremes, quadriremes, and quinqueremes, plus a few larger vessels (figure 18.4). Some carried a novel form of catapult-launched grappling hook, attached to a winch, so that enemy ships could be hauled into close quarters for boarding (App. B. Civ. 5.118). Agrippa also constructed the Portus Julius in Campania, a complex of artificial harbors and lagoons, linked by tunnels, to protect his supply convoys and give his raw recruits somewhere to train (Paget 1968).

In 31 B.C. Octavian and Agrippa assembled a fleet of similar size to challenge Octavian’s remaining rival, Marcus Antonius, and his ally Cleopatra, whose forces, poised to invade Italy from western Greece, included large polyreme-type warships suitable for assaulting coastal cities and harbors. Agrippa drove Antonius’s ships out of the offshore islands and cut off the supply routes to his army, which Octavian had bottled up around the Gulf of Ambracia. Antonius and Cleopatra tried to break out by sea, but their cumbersome fleet of 230 ships was defeated by Agrippa’s fleet of 400 mostly smaller, more mobile vessels off the promontory of Actium (figure 18.5). Most of the
remaining troops surrendered.

With the suicides of Antonius and Cleopatra in 30 B.C., Octavian became de facto ruler of the Mediterranean. Over the next few years he consolidated his position and in 27 B.C. formally assumed the name Augustus. He established Rome’s first permanent, professional military forces, which included substantial naval elements (excellent summary of Roman Imperial naval forces in Rankov 1995; for detailed study see Reddé 1986). The core of these were two fleets, the classis Ravennatium, stationed at Ravenna on the northern Adriatic coast, and the classis Misenatium, based at Misenum on the Bay of Naples. These fleets remained in existence until the early fourth century A.D. Although very little survives of their harbors, shipsheds, and barracks, epigraphical records indicate that in the first and second centuries A.D. each fleet consisted of around fifty warships, mostly triremes, although a handful of quinqueremes and quadriremes are documented (Reddé 1986: 665–9; a smaller fleet stationed at Forum Julii [Fréjus in southern France] ceased to exist by the middle of the first century A.D.; Tac. Ann. 4.5; Reddé 1986: 171–7). Further fleets were based in Egypt, at Alexandria on the mouth of the Nile (classis Alexandrina), and Seleucia on the mouth of the Orontes, which was the port for Antioch (classis Syriaca), with squadrons attested on Rhodes and Sicily, and in Libya in the 170s A.D. (Reddé 1986: 212–13; 227–50). Following Claudius’s invasion of Britain in A.D. 43 a classis Britannica was established, consisting mostly of “liburnians” (Mason 2003). The royal fleet of Pontus was the basis for a classis Pontica after the kingdom was annexed in A.D. 64 (Reddé 1986: 253–69).

Augustus’s wars of conquest in Germany from 12 B.C. to A.D. 16 involved the creation of the classis Augusta Germanica to operate along the Rhine and the North Sea coast. By the end of the first century A.D. two fleets were operating on the Danube, the classis Pannonica and the classis Moesiaca. Using small galleys based at or near legionary fortresses, they patrolled the Empire’s northern river frontiers, guarding against barbarian incursions and ferrying troops and supplies during major campaigns, as depicted on the columns of Trajan and Marcus Aurelius in Rome (see further Konen 2000; Bounegru and Zaharaide 1996; Rankov 1995). These fleets furnished the emperors with amphibious strike units for rapid deployment anywhere in the Mediterranean to deal with barbarian incursions, localized revolts, outbreaks of piracy, and similar, small-scale military operations. When required they supported the main legiornary and auxiliary armies on large-scale campaigns, securing harbors, ferrying or escorting troops and supplies (e.g., Rankov 1995; Reddé 1986: 502–72). They also had other functions, including transporting members of the Imperial family and high-ranking officials to and from the provinces. Detachments from the two Italian fleets stationed in the city of Rome assisted in the presentation of mock naval battles in specially prepared maritime arenas and operated the huge canvas awnings that shaded spectators in the Colosseum (Tac. Ann. 12.56; SHA Comm. 15.6).

As argued above, the men who rowed ancient warships were expected to participate in fighting on land as light-armed troops, engaging in raids and skirmishes, building siege works, and supporting the legions of heavy infantry (e.g., Livy 9.38.2–4; Diod.23.18.3–5). The Roman Republic normally crewed its warships with precisely the types of men whose social and political status rendered them unsuitable for service in the legions of heavy infantry. Roman citizens of the lowest property class, the proletarii, were expected to serve in the fleets, rather than the legions, as were freedmen, although men from both groups might be recruited into the legions in exceptional circumstances (Polyb. 6.19.3 identifies the cutoff point as below four hundred drachmas (= four hundred asses); but it was not rigidly maintained and ceased to be observed by the end of the second century B.C.; see de
During the Second Punic War (218–201 B.C.) the usual wealth qualification for service in the legions was disregarded on more than one occasion to increase the pool of potential recruits. As a consequence of this, men who might have been available to serve in fleets were recruited by the legions and so slaves and even prisoners of war were pressed into service (e.g., Livy 24.11.7–9; 26.47.1–2). The huge size of the fleets deployed in the second and third centuries B.C. meant that the lowest levels of Roman society could not provide enough men, but an extensive supply of recruits was available from the many Italian communities who had treaties of alliance with Rome. They regularly supplied half or more of the men in Rome’s armies, meeting quotas agreed on with the Roman magistrates at the start of each campaign. In addition to the tens of thousands who fought alongside the legions of Roman citizens, large numbers of these “allies” (Latin *socii*) were assigned to serve in the fleets. They included men from the Greek maritime cities of southern Italy and Sicily, as well as contingents from non-maritime peoples, such as the Samnites (Zon. 8.11; Oros. 4.7.12).

The crews of the ships that made up the Imperial fleets were largely recruited from the provinces of the Empire. In keeping with the tradition that had developed during the second and first centuries B.C., it seems to have been the eastern Mediterranean provinces that provided the bulk of the men for the Misenum fleet, with the Danube provinces furnishing most of the recruits for the Ravenna fleet. Initially they were noncitizens, like the soldiers in the various auxiliary cohorts who supplemented the legions. This can also be interpreted as a continuation of the basic pattern found in the Republican period. However, a recent study of the nomenclature found in the surviving epigraphic and papyrological records has demonstrated that, at least from the early 70s to the mid-third century A.D., when the records run out, the men who served in the Misenum and Ravenna fleets were all Roman citizens (Mann 2002). This may reflect a decision of the emperor Vespasian to reward the two Italian fleets for support in the civil wars of A.D. 68/9 with the honorific title *praetoria*, conferring on their personnel a privileged status analogous to that enjoyed by the Praetorian Guards in relation to the rest of the army. The various provincial fleets were always manned by noncitizens and freedmen from across the Empire, but an exception was made in the case of the Egyptian fleet, whose locally recruited crews were men holding either Roman or Alexandrian citizenship (see Reddé 1986: 474–533).

Although ancient literary sources and even some documents often refer to Roman Imperial fleet personnel as sailors or rowers, they were in fact soldiers, paid at the same rates as other auxiliary troops and subject to military law (*Dig. 37.13*). This is confirmed by the way that fleet personnel are routinely designated by the word *miles* (= “soldier”), or similar terms, on their diplomas and funerary monuments (Spaul 2002 lists the most relevant documents; see figure 18.6). The crew of each ship was organized as a *centuria*, they were equipped and trained to fight as infantry, and they could be brigaded alongside regular troops, or even, in extreme circumstances, into separate legionary units (*Tac. Hist. 1.6, 2.11, 17, 22, 3.55*). The officer in charge of each vessel had the rank of centurion, although he might be called a *trierarchus*. Greek terms were also regularly used for subordinate officers. Imperial fleets were commanded by men who held the rank of prefect (*praefectus*) and were appointed directly by the emperor from the equestrian class. Prefect of one of the Italian fleets was a high achievement for an equestrian. Pliny the Elder, who was prefect of the Misenum fleet when he died in the eruption of Vesuvius in A.D. 79, had previously been a military tribune and commander of a squadron of Thracian cavalry in Germany, as well as an Imperial procurator in Spain and Africa. It is clear from the vivid description that the Younger Pliny gives of his uncle’s actions during the eruption that a fleet commander might act on his own initiative in a time of crisis (Plin. *Ep. 6.16*).
Figure 18.6 This grave monument, found in Athens, commemorates the Roman soldier Quintus Statius Rufinus, who served 18 years under the centurion Claudius Ingenuus in the Misenum fleet, sometime in the second or third century A.D. The Latin text (CIL III 556a) reads: 

\[ \text{D(is) M(anibus) / Q(uintus) STATIUS RUFINUS M(iles) CLASSIS PR(aetoriae) / MIS(enensis) > (centuria) CLAUDI INGE(n)UI AN(norum) XXXVIII M(ilitavit) AN(nos) XVIII.} \]

Translation: To the spirits of the departed / Quintus Statius Rufinus, soldier of the Praetorian Fleet / at Misenum, from the century of Claudius Ingenuus, 38 years of age, served 18 years. Photo Credit: D. de Souza, by permission.

The maintenance of so many fleets may seem extravagant and unnecessary to modern readers who are used to the constant demands of politicians and journalists for reductions in military expenditure. Yet the Italian and provincial fleets seem neither large, nor expensive, when considered alongside the enormous funds and manpower required to maintain twenty-five to thirty legions, plus numerous auxiliary cohorts, as well as extensive military systems such as Hadrian’s wall, or the Germanic limes, or the frontier forts and communications in North Africa and the Near East. Indeed, it may well have been the combination of versatility and mobility, in return for the relatively modest outlay, that ensured the fleets’ survival. Tacitus gives an example of a police-type action involving a detachment from one of the Italian fleets in the area of Brundisium in A.D. 24. An incipient slave uprising, led by a former Praetorian Guard called Curtisius, was crushed by the crews of three warships, commanded by a quaeestor called Curtius Lupus (Tac. Ann. 4.27). Tacitus, whose theme at this point in his Annals is the emperor Tiberius’s moral and political decline and his indifference to the well-being of his empire, presents this episode as a series of fortunate coincidences: the ships chanced to put in at the port; the quaeestor just happened to be visiting the area. However, the swiftest way for the local authorities in this area to summon military assistance would have been by sea. The size of the force provided by the three warships is difficult to determine. Tacitus describes them as “biremes,” which probably means they were “liburnians,” each carrying around sixty men (Morrison 1996: 316–17). By the time a strong military force arrived from Rome the situation was under control (inscriptions indicate the regular presence of naval personnel in Brundisium around this time, possibly a detachment of the classis Ravennatium; Reddé 1986: 221).
Tacitus also gives us an insight into the value of a fleet as a strike force. In his account of Julius Agricola’s campaigns in northern Britain in A.D. 79–83 he gives some prominence to the *classis Britannica*, praising Agricola’s use of it to ravage and plunder ahead of the main army, sailing right around the northern coast and even making landfall on the Orkney Islands, thereby causing the Britons to feel highly exposed and vulnerable to Roman military might (Tac. *Agr.* 10, 24–25, 29, 38). Tacitus makes the threat posed to barbarian liberty by the extent of Roman naval power a feature of the stirring speech on Roman imperialism that he attributes to the British leader Calgacus before the battle at Mons Graupius:

> There is no land beyond us and even the sea is no safe refuge when we are threatened by the Roman fleet.... Today the furthest bounds of Britain lie open.... But now there is no people beyond us, nothing but tides and rocks and, more deadly than these, the Romans.... They plunder, they butcher, they ravish, and call it by the lying name of “empire.” They make a desert and call it “peace.” (Tac. *Agr.* 30, trans. Birley 1999: 21–2)

Despite their military value, the fleets were never core units in the Roman military structure, and their secondary status was probably to blame for their eventual demise. The Rhine and Danube fleets disappeared in the wake of the barbarian incursions of the third century A.D., as did many provincial fleets like the *classis Alexandrinum* and the *classis Pontica*, although there is evidence of the presence of small flotillas in several locations in the fourth century A.D. (Reddé 1986: 572–641; see Aßkamp and Schäfer 2008; Schäfer 2008 for discussion of a fourth-century Rhine patrol vessel). The ships and men of the *classis Britannica* may have been reassigned to the system of defensive forts known as the Saxon Shore (*litus Saxonicum*), which lasted until the end of the fourth century A.D. (Mason 2003: 149–94). The main Italian fleets saw action during the civil wars of the early fourth century A.D. (Zos. 2.12). In A.D. 324, the fleet which the western emperor Constantine assembled to challenge the 350 triremes of his rival Licinius in the eastern Mediterranean consisted of Liburnians and other small vessels (Zos. 2.22–28; Anon. *Vales.* 5.21–28). Standing fleets of large warships had ceased to be a feature of the Roman Imperial military establishment after the fourth century A.D. (Reddé 1986: 641–52).

**Bibliography**


There is common agreement that heavy armed hoplites fighting in phalanx formations comprised the principal military force in the ancient Greek world. While other types of soldiers are known, for example, horsemen and slingers, hoplites dominated the battlefield for generations. This chapter will examine primarily these armored infantrymen and the weapons they carried.

The equipment hoplites generally carried included body armor, a thrusting spear, and a short sword. Armor included helmet, shield, breastplate, greaves, and, to some extent, optional pieces like guards for the right arm, thighs, and ankles. Artistic evidence has shaped this picture which should be modified by evidence provided by finds of arms and armor, the majority of which comes from panhellenic sanctuaries, especially that at Olympia.

Military equipment is often referred to as a panoplia, the full equipment. Aeschylus stresses the important role of the spear and shield (Pers. 240), which, as in Athens, seems evident in the practice reported by Aristotle ([Ath. Pol.] 42.4) of the state presenting these to those youths who had completed their ephebic training (also Plut. Mor. 220A; id. Pel. 1.5). Some inscriptions attest partial panoplies, while in other cases breastplates seem to have been limited to officers (Robert 1976: 155, ll. 33–4; Freyel 1935: 37–40 ll. 6–7). A late archaic Athenian decree (ML 14) concerning settlers on Salamis states they are to possess hopla with the value of thirty drachmae. This provides some guide to the normal cost of arms at this time, though it is difficult to see how both metal armor and weapons could be acquired at this price (Jarva 1995: 148–54).

The essential importance of the hoplite shield finds support in the armor discovered at Olympia, the quantity of which roughly corresponds to the three hundred panoplies dedicated in Attic sanctuaries during the Peloponnesian War (Thuc. 3.113–114). Bronze helmets form the largest category, followed by shields and greaves, with other types of equipment far behind: cuirasses are even fewer than ankle guards (Jarva 1995: 111–12 n. 61). The predominance of helmets may be explained by their use not only by hoplites but other warriors, an interpretation supported by images in Greek art. Rare items of armor may reflect the choice and wealth of elite hoplites, but they also provide the full picture of the hoplite panoplia (Snodgrass 1964: 88–9; id. 1967: 92–3). Those soldiers depicted in Greek art and equipped only with helmet, shield, and weapon may be examples of heroic nudity (Hurwit 2007: 35–60); the barefooted warrior may be the most common expression
of this phenomenon (Jarva 1995: 107–08).

The prevailing picture is that Greek hoplites provided their own equipment as the above-mentioned Athenian inscription from Salamis suggests. But there may have been also a role for the state. Thucydides relates how the Athenians recruited seven hundred \textit{thetes} as marines for service in Sicily, probably arming them as well (see Thuc. 6.43.1, with Gomme-Andrewes-Dover 4: 310), and this may have been the case too in contemporary Sparta, as suggested by the manufacture of equipment in Ephesus ordered by Agesilaus (Nep. \textit{Ages} 3.2).

Recent discussions suggest that it was in the years after the Persian Wars that the hoplite phalanx reached its classical form with further changes by Epaminondas of Thebes, followed by the creation of the Macedonian phalanx by Philip II (see further Rawlings, 18–21). On the other hand, soldiers on a Late Mycenaean warrior vase from Mycenae suggest hoplite-type warfare (cf. Plin. \textit{HN} 7.202; Athens NM 1426; Snodgrass 1967: plate 10–11). Pictures reflecting organized warfare may also be seen in the “parading” warriors represented on Geometric vases offering a sequence of scenes with Dipylon shields, while from Late Geometric IIb onward we see round shields. These suggest the introduction of the two-handled hoplite shield about 720 (Jarva 1995: 120) and that its introduction marked an improvement upon current fighting techniques (Latacz 1977: 237–8; cf. Pritchett 4: 7–44; Morris 1987: 25, 196–201).

A principal development of the phalanx was its increasing depth: ranks of eight and sixteen men became the norm. Another development was increasing mobility. Herodotus tells (6.112) that the Athenians at Marathon were the first to advance at the run against their enemies and other sources mention similar cases of troops running into battle (Thuc. 4.31.1, 4.96; Xen. \textit{An}. 1.2.17; Plut. \textit{Pel}. 23.2; also Lazenby 1991: 90–1). On the other hand the race in arms at the Olympic games, introduced in 520 (Paus. 5.8.10), and Attic vase paintings suggest that by Marathon such tactics were neither new nor unusual (see, e.g., Pritchett 1: 134–43 and tables 4–9, with sources).

Different regional names are used by modern scholars when speaking of Greek arms and armor. Only some of these are ancient and regardless of ancient or modern origin readers should not take them literally. Moreover, descriptions of arms and armor in written sources are limited. The descriptions Herodotus provides of barbarian equipment (7.61–95; also 9.20–63 passim) are far more detailed than anything existing for Greek arms except for some of the Homeric descriptions. For this reason, finds of arms and armor dedicated at the panhellenic sanctuaries, especially Olympia (practices attested already in Homer, e.g., \textit{Il}. 5.43–48) provide an important body of evidence.

**Armor**

**Shield**

Round bronze shields are mentioned in Homer (Trümpy 1950: 20–32). This can be interpreted as a reference to the Bronze Age, as round shields are represented in late Mycenaean art (e.g., crater fragments in Athens: Petrakos 1993: 44, fig. 32), though there is room for eastern influence too as in the case of shields with animal heads (Snodgrass 1964: 50, 52). Altogether evidence of Greek shields before the eighth century is scarce (\textit{Herzsprung}-type shields, Snodgrass 1964: 55–6, plate 24; Borchhardt 1977: 39–44, figs. 5–6). A square shield wielded by a single handgrip is depicted on an early Protogeometric crater from Cnossus and appears on Geometric vases too. More common in
Geometric art are round shields, which in some cases seem smaller than hoplite shields (Boardman 1998: fig. 22; Tölle 1964: apps. III and IV). For the most part it is difficult to know just how they were carried, or whether they depict bronze shields with animal heads or bosses of supposed eastern influence (Snodgrass 1964: 52–5, plates 23, 25). Geometric vases also portray a shield with large lateral cutouts, the so-called the Dipylon shield, but its authenticity has been questioned (Tölle 1964: app. IV; Snodgrass 1964: 58–60, id. 1967: 44–5, 55; Greenhalgh 1973: 64–70). On the other hand its existence would help in understanding the transition to the round hoplite shield before the end of the eighth century.

Following Diodorus (15.44.5) it is sometimes thought that hoplites took their name from the word hoplon and their large round shield. It seems more likely, however, that the term hoplites refers to all the equipment they carried, not just the shield (Lazenby and Whitehead 1996: 27–33). The hoplite shield is also called Argive (aspis argolike), and according to Aelian (VH 3.24) and Pollux (Onom. 1.149) was famous.

The characteristics of the hoplite shield can be reconstructed from numerous finds and artistic representations. Its diameter ranged from about 80 to 110 cm, depending on the size of the owner (Xen. Mem. 3.9.12). The concave-convex core of the shield was wood, the use of which is noted in some shields discovered at Olympia (Bol 1989: 3; see also Blyth 1982; Seiterle 1982). The thickness of the wooden structure in the outer face is estimated at about 2 cm (Seiterle 1982: 259).

It seems that originally the use of bronze was limited, even on the outer surface, while for the interior leather and wood were most commonly used. The Chigi vase (ca. 650) suggests use of perishable material for the central armband, through which the left arm bore the shield (in van Wees 2000: fig. 9). The bronze shield bands from Olympia are dated not earlier than the last three decades of the seventh century. The vertically posed armband is set so that the upper arm of the bearer was behind it in the middle axle and the armhole of the band was set a little above the horizontal middle axle of the shield. The round rim (about 5 cm) jutted sharply from the core of the shield and inside it there was a plaited handgrip fixed by metal fittings; some vase paintings show a spare handgrip on the opposite side of the shield. The size and the placing of the handles means that the shield gave extensive protection from the tip of the nose or chin down to the knees or upper part of the shins, being thus not essentially different from the aspis described by Tyrtaeus (F1.23–24). The concavity of the shield made it possible to support its weight on the shoulder (Kunze 1950: 231–44; Bol 1989: 2, 93–101; Funde aus Olympia 1980, p. 105 fig. 13; Euphronios 1991, nos. 4, 34). The warrior-poet Archilochus describes how he once abandoned his shield in retreat. This has suggested that the hoplite shield could not be carried on the back, but this is not the case (Anderson: 15–16, 260 n. 10, plate 3; cf. van Wees 2000: 126).

The bronze sheeting covering the outer face of the shields is very thin (less than 0.5 mm) whereas on the border the thickness could be near 1 mm; some additional strength was provided by decorative ornaments (Seiterle 1982: 257–8, fig. 11). In the technical study of an archaic shield, traces of a lathe have been identified, indicating with other technical features a very refined technology. In some cases the outer face of the shields was provided with blazons made of bronze sheeting. The weight of the hoplite shields can be estimated to 6 to 7 kg.¹

A noteworthy change in the hoplite shield toward the end of the archaic period is an appendage (clearly of nonmetallic material) sometimes seen hanging from it (figure 19.1). Most representations of such a shield apron are known from Athenian vase paintings, but there are also examples in eastern Greek art of the late archaic and classical periods. The shield apron was surely a response to eastern
archers, though it appears also in scenes of hoplite fighting. Athenian vase paintings depicting this protective device reflect the Persian Wars of the early fifth century (Jarva 1986).

A shield that appears frequently on seventh- and sixth-century vase paintings and on Boeotian coins is called the Boeotian (figure 19.2). The general shape, mostly oval in outline and provided with two distinctive scallops, is reminiscent of the Dipylon. Some shields are handled vertically by a central grip, others from a loop; on Athenian black figure vases it is normally held laterally and provided with the double grip typical of the hoplite shield. It is frequently argued that the Boeotian shield is more heroic than real. John Boardman and Hans van Wees, however, have argued that the Boeotian shield is real and that it was carried with an outstretched arm. Identified fragments of the metallic parts of this shield are not known (Boardman 1983: 27–33; van Wees 2000: 134, 158 n. 17). In fact, during the archaic and classical periods shields may have existed which have not been preserved in the archaeological record. Thucydides (4.9) mentions shields in which wicker was used, but we cannot be sure that bronze was not used on their rims and handles.

The ordinary hoplite shield appears in Macedonian art from the first half of the fourth century and there is reason to think that it remained in use in the time of Alexander the Great. But another shield, a round one, rimless and carried by a strap leaving both hands free for handling the heavy sarissa, was introduced, perhaps during the second half of the fourth century (Markle 1999: 243–51). In fact there are two variants of such a shield, one bowl-like and the other provided with a flat curvature. The flat one corresponds to the recommendation of Asclepiodotus (5.1) who wrote that the best shield for a phalanx is the Macedonian bronze shield, eight palms in diameter.
In Attic red figure vases archers are pictured with a small round shield. We might wonder if such shields should be called *aspides* or possibly *peltai*. The *pelte* is famous as an innovation of the fourth century Athenian general Iphicrates (Nep. *Iphic*. 4), though we hear of Thracian *peltastai* already during the Peloponnesian War (Thuc. 2.29). The *pelte* is generally identified as a crescent-shaped shield with a central armband and lateral handgrip and made of perishable materials. But it may be that the name refers to different forms and materials. Xenophon mentions the *pelte* as the typical equipment of the Thracians (*Mem*. 3.9.2), but elsewhere (*An*. 5.2.29–32) he speaks of bronze *peltai* used by Cretan archers. According to Aristotle (F498 Rose) bronze and oxhide were not used, but rather goatskin or something similar, and he says that the *pelte* is rimless. In art Amazons and other legendary figures carry the crescent-shaped shield, but so do archers and mounted warriors in typical hoplite dress (e.g., *Para* 327.50bis; *Para* 327.50bis, *Add* 80; *ARV* 2 63.95, *ARV* 860.5).

**Helmets**

There is a large variety of helmets both among the surviving examples and those depicted in art. Many of these have been found with small holes punched or drilled along the edges. These were used for fastening an inner lining in order to ease chafing and provide insulation against cold. But they also afforded a decorative element, at least when silver studs were used for fixing the lining. The decorative function may partly explain why armorers made the perforations closer together over time. Sometime before the end of the sixth century craftsmen abandoned this design style as it was not possible to make the holes any tighter. Accordingly, the spacing of the perforations often helps in

An early example of the so-called Kegelhelm comes from Argos, discovered in a burial dated by its pottery to the last quarter of the eighth century. This helmet is made of five bronze sheets, with a thickness of 2 to 3.5 mm, riveted together and provided with an imposing crest. The weight of the Argos helmet is 2.05 kg and it bears clear similarities to oriental helmets (Courbin 1957: 333–40, 356–67, figs. 39–45, plate 4; Pflug 1988a: 12–14, 19, 27–40 [Cypriot helmets]).

The so-called Illyrian helmet can be traced from the late eighth into the fourth century. Athena wears an Illyrian helmet on some shieldband reliefs and appears on coins of northern Greece in the fifth century. The distribution of the early helmets suggests that originally it was from the Peloponnesus, but later became popular in Macedonia and more northern regions. Among early examples of the late eighth to the late seventh century are helmets made of two halves riveted together; in some later examples a seam marked by grooves is visible between the crestholder ridges. This helmet has a wide rectangular opening for the face between pointed cheekpieces, though Patricia Foster has demonstrated that lateral visibility was relatively limited. In late variants there are visible features adopted from other helmet types: ear cuttings, movable cheekpieces, and setting off of the crown by a ridge. The thickness in these helmets varies from 1 to 2 mm. In a fragmentary late sixth century example in London, weighing 1.137 kg, the rear edge is 0.5 mm thick, whereas the front is 2 mm.

By far the most common of Greek helmets is the enclosed type called Corinthian (figure 19.3). While its appearance on Protocorinthian vases and Corinthian coins of the archaic period supports this connection, no doubt this helmet was made widely in the Greek world. Between the late eighth and the sixth/fifth centuries the helmet underwent notable changes toward a variant in which there was a marked ridge between the crown and the lower part. Patricia Foster has again demonstrated that the lateral visibility of the Corinthian helmet was relatively good. The Corinthian type apparently did not continue in use long after the Persian Wars, although artistic representations of the late variant, which could be raised above the forehead, continued through the classical and Hellenistic periods (Pflug 1988d: 65–106; Foster 1978: 5, 9; cf. Snodgrass 1967: 94; also Dintsis 1986: Beilage 6).

Figure 19.3 Corinthian helmet with battle damage, c. 600–550. British Museum, London (GR 1977.1–1.8; Bronze 2836). Photo Credit:
The metal thickness in the Corinthian helmet varied between 1 to 2 mm, but there is a visible tendency toward thinner shells in the late archaic period. The weight of the Corinthian helmets during the archaic period was mostly in the range of 1.2 to 1.5 kg, but late examples could be below 1 kg.

Some Corinthian helmets, at least those from Italy, are divided vertically in two halves, indicating their manufacture by the hammering of bronze sheets, but generally their fabrication technique is not well known. An old theory is that Corinthian helmets were made by hammering out a single bronze sheet, but it has also been suggested that they were hammered from cast preforms. A fragmentary helmet in Stockholm is said to have been soldered together from at least seven pieces.

Archaic Cretan bronze helmets are mostly quite closed, leaving, however, the face of their bearers more open than the Corinthian. These helmets consist of two hammered sheets joined with a longitudinal seam along the crown, making them essentially lighter than the Corinthian. Together with other related armor these helmets are dated between the third quarter of the seventh and the early sixth century (Hoffman 1972: 1–6, 17–19, 21–2, 41–6, plates 1–18). Light in weight, their use figures among the renowned Cretan archers and argues for a more mobile form of warfare.

Artistic evidence suggests that some helmets on the islands and among eastern Greeks differed from mainland types. From Lindos come riveted cheekpieces provided with cutets for eyes and mouth, datable to the seventh century (cf. figure 19.2). The technique is reminiscent of that used in the Kegelhelm. A so-called Ionian helmet is known mainly from plastic representations on Rhodian aryballoi of the late seventh and sixth centuries. Made of several pieces, this helmet has a longitudinal projection on the crown, perhaps functioning as a crest holder, but may also serve as a technical feature joining the two halves of the crown (Cook 1981: plates 6, 84, 85, 106; Blinkenberg 1931: plates 22–3; Edrich 1969: 82, 106–7).

The helmet known today as the Chalcidian appears from around the mid-sixth through the fourth century and can be seen as a lightened modification of the Corinthian. An Attic variant of this helmet appears on Attic vase paintings of the Persian War era (Dintsis 1986: plates 63.2 and 4; Bovon 1963: figs. 2, 4, 7, 13). The Chalcidian can be seen in several variants distinguished on the basis of the cheekpieces, which are regularly provided with ear cuttings and often with hinged cheekpieces. These helmets weigh about 1 kg or a little less. The features of the Chalcidian helmet are generally good, as large openings for the eyes offered good visibility. But the breadth of the cheekpieces sometimes restricts lateral visibility. Lateral cuttings for the ears provide good acoustic properties, but the helmet often leaves the lower part of the face relatively unprotected (figure 19.4).

Attic vase paintings show hoplite contests in which an Attic version of the Chalcidian helmet appears, but its owners are very often beardless youths engaged in exercises related to armed race contests. Two principal variants can be distinguished: those provided with a crown and neckguard only and those with stiff or hinged cheekpieces as well. Both versions also leave the forehead quite open and there is often a diadem-like mounting above it (see Dintsis 1986: 105–12 and Beilage: 8). The existence of these helmets is problematic in view of the absence of surviving samples and that wearers are only rarely other than the goddess Athena or Amazons.

A helmet common in fifth-century Athenian vase paintings is provided with a peak and hinged cheekpieces modeled to leave the eyes and mouth free. This helmet and a heterogenous group of similar designs have been called Thracian as well as Pseudo-Attic, Attic, and Macedonian (cf. Kunze 1994: 98–100; Dintsis 1986: 128–9; Vokotopoulou 1982: 519 and n.95; Dintsis 1986: 128). The
technical features of the peak helmets are quite varied, but there are notable similarities too. In fifth century vase paintings a typical element is a crest, seen as well in a helmet from Boeotia in the British Museum. The crest reveals that the crown of the helmet was hammered from a sheet and soldered together along the top. Another original peak helmet of unknown origin in Berlin is better preserved. This type offered full vision to its user, which suggests comparison with Xenophon’s recommendation (Eq. mag. 12.1–14) of the Boeotian helmet for cavalrymen: it is best because it provides cover for all parts remaining above the breastplate and does not obstruct one’s vision.

8

Figure 19.4 The soldier on the left wears a type of the Chalcidian helmet and a corselet with shoulder pieces. From the Penthesilea Painter (5th c. B.C.), Achilles killing Penthesilea. Attic klyix. Staatliche Antikensammlung, Munich. bpk/Antikensammlung/Art Resource, NY.

Xenophon’s ideal helmet has been long identified as a hat-like helmet, an original of which from the Tigris may be found today in Oxford. But neither the protection it offered nor the vision it afforded could be described as perfect. Other types of headgear were also transformed into metal helmets: a broad-brimmed hat helmet, petasos, has been found in Athens, but a better known case is the conical felt hat, pilos, made in bronze, pilos chalkous, which is mentioned by Aristophanes (Lys. 562) and known from many examples (see figure 6.2).

9

Body Armor
Discussion of breastplates usually focuses on the bell and muscle cuirass, but linen and leather corselets are also known. This terminology follows the analysis of Arnold Hagemann (1919), outlining the development of an archaic bell cuirass (figure 19.2) through an improved bell cuirass of the fifth century to the later muscle cuirass proper.

The discovery of a late Geometric grave and panoply at Argos extended the chronology of the archaic bell cuirass into the eighth century (Courbin 1957: 322, 339–40). The iron cuirass found in the famous royal grave at Vergina has shown that the breastplate identified as a leather corselet by
Hagemann could have been made of metal (Andronicos 1984: 140–4), which supports Plutarch’s description (Mor. 595E) of an iron cuirass in an early fourth-century context. The discovery in Thrace of a group of bronze cuirasses provides additional evidence of the use of metal in the manufacture of armor (Ognenova 1961: 501–38).

Altogether there are about forty cuirasses of the archaic bell type mainly from the Olympia excavations and another group from Crete, perhaps all from Afrati (Jarva 1995: 20–3). There is not much structural variation among these: the front and back plates are roughly modeled to conform to male anatomy, noting shoulder blades, breast muscles, and abdominal arch. Artistic representations suggest that near the end of the archaic period the cuirass developed a more naturalistic rendering of anatomical forms parallel with trends in sculpture. Around the neck there was a prominent collar in order to parry blows directed at this vulnerable spot. The bottom of the cuirass had an outward-jutting edge to protect the lower body from spear or sword strikes from above. On the shoulders, the two halves were joined by short spikes passing through small holes: on the left side small rings served for lacing and on the right side there were two tubular fasteners passed through rectangular slots and secured by pins. The weight of the Argive cuirass (3.36 kg) may be representative of this type (Boardman 1978: fig. 215, 1–2; Courbin 1957: 340, 350).

Vase paintings suggest that during the late archaic period there were metal cuirasses without the characteristic bell hem and sometimes provided with flaps hanging from the lower edge (Neck amphora, Basle BS453: CVA Basle 2, plate 46.2; Jarva 1995: 29–30, fig. 7). Perhaps in reality there were more options than the few surviving originals indicate.

The edges around the openings were rolled around a wire. It is thought that the technique of making bronze plate cuirasses was beating from a sheet, and Hagemann suggested that the cuirasses were hammered on wooden forms of different sizes, like shoe trees (Hagemann 1919: 83; see also Courbin 1957: 340; Hoffman 1972: 19).

Vase paintings suggest that during the late archaic period there were metal cuirasses without the characteristic bell hem and sometimes provided with flaps hanging from the lower edge (Neck amphora, Basle BS453: CVA Basle 2, plate 46.2; Jarva 1995: 29–30, fig. 7). Perhaps in reality there were more options than the few surviving originals indicate.

The front plate of the muscle cuirass typically extends downward more than the bell cuirass in order to protect the abdominal area; sometimes the same feature also appears in the back plate. This cuirass was popular during the classical period and experienced a revival during the Roman era when it became the accepted style for Imperial statuary (figure 19.5). A fragment of a late archaic original bronze cuirass of this type has been found at Olympia. A late fourth to early third-century burial discovered in Prodomi in Thesprotia has shown that this kind of cuirass could be made of iron and provided with shoulder pieces. Possibly it was this cuirass that Xenophon advised for horsemen (Eq. mag. 12.1–5) and which Aelian and Pollux (VH 3.24, Onom. 1.149) called Attic.  

10
The most common corselet is a coat tied on the left side and provided with shoulder pieces attached on the breast and with flaps hanging around the waist (see figure 19.4). It is known from late archaic and classical art, but it may be represented already in late Geometric. There are many structural variations in this corselet: scale and lamellar patterns represented in vase paintings indicate the use of metal, but there is reason also for identifying the use of linen and leather. No doubt bronze was mainly used for scales and lamels, but sometimes also iron, as indicated by the scale corselet from Idalion in Cyprus; iron sheets were also used to make the corselet discovered in the royal burial at Vergina. Iron is mentioned as the material used in a Cypriot breastplate presented to Demetrius Poliorcetes, but its construction is unknown (Plut. Demetr. 21.3; see Johnston 1982: 1–7; Gjerstad 1935: 538–9, no. 236, plate 172; Andronicos 1984: 140–4, plates 95–6; see also figure 19.4).

Use of linen for corselets is mentioned in many sources beginning with the Iliad where it is worn by Locrian Ajax (2.529) and the Trojan ally Amphius (2.830). A piece of linen fourteen layers thick has been discovered at Mycenae, perhaps part of a linen corselet (Studniczka 1887: 21–4, fig. 4; Snodgrass 1967: 18). In Athenian black-figure vase paintings the shoulder piece corselet is often represented in white, which suggests the use of linen fabrics. Pollux (Onom. 7.70) states that there was a breastplate (thorax) called spolas made of hide and hanging from the shoulders. Many vase paintings suggest that the corselets represented in them were made by cutting them from a sheet: stiff neckpiece and shoulder pieces, but especially the characteristic short projections hanging down at the back, below the shoulder blades. Such a corselet could be made in the way reported by Xenophon
An. 3.3.20) of equipping a cavalry force ad hoc with spolades and thorakes (ARV 182.5 [Jarva 1995: 46–7, fig. 11]; ARV 15.6 [Euphronios 1991: no. 13]).

It seems possible that use of the linen corselet continued through the Dark Ages although evidence is absent. A possible link between the Mycenaean period and the Geometric period is the representation of hunters on an early Protogeometric crater from Cnossus (Boardman 1998: fig. 22). Linen corselets were clearly known to the Greeks (cf. Hom. ll. 2.527–530; 2.828–834), but written sources do not attest to their actual use until Iphicrates’s fourth-century peltast reforms (Nep. Iphic. 4). A second-century inscription from Delos mentions a linen corselet for a mounted warrior. The limited use of the linen corselet may have been determined by its high price (Roux 1989: 262; costs: Jarva 1995: 153).

The structure of the linen corselet is not described in the extant written sources, but Xenophon (An. 4. 7.15) states that the Chalybians had linen corselets that reached down to the belly and were provided with a thick fringe of plaited cords instead of the pteryges. The belts (zomata) mentioned in a passage of Alcaeus (F54.5–6) seem to refer to the linen corselets.

According to Plutarch (Mor. 596D) the conspirators who liberated Thebes from the Spartans (379) wore hemithorakia. Other sources, too, mention the “half-thorax” in fourth-century contexts: Pollux (Onom. 1.134) maintains that Jason, the tyrant of Pherae, invented it, and Polyaenus (Str. 4.3.13) tells that Alexander gave hemithorakia to those Macedonians who fled in battle so that if they did so again their backs would be uncovered (SIG 1, 421, ll. 39–42). Archaeological and artistic evidence does not reveal clearly what sort of equipment it was, perhaps not only one-half (gualon) of an ordinary metal cuirass but rather a metal plate made for covering the front side, something like the front plates in the rectangular cuirasses used in southern Italy. Metallic armor, which can be defined even less than a half-cuirass, is seen circa 340–330 on an Apulian vase by the Darius Painter: an anatomically modeled plate covered the belly area (Connolly 1986: 117–18, plates 3–4; Hagemann 1919: 101, fig. 93; Trendall 1989: fig. 204).

The Homeric armor called mitre (Il. 4.137, 187, 216; 5.857) has been identified with the half-moon–shaped bronze belly guards that are mainly connected with Crete, although this identification is problematic. Some belly guards bear incised or embossed decoration. The most significant typological variation is the introduction of a hinged guard which might be a later feature. The chronology extends from the third quarter of the seventh century to the end of the sixth, continuing outside of Greece proper into the fifth (Brandenburg 1977: 119–43; Jarva 1995: 51–60).

Protection of Limbs

Armoring of the limbs was limited mainly to the use of greaves and occasionally ankle guards (see figures 19.2 and 19.5). Finds of greaves come mainly from Olympia, with more than two hundred examples (Kunze 1991). There is some evidence that before the introduction of the well-known elastic type, which was slipped around the shin and calf, bronze greaves fastened by lacing were used (Kunze 1991: 4–5, plate 1). The earliest group of elastic greaves, dating before the end of the eighth century, left the kneecap partially exposed. Greaves were made with small holes at intervals for fastening an inner lining. Before the end of the seventh century the length was enough to cover also the kneecap. In these greaves the side of the calf muscle is articulated by a curved groove, which developed during the sixth century into decorations using animal and plant motifs. Before the end of the sixth century the decorations and holes for inserting an inner lining are given up and the modeling
tends to imitate accurately the anatomy of legs. This anatomical modeling prevails in the following centuries. The edges of greaves are mainly about 1 mm thick (occasionally near 2 mm) and the inner parts can even be less than .5 mm. Generally speaking the late greaves are made of thin sheeting. The weight of a pair was about 1 kg (Kunze 1991: 77; Jarva 1995: 84–100, 136–7).

More than fifty ankle guards are known from the Olympia excavations, suggesting that they were more common than the bronze cuirasses. The date of the guards ranges from the seventh to the late sixth century (Kunze 1991: 26 n. 47; Jarva 1995: 100–5). These are mostly 11 to 13 cm high at back and they were fastened in the front side by either holes or small pegs. Such ankle guards may be the Homeric (e.g., Il. 3.330–331, 11.17–18, 16.131–132) episphuria, or leg guards, which soldiers wore together with greaves; such equipment may have inspired the tale of Achilles’s heel (Yalouris 1960: 59 n. 38).

A few finds indicate that some soldiers wore bronze armoring to their feet. Combination of the greaves, ankle guards, and foot guards was rather clumsy and therefore did not become common practice, although usefulness was improved by hinged versions, appearing not earlier than the late archaic period. Foot guards have holes that tied them to footwear, of which there is very little evidence except the famous iphícratides (Diod. 15.44; Alciphpr. 3.57) and discovery of the Theban dead at Chaeronea buried with their boots (Ma 2008: 76, plate 6a). No doubt in reality soldiers only exceptionally went into battle barefooted (Thuc. 3.22; Pl. Symp. 220A–C).

Only one original thigh guard has been found at Olympia, while representations in art during the sixth century are numerous, offering different structural solutions, mostly wrapping the thighs like greaves (see figure 19.2). The original from Olympia, datable to the seventh century, gave protection only to the front part of the thighs (Jarva 1995: 79–84). Xenophon (Eq. mag. 12.8–10) and Arrian (Tact. 4.1) mention thigh guards for horsemen.

Finds of bronze armor for arms are quite few and limited mostly to the upper arm guards from Olympia. All these have been made to protect the right arm of the hoplites whose left arm was covered by the shield. Originals and representations in art are limited to the archaic period with the earliest examples from Olympia perhaps datable to the first half of the seventh century (Jarva 1995: 72–9; cf. Euphronios 1991: no. 34), but their use later is suggested by Xenophon’s recommendation (Eq. mag. 12.7) for horsemen.

WEAPONS

Spears
The thrusting spear was the principal weapon of soldiers for centuries. A javelin depicted on an early Protogeometric crater from Cnossus and other examples are seen on Geometric vases. Works of art depict mostly thrusting spears that appear to be not much longer than the height of their bearers, suggesting a length of about two meters or a little more (figures 19.2 and 19.5). A spear 2.22 m in length uncovered in a burial find at Vergina and dated to the fourth century by Manolis Andronicos confirms these artistic impressions (Andronicos 1979: 101; cf. Snodgrass 1967: 38; Anderson 1991: 22). Some burial finds contain two or three spear heads, often without distinction in size; presumably the small and long slender ones were intended for throwing (Boardman 1998: fig. 22; Snodgrass 1964: 138–9; id. 1967: 38–9; Ahlberg 1971: 45–6). In a late seventh-century Corinthian alabastron
there is a scene in which the javelin is identified by its smaller size and a special loop intended for throwing (Berlin 3148: Snodgrass 1964: plate 33; id. 1967: plate 27; van Wees 2000: fig. 16). The Chigi vase (ca. 650) surprisingly shows soldiers armed with two spears provided with throwing loops (see van Wees 2000: 136; cf. Anderson 1991: 19), but even the spears of the men in action are grasped in thrusting positions and no loops are noted. Hoplites, however, could throw spears, as Dio (15.86.4) tells how Epaminondas, attacking with a picked force, hurled his spear at his Spartan opposite number. Normally, it was light-armed troops who used javelins (Thuc. 1.49; 3.98).

Among the spearheads from Olympia, iron is the prevailing material, with approximately 350 examples, of which 145 smaller ones are classified as javelin heads. The longer heads range from over 50 cm to 25 cm. There are also about one hundred bronze heads of which some smaller ones are obviously from javelins (Baitinger 2001: 143–89, plates 14–43). The use of bronze and thin iron heads may find explanation in Polybius’s (6.22) comment on Roman spearheads that such arms bent easily and thus could not be hurled back.

Written evidence, representations in art, and finds from excavations witness the use of metal reinforcement (sauroter, also storax: the so-called “lizard-sticker”) in the butt end of the thrusting spear in the archaic and classical periods. It had several different functions, including protection of the wood end of the spear against splitting and decay, a counterbalance to the spearhead, but especially as a reserve weapon when the spear broke in battle. The sauroteres form a notable group among the finds from Olympia, with some two hundred pieces, mostly in bronze with a length around 30 to 40 cm. Victor Hanson suggests that the adoption of the sauroter was a technological reaction to increased massed fighting (Baitinger 2001: 54–72, plates 44–58; Hanson 1991: 71–2).

The weight of the spearheads from Olympia varies from about 0.12 to 0.95 kg with an average of approximately .35 kg. M. M. Markle has calculated that a cornel wood shaft of one inch diameter for an eight-foot-long spear would weigh about .9 kg, whereas the typical late archaic four-sided bronze sauroteres discovered at Olympia vary greatly in weight, with an average of about .4 kg. The average weight for a typical hoplite spear would then appear to be around 1.5 to 2 kg.

Several sources (Thphr. CP 3.12.2; Polygenius, Strat. 2.29.2) report that the Macedonians used the much longer sarissa after circa 300. Markle has argued that the sarissa was first used at Chaeronea by Philip II’s cavalry and only adopted later by the infantry in the time of Alexander. He has calculated that the long sarissas (4.57 and 5.49 m) published by Andronicos from Vergina weighed respectively 5.5 and 6.5 kg, supposing that they were tipped with an iron head (1.235 kg) and butt (1.07 kg).

Swords

Iron swords are fairly rare (hardly twenty examples) among the finds from Olympia, which suggests that not all soldiers carried one. In art the sword is rather a norm in hoplite equipment, but there are noteworthy exceptions, for example, the Chigi vase. The quantity of swords from Olympia, datable between the Geometric and the classical periods, is not much different from that of the bronze cuirasses (Baitinger 2001: 74, 232–5, nos. 1305–30). Is this an indication of similar limitations related to social and military aspects?

The common Bronze Age type, a long cut-and-thrust sword provided with flanges in the hilt and two outwarding pommeled projections, made from iron and sometimes bronze, continued through the Dark Age (Snodgrass 1964: Type I [Naue II]). The finds from Olympia and depictions in art (figure
in which the handguard is seen to curve on the shoulder of the blade, suggest that its use continued into the sixth century. Another early sword often seen in art, and known also from Olympia, is provided with a rounded half-moon–like pommel (Kilian-Dirlmeier 1993: 162; Baitinger 2001: 76, plate 67, no. 1305). The prominent hilt pommels could have a practical role: to prevent the sword slipping out of the hand in a cut.

During the Protogeometric and Geometric periods the length of sword blades varies notably, from about 45 to 110 cm. All were probably used as cut-and-thrust weapons. In contemporary burials there are visible regional differences, but the sword is often the only weapon and sometimes seems to be an alternative for a spear. In burials dated to about 700, long swords, 80 to 90 cm, are common, but in the seventh century the measures tend to be in the range of 50 to 60 cm (Kilian-Dirlmeier 1993: 115–17, 152, plates 32–5, 52–7). The shortening of the blades may reflect adaptation of swords to the needs of hoplite fighting, where it was a secondary weapon, and used rather for thrusts and stabs than cutting blows.

In the course of the sixth century a new type of sword appears with a relatively narrow blade, slightly widening near the tip, and generally around 50 to 60 cm long (figure 19.1). The prominent pommel is abandoned, the hilt now protected by a broad handguard. This design remained essentially in use until the Hellenistic period (Kilian-Dirlmeier 1993: 118–21, plates 55–7), as seen in the sumptuous sword from the famous royal tomb in Vergina (Andronicos 1984: 144–5, fig. 99–101). The introduction of the broad handguard seems to be a further adaptation of the sword in hoplite fighting: not only did it protect better against the blows of the opponent, but it also gave effective support in thrusting. According to Diodorus (15.44.3; see also Nep. Iphic. 1.4), Iphicrates made the swords of peltasts almost twice as long as those of the hoplites, but it is difficult to see such a radical change in the surviving samples.

In fifth-century red-figure vase paintings, warriors are often provided with a one-edged sword, machaira or kopis, recommended by Xenophon (Eq. mag. 12.11) as the preferred weapon for a horseman (figure 19.5). It appears already in Athenian black-figure vase painting of the sixth century. An example has been found at Borova (Albania) in a burial dated to the late seventh or early sixth century, suggesting a northern origin for this weapon, but noteworthy early evidence comes also from Lydia and Etruria and Pollux (Poll. Onom. 1.149) calls the machaira Celtic. The length of these seems to be about 50 to 70 cm, but artistic testimony depicts shorter ones too. The evidence suggests that in most cases the weight did not exceed 1 kg and with a scabbard it would have been around 1.5 to 2 kg (Jarva 1995: 138). Both Xenophon and vase paintings reveal that Greeks and Persians alike fought with the machaira (Xen. An. 1.8.6).

In some Geometric vases soldiers carry what appear to be daggers, and in Dark Age burials daggers occur together with spearheads. In contrast to written evidence (e.g., Diod. 14.43.2; Xen. Ages. 2.14), only two daggers have come to light in the Olympia excavations, but it is not certain whether these were used by soldiers (Ahlberg 1971: 21–3, figs.19–24; Snodgrass 1967: 38. Olympia: Baitinger 2001: 75). Pollux (Onom. 1.149) mentions the Laconian dagger, perhaps illustrated in an Attic tombstone of the late fifth century (see above figure 6.2).

Effectiveness

Polybius’s statement (18.29.1) regarding the effectiveness of the phalanx is quite convincing: nothing could resist it if it was properly organized. The effectiveness of weapons is reflected in the figures
regarding casualties in ancient battles despite the problematic nature of our sources. The losses of the Persian army in the Persian Wars were incredibly high: at Plataea not even three thousand out of three hundred thousand survived (Hdt. 9.70). The number of those killed in hoplite battles varied between hundreds and thousands. Peter Krentz has calculated that in battles of the fifth and fourth centuries, the mean number of killed was about 5 percent among the winners and about 14 percent among the defeated (Krentz 1985: 13; on wounds see Salazar, 294–311).

Yet Henry Blyth has found in an examination of armor discovered at Olympia that damage to these was relatively rare. Accordingly, the main explanation for casualties would appear to be blows that found gaps in the defensive armor that offered less than complete protection. Exceptionally, the iron breastplate of Demetrius Poliorcetes, weighing not less than 15 kg, suffered only a scratch from a catapult shot discharged at a distance of twenty paces (Plut. Demetr. 21.3). Blyth has also estimated that blows with spears and swords in close fighting were normally limited to energies between thirty and sixty joules, whereas the energy of a Persian arrow at a distance of 50 m would have been about thirty joules and that of Scythian arrows somewhat less. Arrows then would not have been a serious threat to an armor of 1 mm or more in thickness. Curved surfaces of armor were more effective than flat ones (Blyth 1977: 30, 62–3, 80–5, 192–3).

In the Iliad several accounts are found that suggest that not even multiple defense was enough: the Trojan Sokos wounded Odysseus seriously when he pushed his spear through Odysseus’s shield and breastplate (Il. 11.434–438, 4.135–136). Homer (Il. 4.525–526) and Tyrtaeus (7.21–26 [Diehl]) mention wounds in the lower body, describing warriors with serious abdominal wounds, others holding their genitals in their hands. Xenophon (An. 2.532–33) gives a similar picture, and the theme is also recorded in vase paintings (Amyx 1988: plate 20, 1). The rounded features of greaves offer small targets for offensive arms and Blyth (1977: 83) has noted scars in some greaves from Olympia, but generally there are few signs of damage.

The shield, the main defense of the hoplites, did not hold out against the strongest blows. According to Blyth, the effectiveness of the hoplite shield came mostly from its wood core while a thin layer of bronze sheeting afforded some additional protection (Blyth 1982: 18; id. 1977: 189–90). Xenophon (An. 4.1.18) tells how the Spartan Leonymus was killed by an arrow shot through his shield and spolas, and Plutarch mentions how the Athenian Chares (Pel. 2.3) and Spartan Brasidas (Eth. 219 C-D) were wounded by spears penetrating their shields. Vase painters also depict shields perforated by arrows. Perhaps the shield was not designed to repel every blow completely since it was held away from the body.

The Iliad tells that many times the helmet failed to protect its owner. Sometimes it broke (e.g., Il. 11.95–96; 17.292–295), while in other cases we have the impression that the helmet was open-faced which allowed fatal injury from a stone (16.411–413; 577–578). In archaic helmets from Olympia there are many with dents, perhaps the result of stones. The thickness of the helmets, usually around 1 to 1.2 mm (except the nose guards which were up to 6 to 8 mm), obviously was enough against most blows. Blyth has concluded that the annealed bronze gave toughness and provided better resistance than might be expected. In some late seventh and early sixth century Corinthian helmets the bronze is thicker, especially over the nose and the forehead, more than is needed against penetration by any of the weapons of the time. This may reflect the growing intensity of close-quarter fighting. By contrast, in the case of lighter, late archaic helmets, tougher construction enhanced resistance and also allowed the increasing mobility noted above. From the mid-sixth century there is a tendency to provide helmets with ear openings, which surely reflects responses to fighting conditions. A natural
explanation might be the need to hear officers’ commands which reflects developments in tactics and battle mechanics. Openings for the ears led to helmet designs with hinged cheekpieces, which brought some relief in hot weather, a problem solved by users of the late Corinthian helmets who simply pushed their helmets up and over their foreheads.

The Thracian peak helmet had several innovative characteristics which included better vision as noted above. Additionally, it offered enhanced acoustic features and a peak which not only sheltered against sunshine, but also rain (see Thuc. 2.4, 6.70.1). Moreover, it seems to have been fashioned with a thought of protecting against missiles, particularly arrows.

Breastplates, as Homer tells, also broke in battle. Their material is rarely mentioned, as in the case of Othryoneus’s bronze cuirass (II. 13.371–372; see also 13.397–399). In vase paintings, bronze cuirasses are also shown pierced. The medium thickness of the Argos cuirass (about 2 mm) is exceptionally great, the norm often less than half of that, which indicates that piercing was possible. The cavalry cuirasses of the fourth century tend to be a little thicker than the archaic cuirasses in general. Belly guards, too, are mainly less than 1 mm thick.15

Perforation of the shoulder-piece corselet is represented quite often on vase paintings. Experiments conducted at Cambridge show that leather must have been considered a rival material for defensive armor. The front of the leather corselet had two layers and thus would have afforded adequate protection (Euphronios 1991, no. 13; Coles 1962: 184–5; Blyth 1977: 190; Jarva 1995: 143).

A special case is the protection offered by the linen corselet. Pausanias (1.21.7) criticizes its military value against strong blows. A more positive picture is given by Aelian (NA 9.17), who praised the linen corselet for its resistance to iron (Plin. HN 19.2.11, says the linen nets of Cumae could bend a knife blade). In any case, the advantages of the linen corselet—light and porous—were appreciated. The use of linen in many layers was one possible method for making linen corselets more resistant, and this seems to be the case with the fourteen-layer linen piece discovered at Mycenae (Studniczka 1887: 21–4, fig. 4). From the Byzantine period we have information that effectiveness could be increased by a mixture of vinegar and salt (Törnkvist 1969: 81–2). It seems possible that fourteen layers or a little more, arriving to a thickness of about 1.5 cm, could give a protection comparable with bronze and leather breastplates. The necessary thickness could be achieved also by using in the corselet threads multiplied so many times that the woven structure became thick enough. This kind of twilled fabric may be indicated in some vase paintings, even those representing Persian and other eastern warriors (see further Blyth 1977: 119, table 4.9; Jarva 1995: 43, 142–3 n. 1007).

Victory on the battlefield was sought not only by effective weapons and armor. The depth of a formation could inflict psychological pressure on opponents, while shield blazons presented terrifying, apotropaic warnings (Nefedkin 2002; van Wees 2004: 191; Anderson: 17–20). Such features are evident too in the reforms attributed to Lycurgus of Sparta (Xen. Lac. 11.3): a red cloak, because it had least resemblance to women’s clothing, a bronze shield, because once polished it tarnishes slowly, and permission for older men to wear their hair long so as to make them look taller, more dignified, and more terrifying. Helmet crests similarly made men taller, but the use of high crests may be exaggerated in artistic representations (Jackson 1991: 235).

BIBLIOGRAPHY


$VA = Corpus vasorum antiquorum$. Paris and elsewhere, 1923–


Our knowledge of Roman armor comes from drawing together three different strands of evidence. First, there is the documentary evidence, comprising not only passages from ancient literature, but also original documents preserved, for example, on the writing tablets from northern England. Second, there is the iconographic evidence, provided by ancient sculptures and reliefs depicting soldiers and scenes of warfare. And third, there is the archaeological evidence of actual weapons and pieces of armor surviving from antiquity.

Each of these strands has its own difficulties and challenges. For example, some of our documentary sources represent eyewitness testimony, such as the commentaries of Julius Caesar, a military man reporting on military events. On the other hand, some are the product of later research, such as the historical work of Livy, who is our main resource for much of the Second Punic War and the army of the middle Republic. Writing during the reign of the emperor Augustus, Livy drew on earlier sources, one of whom was the Greek writer Polybius, who is generally acknowledged to have been more military-minded, and whose often fragmentary work is consequently preferred for military details.

Sculpture is usually assumed to present an accurate picture of contemporary reality. It seems likely, for example, that the tombstones of soldiers erected along Rome’s northern frontiers were crafted by local artisans whose depictions of the deceased were informed by daily contact with the military. But complications arise in the case of state-sponsored monuments like Trajan’s Column, whose primary purpose was not to present a pattern book of Roman soldiers, but to make a political statement. While a general level of accuracy can be demonstrated, there has clearly been some stereotyping, and any attempts to identify individual units by minute differences in the representation of their equipment are misguided (figure 19.6).

Archaeology provides us with actual examples of Roman arms and armor, but these are rarely closely dated, and the circumstances of their deposition in the ground are often obscure. The well-known Corbridge hoard illustrates a few of the difficulties. This collection of military odds and ends, contained in an iron-bound chest, was unearthed in 1964 from within the confines of the fort at Corbridge (England). Besides the well-known *lorica segmentata* armor, folded and wrapped in rags, the chest contained spearheads tied up in a bundle, along with other items including a broken *pilum* head, various tools and nails, a set of (illegible) writing tablets, a wooden tankard, and many small objects.
It is likely that the sculptor has employed artistic license here. Palazzo Altemps, Rome (Inv. 8564). Photo Credit: L. Tritle.

Archaeologists were unsure whether the chest had been buried beneath the floorboards of an upstanding building (ca. A.D. 85–100) or on vacant ground after the building’s demolition, but the nature of the remains more closely matches the latter scenario. And, as the burial of unwanted material is most likely to occur during periods of abandonment and withdrawal, the hoard’s deposition can probably be linked to the dismantling of the Hadrianic fort in ca. A.D. 139. But if the hoard’s dating is reasonably secure, its purpose is less obvious. All the pieces could conceivably have originated in a workshop, but without direct knowledge of the individual perpetrator or his objectives, the careful packing and burial of such an indiscriminate collection of items cannot easily be explained.

These are just some of the difficulties encountered in the study of Roman arms and armor. Ideally, the three strands of evidence come together and complement one another; but, more often, we rely on isolated bits and pieces, and there are entire decades of Roman history when the sources fail us entirely, frustrating our hopes of discerning the development of Roman arms and armor with any degree of accuracy and authenticity.

**The Roman Republic**

Polybius famously describes the Roman legionary’s armament, in a digression that he inserts into his narrative of the Second Punic War. “The Roman panoply is primarily the shield (*thyreos*),” he writes.
“The width of its curved surface is two-and-a-half feet (0.77 m), the height four feet (1.23 m), and the thickness of the rim another palm (0.08 m). Made from double planking stuck together with bull’s glue, the outer surface is covered with linen and then with calf skin. Around the upper and lower rim, it has an edging of iron, so that it is protected against the hacking strokes of swords (machairai) and against leaning it on the ground. It is also fitted with an iron boss, which largely fends off the blows of stones, pikes (sarisai) and flying missiles in general” (Polyb. 6.23.2–5).

The Shield

The shield that Polybius describes here is conventionally known as the *scutum*, and is recognizably the same item as the beautifully preserved oblong shield discovered at Kasr al-Harit (Egypt) in 1900. An examination carried out by the German scholar Wolfgang Kimmig established its method of construction. At 1.28 m long and 0.64 m wide across the curving face, it fits Polybius’s description fairly closely. But, rather than double planking, it was constructed from three layers of birch wood strips, the inner and outer of which were laid horizontally, sandwiching a vertical layer in between. Both faces were covered with lamb’s wool felt. On the back, a horizontal hand grip spanned a centrally placed oval cut-out for the owner’s hand, and this was covered on the front by a wooden “barleycorn” boss (so-called from its elongated oval shape), fixed at the midpoint of a vertical wooden spine.

If the shield had ever been edged in metal, none survived. But Polybius’s comment about leaning the shield on the ground finds an echo, a century later, in the words of Caesar, who describes how his exhausted men, in the battle against the Nervians in 57 B.C., “renewed the fight after resting against their shields” (Caes. *B Gall.* 2.27).

The Kasr al-Harit shield cannot be closely dated, but Polybius’s description finds further corroboration from a pair of well-known sculptures. The first of these is the frieze from the victory monument erected at Delphi (Greece) by Lucius Aemilius Paullus, following his defeat of the Macedonian King Perseus at Pydna in 168 B.C. (cf. Plut. *Aem.* 28.4). Though fragmentary and badly weathered, the figures of Roman soldiers clearly carry the long curved *scutum* with central handgrip. The second is the so-called “Altar of Domitius Ahenobarbus,” now in the Louvre (Paris, France), which is thought to have originated from the shrine erected near the Circus Flaminius by Gnaeus Domitius Ahenobarbus, consul in 122 B.C. (cf. Plin. *HN* 36.26). The detail is much finer and, in keeping with its theme of census-taking prior to military enlistment, the figures of four legionaries can be picked out, all of them carrying the *scutum* (cf. figure 19.7).
Figure 19.7 One of the column pedestal reliefs from Mainz, thought to have originated from the Flavian-era legionary headquarters there. The sculpture’s military provenance guarantees a degree of authenticity. Both figures wear the “Imperial Italic” helmet and carry the curved body shield known as the *scutum*. The left-hand figure carries the distinctive legionary *pilum*, with its short, slender iron shank, while the right-hand figure is armed with the short *Hispanicus* sword. Landesmuseum Mainz. Photo Credit: D. B. Campbell.

The Roman soldier often used the shield’s protruding boss (*umbo*) as a supplementary weapon. In his account of the Roman assault on the Carthaginian infantry line during the Battle of Zama in 202 B.C., Livy records that, “battering them with their shoulders and shield bosses (*umbones*), and moving forward into the cleared space, the Romans advanced a considerable distance, as if they were meeting no resistance” (Livy 30.34).

Polybius, in common with other authors writing in Greek, uses the word *thyreos* to represent the long body-shield. The word is probably related to *thyra*, the Greek word for a door. The similarity between the two words led Livy to commit one of his best-known blunders, when he claimed that, in 191 B.C., with the Romans and Aetolians battling underground for possession of a Roman siege mine, “things became more sluggish since they blocked the tunnel wherever they desired, sometimes by stretching rugs across, sometimes by hastily thrusting up *doors*” (Livy 38.7). However, Polybius’s version of the same event makes it plain that the stalemate was caused “because both parties threw up *shields* and wicker screens in front of them” (Polyb. 21.28.11).

At some stage, the Romans designed a leather cover for the *scutum*, tailored to fit snugly with a drawstring around the rim. First and foremost, it afforded some protection from knocks and scrapes on the march; this would have been desirable as many shields seem to have been highly decorated, a practice frowned upon by Scipio Aemilianus while preparing his army for the siege of Numantia (Frontin. *Str.* 4.1.5; also Plut. *Mar.* 201D; Polyaenus, *Strat.* 8.16.4). As a secondary benefit, the leather cover perhaps incorporated carrying straps, for the *scutum* was fairly heavy (a replica made by Peter Connolly weighed ca. 10 kg) and, when it was not being used in battle, it must have been awkward to carry around by its horizontal hand grip. Clearly, it was usual to uncover the *scutum* for
battle, as on one occasion in 57 B.C., when Caesar’s men were unexpectedly attacked while still
entrenching their camp, “there was no time to fasten on their insignia or even to put on their helmets
(galeae) and remove the covers (tegimenta) from their shields” (Caes. B Gall. 2.21).

The earliest archaeological example of such a tegimentum is the leather fragment from the
 legionary base at Oberaden (Germany), founded in 11 B.C. and occupied for only a few years.
Roughly the top third of the cover survives, confirming that the Late Republican scutum still had
parallel sides and a curved top (and, presumably, bottom) edge like the Kasr al-Harit shield.

There seems to have been a move toward replacing the barleycorn boss and the vertical wooden
spine that went along with it, as finds from Alise-Sainte-Reine (France), scene of Caesar’s
famous siege of Alesia in 52 B.C., include iron bosses of circular and “butterfly” shape (cf. Sievers 1995:
139). The distinctive oblong shield can be seen on the western relief of the so-called “Cenotaph of
the Julii,” erected in Saint-Remy de Provence (France) in 30–25 B.C., perhaps for a veteran of
Caesar’s Gallic campaigns; unfortunately, the style of boss cannot be discerned. However, the
metopes on the mausoleum of Munatius Plancus, thought to date from the 20s B.C., show
representations of various weaponry, amongst which several scuta can be seen; an exterior view
shows a circular umbo, while interior views show a central circular hole with horizontal hand grip.

The Sword

“Along with the shield goes the sword (machaira),” continues Polybius. “This, which they call the
‘Spanish,’ he wears on the right thigh. It has an excellent point and a strong cutting edge on both sides,
as its blade is firm and reliable” (Polyb. 6.23.6–7). Despite Polybius’s use of the specialist term
machaira, this is clearly the classic cut-and-thrust sword which is conventionally known as the
gladius Hispaniensis (“Spanish sword”). The machaira was properly a curved blade, and Polybius
either used the name for literary effect, or by mistake as the name of the only Spanish sword known to

This appears to be the case in a separate fragment from his work, preserved in the Byzantine
source known as the Suda, an encyclopaedic compilation of extracts from earlier works. It claims
that, “after the wars with Hannibal” (i.e., 218–201 B.C.), the Romans adopted the Celtiberian
machaira, “for it has an effective point and a powerful cutting stroke with both hands” (Suda M302 =
Polyb. fr. 179). This is surely an apt description, not of the hack-and-slash machaira, but of the
straight-sided Celtiberian La Tène sword and the cut-and-thrust gladius which evolved from it.

This sword came to be the defining weapon of the Roman soldier. Writing of events in Greece in
200 B.C., Livy records that the Macedonian soldiers, “being accustomed to fight with the Greeks and
Illyrians, had seen the wounds which were made by spears and arrows and, on rare occasions, by
lances; but now they saw bodies mutilated by the Spanish sword (gladius Hispaniensis), arms
lopped off at the shoulder, or heads separated from bodies with the neck cut right through, or entrails
lying open, and other repulsive wounds, and there was general panic as they began to see what sort of
weapon and what sort of men they had to fight” (Livy 31.34).

Polybius mentions the fact that “they call it the ‘Spanish,’” and indeed it seems that the classic cut-
and-thrust sword of the Middle and Late Republic was known as a Hispanicus (“Spanish”). The
naming of objects after their place of origin was not unusual; wool, for example, was often named
after the region of production, as Pliny explains: “there are many different colours of wool but no
specific names, so they are named by reference to their place of origin” (Plin. HN 8.191).
Two early examples of the *Hispanicus* come from Šmihel (Slovenia), where they were found alongside more than a hundred other items of weaponry, all of them thought to have been deposited, perhaps ritually, at some point in the early second century B.C. Their length, at ca. 65 cm, is fairly typical for this type of sword, as is their slightly “waisted” shape (meaning that, from a width of 5 cm at the hilt, the blades narrow to 4 cm in the middle and broaden again to full width, before tapering into a long point).

Best known is the example discovered in 1986 on the island of Delos (Greece), where it is thought to have been lost in the destruction of 69 B.C. (the date is provided by Phlegon of Tralles, quoted by Photius, *FGH* IIIB, 257). It was still in its scabbard, and remains of a charred wooden pommel were recognizable. With a blade length of ca. 60 cm, it compares well with the earlier Šmihel swords.

Another fine example was found in a tomb at Fontillet, near Berry-Bouy (France), where the ceramic assemblage suggested a date of ca. 20 B.C. The blade measured ca. 65 cm and, like the Delos sword, it was still in its scabbard.

All of these swords were sheathed in the same type of scabbard: two thin sheets of wood were covered with leather facing and framed with iron guttering; twin metal clasps near the opening were intended to support four suspension rings, two on each side (the Fontillet sword had all four surviving). Thus, instead of hanging vertically from one suspension point, the scabbard could be adjusted to the optimum angle for drawing and sheathing the sword comfortably.

**The Pilum**

After describing the sword and shield of the mid-Republican legionary, Polybius continues: “in addition to these, they have two javelins (*hyssoi*), a bronze helmet, and greaves” (Polyb. 6.23.8). He gives a fulsome description of the Roman javelin, more familiarly known by its Latin name, the *pilum*. “Of the javelins, some are heavy and some are light. Of the heavier ones, some are rounded and a palm in diameter (7.7 cm), some are squared off. The light ones, at any rate, resemble hunting spears of the same size, and are carried along with the ones mentioned before. The length of the haft of all of these is around three cubits (1.39 m). A barbed iron point, of similar length to the haft, is fitted to each” (Polyb. 6.23.9–10).

Only the metal parts of *pila* survive, of which the earliest known examples are thought to be those discovered in the ruins of the temple at Talamonaccio (Italy), which had perhaps been dedicated after the battle of Telamon (225 B.C.). *Pila* of similar design were included in the hoard of equipment from Šmihel. In all examples, a slim iron shank (less than 1 cm thick) ended in a wide, flat tang (ca. 8 cm long and 4 cm wide) with two rivet holes, one above the other, for attachment to the wooden haft. They may be divided into two groups, following the variations which Polybius noted in the design of the shank: some are short and stubby, with a square-sectioned shank (ca. 20 cm long) and a triangular barbed tip (ca. 5 cm long), while others are long and slim, with a round-sectioned shank (ca. 45 cm long) and a narrower barbed tip (ca. 4 cm long), often verging on the pyramidal.

In order to construct the *pilum*, the shank’s flat tang was slotted into a wooden block attached to the end of the haft, and riveted in place. Many tangs were equipped with turned edges, like flanges, clearly designed to wrap around the sides of the wooden block in order to strengthen the fastening point. Some still have the rivets in situ, measuring up to 4 cm in length.

Polybius describes the method of fastening in rather cryptic terms: “they make the fastening and its employment safe by inserting it right up to the middle of the wooden part and piercing it with closely-
spaced pins, so that, during use, before the fastening loosens the iron will break, even though its thickness at the bottom, and the junction with the wooden part, are one-and-a-half dactyls (2.9 cm), such great care do they take with the fastening” (Polyb. 6.23.11). Indeed, there are many examples of pila whose shanks have sheared through, as if to prove Polyb’s point.

Polybius envisaged a pilum whose iron point was of similar length to the three-cubit wooden haft (1.39 m); but the longest of the pila from Camp III at Renieblas (Spain), for example, has only a 55 cm shank, 6 cm tip and 9 cm tang, falling short of Polyb’s ideal by some way. At the other extreme are the short, stubby pila, examples of which were also found in the ruins of a farmstead at Ephyra (Greece), destroyed by the Romans in 167 B.C.; in Renieblas III, thought to date from the 150s B.C.; and at the hillfort of Entremont (France), thought to have been attacked in 123–122 B.C. Peter Connolly’s reconstructions of a short-shanked (“Talamonaccio type”) and long-shanked (“Renieblas type”) pilum weighed 1.3 kg and 1.7 kg respectively (Connolly 2000: 45).

The pilum so far described was perhaps Polyb’s heavy version. Connolly has suggested that these could have been “a short range weapon to be used from a rampart or tower from which they would be thrown downward” (Connolly 1997: 44); equally, they were sturdy enough to be used as thrusting spears, whose unique design could be guaranteed to do lethal damage even after punching through a shield.

Archaeological finds from the necropolis at Montefortino (Italy), as well as from Renieblas III and Šmihel, demonstrate an alternative design, with a long, socketed shank thinning to a point at one end. In this version, the wooden haft was inserted into the socket and held in place by a single rivet. This was perhaps Polyb’s lightweight pilum; Peter Connolly’s reconstruction weighed only 0.9 kg (Connolly 2000: 45).

The simplicity of the tip means that it is not always possible to determine whether a particular specimen has been preserved to its original length. As with the tanged variety, there is some variation in size, with complete specimens from Montefortino measuring only ca. 42–51 cm, from socket to pyramidal point. Nevertheless, one example from Renieblas III measures 94 cm, while another from Šmihel, although now only 74 cm, was originally recorded as ca. 93 cm in length.

It is commonly believed that the pilum was designed to bend on impact, in the same way as the smaller javelin (grosphos) issued to light skirmishers (the hasta velitaris of Livy 38.20). Polybius describes this much lighter weapon: “the wooden shaft is generally two cubits (0.93 m) in length and a dactyl (1.9 cm) in thickness, and the sharp point measures a span (23 cm), beaten out and sharpened to such thinness that it was immediately forced to bend on first impact, and the enemy could not throw it back” (Polyb. 6.22.4).

Caesar seems to describe a similar situation, in his battle with the Helvetians in 58 B.C.: “The soldiers on higher ground threw their pila and easily broke up the enemy battle line. Once broken, they drew their swords and charged into them. The Gauls were severely hindered in the battle, because many of their shields had been pierced and pinned together by the single volley of pila, and as the iron part had bent they could neither pull it out nor fight properly with their left hand encumbered” (Caes. B Gall. 1.25).

Tests, however, have demonstrated the difficulty in achieving this bending effect (Connolly 2001/2: 6–7). Certainly, the pilum’s long, slim point was capable of inflicting its own peculiar type of damage, as illustrated by a skirmish between Romans and Gauls near Gordium (Turkey) in 189 B.C.: “the front ranks of the legions hurled their pila at the Gauls who were positioned as guards at the gate; they were not wounded, but they were perplexed when their shields were pierced right through
and many of them became pinned together” (Livy 38.22).

The seven-times consul Gaius Marius was credited with an innovation in the design of the *pilum* in 102 B.C.: “for previously, the insertion of the wood into the iron was held by two iron pins, but then Marius left one as it was, and removing the other he inserted in its place an easily broken, wooden nail; he contrived that, when the javelin (hyssos) struck the enemy’s shield, it should not remain upright, but because the wooden nail broke, the haft (dory) should swing around the iron one and drag, being held fast by the twisting of the point” (Plut. Mar. 25.2).

The general logic of Marius’s innovation is clear. Where, previously, Polybius had been at pains to strengthen the junction between the metal and the wood, so that the weakest point was the thin iron shank itself, it seems that Marius deliberately weakened the junction, so that a spent *pilum* became a hindrance to the enemy, rather than additional ammunition. Plutarch’s “twisting of the point” perhaps refers to the barbed tip; having penetrated a shield, it would be difficult to extricate it again, particularly when the long shaft was simultaneously collapsing upon itself like a jack-knife.

The archaeology shows that the *pilum* tangs were no longer designed with flanges to secure the fastening, so that, if one of the two rivets were to fail, the wooden haft would indeed swing around the iron shank, disabling the weapon completely. However, fine examples from Valencia and Caminreal (Spain), perhaps from the time of the Sertorian War (82–72 B.C.), have two iron rivets still in situ, and examples from Alesia and Oberaden have an iron collar to strengthen the critical fastening point. It seems that, if Plutarch has correctly described Marius’s innovation, it was short-lived (cf. Connolly 1997: 41).

In battle, the legionaries must have thrown their *pila* before drawing their swords. Livy describes this sequence during fighting in Spain in 207 B.C., explaining that “the Romans hurled their *pila*. The Spaniards crouched down in the face of the enemy missiles, and then rose to hurl theirs. These the Romans received, in their usual close formation, with shields locked tightly together; then, advancing step by step, they proceeded to fight with their *gladii*” (Livy 28.2).

**Body Armor**

In his definition of armor, the Roman scholar Marcus Terentius Varro explained that it was named “lorica, because they used to make chest-protectors (*pectorales*) from straps (*lori*) of untanned leather, but afterward, the iron *Gallica*, an iron tunic made out of rings, was included in the same word” (Varro, Ling. 5.116).

It is this chest-protector (*pectoral*) that Polybius describes, when he writes: “in addition, the multitude wear a bronze plate measuring a span (23 cm) in all directions, which they place in front of their chest and call a heart-protector, to complete their equipment” (Polyb. 6.23.14). A circular embossed copper-alloy plate, 17 cm in diameter and decorated with concentric circles emanating from a central boss, was discovered at Numantia (Spain), the scene of prolonged Roman warfare in the second century. This was probably the type of object that Polybius envisaged. The method of suspension perhaps involved Varro’s leather straps, which could have been attached to the small rectangular plate, found riveted to the rim of the Numantia disk.

The *pectoral* was, in fact, a well-established feature of Italian armor. A colossal bronze statue of Jupiter on the Capitol had allegedly been made, after the defeat of the Samnites in 293 B.C., “from their chest-protectors, greaves and helmets” (Plin. *HN* 34.43). When they were not melted down or dedicated to the gods, they will have been passed down from fathers to sons and re-used for
Polybius also claims that “those men who are valued at more than 10,000 drachmas put on a cuirass made of chain, instead of a heart-protector along with the others” (Polyb. 6.23.15). He is clearly referring to Varro’s “iron tunic made out of rings,” which we nowadays call chain-mail. The Roman armor scholar H. Russell Robinson noted that Varro’s alternative term, Gallica, indicated a Celtic origin for this type of armor (Robinson 1975: 164).

The manufacture of mail was relatively straightforward, as it simply involved interlinking rows of iron or copper-alloy rings. However, alternating punched rings with butted or riveted rings, and ensuring that each one was linked to its four neighbors, was a time-consuming and, accordingly, expensive process. Archaeological finds are rare, no doubt owing to the fact that a damaged cuirass could easily be repaired.

The previously mentioned sculptures depict Roman soldiers wearing thigh-length, sleeveless mail cuirasses, belted at the waist, no doubt in order to transfer some of the weight from the wearer’s shoulders to his hips (Connolly estimated this to be ca. 15 kg). Centurions whose units had disgraced themselves during fighting with Hannibal in 209 B.C. were forced to stand “with swords unsheathed and belts removed” (Livy 27.13), a punishment designed to create maximum discomfort and embarrassment.

In combat, the shoulders were particularly vulnerable to hack-and-slash attacks, so a feature known as “shoulder doubling” was employed. The sculptures depict two versions of this. One took the form of a small mail cape, draped over the wearer’s shoulders and fastened by a clasp at the front; the other resembled a U-shaped mail yoke, which probably attached along the wearer’s upper back and wrapped around his neck before crossing each shoulder like a broad strap and fastening onto the cuirass at the front.

The “Altar of Domitius Ahenobarbus” also depicts an officer wearing the so-called “muscle cuirass” familiar from later sculpture. Although no examples from this period survive, earlier Hellenistic cuirasses illustrate the general form, and the Greek writer Pausanias, writing during the reign of Antoninus Pius, describes one which he saw in a painting at Delphi: “in my day, this kind of cuirass (thorax) is rare, but they wore them in ancient times. There were two bronze pieces, one fitting the chest and the parts around the stomach, and the other protecting the back; they were called ‘hollows’ (guala): one went in front and the other behind, and then they were fastened together with buckles” (Paus. 10.26.2). Pausanias calls it a “hollow cuirass” (gualothorax), though elsewhere it is called a “stiff cuirass” (e.g., Ap. Rhod. Argon. 3.1226: thorax stadios), to contrast with the flexibility of chain-mail.

The Helmet

Whether they could afford a chest-protector or not, every soldier would strive to own a helmet of some kind, for head trauma was usually more debilitating than a body wound. The classic western Mediterranean helmet of the period is nowadays known as the “Montefortino” type, after the dozen examples found in the necropolis there (near Ancona, Italy). Beaten in bronze, the elegant rounded conical dome of these helmets rises from a thick lower rim to a central crest knob; the short, angled neck guard is typically decorated with a cable pattern and the crest knob with incised waves or scales. Two rivet holes on either side of the rim were designed for the attachment of cheek-pieces.

Few Montefortino helmets survive with cheek-pieces intact, but a fine example from Italy (now in
Castel San Angelo, Rome) demonstrates how these items were hinged to the helmet’s rim. Each cheek-piece was fitted, on the inside of its lower edge, with a stud for a chin strap which passed around the wearer’s neck to a pair of D-shaped rings riveted beneath the rear of the helmet rim (Robinson 1975: 14–15, for the method of securing the helmet).

The solid crest knob was pierced by a hole, presumably to take a crest pin, though no examples are known. Polybius explains that, “in addition to all of this (viz., the panoply), they wear a crown of feathers and three upright red or black feathers, a cubit (46 cm) in height, whose fixture on top, together with all the other equipment, makes a man appear twice as tall, and fine and striking in his enemy’s eyes” (Polyb. 6.23.12–13). The “crown of feathers” is most likely to have been a plume.

It seems that the manufacture of armaments, though carried out by individual artisans, was a highly organized activity, and helmet manufacture was no different. When Scipio Africanus was preparing to invade Africa in 205 B.C., he requisitioned equipment from various Italian communities: “the Arretines promised 3000 shields (scuta), just as many helmets (galeae), and a total of 40,000 pila, gaesa and hastae in equal numbers” (Livy 28.45). (The gaesum and the hasta were different types of spears.) One Italian helmet, now in Munich, was stamped with its maker’s mark: Q COSSI Q (probably indicating that the armorer was “Quintus Cossus, son of Quintus”).

During the Late Republic, a modified version of the Montefortino helmet appeared, characterized by the flatter neck guard and hollow crest knob of the example from Buggenum (Netherlands). And finally, a new, simpler and lighter design of helmet was developed, which Robinson perfectly encapsulated as “a jockey’s cap worn back to front.” The example from Coolus (France), which gives this style of helmet its name, has a low bowl without crest knob and a small sloping neck guard; it seems to have been secured by a chin-strap, threaded through a single hole on either side of the rim. (It is sometimes also known as the Mannheim type, after a beautifully decorated German example.)

In its developed form, the Coolus-style helmet is best typified by the example from Schaan (Liechtenstein), with its bronze hemispherical bowl, flat projecting neck guard, bicuspid cheek-pieces and heavy reinforcing brow guard, now introduced for the first time. A similar example from Haltern has a Montefortino-style crest knob, demonstrating how the different traditions of helmet manufacture continued to influence craftsmen.

**THE PRINCIPATE**

There are rather more sculptural representations of soldiers of the imperial period than of their Republican forebears. Many of these are tombstones, and although most depict the deceased in his everyday wear, there are several that attempt to show his arms and armor. The iconic image of the imperial legionary comes, of course, from Trajan’s Column in Rome, whose spiral frieze depicts events from that emperor’s Dacian Wars (A.D. 101–102, 105–106). However, the somewhat standardized representations there can be set against those on the so-called Tropaeum Traiani (Adamklissi, Romania), whose metopes depict more individualized figures from the same period (figure 19.8).

The archaeological record becomes richer, too, thanks to the continuing excavation of forts and fortresses across the Roman world. Besides weapons and fittings from armor and shields, in many cases the finds include items of leatherwork.

As regards literary evidence, the role previously performed by Polybius in describing the Roman
Josephus does not describe the cuirass, but archaeology has revealed that a new type of body armor consisting of strips of sheet metal appeared during the reign of Augustus. Nowadays known as *lorica segmentata*, its Roman name is unknown. Several examples of the iron shoulder plates and girth hoops are now known, most notably from the Corbridge hoard, which enabled Robinson to determine the true method of constructing the cuirass. However, the copper alloy buckles, tie loops and characteristic lobate hinges survive as isolated finds from across the empire, perhaps because they were prone to failure and were frequently discarded.

The *lorica segmentata* is, of course, prominently displayed on Trajan’s Column, but in an apparently oversimplified form. It is also depicted on state sponsored monuments of the Antonine period at Rome, but the trend in tombstone sculpture toward depicting deceased soldiers without armor makes it difficult to gauge how pervasive this style of armor was.

*Figure 19.8* One of the metopes from the Trajanic-era monument known as the Tropaium Traiani, at Adamklissi. The cavalryman is depicted bareheaded, but wears the standard hip-length chain-mail shirt. On his feet, he wears the characteristic openwork leather boots known as *caligae*. His flat, hexagonal shield can be seen behind the horse’s head, and he carries the long *contus* in his right hand; his sword is slung on the left side. Adamklissi Museum, Romania. Photo Credit: D. B. Campbell.

At the same time, the armor that Varro called *Gallica* continued in use. Nowadays usually named *lorica hamata*, it is doubtful whether the Romans ever called it this. Isidore of Seville referred to it...
simply as *lorica*: “the cuirass (**lorica**) is so named because it lacks leather straps, for it is woven only out of iron rings” (*Etym*.18.13.1). It was this type of armor, “where the slender chains combine in solid rows to form the flexible cuirass,” that the Flavian poet Statius attributed to King Creon, in his epic about Thebes (*Stat. Theb.12.775*).

It has been suggested that the rings themselves were called *hami* ("hooks"). However, in the chain-mail cuirass, the shoulder-doubling was typically held in place with hooks of serpentine form, linked to a centrally-placed fastener on the wearer’s chest. It is perhaps these hooks that the first century poet Vergil mentions, when he describes the legendary armor of Neoptolemus, the son of Achilles, as “a cuirass (**lorica**) fastened together with hooks (**hami**) and triple-threaded with gold” (*Verg. Aen* 3.467; cf. 5.259–260).

At any rate, the resulting mesh was remarkably effective in stopping weapons, although arrows might penetrate between the rings, and a man would still suffer from the impact of a blow. For this reason, it seems that a quilted undergarment (thought to be called the *subarmalis*) could be worn. But it was not only the mail-armored man who benefited, for the shoulder plates of the *lorica segmentata* weigh heavily on the shoulders, so such a garment would help in this instance, too.

Unusually, a complete mail shirt was recovered from the excavation of a barrack block in the fort at South Shields, where it had been preserved between layers of burnt daub during the destruction of the building.

A third sort of cuirass was constructed out of scales, sewn in rows onto a cloth undergarment in such a way that each row overlapped the row beneath. The modern name, *lorica squamata*, has been manufactured from Isidore’s explanation, that “scale (**squama**) is an iron cuirass made from iron or bronze plates (**lamminae**) linked together like fish scales, and named from the brilliance and likeness of the scales” (*Etym*.18.13.2). Plates of different metals could be used for effect, and several different sizes and shapes have been found.

It was perhaps this type of cuirass that the Flavian poet Silius Italicus imagined in his epic on the Punic Wars, when he described Flaminius’s armor as having “twisted hooks (**hami**) woven with rough iron scales (**squamae**) and heightened by a scattering of gold” (*Sil. Pun*. 5. 140–1).

**The Helmet**

Along with the cuirass, Josephus’s soldier wore a helmet. The bronze helmet of Coolus design had been further modified by deepening the neck guard, while the reinforcing brow guard had become a standard feature. An example from Drusenheim, near Haguenau (Alsace), is typical, with its wide, flaring neck guard, marked with the names of previous owners, one of whom specifies that he belonged to (>**centuria**) RVFINI LEG IIII ("Rufinus’s century in the Fourth Legion"). The crest knob was retained, often drilled for the insertion of a plume, but the Drusenheim example also had feather tubes soldered to the sides of the helmet just above the wearer’s temples.

By the time of the Jewish War, a new helmet design had evolved, usually made of iron. Robinson believed that he could discern two developmental strands, which he classified as “Imperial-Gallic” and “Imperial-Italic,” reflecting their supposed geographical origins. In fact, both types of helmet continued the tradition of hemispherical bowl, reinforcing brow guard, and deep, flaring neck guard, but omitted the crest knob. Both now included ear recesses cut out of the rim, often reinforced with bronze ear guards, and the back of the head was further reinforced by horizontal ribbing. Robinson’s “Imperial-Gallic” helmets were further characterized by the application of decorative “eyebrows,”
embossed on the front above the brow guard.

A fine example of Robinson’s “Imperial-Gallic” series, recovered from the Rhine at Weisenau (Mainz, Germany), was decorated with applied brass bosses, three along the neck guard and three arranged on either cheek guard. A brass crest plate, incorporating a horizontal front-to-back tube, was riveted to the top, so that a crest-holder could be inserted, while a hook fixed at the front of the helmet no doubt ensured the stability of the crest itself. A looped brass carrying handle was attached to the outside of the neck guard. Similar features occur in Robinson’s “Imperial-Italic” series of helmets, one of which, found at Hebron (Israel), had iron cross-bracing riveted to the skull.

The Sword
Josephus continues his description of the Imperial infantryman by observing that “the sword on his left is much longer than the other one; for the one on his right is not more than a span (23 cm) in length” (Joseph BJ 3.94). This short sword is clearly the soldier’s dagger (pugio), for this weapon’s characteristically waisted blade was normally 25–30 cm long.

At the same time, the gladius Hispaniensis (or “Hispanicus”) continued in use, although the correspondence of Claudius Terentianus, preserved on papyrus, shows that the weapon could simply be called a “fighting sword” (gladius pugnatorius). The earlier waisted blade (the “Mainz” type, in Gunter Ulbert’s scheme) appears to have given way to a parallel-sided blade (Ulbert’s “Pompeii” type) of similar length.

It seems that, in Josephus’s description, he may have confused the sword and the dagger. Contemporary sculptures, for example the Rhineland tombstones with their full-figure representations of the deceased, show that the common soldiers wore their sword on the right side, while centurions and officers wore theirs on the left.

The Pilum and Shield
Josephus writes that “the infantrymen who are selected to accompany the general carry a lance (lonche) and a shield (aspis), but the remaining legion carry a javelin (xyston) and an oblong shield (thyreos)” (Joseph BJ 3.95).

The archaeological and sculptural evidence (e.g., the Tropaium Traiani) indicates that legionaries continued to use the pilum, so it seems that Josephus has simply utilized the word xyston for this distinctive weapon. The Greek word lonche is, however, equivalent to the Latin lancea, and we know of specialist legionary troops designated as lanciarii (“lance-men”); one tombstone depicts the deceased with a long quiver containing five of these throwing weapons.

Similarly, legionaries continued to use the curved body shield (scutum), rendered in Greek as thyreos. It remained concave, but where the Republican version was curved at the top and bottom, it seems that, in the imperial period, a rectangular version came into use (e.g., Trajan’s Column, and the Tropaeum Traiani). It was edged with lengths of brass binding, a frequent find on archaeological sites, and the handgrip was covered by a hemispherical brass umbo. A fine example, set in a decorated rectangular plate and etched with the name of the Eighth Augusta Legion, was dredged from the Tyne at South Shields (England).

The general’s selected bodyguard may have used a different sort of shield, for Josephus’s chosen word, aspis, normally describes a round shield. On Trajan’s Column, the standard-bearers and
musicians are depicted carrying a small, circular shield (*clipeus*), and a leather segment of a circular cover (*tegimentum*) from Castleford (England) would have fitted a shield of ca. 50 cm diameter.

**The Cavalry Sword, Spear, and Shield**

Josephus writes that “amongst the cavalrymen, the long sword (*machaira*) is worn on the right and the long spear (*kontos*) in the hand, and the shield (*thyreos*) sideways along the flank of the horse, and hung in a quiver at the side are three or more javelins (*akontes*), with broad points and no smaller than spears” (Joseph. BJ. 3.96).

Few infantry swords had blades longer than 50 cm (the length of the “Pompeii” style sword from Newstead, Scotland), but longer swords occur in the archaeological record, with parallel-sided blades measuring ca. 70–90 cm. These have been identified as examples of the “broadsword” (*spatha*). Writing of events in A.D. 50, Tacitus contrasted the “swords and javelins (*gladii ac pila*) of the legions” with the “broad swords and spears (*spathae et hastae*) of the auxiliaries” (Tac. Ann. 12.35). However, it seems likely that auxiliary infantrymen wielded the same short sword as their legionary counterparts, and that it was mainly horsemen who benefited from the longer reach of the *spatha*. Indeed, in his description of the Roman cavalryman, Arrian claims that “the long and broad *spatha* is suspended from his shoulders” (Arr. Tact. 4.8); suspension was by a baldric, examples of which can be seen in sculpture (see figure 19.8).

There was not necessarily an official nomenclature of swords, however. A writing tablet written by a cavalry decurion at Carlisle (England) lists the names of cavalrymen “who did not have regulation swords (*gladia instituta*)” (Tomlin 1998: 55–63, no. 16). The writer uses the archaic term *gladium* (perhaps simply a spelling error for *spatha*).

There was an even wider vocabulary of spears, but their defining features often elude us. Josephus’s cavalryman carries the “long *kontos*” (or *contus*), perhaps intended to be used as a thrusting weapon. In infantry hands, the thrusting spear was often called the *hasta* (or, in Greek, *dory*). He also carries “three or more *akontes*,” which are clearly intended as missiles. The elder Pliny is known to have written an entire book about “Throwing missiles from horseback” (*De iaculatione equestri*: Plin. Epist. 3.5.3), but such weapons were usually called “lances” (*lanceae*). The same writing tablet from Carlisle lists “all the names of lance-men who are missing lances (*lanciae*)” and further qualifies the weapon as a “fighting lance” (*lancia pugnatoria*) (Tomlin 1998: 55–63, no. 16).

Cavalrymen depicted on sculptures carry a flat, oval (or, occasionally, elongated hexagonal) shield with central handle. Like the legionary *scutum*, it had a protective cover secured by a drawstring. Such an oval goatskin *tegimentum* discovered at Valkenburg was designed for a shield of ca. 120 cm x 60 cm. It is quite likely that auxiliary infantrymen used the same shield, and even the legionaries on the Column of Marcus Aurelius are depicted carrying this type.

**Cavalry Armor and Helmets**

Josephus continues his description of the cavalry by noting that “they have helmets and cuirasses, just like all the infantrymen. The equipment of those selected to accompany the general differs in no way from that of the horsemen in the squadrons (*alae*)” (Joseph. BJ 3.97).
It is clear, particularly from the evidence of figural tombstones, that cavalrymen wore mail or scale shirts, no doubt to facilitate the maneuverability required when fighting on horseback. These were similar to the infantry cuirasses, with modifications to enable the wearer to sit in the saddle comfortably.

Cavalry helmets, on the other hand, are thought to differ from infantry versions, again owing to the peculiarities of cavalry fighting. The archaeological record offers various helmets that sport a deep back, a relatively narrow neck-guard, and cheek-pieces that completely cover the ears, an ideal defense when blows may be coming from all around the wearer; in place of the infantry helmet’s brow-guard, they have a flat brow-band. Many are ostentatiously decorated, including copper-alloy sheathing for the helmet bowl, often sculpted to represent wavy hair. Such ornamentation is thought to reflect the higher rate of pay enjoyed by cavalrymen. This classic design, labelled “Auxiliary Cavalry Type A” by Robinson, is typified by the helmet discovered in 1981 at Weiler (near Arlon, Luxemburg), and can also be discerned on several cavalry tombstones.

Another design which is thought to have been exclusive to cavalry can be seen in the Niederbieber helmet (Robinson’s “Type D”), with its crest like a cock’s comb running from the apex down the back, and a similar one from Heddernheim (Robinson’s “Type E”), with its pointed peak and thick, upright cross-bracing on the skull. Like “Type A,” both have all-enclosing ear-guards; those of Niederbieber design lap down over the wearer’s collar bone, while those of Heddernheim design wrap around the wearer’s chin.

Finally, mention should be made of Robinson’s so-called “Cavalry Sports” helmets. One of these, typified by the example from Guisborough (England), is simply a variation on the Weiler style; it lacks the ornamental hair, but elaborates the flat brow-band so that it projects upward at the front. Others, like the example from Vize (Turkey), are recognizable cavalry helmets (in this case, a Weiler helmet) with a face mask applied. It seems likely that these were used in action, and were not restricted to the parade ground.

**Later Developments**

It is often assumed that Roman armor fell out of use in the later period. However, although *lorica segmentata* currently seems to disappear in the mid-third century, mail and scale continued. At the same time, the old “Imperial” design of helmet was eventually replaced by a simpler construction known as the “ridge” helmet, in which the two sides of the bowl were manufactured individually and fastened together with a central ridge of metal; cheek- or neck-guards were attached separately.

In fact, there is thought to have been a general simplification of the soldier’s panoply, with a concentration on the flat, oval shield and long broadsword, and the replacement of the *pilum* with more basic forms of javelin. These elements can already be observed at Dura Europos, whose destruction has been placed in ca. A.D. 256. No *lorica segmentata* fittings were found, but fragments of iron mail and hundreds of copper-alloy scales, in many cases still mounted on their fabric backing, have survived. Similarly, the surviving swords were of *spatha* type, with no sign of the *gladius Hispaniensis*, and out of more than a dozen shields, only one was a *scutum*, manufactured in triple ply (like the Kasr al-Harit shield) but rather short and squat, at 100 cm by 86 cm. The other shields, constructed from vertical planks of wood, were slightly dished ovals of around 110 cm by 90 cm; a thin layer of animal skin had been glued to both sides and, in three cases, elaborately painted.
The homogenizing tendency continued into the fourth century. It may be coincidental that the distinction between citizen legionaries and peregrine auxiliaries had ended with Caracalla’s universal granting of Roman citizenship. Indeed, it is more likely that, in a changed world, practicalities required each soldier to be equipped for a variety of tactical situations.

**BIBLIOGRAPHY**


The very first image in European literature is a city under siege; some of the earliest narrative scenes in Aegean art also concern cities under attack or siege (Mylonas Shear 2000: 41, fig. 62; Bleibtreu 2002; Schulz 2002). Descriptions of besieged cities or forts abound in Greek literature, for example, the siege of Babylon by Cyrus, the sieges of Plataea, Sphacteria, Melos, and Syracuse during the Peloponnesian War, those of Tyre and the Sogdian Rock by Alexander (327), the siege of Rhodes by Demetrius (305–304), and the siege of Abydos by Philip V (201). From the countless literary and visual narratives inspired by the siege and sack of Troy to the best sellers of the fifteenth century inspired by the siege of Constantinople or their even more numerous equivalents inspired by the sieges of Candia and Vienna in the seventeenth century, from Gogol’s *Taras Bulba* (1835) to *La citadelle de la mémoire* of Aris Fakinos (1992), and from the medieval manuscripts illustrated with the siege of Jerusalem to the claustrophobic celluloid images in Nicholas Ray’s *55 Days at Peking* (1963), Cy Endfield’s *Zulu* (1964), Boris Sagal’s *Masada* (1981), Peter Jackson’s *Lord of the Rings: The Return of the King* (2003), and Ridley Scott’s *Kingdom of Heaven* (2005), the observation of the emotions, the behavior, and the fate of human beings in besieged cities—hope and despair, heroism and cunningness, self-sacrifice and brutality, solidarity and betrayal, hopelessness and unexpected turns of fortune—have exercised an enormous fascination on readers and audiences.
Is this fascination a survival of the thrill the prehistoric hunters must have felt when they surrounded their game—or their anxiety when they sought refuge in caves surrounded themselves by wild animals? I leave this to ethnologists to explore. For the historian of ancient Greece sieges are of particular interest for other reasons: they abolish the boundaries of age, gender, and legal and social status; they affect women and men, children, young warriors and elderly individuals, town dwellers and farmers seeking refuge behind the city wall, citizens, foreign residents, and slaves, the wealthy and the poor alike; they challenge the leadership, social cohesion, inventiveness, and emotions of the besieged, bringing them to the edge of their abilities and endurance.

Two of the rather rare images of besieged cities in classical art, on the frieze of the Nereid Monument at Xanthus (ca. 400–380), somehow capture this complexity. One of them depicts a woman on the walls of the besieged city along with the warriors. The other shows another important aspect of siege: the application of technical devices (scaling ladders) by the besiegers (figure 20.1).

Sieges were far more common in Greek warfare than one might think. A few exceptional and memorable events—such as the sieges of Plataea, Rhodes, and Syracuse—have left such an impression that they have overshadowed the innumerable blockades of cities in the course of the classical and Hellenistic periods. The very diverse Greek vocabulary concerning blockades and sieges of towns (e.g., περιστρατοπεδεύω, προστρατοπεδεύω, προσκαθέζομαι, πολιορκέω, προσεδρεύω, συγκλάζω, all meaning to invest, encamp about, i.e., to besiege) reflects the heterogeneity of this type of military operation as regards dimensions and tactics (Garlan 1974: 5f., 33). Many sieges did not affect the entire city but only the fortified citadel or the fort of a garrison. Whether a siege became memorable depended on an extraordinary feature: usually its length, as in the case of Bactra, besieged by Antiochus III for two years (ca. 208–206), or the application of extraordinary technical devices by the besieger or the defender, as in the siege of Rhodes by Demetrius Poliorcetes or during the defense of Syracuse by Archimedes; sometimes the unexpected fall, as in the case of Tyre (333) and Aornos (327), or the unexpected rescue as in the case of Phleious (369); the brutality after the fall...
of a city, as of Melos (415) and Xanthus (42); the exceptional bravery of the besieged as at Abydos (201); or the sudden reversal of fortune as in Syracuse during the Peloponnesian War, when the Athenian besiegers ended up being chased by the besiegers and their defeat became the beginning of the end of the Athenian empire (Thuc. 7.75.7):

This was the greatest reverse ever suffered by a Greek army; for they had come to enslave others, and now they were going away frightened of suffering this fate themselves; and instead of the prayers and the paeans with which they had sailed out, the words with which they were now leaving were directly contrary; they were travelling on land instead of sailing, trusting in hoplites rather than in ships.

In this chapter I explore the importance of siege not primarily as a phenomenon of ancient military tactics and warfare, but as a phenomenon of cultural and social history. The focus is on the challenges it presented for political and military leaders, technological innovators, and authors seeking to instruct and to please. A siege was a challenge also for the emotions of men and women, mortals and gods, those who experienced it and those who found pleasure in writing or reading narratives about it.

SOCIAL CHALLENGES

One of the pieces of advice given to generals by Philon of Byzantium, the author of a military treatise (late third century), is to regard the money spent for a siege and for bribing potential traitors as a good investment (Philon D 65 = Garlan 1974: 322: “do not spare money for bribery or for other expenses; for when you take the city you will get a multiple of this money”). In another passage, Philon takes for granted that not the entire population can be trusted:

And it is the right thing to change the bivouac and the watch service of those soldiers or citizens, whom you do not trust; they should not know, which part of the wall they will be guarding, so that they will be unable to betray the city to the enemies. (C 34 = Garlan 1974: 311)

The fear of civil strife and treason during a siege is mentioned several other times in his work (D 12, 15, 72, 83). Similarly, Aeneas Tacticus (mid-fourth century), author of a treatise on How to Endure a Siege, places social harmony on the top of the list of his recommendations:

They (the soldiers) must be devoted and supporters of the existing order; this is extremely important, since such a group can act like a citadel against the connivance of the other party; for they would scare the opposition within the city. Place in the leadership and in charge of those troops a man who is not only prudent and vigorous, but also one whom a change of government would expose to the greatest dangers (1.5–7)… It should be noted whether there is concord among the citizens, for this is one of the greatest advantages during a siege. (10.20)

The fear of a revolution is continually referred to by Aeneas (2.1, 2.7, 3.3, 10.3, 10.15, 10.25, 11, 17, 22.5–6, 22.17, 30.1; Urban 1986; cf. Boëldieu-Trevet and Mataranga 2003), who advises the political and military leaders inter alia to place trustworthy persons in locations of critical importance (3.3), to exercise close control over exiles, foreigners, and slaves (10.5–13), to let those who were dissatisfied with the regime to leave freely (10.19), and to remove the most influential leaders of the opposition from the city by sending them away under some pretext (10.20), to take measures in order to win the loyalty of the mass of the citizens (14).

Philon does not elaborate on the motifs of traitors, but our information about the common
background of civil strife in the ancient world makes political factions, social conflicts, and, from the fourth century onward, the indebtedness of large parts of the population the most likely candidates. This is directly attested by Aeneas, who recommended the appointment as keepers of the gates of men who had something to lose and not men who might be inclined to revolt because of poverty or debts; he adds that Leucon, ruler of the Cimmerian Bosporus, discharged guards who were in debt (5.1–2). Under certain circumstances, a city should consider the reduction of interest or even the cancellation of debts (14.1).

A siege itself did not create political dissent, but the partisans of the opposition, for whom a foreign enemy was a lesser evil than a local opponent, found both an unexpected ally and the opportunity to strike; treason during a siege was a very realistic fear (Garlan 1974: 179–83, 202–3, 345–6). The arrival of an Arcadian army at Olympia in 365 encouraged the Elean democrats to capture the acropolis, but their enemies soon drove them out and into exile (Xen. Hell. 7.4.14–16). A siege also did not generate social conflicts, but it did enhance existing ones, brought to the surface latent dissatisfaction, and made social and economic inequalities more visible. Thucydides sketches the mood in Syracuse at the beginning of the siege by the Athenians:

> They took no final decision, and as it often happens with men who are in a difficult situation, now that they were more closely besieged than ever, some overtures were made to Nicias, and there was still more of this kind of talk in the city. For they were also somewhat suspicious among themselves because of the present evil and they deposed the generals under whom this had happened, attributing the harm either to their bad luck or because of their treachery, and replaced them with others. (6.103.4)

An opposition that became particularly evident during a siege is that between city and land, urban population and farmers. Relevant evidence is provided by the comedies of Aristophanes during the Peloponnesian War, after the agrarian population of Attica had been forced to withdraw behind the Long Walls and watched the fields being destroyed by the Spartan army (Ach. 512; Pax 447–53, 479–80, 511). Such calamities affected different social groups in different ways; the great landowner with holdings in different locations lost only part of his revenues and could always use his savings; the small landholder, on the contrary, often lost everything;\(^5\) the concentration of population in the city increased the demand for urban trades, but the regular flow of supplies was interrupted or limited. Pericles realized the potential danger from the dissatisfaction of the population (e.g., Thuc. 2.16, 2.52, 2.59.1–3, 2.65.2–3) and promised to donate his estates to the city, should the enemies spare them in order to stir up prejudice against him (Thuc. 2.13; Plut. Per. 23).

A specific social group that saw in siege and, more generally, in war, a chance to improve their situation were the slaves. Some found an opportunity to run away (e.g., Ar. Pax 451–452; Aeschin. 2.79; Ducrey 1999: 77 n. 6, 216), others hoped to be given their freedom by making themselves useful for the defense or to be rewarded by the besieger if they betrayed their masters (e.g., App. B Civ. 4.81). Messenian helots, for example, brought food to the Spartans who were besieged by the Athenians in Sphacteria (425; Thuc. 4.26.5–8); the Abydenes freed their slaves during the siege of 201, “in order to have men who would fight with them with no hesitation” (Polyb. 16.31.2–4). The presence of slaves in the besieged Carian city of Theangela (ca. 310) was such an important factor that a special provision was made for them in the treaty that ended the siege (Austin no. 33: “for all the slaves who came to the city in peace the clauses of the treaty between Eupolemus and Peucetias shall apply; for those who came in war there shall be an amnesty”). Unfortunately, the vague formulation of the treaty allows us only to observe that the slaves were a substantial factor and to speculate about the background (Couvenhes 2004: 107–9; Chaniotis 2005: 126).
It is for this reason that the maintenance of harmony in a besieged city was as high a priority as procuring engines for the defense or mercenaries (cf. Boëldieu-Trevet and Mataranga 2003). In order to instigate discontent and to win the cooperation of dissatisfied groups the besieger should make announcements for the besieged to hear: the man who would provide information on the weapons of the defenders or kill military engineers should expect honors and rewards; rewards also awaited leaders of the opposition, who would join the enemy; the slaves were to be promised freedom, the soldiers promotion, the foreign residents crowns and rewards. This is the recommendation given by Philon (D 12–13 = Garlan 1974: 317), who also describes its effect: the defenders were thus prevented from giving weapons to slaves and foreigners; the number of the defenders decreased; the food supplies were consumed fast; conflicts arose in the city.

The same Philon, changing the perspective, urges the participation of the entire population in the defense of the city. Should enemies enter the city, the inhabitants should close the gate doors behind them and attack them with all available forces: “the boys, the female slaves, the married and unmarried women shall strike then from the roofs (of the houses) and all should be active in the town” (C 31). Philon does not mention the male slaves, because he takes for granted that they have already been recruited as soldiers, and this is indeed a measure known to have been taken in critical situations (Garlan 1972, 1974: 384).

Philon’s recommendations correspond exactly to measures taken by the Rhodians at the beginning of Demetrius’s siege (Diod. 20.84.2–4): they allowed metics and foreigners to join the army, promised freedom and citizenship to slaves, sent away those who were of no service in order to save the supplies and to avoid betrayal by those who were not satisfied; thus they achieved the desirable concord.

In critical situations, the authors of Greek decrees, usually members of the political elite, tended to apply a rhetoric of unity and concord. A Hellenistic decree from Cos concerning the collection of funds for the defense of the island (ca. 201), appealed to the participation of all: citizens and their wives, illegitimate children, inhabitants lacking citizenship, and foreigners. In Athens (243?) the entire population was asked to contribute money for the collection of corn and thus for the rescue of the city and the protection of the countryside. Such appeals to the entire population in times of need created the illusion of accord; if only rhetoric could abolish legal inequalities, conflicting interests, and social divisions.

**LOGISTICS AND TECHNOLOGICAL INNOVATION**

During the Second Punic War Roman troops under M. Claudius Marcellus besieged Syracuse (214). He led a fleet of sixty quinqueremes filled with all sorts of weapons and missiles; eight galleys fastened together supported a platform, on which he erected a huge engine (*mechane*). Marcellus had failed to take into consideration that one of the city’s inhabitants was one the greatest minds of Classical antiquity, Archimedes. Plutarch tells that all his army and supplies “were of no account for Archimedes and his engines” (*Marc. 14.3*). Archimedes put his genius in the service of Syracuse, inventing technological devices that made the life of the besieger difficult (*Plut. Marc. 15–17*). All sorts of missiles and stones were thrown with incredible speed upon the Romans; their ships were destroyed by beams suddenly projected from the walls; iron claws seized their ships at the prow, lifted them up into the air, and then let them fall; a siege engine, called *sambuca* because of its resemblance to a musical instrument, was destroyed by huge stones hurled against it from the city. If
Marcellus ultimately managed to capture the city, it was because during some negotiations he noticed a tower which was not well guarded, estimated its height, had scaling ladders prepared, and attacked while the Syracusans were celebrating a festival; the sound of trumpets on all sides created the impression that the entire city had been captured (Plut. *Marc.* 13.2–3). Both the attack during the festival and the use of trumpets and noise to create confusion among the enemy are stratagems recommended by authors of relevant treatises (Philon D 27; Garlan 1974: 397). In Syracuse the cunning of the general outwitted the inventiveness of the geometer.

Thucydides’s famous description of the siege of Plataea resembles a competition in inventiveness between Spartans and Plataeans (429; Thuc. 2.75–78.1; Aen. Tact. 2.2–6; Garlan 1974: 115–16, 146). The Spartans built a stockade around Plataea and raised a mound for seventy days against the city. The Plataeans responded by constructing a higher wall with bricks and timber; coverings of skins and hides protected the workers and the construction from incendiary arrows. The mound and the wall were competing with each other in gaining height. When the Plataeans made an opening in the wall at the point where the wall and the mound met, and began to draw the earth in, the Spartans threw into the breach clay packed in reed mats, which could not filter through like the loose earth. Thereupon the besieged dug a mine beneath the mound drawing away the earth to their side from underneath. When the besiegers brought up engines over the mound and shook down part of the wall, the Plataeans threw nooses over them and pulled them up; the heads of the battering rams were broken off by beams suspended on the wall.

Thucydides’s description is closely paralleled, for example, by Arrian’s and Diodorus’s narratives of the siege of Tyre by Alexander and Diodorus’s account of the siege of Rhodes. We encounter again a similar competition in inventiveness, technical expertise, and tricks. In Tyre, the Greek army devised new catapults and troop carriers equipped with scaling ladders and built a mole; the Tyrians devised anticatapult engines, built high wooden towers on the battlements; divers swam under the surface and cut the ropes of Alexander’s boats. In Rhodes, Demetrius constructed *chelonai*, towers, ballistic devices, and the greatest helepolis ever; the Rhodians responded by arraying catapults and *balistae* of all sizes, and filled light boats with inflammable material in order to burn the engines of the enemy. When Demetrius’s sappers undermined the wall, the Rhodians undertook mining operations preventing the enemy from advancing. Both parties applied deserters and traitors. With their courage—and a little help from their friends—the Rhodians saved their city.

While an element of improvisation dominates in the narratives of the Classical period, the employment of technology is more prominent in the case of Tyre and later of Rhodes and Syracuse, and reflects indeed the enormous advancement of technology in the fourth century and then in the Hellenistic period (Garlan 1974: 169–83; Cuomo 2007: 41–76). That military needs often promote technological innovation is too well known to our world, from Wernher von Braun’s contribution to space travel to the invention of email. No other form of warfare had such an impact on ancient technology as the art of siege and, in response to it, the measures for the defense of a besieged city. The best known among the numerous engines used for the siege of a city in the Classical and Hellenistic periods were the *krios*, the battering ram for damaging walls and gates, and the helepolis, a tower-like wooden structure, consisting of many storeys and carried on wheels, equipped with devices against fire and with gangways which were thrown over to the wall to enable the troops to get into the city wall or a tower. Simple wooden towers (*pyrgoi*), which lacked artillery, served the transport of gangways and scaling ladders. An impressive lifting device (*sambyke*), developed in the Hellenistic period, enabled small detachments of soldiers to be lifted to the wall. For the destruction
of city walls the Greeks, and later the Romans, also used the “tortoise” (chelone), an engine equipped with a drill. A new type of a sling (kestros) was invented during the Third Macedonian War, and other Hellenistic inventions include the torsion catapult, the repeating catapult, and the flamethrower. There were also ramps and scaling ladders for the assault of troops and incendiary devices; even elephants were tried, but with limited efficiency. The development of fortification walls and towers was a response to the advance of siege tactics and technology, especially in the fourth century.

If we can use the term “science of war” in connection with Greek warfare, it is because of the contribution of scientists to the art of siege. Many of such specialized military engineers responsible for the construction, deconstruction, and transportation of artillery and other equipment for siege, are anonymously referred to in the historical narratives—such as the specialists from Cyprus and Phoencia assembled by Alexander to Tyre for the city’s siege (Arr. Anab. 2.21.1) or the engineers (technitai) from Asia Minor recruited by Demetrius Poliorcetes for the siege of Salamis on Cyprus in 306 (Diod. 20.48.1). Some are known by name because of their achievements, for example, Diades, one of the engineers of Alexander (Vitr. 10.13.3, Lat.Alex. col. 8, 12–15), and Epimachus of Athens, the constructor of a helepolis, nine storeys high, for the siege of Rhodes by Demetrius Poliorcetes (Lendle 1975: 33–47; 1983: 71–7, 107), and Zoilus and Callias of Aradus, who also demonstrated their skills during the same siege (Garlan 1974: 209).

Dionysius I of Syracuse was the first to enhance technical innovation in grand scale for more effective sieges during his wars in the early fourth century (Garlan 1974: 156–69), and it was in his court that the catapult was either invented or dramatically improved (399 B.C.; see below), and his example was followed by Philip II of Macedon (Garlan 1974: 201). Hellenistic kings, keen promoters of what we today call “applied science” both for their self-representation (e.g., automata for processions, luxurious ships; Hesberg 1987 and 1996: 88–96; Pfrommer 1996) and for the sake of warfare, often hosted in their courts mathematicians and engineers exactly for this purpose (figure 20.2). Examples include Daimachus, author of a work on the art of siege, who probably was in the service of Antiochus I (Poliorketika hypomnemata: FGrHist 65, with Garlan 1974: 210), Ctesibius of Alexandria in the court of Ptolemy II (Lendle 1983: 113–16), and Archimedes in the service of Hieron II of Syracuse. Biton, the author of a book on siege engines, found it appropriate to dedicate his treatise to a king (Ath. 14.634a).

Although for the largest part of the Greek world, the world of the city-states and the confederations, warfare was to a great extent an affair of citizen militias (Chaniotis 2005: 20–6), the role of mercenaries, special troops (e.g., archers, peltasts), and specially trained personnel for the navy and above all for the artillery, increased dramatically from the fourth century onward, in particular after Alexander. The catapult, invented or dramatically improved in the early fourth century (Diod. 14.50.4; Garlan 1974: 164–8; Campbell 2011), became one of the most effective siege engines. Its operation was not possible without training (IG XII5. 647; cf. IG II² 1006 lines 34f.) and was entrusted to specialists, the katapaltaphetai, mentioned in the treaty between the dynast Eupolemus and Theangela in Caria (ca. 310; Staatsverträge 429 II. 14f.).

The advance of the “art of siege” and the dramatic improvement of fortifications went hand in hand with the introduction of a new genre of technical literature: the treatises dedicated to the siege engines and to the defenses of a besieged city (Meissner 1999). The earliest known work of this genre is a book concerning strategies for the defense of a besieged city by Aeneas Tacticus (possibly an Arcadian general) in the mid-fourth century. An epitome of his military writings was later composed by Cineas, in the court of Pyrrhus, and the king himself and his son Alexander were the authors of
works on Tactics. Philon of Byzantion composed treatises on engineering (Mechanike syntaxis), explaining in particular the construction of artillery and missiles (belopoikia), harbor building (limenopoikia), the construction of defensive siege works (paraskeuastika), and offensive siege works (poliorketika). Other such technical manuals besides Biton’s The Construction of War Engines (Kataskeuai polemikon organon) include The Construction of Arrows (belopoikia), and The Construction of Artillery (Cheirobalistras kataskeue) by Heron of Alexandria (first century A.D.?).

Despite the importance of technology, inventiveness and the application of tricks and stratagems never lost their importance and efficacy. Aeneas the Tactician devotes a substantial part of his treatise to counter-devices against the enemy’s engines (32), measures for the detection and prevention of mining operations (37), and various stratagems (39–40). For instance, the officers should disguise women, arm them, and have them march around the wall in order to deceive the enemy about the number of soldiers (40.4; cf. 40.6). He also provides practical advice concerning inter alia the treatment of useless open spaces (2.1), the preparation of evening food for the farmers who would come to the city when the enemy approaches (7.3), the use of tokens of recognition (24–25), measures for guarding the gates (28), and patrol duty. Those who patrol during the first watch, he writes, should do their duty before they have had their supper, because otherwise they are more careless (26.2); officers should avoid making their rounds at a fixed hour (26.11). In the chapters on military architecture, Philon not only explains the construction of towers, gates, and ditches, but he also gives practical advice concerning the storage of food and water, especially the dry storage of barley and grain, and the purchase of adequate supplies of grain; he gives recipes for the preparation of nutritious bread and food which does not cause thirst: he recommends the planting of gardens in sacred precincts (B 1–10, 25–48, 54; Garlan 1974: 366–76); he does not forget to mention what is the
The one who wishes to capture a city, should, if he so wishes, launch the attack preferably during a festival celebrated outside of the gates, or else during the harvest or the vintage. For if you capture many people outside the city, you shall capture the town very easily. Otherwise approach secretly the walls, having prepared scaling ladders, during bad weather or when the enemies are drunk in a public festival, and occupy some of the towers.

Aeneas Tacticus confirms that an attack during a festival outside a town was one of the common dangers (10.4; cf. 17; 22.16–18; 29.3), and we know in fact from the historical and documentary sources of attacks during a festival or on New Year’s Day (I.Cret. I.ix.1: cf. Chaniotis 1996: 195–201; IOSPE I 2 343; Aen. Tact. 4.8,17.1–5, 29.3; cf. 22.15–16). Unknowingly, the Arab states followed this pattern in the Yom Kippur War in 1973.

LEADERSHIP, VALOR, MASCULINITY

Sieges were usually remembered for the technical achievements involved. Polybius, almost apologetically, explains why he describes the siege of Abydos by Philip V in 201 (16.30.2–3).

This event did not become the object of admiration as regards the size of the preparation and the variety of the devices in the constructions, which the besiegers and the besieged usually invent and devise against each other, but it is more worthy of being commemorated and described to posterity than others because of the bravery of the besieged and their exceptional courage.

After the cross wall had fallen, the defenders continued the fight with desperate heroism:

For the foremost of the Abydenes mounted the bodies of their dying enemies and fought with the outmost courage, not only did they fight desperately with sword and spear alone, but whenever any of these weapons was damaged and became useless or when they were forced to drop it, they took hold of the Macedonians with their hands and threw them down in their armour, broke their pikes and stabbed them repeatedly with the fragments … or struck them on the face or the exposed parts of the body with the points and threw them into total confusion. (16.33.2–4)

Their city ultimately fell, and the men fulfilled the oath they had taken at the beginning of the siege, killing women, children, and themselves (16.34.9–12). Although in Abydos heroism was proved futile, as futile as technology in the siege of Rhodes, this episode still shows the importance of the human factor both during the events themselves and in their commemoration. Diodorus’s account of the siege of Rhodes is as much a narrative of heroic deeds of courage and self-sacrifice (Diod. 20.96.1–2, 99.2–3, 100.3–4) as it is a description of siege engines and artillery.

Indeed, the first recommendations given by Aeneas Tacticus in his work on How to Endure a Siege concern the human factor: the appointment of prudent advisors of the magistrates; the selection and arrangement of the troops; the establishment of social harmony; and the selection of a military
leader, prudent, vigorous, and satisfied with the regime (1.4–9). The moral and physical capacities as well as the experience of all the men who assumed some responsibility in the defense of the city, from the military commander to the day scout, is a recurring theme in the first chapters of his work (Aen. Tact. 1.4, 3.4, 5.1, 6.1, 6.3).

It was in the desperate situation of a siege that valor, foresight, inventiveness, and strategic thinking revealed who possessed the qualities of a leader. These qualities are highlighted in an Athenian honorary decree for a prominent citizen, Callias of Sphettus (SEG XXVIII 60; Austin no. 44; 287). Already before the arrival of Demetrius Poliorcetes and his army, Callias had shown foresight by bringing troops and collecting the corn in the countryside; during the siege itself, he showed courage and self-sacrifice:

At the time of the uprising of the people against those who were occupying the city, when the people expelled the soldiers from the city, but the fort on the Museion hill was still occupied, and war raged in the countryside because of the soldiers from Piraeus, and Demetrius was coming with his army from the Peloponnese against the city, Callias, on hearing of the danger threatening the city, selected a thousand of soldiers who were posted with him at Andros, gave them their wages and food rations, and immediately came to the rescue of the people in the city, acting in accordance with the goodwill of king Ptolemy [I] towards the people; and leading out into the countryside the soldiers who were following him, he protected the gathering of the corn, making every effort to ensure that as much corn as possible should be brought into the city. And when Demetrius arrived, encamped around the city and besieged it, Callias in defence of the people attacked with his soldiers and was wounded, but refused to avoid any risk at any time for the sake of the people’s safety. (lines 12–32)

Initiative, strategic thinking, and heroism earned Callias the gratitude of his fellow citizens, honors, and authority. Similar qualities were demonstrated by Acrotatus, the young son of King Areus, during the defense of Sparta in 272. The city was besieged by Pyrrhus with the help of its exiled king Cleonymus; the situation was desperate. Cleonymus’s friends were already decorating the exiled king’s home expecting him to dine there soon; his estranged wife Chilonis had withdrawn from the rest of the women, with a halter around her neck that she might not come to the power of Cleonymus (Plut. Pyrrh. 27.2.5, after Phylarchus). In a critical moment of the assault, when Pyrrhus’s son with two thousand men tried to force a passage into the city, a young man saved Sparta: Acrotatus, the son of King Areus, and lover of Chilonis (Pyrrh. 28; Beston 2000: 316–17; Chaniotis 2005: 107).

The young man saw the danger, and running through the city with three hundred men got round behind Ptolemy without being seen because of some depressions in the ground, and at last fell upon his rear ranks and forced them to turn about and fight with him. And now the Galatians crowded one another into the trench and fell among the wagons, and finally, after great slaughter, were successfully driven back…. The elderly men and the host of women watched the brilliant exploit of Acrotatus. And when he went back again through the city to his allotted post, covered with blood and triumphant, elated with his victory, the Spartan women thought that he had become taller and more beautiful than ever and envied Chilonis her lover. Moreover, some of the elderly men accompanied him on his way, crying: “Go, Acrotatus, and take to thyself Chilonis; only, see that thou begettest brave sons for Sparta.”

Later, Acrotatus inherited the royal title from his father, but the respect of the citizens he earned with his strategic thinking and his valor.

A striking feature of this narrative is the explicit association of success in the battlefield with beauty, masculinity, and potency (Roy 1998: 120; Beston 2000: 316–17; Chaniotis 2005: 102–4). That we encounter this association in connection with a siege is perhaps not a coincidence. The Greek city has several associations with the feminine. Her fortune (Tyche) is a woman wearing as a crown the city walls; the walls surround the city like the belt around a woman’s dress, and when they fall they leave the most defenseless of the inhabitants, the women, to be taken by the victor. The
divine patrons of rescue in war (Soteira) are two virgin goddesses, Athena and Artemis: they drive away from cities and territories (in Greek, both words are feminine: polis and chora) the male intruders with the same effective violence with which in myths they drive back the men who attempted to violate their own virginity.

The success or failure of the besieger can also be described in terms of masculinity or lack thereof. The behavior of King Prusias II of Bithynia in his war against Pergamum is characterized by Polybius as unmanly: “after doing nothing worthy of a man in his attacks on the town, but behaving in a cowardly and womanish manner both to gods and men, he marched his army back to Elaea” (32.15.9; cf. 36.15.1–3; 28.21.3). Similarly, the besieger par excellence, King Demetrius, was remembered also as a man with a strong masculine sex drive and potency (Plut. Demetr. 9.3–4) and also as the user of the helepolis, a mobile siege machine with a long, projecting beam ending in a cone decorated with a ram’s head, with which the besieger attempted to penetrate the city wall of Rhodes.

If the heroism of the defender was greatly praised, the courage of soldiers and officers during an assault was also appreciated and remembered (Garlan 1974: 84–6, 203f). Ancient historians occasionally mention who was the first to climb up the walls during the final assault or who showed great courage (Admetus in Tyre: Arr. 2.23.4; Neoptolemus in Gaza: Arr. 2.27.6). The soldiers were encouraged in the attack by the prospect of great rewards (Arr. 4.18.7), which is also recommended by Philon (D 9). Philon also advises the commander to continually encourage the soldiers, praising the brave ones, and castigating the others, but himself staying away from the reach of the arrows (D 68–69).

Hellenistic comedy exploits the comic effect of typical, but also exaggerated, characters. Two of them were men who boasted of their success in taking cities: the Hairesiteiches, “the Capturer of walls,” was the protagonist of a homonymous comedy of Diphilus—now lost—(Ath. 11. 496 ef), and Pyrgopolynices, the protagonist of Plautus’s Miles gloriosus, bore a name that referred to his exploits during the assault against towers. For him, women proved to be a more resistant target.

**EMOTIONAL CHALLENGES AND DRAMAS**

Technical treatises are dispassionate texts. Thus it is all the more striking how often Aeneas Tacticus describes, refers to, or alludes to emotions in his How to Endure a Siege; how often he clarifies which emotions can be helpful (loyalty, zeal), and which should be taken into consideration (mistrust); how often he explains the means by which certain emotions can be provoked and others avoided, the enemy frightened, and the defenders encouraged. The importance of the emotional state of the besieged is the background of some of his recommendations. Soothsayers were not allowed to sacrifice without the presence of a magistrate (10.4), in order to avoid the disconcerting effects of unfavorable signs. The money reward for the denunciators of potential traitors should be openly displayed in the marketplace or placed on an altar to increase their motivation (10.15). The relatives of hostages should be removed from the city in order not to have to see the hostages being brought forward by the enemy and killed (10.23). The general should avoid angry scolding, because this disheartens the soldiers; if he has to reprimand the soldiers for neglect or lack of discipline, he should chose wealthy and influential men, making them an example to the others (38.4–5). Similarly, Philon has the psychology of the besieged in mind when he admonishes the generals to prevent their soldiers from burning the fields or taking fodder, in order to encourage the besieged population to
capitulate while their fields are still intact (D 6–7).

The interest in the emotions of besiegers and besieged is a recurring pattern in descriptions of sieges in classical and Hellenistic historiography. The continual change from hope to despair and from fear to joy fascinated the historians. Descriptions of sieges are small dramas in which one finds essential elements of tragedy: *hybris*—the self-confidence of the combatants (Plut. *Marc.* 14.4: Marcellus in Syracuse); *phobos*—the prevailing emotion of the besieged (Plut. *Marc.* 15.1); *peripeteia*—the sudden changes of fate (Thuc. 2.77.6: the Spartans besieging Plataea); *eleos*—the compassion both of the victorious and of the readers and audiences of the narratives for the fate of the defeated (Plut. *Marc.* 19.1–3). The antithesis between expectations and outcome and the impact of this contrast on the emotions both of the objects of their narrative and of their audiences was a major concern of Thucydides, Polybius, and Diodorus.

Thucydides’s long narrative of the siege of Syracuse by the Athenians in 415–413 is a case in point. Thucydides describes how the rapid construction of a fort by the Athenians at the beginning of the siege terrified the Syracusans (6.98.2) and how the initial failures caused mistrust and distress in Syracuse (6.103.4). A passage in the letter of Nicias to Athens (414/3) allows Thucydides to comment on the paradox of the situation after the arrival of the Spartan Gylippus: the besiegers were now besieged (7.11.4). But then another change of fortune occurs, when Athenian reinforcements arrive, terrify the besiegers (7.42.1), and launch an unexpected attack against Epipolae. This attack leads, however, to an unexpected disaster; the Syracusans are filled again with courage (7.46.1). The reader is then informed about the reasonable plan of the Athenians to depart, when there is still time, but, alas, an unexpected moon eclipse delays their departure and seals their fate (7.50.4). To encourage his soldiers, Nicias can only remind them of the unpredictable element in warfare (7.61.3). During their final attempt to escape, the Athenians present again a paradoxical spectacle: the besiegers resemble the population of a sacked city (7.75.5). Emotions and emotional changes and reversals are a continuous theme in the entire narrative (e.g., Thuc. 7.3.1, 7.37.1, 7.75.3, 7.76.1).

Among the later historians, only Polybius approaches Thucydides’s historical mind and art. One of the sharpest critics of Hellenistic “tragic historiography,” Polybius did not miss the opportunity to highlight dramatic elements in his own description of the siege of Abydos by Philip V and the city’s sack in 201 (16.30–34; see Chaniotis 2005: 198–9). At the outset of his narrative he describes the self-confidence of the Abydenoi, confirmed by their initial success. But then their fortune turns, and when Philip demands their surrender, they swear to die fighting, together with their women and children. Similar oaths of heroic and desperate sacrifice had been taken in the past by the Phocians and the Acarnanians, who were, however, ultimately saved. The historian did not fail to observe the tragic quality of the daring courage shown by the Abydenes; as a matter of fact he uses in this context the word *peripeteia*, which describes sudden changes of fortune in ancient drama:

In the case of the sudden change of fortune (*peripeteia*) of the Abydenes one feels inclined to blame Fortune (*tyche*) at the most, who, as if in pity, set right at one the misfortunes of the aforementioned peoples [i.e., the Phocians and Acarnanians], by granting both victory and safety to those who had lost hope; in the case of the Abydenes, however, she chose to do the opposite. For the men were killed, the city was taken, and the children together with their mothers fell into the enemy’s hands. (Polyb. 16.32.5–6)

The longest description of a siege in Hellenistic literature is Diodorus’s narrative of the siege of Rhodes by Demetrius Poliorcetes (20.81.4–20.88.9, 20.91.1–20.100.2). It is perhaps not a coincidence that this campaign of the most tragic and theatrical of kings (Chaniotis 1997: 244–5; Thonemann 2005) is assimilated with a spectacle and a drama. The spectacular element in
Demetrius’s operations is also underlined by Plutarch’s Hellenistic source (Plut. Demetr. 20–22):

His enemies stood on shore and admired his ships of sixteen and fifteen rows of oars, as they sailed past their land; and his elepoleis were a spectacle to the besieged … (20.4). (The helepolis) astounded the mind and delighted the eyes of those who watched. (21.2)

Diodorus first impresses the reader with a detailed description of Demetrius’s forces (20.82.4–5); the expectation of the assailants (20.82.5: “as the land of the Rhodians had not been sacked for many years, a large number of those who were accustomed to make their profit from the misfortune of those defeated in war came together”) is contrasted to the fear of the defenders (20.83.1: “the whole space between the island and the opposite shore was seen to be filled with his ships, which brought great fear and panic to those who were watching from the city”).

Diodorus keeps the interest of the reader alert by continually alternating from descriptions of Demetrius’s technical devices and tactical measures, which let the reader anticipate the city’s fall (Diod. 20.83.4, 85.1–4, 86.2, 88.7, 91.2–92.2, 95.1–5), to unexpected turns of fortune caused by storms, Rhodian stratagems, and the heroism of the besieged. Similarly, the emotions of the besieged Rhodians continually alternate between horror and hope (fear: 20.88.3, 92.1, 98.7–8; hope: 20.96.3). The most dramatic of these accounts is a description of a battle in the theater of Rhodes (20.98.8–99.1):

When day came and Demetrius raised the ensign, the men who were attacking the harbor and those who had been placed all around the wall shouted the battle cry, giving courage to the men who had occupied part of the area near the theater. In the city, the crowd of children and women were terrified and in tears, under the impression that the city was being taken by storm. … At first neither side withdrew from its position; but afterwards the number of Rhodians constantly increased and they were eagerly facing the danger, like men fighting for their fatherland and the most valuable things. As the king’s soldiers were in distress, their commanders, Alcimus and Mantias, received many wounds and fell; most of the others were killed, some were captured, and only a few escaped to the king and were saved…. Demetrius thought that fortune had stolen from his hands the capture of the city.

A phrase in Diodorus (20.83.2) nicely epitomizes the dramatic, theatrical, and emotional aspect of the narrative of this siege. The historian describes how Demetrius’s fleet approached the city of Rhodes:

The soldiers of the Rhodians occupied the walls awaiting the approach of the enemy fleet, while the old men and the women watched from their houses, as the city is built like a theater; and all of them terrified at the size of the fleet and at the bright light reflected by the shining weapons were in great agony.

In this passage the besieged Rhodians take their places in their city, like the audience in a theater, terrified by what they are watching. They were at the same time the spectators of their own war and a spectacle for the historian’s readers.

Bibliography


Bis ins Mittelalter. Vienna.


Hanson, V. D. 1983. Warfare and agriculture in classical Greece. Pisa.
CHAPTER 21
GENERALSHIP
LEADERSHIP AND COMMAND

ROSEMARY MOORE

JUST as warfare was a predominant topic for ancient writers in all genres, so too was the practice of military leadership. In general, for the audience for which literature was produced, knowing how to lead an army effectively was an important ability to possess. Therefore it was a constant topic of discussion, reference, and allusion in all genres of writing. Though I will emphasize what John Keegan terms “the mask of command,” character traits deliberately displayed in order to maintain high morale among one’s subordinates, I will also address specifically military responsibilities.

HOMERIC GENERALSHIP

Though Homeric epic inspired many later commanders, generalship did not exist in any real sense. While Agamemnon was the overall commander at Troy, his authority was not supported by a clearly articulated hierarchy. He was accompanied by the promachoi, “front fighters,” who were loosely tied to him and likewise had loose authority over their men. Battlefield authority was similarly loose, with promachoi able to leave and return to battle at will; their desire for kleos, materially represented by plunder, and the expectations of their peers, were important motivations to fight.

While one can perceive the inchoate phalanx in the Iliad, on the whole army organization and method has little to do with later periods (Latacz 1977; van Wees 1986, 1988, 1997). The notion of discipline, eutaxia, whether understood as military training, the ability to remain in formation during battle, or formal punishment for poor performance, is unknown, reflecting the weakness of the military structure (Wheeler 1991). Subordination was connected more to social status, regional ties, or personal choice. Ties of loyalty were maintained more by exhortation and example than harsh punishment, and coercion is less prominent than the desire to win glory (van Wees 1997).

In addition, common responsibilities of later generals, for example, ordering formations for battle, are practically absent. The stratagem, understood here as a deliberate deception initiated by the commander, is present, but in a very limited fashion, notably Odysseus’s engineering of the Trojan horse. Other qualities later seen as representative of classical generalship, for example, foresight, receive little emphasis. Still, the personification of courage, as with Achilles, or of cunning, as with Odysseus, remained important for later generals, not simply to win personal glory, but, more importantly, to contribute to army loyalty and morale (Wheeler 1991).
The phalanx, the military arm of the *polis*, was initially used primarily for territorial defense. Leadership of this unit typically fell to social and political elites. The phalanx was a relatively unsophisticated tactical unit, and in the archaic period was not used for campaigns of any significant length. Because hoplite battles for much of this period consisted of single-day affairs on a set piece of land at a set time, the responsibilities that would later become expected of generals were largely not necessary, though generals would exhort their armies before battle (cf. Anderson; Mitchell 1996; Hansen 1993). There is little evidence for formal training during this period, and thus we must imagine that many citizens were expected to prepare themselves for service without extensive state-directed activities. Even so, it is very difficult to imagine that any hoplite phalanx could advance effectively as a unit without some amount of drill. Anyone with experience in close-order drill—whether in military service or a marching band—knows that training a group to move in a coordinated fashion takes time and patience (cf. Xenophon’s description of soldiers learning to march, *Cyr.* 2.2.6–9). Maneuvers prior to the fourth century B.C., however, were straightforward, entailing forming up opposing phalanges and having them march against each other. Therefore, prior to the Peloponnesian Wars, generalship was still not conceived of in a specific and specialized sense. Strategy and the stratagem did not receive special attention.

The exception to this period was Sparta, which took the role of citizen as soldier much further than practically any nation throughout history. Although it is difficult to assess to what extent the idealized narratives of ancient Sparta reflected reality, there is little doubt that the lives of citizens and their families were organized so that military readiness was the highest priority.

The Spartans themselves claimed that their skill in leadership was derived from and also made possible by their excellent training (Plut. *Lyc.* 30). They were renowned for their endurance, discipline, and ability to perform relatively sophisticated tactical maneuvers. These qualities and the obedience they emphasized were intended to make every Spartan soldier’s behavior in battle reliable. Because the Spartans were predominant militarily and politically throughout the archaic period, as leaders of the Peloponnesian League they organized and led campaigns the League fought in, and so developed a relatively complex and stratified chain of command, something that became much more fully developed by Philip II over a century later (Xen. *Lac.* 11). This does not mean that they were especially innovative regarding tactics. However, they did rely on battle signals, making cues and redirection possible, though still difficult (e.g., Anderson: 79–83).

The Spartan commander, typically one of the two Spartan kings, held responsibilities in several areas. He was responsible for communications within the army as well as with the Spartan government, and religious functions. The commander also exhorted his troops prior to battle, but here this was adapted to Sparta’s particular military structure; rather than speak to the army as a whole, the commander spoke to his direct subordinates, who in turn passed his words down the chain of command so that unit leaders spoke directly to the individuals in their units (Xen. *Lac.* 11.5–10; Thuc. 5.66.3–4). The kings’ military prestige was considerable, and only the finest Spartan warriors, as determined through athletic competition, marched beside him into battle (Xen. *Lac.* 13). Numbering three hundred, this unit presaged later elite military units more characteristic of the post–Peloponnesian Wars period.

The austere way of life that Spartans advertised became fetishized from an early period, an ideal for all soldiers. Tyrtaeus, the Spartan poet of the sixth century B.C., describes the glory that came from
standing in formation to fight for one’s home and family, refusing to yield to fear (Tyr. 10.15–32). The components of Homeric glory, won by the individual warrior to enhance his own prestige, have here been subsumed into a form of honor marked by loyalty to the military unit and the state. But in Sparta the relative anonymity of the phalanx actually strengthened the oligarchy by making the ruling class equivalent to the citizen militia. Spartan hoplites (i.e., full Spartan citizens, or the homoioi, “equals”) still comprised a small segment of the population under Spartan control. Family also determined citizen and thus military status: Spartan military commanders in the archaic and early classical periods were either of the two Spartan kings, or if the kings were unable, their regents. Later expeditions might be led by any number of Spartans, for example Brasidas, a former ephor, and Gylippus, possibly born of a helot mother. Sparta’s use of other men as commanders reflects not only the need to operate in many places simultaneously during the Peloponnesian War, but also the dwindling number of full Spartan citizens. Spartan armies could be made up not only of homoioi, but also hoplites from the perioikoi, and neodamodeis, freed helots. In addition, in times of emergency, helots could be mobilized. The disadvantages, however, of allowing a discontented and subjugated population to bear arms were obvious, and this option was seen as a last resort (see Thuc. 4.80.3–4 who tells that the Spartans eliminated two thousand Helots).

Social class and wealth also influenced military command among the Athenians. With the Cleisthenic reforms, ten strategoi were elected, one per tribe, for an annual term that could be renewed; initially only those of the highest property class were eligible (Arist. Ath. Pol. 61.1). The duties of the strategoi extended to the political, and because the office was both influential and renewable, it could be sought for the domestic influence it granted. Athens’s new military prominence after the Persian Wars introduced new aspects of military command. Technical specialization, a necessity for successful operation of a trireme navy, a new focus on siege warfare, and the beginnings of longer-term management of men and supplies developed as campaigns grew in length. The nature of the campaigns Athens led sharpened these skills, and even Sparta recognized Athenian prowess in conducting sieges (Thuc. 1.102.1–2; cf. Hdt. 9.70.2). It is unclear to what extent trireme commanders followed prescribed courses of crew training, but evidence from the Peloponnesian Wars indicates that commanders considered relative levels of training in planning battle formations; less thorough training could be compensated for by numbers, but on the whole skilled crews were preferable (Xen. Hell. 1.6.24).

The technical specialization particular to Athens’s experience in the fifth century B.C. formed an important part of Athenian citizen identity in this period. But, more significantly for generalship, it began to be incorporated into the range of abilities possessed by the commander. Thucydides alludes to this in his narration of Phormio’s campaign against the Spartans in the Ambracian Gulf (2.83–92): after losing the first encounter due to a dazzling display of expertise by the Athenian fleet (2.83–4), the Spartans initially attributed their loss to cowardice, and even after recognizing how their inexperience contributed to their defeat continued to emphasize the importance of courage and discipline above technical skill (2.87).

Military experience in the selection of commanders grew more important, but the degree of control exerted by political institutions could not be discounted, a corollary of the amateur nature of military service. The Athenians considered experience a factor in selecting commanders of the follow-up expedition to Pylos, yet not one important enough to keep the apparently poorly qualified Cleon from being elected to lead it (Thuc. 4.28). Cleon was prudent enough to choose the previous commander at Pylos, Demosthenes, as co-commander for the campaign, and it was Demosthenes who actually led
Athenian forces to victory there (Thuc. 4.32; cf. Roisman 1993).

The Peloponnesian War was of unprecedented scale, and brought significant military innovations into place. Phalanx formations began to expand and deepen, the latter used by the Thebans at Delium (Thuc. 4.93–4). Light arms began to have a more prominent role, and their use could have significant consequences, as when the Athenians defeated the Spartans at Pylos (Thuc. 4.34–6), a victory discounted by Spartans at the time as being unworthy since it was not fought by heavy infantry (Thuc. 4.30.2). A generation later, however, Iphicrates’s ambush of a *mora* of Spartan infantry with his peltasts (Xen. *Hell.* 4.5.11–18) was viewed as his most significant among many military achievements. The notion of the hoplite phalanx connoting some degree of social privilege was weakening. As telling examples, Brasidas used seven hundred helots and a thousand mercenaries among his forces at Amphipolis (Thuc. 4.80.5), while the army that the Athenian general Hippocrates took to Delium included not only citizens but metics and foreigners (Thuc. 4.90.1). Later the Athenians enlisted slaves to help crew triremes for the battle of Arginusae (Xen. *Hell.* 1.6.24). We see use of the element of surprise, whether intentional or not, as again at Pylos, and later by both sides at Syracuse. All this forms a picture of approaches to warfare shifting from temporary and tradition-bound to those focused more clearly on outright victory.

**The Fourth Century B.C.**

Sparta’s victory in the Peloponnesian Wars marks the transition to a newly complicated diplomatic and military world. The second segment of the Peloponnesian Wars involved extensive overseas campaigning, continued use of mercenaries, and more varied tactics. In addition, Persia, serving both as paymaster and enemy of convenience, opened up vast resources to Greek commanders, and the scope and distance of campaigns increased correspondingly. These new circumstances necessitated the development of a different set of skills.

Agesilaus is a prime example of this new trend, representing the new demands of leadership in methods strongly informed by tradition. As a Spartan trained in the difficult Spartan *agoge*, and well aware of reasons for its strictures, he made a show of his rejection of luxury, such that Plutarch declared that no soldier in his army slept on a rougher bed (*Ages.* 14, with Shipley 1997). The point of Lycurgus’s institutions was twofold: not only did they inure Spartans to campaign conditions, they also inhibited displays of status and thus promoted political stability. Likewise, Agesilaus’s displays of austerity to the large army of Greeks and mercenaries he led in Persia were intended both to foster toughness and to unify the army. For example, competitions held in Sparta to select the three hundred soldiers who fought around the king in battle were continued but now revised to focus a multiethnic army on the new and expected level of battlefield conduct (Parke 1970). Agesilaus was building a sense of personal loyalty, something that would be more effective for mercenaries and, later, the armies of Alexander and the Successors.

Mercenaries, the product of political upheavals within city-states during the war, were far more available, and were hired to fight by Greek and foreign armies, notably that of Persia. The use of mercenaries would complicate army morale, since it was apparent that such soldiers would be less likely to respond to the rallying cry of the hoplite phalanx, defense of homeland, and far more likely to base loyalty on pay. Thus the personal example the general set could, ideally, act as a buffer to offset such considerations as well as a way to encourage soldiers to maintain high morale under difficult conditions. From this period onward, appeals to loyalty would shift from allegiance to state
to allegiance to the commander himself.

Technical and tactical developments also demanded more from commanders. More complex armies and looser rules of battle meant that generals had to be more flexible. The word stratagem first comes into use at this point, an indication that the Greeks were beginning to consider what was most productive for military training and command (Wheeler 1988). The modern connotation of stratagem is a ruse or deliberate deception concocted by the commander (the common root of the word with strategos, general, is obvious) in an attempt to turn the situation to his best advantage, but at this point it is unlikely that the term had this as its primary meaning. Rather, it simply referred to “being a general.” Even so, stratagem in its more specialized meaning began to be used more from this period onward, for example, in the final battle of the Peloponnesian War, Aegospotami. Here Lysander refused the Athenian offer of battle on consecutive days. When he led the Athenians to believe that he was unwilling to fight, he attacked them while they were on shore and their ships were half manned (Xen. Hell. 2.1.17–28), destroying most of their fleet. Lysander’s stratagem presumes a well-trained force, significant resources, and went far beyond the previous paradigm of citizens on temporary service. This was simply not possible for the average Greek city-state without outside financial support. Warfare on this scale, and thus generalship of this sort, could not be practiced unless well financed.

It is from this period that the first extended writing on military leadership comes. The Greeks had paid some attention to specialized military training before this period, but this appears to have addressed technical matters (Wheeler 1983). Still, effective military leadership of course encompassed far more than drill, as Socrates points out in Xenophon’s Memorabilia (3.5). Xenophon’s idealized portrait of Cyrus the Great in the Cyropaedia, though not entirely focused on military matters, outlines the range of qualities a successful leader should possess. Cyrus’s approach was to generate “willing obedience,” and his methods incorporated a strong psychological component. The display of high morale, willingness to undergo difficult circumstances cheerfully, and share in the tasks of one’s soldiers, all played a part. Technical skills, such as drilling or forming up armies, were also addressed. It is important to underline how important both the technical and psychological factors of military leadership were considered to be by the Greeks (and later the Romans). Generalship was always concerned with getting others to endanger their lives for the commander’s sake, making motivation and discipline very closely intertwined.

Aeneas Tacticus, author of the first known military manual (see further Millett, 65–6, Chaniotis, 451–2), provides examples of such technical advice. Practical advice regarding the mechanics of gate lockpins (ch. 18) is interspersed with suggestions on morale and crowd control (ch. 9): how to inform the local population of an imminent attack so as to inspire courage rather than fear. Aeneas’s work summarizes the range of knowledge commanders should possess, while also describing how to supervise technical and disciplinary matters without being expert in either. Aeneas also recognized that while the general should engender trust in his subordinates, he had to remain detached from them and able to anticipate their next moves just as if they were potential enemies, as indeed they could become. Both Xenophon and Aeneas point out that an essential task of generalship is to motivate an army to its best performance while accounting for normal human weaknesses. It is impossible to tell to what extent commanders directly applied the advice given in such manuals, but there is little doubt that such works were widely circulated and used long after they were written (Whitehead 1990).

PHILIP II AND ALEXANDER
As generals, Philip II of Macedon and Alexander the Great possessed many of the qualities that Greeks already understood as part of generalship. Their political position and the great resources they controlled, in addition to these personal qualities, enabled them to deploy to unprecedented effect a large and exceptionally capable army.

Both Philip and Alexander drew upon a very deep base of experience in military command. As a hostage in Thebes, Philip absorbed much useful knowledge, and it is possible to see Epaminondas’s influence in Philip and Alexander’s use of deep ranks in the phalanx (see Cawkwell 1972 for an assessment of Epaminondas, Green 1991 for his influence on Philip, and Plut. Pel. 26.5 on the military connection). Alexander was tutored from his boyhood as a warrior, and at eighteen commanded the Macedonian cavalry at the battle of Chaeronea in 338 B.C. Though military command is often perceived as the accomplishment of one man, both Philip and Alexander drew on others for advice. The size of the army that they commanded required a more sophisticated command structure and therefore input from subordinate officers. These officers in turn commanded various divisions and smaller units and could exert great though nonbinding influence on the supreme commander, as seen, for example, in the case of Parmenio with both Philip and Alexander (cf. Plut. Mor. 177C).

Philip and Alexander introduced various reforms in both military technology, for example, torsion artillery, and organization. Philip expanded the Foot Companions, a heavy infantry force of lesser but analogous prestige to the Cavalry Companions (composed of Macedonian nobility) and refitted his infantry, increasing its defensive capability and enabling larger-scale arming. Philip and Alexander trained constantly so that soldiers were able to perform maneuvers more complex than were possible for less intensively trained forces. This training doubtless contributed to the deep loyalty Macedonian soldiers felt toward them.

Alexander’s campaigns demanded considerable attention to logistics and intelligence. Logistics not only serves as a foundation to the successful conduct of a campaign, but explains other skills connected to generalship. Geography was a major consideration in route and campsite selection. Availability of water and ease of transport caused rivers to be highly valued, and towns, often with food reserves, were important points of control. An army of the size Alexander led could not be resupplied easily overland, helping to explain why Alexander skirted the coast for the early portion of the Persian expedition.

The difficulty of providing regular supplies also explains the common emphasis on endurance and self-control. Large armies simply could not remain in one place for more than a few days. Good commanders had to engage in substantial forward planning to ensure a minimum standard of nutrition. Such concerns point to the general importance of psychology for discipline, both in and out of combat. Soldiers had to be willing to accept difficult conditions at all times.

No less difficult is the problem of maintaining morale, in effect keeping soldiers willing to risk their lives for their commander. Good commanders created opportunities to demonstrate their shared identity with their army. Courage in battle was part of this, but problematic due to the general’s responsibilities. Alexander has often been criticized for unnecessary risk taking. Undoubtedly it was motivated by his identification with Achilles, the warrior ethos of the Macedonian nobility, and not least his awareness of how his reputation for courage would inspire his soldiers to emulate him.

Both Philip and Alexander cultivated bonds, or at least their appearance, by personally engaging in soldiers’ activities, encouraging imitation while sharing their suffering. The story of Alexander pouring out the helmetful of water offered him during the arduous march through the Gedrosian desert might be apocryphal, but drew its power from Alexander’s self-discipline to reject the water, despite
his thirst, if not all would be able to drink. Philip and Alexander learned the names of courageous soldiers and called on them personally when exhorting the army before battle, and both spoke in Macedonian to their soldiers at well-chosen times. All these examples embody a nice transition from assertion of common identity to reminding soldiers of their commander’s authority; the connection gained its power from Philip and Alexander’s high status. Such a connection would also have reinforced the power inherent in many of Alexander’s demonstrations of divine favor, for example at Gordium. The message of this event went beyond the religious, by indicating Alexander’s intention to continue when he was short on resources, while also reassuring his army that they would eventually succeed (Lloyd 1996).

Philip and Alexander’s generalship would be emulated by many Greek and Roman commanders. Yet despite similar methods, their deployment was bound to differ. Army identity and morale were based to a significant extent on forces that went beyond the military, such as religion, or from societal practices, in the case of the Macedonians, drinking parties. Similar approaches to command then were mediated by the commander’s and the army’s society.

**Hellenistic Generalship**

Hellenistic generalship in large part followed the methods used by Philip and Alexander. Army loyalty was a major concern to the Successor kings and Greek city-states during this period, as were applications of technology for military use. Desirable qualities range from those more applicable to planning, such as caution, to those concerned with conduct in combat, namely, personal courage (Beston 2000). In other respects, “good generals” projected an image of self-sacrifice and deliberate frugality. Adapting oneself to higher standards of endurance was presented as part of the prospective commander’s preparation, and commanders such as Philopoemen were said to have gone to great lengths to forgo luxuries as a way to prepare for the difficulties of campaign (Plut. *Phil*. 3–4). As before, the display of these qualities served both as proof of suitability to command, but also as a way to lead others to aspire to the same.

A fundamental assumption of generalship was that charisma, good fortune, and courage were important, but required sufficient preparation to be used effectively. Failure to attend to one’s personal habits was a slippery slope that led to disintegration of one’s character, and left the army weak. The ideal commander of this era possessed exceptional character, but developed it in ways anyone could imitate, and so could be viewed as both exception and model. Any man can control his desire for food, but the best commander does it better and more consistently.

In terms of military operations, the model general was expected to respond quickly and ably to a variety of circumstances, drawing not only on the personal qualities integral to his character and those he developed, but also the wide range of technical skills he had obtained from his experience in warfare and his education. Polybius’s recommendations (9.12–20) reflect this, and branched into areas more directly addressed by displays of personal qualities.

Polybius argued, for example, that the commander control the situation as much as possible. Though this was an unachievable ideal, his recommendations were aimed toward a general having greater predictive abilities and thus being able to correct the most trivial matters that might have a considerable negative effect on the intended outcome. Self-control, particularly in the display of emotion, was important, since facial expressions could be read as an indication of intent. Polybius recommended that generals be self-reliant and depend upon their own knowledge rather than that of
possibly untrustworthy locals. Polybius therefore recommends a threefold approach in a general’s training: experience, inquiry, and scientific investigation. Though the first two were nothing new, the third suits Polybius’s approach, as well as the Hellenistic period more generally. Polybius recommends specific training in mathematics and astronomy as aids; geometry would allow commanders to determine the correct length of siege ladders, and astronomy would allow them to plan marches more accurately.

Scientific knowledge was by no means essential for command. Yet Polybius’s narration of the mistakes made by many commanders was meant to persuade. His advice may be read as a counter to how science was employed by many Hellenistic generals: great advances were made in siege warfare, both in design and construction of fortifications and in artillery. But many Hellenistic kings spent considerable effort and resources in impractical tours de force such as Ptolemy IV’s forty-row warship, which required a crew of three thousand (Ath. 5.203e-204d). Polybius’s recommendations, by contrast, emphasized the smaller-scale applied use of scientific knowledge that released the commander from undue dependence on subordinates as well as investments in complicated equipment.

**Roman Generalship: The Republic**

Limited evidence makes it difficult to form a comprehensive picture of methods of generalship prior to the Second Punic War. It is clear, however, that by the middle third century B.C., the Roman army, composed of citizens, Italian allies, and later by non-Italian allies, was well organized and highly effective. Military command throughout most of this period was a function of political office: elected magistrates with *imperium* acted as commanders of legions. The army was organized as a militia and military service was temporary. Rome’s highly stratified society was reflected in its army structure; not only were commanders of the highest social and political class, so were all officers above the rank of centurion. Only citizens above a certain property qualification were eligible to serve. Military experience was reasonably common and essential for those with political ambitions: not only were all eligible citizens liable to serve up to sixteen *stipendia*, or campaigns, but those wishing to stand for any public office had to have served a minimum of ten (Polyb. 6.19).

Roman and Italian culture had much in common, particularly the high value placed on prowess in warfare. Courage in combat brought great prestige in the army and at home. The ruling elite were expected to be brave, and the highest military award, the *spolia opima*, went to the commander who killed his opposite number in single combat. Other awards were given to soldiers of all ranks for courage in battle. Into the late Republic, when military experience was less common among the social elite, a reputation for courage, as evidenced by battle scars, for example, brought great respect.

The consequences of such a system for Roman generalship were multiple: Roman officers were experienced soldiers and that service made them both products of the prevailing culture and potential agents of change. In addition, the Roman army possessed a military ethos as it was a microcosm of the citizen body of Rome. A fundamental presumption of this system was that all soldiers and officers shared a common identity, and that all should be subject to military discipline. While higher ranks often received more lenient punishments and more lavish rewards, a number of anecdotes record severe and humiliating punishments of officers; their conspicuous failings should, ideally, be punished in equally conspicuous ways. On the other hand, great courage could win tremendous fame and carry great social and political dividends throughout a man’s lifetime. There may be no better
example than Scipio Aemilianus, winner of single combat while serving as a tribune in Spain, and later the commander who took Carthage and Numantia. Shared military and political identity was modified by the expectation that the ruling elite should outdo the common soldier.

The nobility’s strong military ethos initially inhibited the composition of military manuals; military virtues were seen as the exclusive province of this class, consisting of a set of behaviors that reinforced the nobility as possessors of *virtus*, or “manly courage.” Compliance with this ethos was an important concern to Roman commanders and helps to explain the primary strategy employed by the Roman army during this period and through much of the next century: namely, aggressive frontal assault and an unwillingness to surrender on what would be considered dishonorable terms.

While the Roman army was clearly successful, credit for victories is often given not to the brilliance and sophistication of its commanders, but to the inherent flexibility of the manipular formation, the strong training and experience of its soldiers, and the depth of manpower available to the army. Still, defeats and heavy casualties were not uncommon. Considering the degree of prestige military success gave to soldiers and particularly commanders, it is surprising to learn that Roman commanders were often ultimately able to maintain or even advance their political careers, despite losses and immediate censure, as long as they acted in accordance with the ethos. What might appear as command incompetence, for example, letting an army be drawn into battle despite very unfavorable conditions, would be mitigated by the commander engaging the enemy aggressively and cutting a good figure in battle. Defeat would be blamed on the soldiers, not the commander. In such fashion Q. Marcius Philippus, who lost much of his army when ambushed in a Ligurian mountain pass (Livy 26.3–4), not only received no punishment, but was later reelected to the consulship in a year when serious campaigning appeared imminent (Rosenstein 1990: chs. 3–4).

Not all Romans adhered to this ethos. Fabius Maximus Cunctator (the “Delayer”) received his cognomen as a result of his strategy of attrition after Rome’s disastrous losses to Hannibal at the Trebia and Lake Trasimene. His cognomen was hardly a compliment. After being elected dictator in 217, Fabius chose to conserve Roman manpower as well as make it more difficult for Hannibal to win allies and supplies. Yet the strategy was not received well. Though a move to abrogate Fabius was unsuccessful, his master of horse received imperium equal to his own, and immediately began a more aggressive strategy. This stance was continued by the following year’s consuls, and in that year, 216, came Rome’s worst defeat, at Cannae, by a Carthaginian army significantly smaller than the Roman, but commanded by a general thoroughly familiar with stratagems and adept at taking advantage of Roman tactics. Yet despite the return to the Fabian strategy after Cannae, it remained unpopular, and was not used again.

Tradition and the *consilium* must have eased some aspects of command by diffusing the decision-making process and simplifying tasks at all levels of the hierarchy. Roman military traditions were strong. For example, Polybius states (6.27–33) that camp layouts were uniform and built in a consistent fashion. Every soldier knew exactly where he was bunked, regardless of whether he had helped construct that part of camp or not. In addition, procedures such as the watch were regularized. All these were part of the military culture and did not vary significantly from campaign to campaign. The *consilium* was a meeting of officers, often including centurions, led by the commander. Doubtless its exact character changed depending on the commander, but in Caesar’s commentaries it conveyed command decisions, and, more importantly, an opportunity to deliberate the best plan of action. In this way a relatively inexperienced commander could draw on the collective experience of his subordinates.
This is not to say that all command decisions were collectively made, or that the command hierarchy was weak. The Roman military system depended on the notion that one man was in command. Having two men of equal rank co-commanding could lead to lack of unity in purpose, and could be an important factor in defeat, as was the case at Cannae and in 54 B.C., when the lack of unity between two of Caesar’s legates, Sabinus and Cotta, was an important factor in the destruction of a Roman legion (Caes. B Gall. 5.30–37). Still, disputes and rivalries between officers, including the commander, could weaken the performance of the army as a whole. Such disputes at times had political repercussions, as was the case when Servius Galba hindered Paullus’s triumph, drawing on support from soldiers disgruntled at what they perceived to be insufficient plunder and rewards (Plut. Aem. 30).

As Roman military obligations grew after the Second Punic War, command responsibilities grew more complex. Many armies served simultaneously overseas and soldiers’ terms of service became longer. Appian reports in his history of Rome’s wars in Spain (Ib. 78) that Roman soldiers were forbidden to serve more than six stipendia—by this point, meaning years—consecutively. Drawing upon Hellenistic approaches to military command would have made sense, both in terms of Rome’s fascination with Hellenic culture, and particularly due to the success many Hellenistic generals had in commanding armies under similar circumstances. During this period one begins to see the use of the “good general” stereotype from fourth-century Greece by the Romans. However, as before, the major strength of the Roman military lay not in the tactical sophistication of its commanders, but rather in the formations themselves, the discipline and training that supported them, and the collective experience of the soldiers serving in them. Commanders with the panache and tactical brilliance of Scipio Africanus were rare. More frequent were annual, or, as was the case from the second century B.C. onward, longer than annual campaigns for commanders. Rapid changes of command did little to encourage command innovation or to allow a deeper sense of loyalty to grow between commander and army.

Still, during this period Hellenistic influence on Roman methods of warfare and command grew as it did in Roman elite culture more generally. Commanders began to advertise their knowledge of Greek science in their contacts with soldiers, as well as draw more openly from the Greek tradition of the stratagem. Aemilius Paullus’s campaign against Perseus in the Third Macedonian War provides good examples of both trends. One of Paullus’s legates, Sulpicius Gallus, successfully predicted a lunar eclipse and Paullus used this prediction to inoculate his troops against the panic such a phenomenon could produce if interpreted as a negative omen (Livy 44.37.5–8). Paullus also advertised himself as an independent-minded general by his flexibility in adjusting training and watch standing to counter the hot Macedonian weather, as well as by delaying attack to ensure his troops were better rested (Livy 44.38). The latter decision went against the grain of the Roman approach to war and caused dissent among Paullus’s officer corps. Surely Paullus, a man with a keen interest in Hellenic culture, was inspired by Greek military thinking in these decisions. However, Roman virtus, as defined by military prowess, continued to be important. Sorting out the exact proportion of influence is impossible, but while the Romans drew upon new practices, it also balanced this flexibility with a strong tradition, such as the focus on military discipline, that was their own.

The transition from the late second century B.C. to the first is portrayed by ancient authors as a time of malaise in the Roman nobility, particularly in its military performance. The commands at Numantia prior to Scipio Aemilianus’s brought at best stasis, with several notable humiliations of commander and army. The war against Jugurtha likewise brought embarrassing defeats initially. Marius most
successfully claimed credit for the victory, but also competing for glory during this war were Caecilius Metellus and Rutilius Rufus. All three claimed to have substantially improved army performance by strict application of discipline as well as innovations in training, similar to the explanations of victory at Numantia and in the Third Punic War made earlier by Scipio Aemilianus.

Marius presented his military skill as untutored and gained purely by experience (Sall. BJ 85.13–15). It is difficult, however, to imagine him as anything but a product of the late second century B.C., successfully combining Roman methods of demonstrating virtus with techniques informed by the more literary Hellenistic military tradition. Whether he learned the latter directly by book or not, he was a protégé of Scipio Aemilianus, who doubtless had. Likewise, his criticism of generals who learn only from military manuals suggests that the use of the manual was becoming more common.

Marius’s influence on Roman generalship was more successful in bridging the gap between the Roman nobility and the Italian and Roman soldiery that had grown wider during previous generations. In part he accomplished this by the practically universal principle of leading by example. By sharing soldiers’ burdens, he encouraged them to withstand the difficult conditions of campaign, while simultaneously causing them to identify with him personally as well as with the army’s purpose. That Marius could claim similar background to many of his soldiers, who, like him, were Italian and not of the nobility, surely heightened his appeal, and suggests that leadership by example was more effective when based on shared culture. Marius capitalized on his popular appeal politically and by his disconnection of land qualification from military service (though likely unintentional). His rewarding of soldiers continued to be exploited by generals through the Republic and, in a modified fashion, through much of the Imperial period.

By the end of the Republic, commanders such as Julius Caesar and Pompey the Great had effectively combined Roman and Hellenistic traditions. Both were adept at leading large, complex armies on long campaigns, adjusting battle formations to adapt to terrain and the enemy’s strategy, and maintaining a high degree of loyalty among their soldiers. All this is apparent throughout Caesar’s Bellum Civile, particularly the accounts of Dyrrhachium and Pharsalus. Army loyalty was due, in part, to longer service under one commander, but was also deliberately fostered by rewards of money, land, and, not least, displays of affection and identification by their commanders, evident in the apparently common usage of the word commilito, “fellow soldier.” Pompey, Caesar, and other commanders demonstrated proper standards of behavior as well as formidable displays of skill and courage to their armies at opportune times. Their speeches to their soldiers were carefully crafted, surely drawing on the Roman general’s rhetorical skills, but shaped for the special considerations of a military audience (Cic. De Off. 2.67).

In many ways the conditions of service during this period created situations in which Roman generals dealt with their armies similarly to commanders of mercenary armies: drawing on gambits such as crying to reconcile a mutinous army, and concealing plans from the army (Caes. B Civ. I.16), in order to maintain security and morale, as Clearchus did with his Greek mercenaries en route to Cunaxa (Xen. An. 1.3.1). The latter practice was incorporated by Virgil in his portrait of Aeneas the general, and was later recognized by Frontinus as an important aspect of Roman generalship (Nisbet 1983; Botermann 1967). The quickly shifting nature of army loyalty flattened whatever gap there was between army and commander, giving soldiers far more latitude than previously.

ROMAN GENERALSHIP: THE EMPIRE
An important part of the many pieces of authority that Augustus assembled in establishing himself as emperor was the command of practically all the units in the Roman army. His reforms of the army attempted to return soldiers to old standards of discipline, a claim practically every emperor afterward would make on his accession. At the same time, he could not (nor did he wish to) entirely remove older methods of maintaining army loyalty, particularly those fostered by personal presence and projecting the image of the *commilito* and the “good general.” Part of his solution lay in his retention of the title *imperator*. Another was the use of propaganda in multiple media portraying him as representing military qualities such as *virtus* and *disciplina*. Joined closely to this was the use of his *imago*, or portrait bust, in the military context. It was carried into battle, soldiers swore to it when they renewed their military oaths, and was kept in the *principium*, every camp’s headquarters. Likewise, the names of legions were given by the emperor, as were military awards and donatives. All these were intended to demonstrate to soldiers that, no matter how distant, the *imperator* was their commander, and deserved their loyalty and affection (Hekster 2007).

These reminders of imperial power, effective as they mostly were, were still a compromise, and charismatic, successful commanders who were present with the army could still be a threat to the emperor’s position. Such was the case with Germanicus, whose command manner was very much in the style of late Republican generals, and whose methods of currying favor with the army, according to Tacitus, caused Tiberius to be suspicious of his motives (Pelling 1993). Therefore, it was in the best interest of many emperors to build a military reputation, and no surprise that triumphs, the ultimate display of military prestige, were only celebrated by members of the imperial family from the Augustan period onward.

Still, proximity to the army as well as military success mattered, as the succession of emperors in A.D. 69 proved. The older styles of “good generalship” must have continued, though were perhaps muted. Certain commanders, such as Corbulo, known for his victories in several campaigns as well as his discipline, were clearly adept at cultivating reputations similar to those of Republican generals (e.g., Tac. *Ann.* 11.19). Hadrian, despite the marked differences in policy from his predecessor, was not only a skilled soldier, but wanted to ensure that he was compared to Trajan as well as Scipio Aemilianus for his disciplinary initiatives (SHA *Hadr.* 10.2). There was also no shortage of military writing produced, for example Onasander’s *The General*, and the works of Frontinus, Arrian, and Polyaenus. While Onasander and Polyaenus were probably not experienced soldiers, Frontinus and Arrian were, and their works reflect both idealizing tendencies as well as sound practical advice.

Why did military manuals continue to be produced despite the limited scope of prestige available to most commanders in the Imperial period? It appears they still offered some practical value to their audience, while also providing a traditional component of an elite male’s education (Campbell 1987). The psychological principles outlined in these manuals were usable and effective at many levels of the military hierarchy. Other concerns, for example tactics and supplies, were also of interest, and presumably such manuals addressed them, thus providing a basis of knowledge to officers presumably less experienced than the soldiers they were ordered to command. But such works were doubtless also meant to entertain, and perhaps were never intended to be applied completely in the first place. This may be the case with some of Onasander’s advice (e.g., at 1.12, where he recommends the general also be a father), though much of what he suggests is in line with advice found elsewhere, particularly regarding the commander’s self-presentation, and his manual was actually used during the Byzantine period and later.

It is worth considering that the manuals of this period reflect the stagnation of Roman tactics and
equipment in the first two centuries of imperial power. Real innovation in generalship during the third
century A.D. certainly came from men outside the traditional ranks of such manuals, namely,
professional soldiers with variable levels of education and outside traditional loci of power
(Campbell 1987). Later military treatises, such as that written by Vegetius, though of value, are
difficult to evaluate. In Vegetius’s case, his manual is of uncertain date and drew from military
manuals of various periods without citation; it may never have been intended for practical use in the
first place.

The transition to late antiquity reflects many of the same conditions of the middle Republic:
emperors were again often experienced soldiers who could base their credibility with the army on
real skills. As before, army loyalty was maintained by a number of means: shared religion (though the
shift to Christianity makes it difficult to assess this precisely), the military oath, donatives, and
appeals to shared identity, though emperors of this period referred to soldiers as conveterani or other
terms, not commilitones (Lee 1998). The use of such terms indicates a strong military culture that to a
significant extent must have overcome other bases of identity soldiers possessed, even after the
recruitment of more non-Romans into the army and military leadership.

There were several major differences, however, in conditions of generalship between this and
earlier periods. The army was entirely professional, as it had been throughout the Imperial period, but
with a proliferation of different unit types. Regularization of training and discipline accompanied
professionalization, and the military disasters of this period, such as at Adrianople in 378, cannot be
blamed on the lack of it. But because military service had grown less popular, an issue aggravated by
the greater difficulty in acquiring resources, generalship was often more concerned with making do
with less, for example, manipulating previous standards of training to ensure that manpower was kept
at sufficient levels (Lee 1998). Yet again many of the same tenets of generalship appear to have
remained true: the power of leading by example and creating shared identity, the value of caution and
planning, strategy and tactics based on experience and knowledge of the enemy, and, when possible,
applying a new or repurposed stratagem at the right opportunity.

BIBLIOGRAPHY


Greece*. Swansea, 315–36.

Begründung des zweiten Triumvirats*. Munich.


On a wall in the Ashmolean Museum in Oxford hangs a small funerary plaque, consigning to the underworld the shade of Valerius Paternus, speculator of the army of Britain. We know little of who he was, other than that he had friends who thought well of him. Likewise, we know little of what he—as a speculator—did, other than scraps and allusions scattered over centuries, which are often at variance with each other. Was he a spy, a courier, an executioner, or a staff officer? Or was he all of these things?

Such questions may seem trivial in the particular, but are certainly relevant in a general application to the wider world of classical intelligence. For to some extent the identities and practices of the people who gathered information influenced the reception of the messages they sent. A comprehensive understanding of the role of intelligence in the ancient world requires context beyond the scope of a chapter—in effect, the history of the interactions of peoples, their polities and ideologies, the structure and degree of professionalism of their military, and their social and economic systems. Such an exercise is worthy of a Thucydides or Livy—herein the task is more like that of Arrian in his Tactics against the Alans: to address particular details and practical concerns. The focus of this chapter is tactical intelligence—the daily and transient needs of the general on campaign or defending a frontier.

Categorization is difficult, for the Latin and Greek vocabulary is inconsistent, not merely between inscriptions and historians, but even within a single author. Therefore the structure of this chapter follows a division by posture: offensive and mobile on the one hand, and defensive or localized on the other. That is not to say that there is no overlap—exploratores based at forts on the Roman frontier resemble in many ways those preceding an expeditionary force—but that the distinction is meaningful and useful.

**Offensive: Mobile Warfare and Reconnaissance**

Among both Greeks and Romans, many—but not all—commanders were wont to send armed men ahead of their armies to discover the lay of the land, or the location and disposition of the enemy. All such men were called kataskopoi by Greek authors, a term more or less translatable as “scouts” (also, e.g., skopoi, proskopoi, proodoi). In some instances these would make up strong forces
numbering in the hundreds or even thousands, in others smaller units of thirty or so, at still other times small teams, typically of three men. The size of the contingent would be primarily dependent on the relative emphasis on combat: the larger the force, the greater the capacity to engage the enemy, and the more overt (and obvious) the collection; the smaller, the more the unit sought to avoid contact, and the more covert the collection. At the extreme of the range, single individuals—or groups of two or three—might even don disguises or assume cover stories and infiltrate themselves among their foes.

**Large-force Reconnaissance—Prodromoi, Procursatores, Excursatores**

Armies on the march were often, but by no means always, preceded by a substantial vanguard of light cavalry or, less commonly, light-armed troops. Although these performed reconnaissance functions—by discovering routes, uncovering ambushes and the like—they were not exclusively (perhaps not even primarily) used in that role. Rather they were simply combat units assigned a role that mixed reconnoitering, raiding, and skirmishing. Their nomenclature and practice attest to their reliance on mobility and on visual contact with the enemy. They are typically commanded by officers of some status, who communicate with their general through messengers, or upon their return. The range at which they operated is rather difficult to assess—it is common for them to be in sight of the main force, yet they may be found as far as seven or eight miles, beyond which distance it becomes too difficult to support or communicate with the main force (Russell 1999: 21–2; Austin and Rankov 1995: 44–5; Ezov 1996: 73–4).

**Greece**

While there are a few examples of the use of a substantial skirmishing and scouting force preceding the main strength of an army or navy in the fifth century, there is a marked increase in the early fourth (see Russell 1999: 11–15; cf. Pritchett 1: 127–33, Spence 1993: 141–51). The Boeotians, who could field a considerable cavalry force (1,100 horse), may have used part of it as a screening and reconnaissance force in the opening moves of the Battle of Delium in 424 (Worley 1994: 94–6). The joint Athenian-Corinthian cavalry force sent by the strategos Iphicrates to locate the Theban army near Mount Oneum (370 B.C.) would have been quite large if both allies had indeed set out with all their strength (Xen. *Hell.* 6.5.49, 51–2). Athenian cavalry were widely admired for their delaying action against the Thebans just prior to the battle of Mantinea (362 B.C.), which they fought in the absence of their slower-moving compatriots on foot. So too did the cavalry contingent raised by King Agesilaus bask in glory for sending off the Thessalian horsemen; more repute was to be found in combat than reconnaissance (see Spence 1993: 143–6, 151–2; Bugh 1988: 146–50).

The campaigns in Asia Minor, culminating in Alexander’s march east, saw the clash of large cavalry screens operating in advance of slower-moving armies. On his march south along the Aegean coast, an *ile* of his Companions accompanied his four *ilai* of *prodromoi*, but the presence of the elite Companions was exceptional. On other reconnaissance operations—the prelude to the Granicus and Gaugamela (Arr. *Anab.* 1.13.1, 3.7.7)—the Companions joined the scouts only after the Persians were discovered, to initiate an attack. The *prodromoi* also teamed up with light-armed troops and mercenary cavalry for operations, which included pitched battle alongside the elite forces, since they were armed with lances (hence their alternate name *sarissophoroi*). They proved exceptionally useful and flexible, yet remained in a lower social status than the rest of Alexander’s cavalry, there being some doubt as to whether they were even Macedonian or Thracian (Milns 1981: 351; Brunt 1963: 27–8; Rzepka 2008: 51–2 counts them among the Macedonians). Light cavalry continued to be
employed for reconnaissance by Alexander’s successors, but never again with such a strong sense of
unit identity. The only other analogous force—used in both reconnaissance and line of battle—was
the Sciritae. These tough and wary people living on the northern frontier of Laconia were neither
citizens nor slaves, but “dwellers about.” They fought either as hoplites (e.g., at Mantinea, 418 B.C.)
or light infantry. To them was assigned guard duty by night and scouting by day. Xenophon (Lac.
13.6) noted that the Lacedaemonians were habitually preceded by the Sciritae and outriders
(proereunomenoi hippēs) on the march, which could be a substantial force, given a number of up to
six hundred for the Sciritae alone.

Rome
Modern scholars do not generally characterize the Romans as attentive to reconnaissance in the early
and mid-Republic, and it must be admitted that their armies on the march were vulnerable to ambush.
At Trebia we find Roman cavalry and light-armed troops engaged in the initial clash, but their
scouting role is implicit at best; on the march toward Cannae, the heavy infantry received the first
shock of the Carthaginian skirmishers, while the Roman cavalry and light-armed troops joined later,
which is not the order one might expect if an advanced force was being employed. Even when we
find vanguards mentioned in our sources, they seem to find themselves embroiled in combat at the
expense of their reconnaissance role. We read, for instance, that during the Second Punic War two
consuls took about two hundred cavalry and thirty light infantry (velites) to reconnoiter, only to perish
in a disastrous ambush. While Polybius (10.32.1–12; see also Livy 27.26.11) commended their
courage, he condemned their folly. The light infantry and cavalry leading the armies of Flamininus
and Philip V were no more circumspect in their initial contacts near Pherae (197 B.C.): forces of
about six hundred on either side clashed in prolonged skirmishing (Polyb. 18.19.9–12). After two
days, during which time the armies had lost contact with each other, and were separated by a ridge
and heights, large reconnaissance forces (one thousand light-armed and three hundred horse on the
Roman side) blundered into each other in the fog, and the skirmish escalated into an unexpected full-
scale battle that was decided as much by chance and terrain as generalship (Polyb. 18.21–2).

In the example of Flamininus above, we see already in the early second century the use of allied
cavalry: two troops (oulamoi) of Aetolian cavalry under their own commander led the initial contest
at Pherae, and again took part in the early stages of the battle on the heights of Cynocephelae. These
were included, says Polybius, because they were familiar with the countryside. Later in the Republic,
large numbers of allied cavalry were wielded by Caesar when monitoring the Helvetii—apparently
the full force of four thousand, raised from Transalpine Gaul, the Aedui, and their allies. The mass of
horsemen seems to have operated more or less as a single body, since Caesar remarked that a much
smaller contingent of about five hundred Helvetian cavalry took advantage of favorable ground to rout
his men (Caes. B Gall. 1.15.1–2). The setback was by no means decisive, and Caesar continued to
use his cavalry to shadow the Helvetii, but with instructions to refrain from combat. While Caesar
made better use of cavalry than most (contrast Crassus at Carrhae), Cagniart (1992: 74–5) has acutely
observed that he did not integrate them into the Roman military system. Not only did they fight in their
own way under their own ethnic leaders, but they did not even maintain their unit identities, since they
normally dispersed during winter, and were recruited again in the spring.

Allied cavalry continued to be enrolled during the Empire, in a more permanent and
institutionalized manner, when large auxiliary units of five hundred or one thousand horse were
available for use. As the Roman Imperial army developed a stronger cavalry force, so did its
capacity for using strong mobile vanguards and flanking units. In Arrian’s Against the Alans (1.1–2),
for example, the column is led first by *kataskopoi*, then a number of cavalry *alae* and *cohortes equitatae*, totaling in excess of 3,500 men, while another cohort of 500 patrols the flanks. Julian fielded 1,500 cavalry ahead and to his flanks (Amm. Marc. 24.1.2) during his invasion of Persia in A.D. 363. In this instance we can catch a glimpse of them in action in smaller formations soon after—the Persians surprised three *turmae* (about one hundred men in total), killed a few together with one of their commanders, and captured a standard.

**Small Force Reconnaissance—*Kataskopoi, Exploratores, Speculatores***

If a large, mobile force precedes an army on the march, it may well be that they come to see, but they also come to be seen. A long line of cavalry stretched out over a plain, raising clouds of dust as it rumbles forward, is hardly inconspicuous, and if there are many examples of cavalry screens discovering hostile forces, there are also instances when their presence in turn broadcasts the news that an army is near (e.g., Arr. *Anab* 3.7.6–8.2). Smaller units may not be able to hold their own in battle nearly so well, but they are far less likely to betray a move or commitment. These typically operated in platoon-sized groups by day, if exploring open terrain on horseback, especially ahead of a vanguard, or squad-sized teams (from three to ten) in more stealthy roles, by night, on foot, or hidden in observation posts on the heights.

**Greece**

*From the time of the Iliad*, reconnaissance by small groups of men, especially by night, has been seen as an especially risky business (Hom. *II.* 10). Consequently military writers emphasize that scouts must be intelligent and experienced (Russell 1999: 20–1, 24, citing Xen. *Cyr*. 5.3.56ff., Aen. Tact. 6.3, Veg. *Mil*. 3.6). Yet oddly enough, outside of epic, the scouts we meet resemble Dolon more than Diomedes. A case in point is the team, which consisted of two of his servants and a Sicyonian exile, sent by Aratus, later *strategos* of the Achaean League, to investigate a vulnerable point in the walls of Sicyon. These men were quite thorough in providing operational intelligence—measurements of the wall and city defenses, some details about noisy dogs—that enabled Aratus to infiltrate the city (Plut. *Arat*. 5.3–5). Now it is true that the exile had been over the wall in question before, and hence could count as experienced in a specific way, but these three were hardly professional. Xenophon (*An*. 4.4.15–16) mentions that the Ten Thousand repeatedly appointed Democrats son of Temnus to lead reconnaissance patrols, since he “enjoyed the reputation of having made accurate reports in many previous cases of the same sort, describing what were facts as facts and what were fictions as fictions.” Democrats does not appear elsewhere in the *Anabasis*, held no command among light infantry or cavalry, and there is no reason to suppose that he was otherwise of note. He simply happened to be reliable, hence he became experienced.

If we can extrapolate from this example, there was probably a de facto specialization among commanders and units that included reconnaissance in their repertoire, and hence we would do well to look at the cavalry of Athens, for whom we have some epigraphic and narrative testimony. First, it should be noted that cavalry are not all created equal, and the elite are not typically found in small-scale reconnaissance roles, even in democratic Athens. That task was delegated to light cavalry: the horse archers of the fifth century, and the *prodromoi* and Tarentines of the fourth (Bugh 1988: 39–40, 221–4). Spence (1993: 134, 149–50) holds that the main role of the *prodromoi* was reconnaissance, and combat was secondary. He may well be correct, especially if they numbered fifty (five from each tribe), rather than two hundred, as did the horse archers before them. Like the mounted archers they
did not belong to the cavalry social class. They were not wealthy enough to supply their own horses, and were maintained by the phylarch. Given this support, they may have provided small-team reconnaissance for their patron phylarch, and hence would have set out singly, or in groups of two to five. Spence also suggests that they may have acted as couriers, or aides (hyperetai), a point which could make an interesting connection to Xenophon’s recommendation (Eq. mag. 4.4) that the hyperetai ride in advance of each tribal regiment (phyle) to find routes through rough territory, be it friendly or hostile. They are further associated with light infantry (hamippoi), who at times accompanied them into battle, and they are closely connected to the cavalry clerks (grammateis) and commanders, emphasizing their intelligence function (Bugh 1988: 222ff., following Elkman 1933; Bugh 1998: 86ff.; Spence 1993: 150–1).

In addition to their roles in exploring terrain and locating enemy forces, reconnaissance teams were fielded to prevent surprise. As mentioned earlier, large advance guards tend to attract attention, and hence provoke ambushes. While it is all very well and good to have your enemy tip his hand and reveal his forces—that is what a vanguard is for—it is better still to have advance warning and win or avoid the confrontation. Therefore we find Greek and Roman strategists posting scouts in front of scouts (e.g., Xen. Eq. mag. 4.5; Veg. Mil. 3.6); a colorful example is the scheme of Xenophon to send men disguised as bands of brigands in both number and garb, who would either capture anyone who might report their presence or, if the informant escaped, would provoke only such a counter as would be thought appropriate for a band of thieves (Xen. Cyr. 2.4.23). Arrian (Against the Alans 1.1ff., with DeVoto 1993: 121) calls the first group in his order of march kataskopoi, which are followed by light cavalry units. Arrian does not indicate the number of kataskopoi, nor make a point of separating them from the rest of the column until they reach the battlefield. At that point, they deploy onto the heights to observe the enemy, rather than remain on the plain with the rest of the cavalry. On the one hand, the kataskopoi have their own commander and distinct mission—one that the light cavalry could have fulfilled—and so it is possible that they are a unit of exploratores. On the other, Arrian does not give them a specific unit name (in contrast to other formations, like the mounted archers from Petra, the Cohors III Ulpiana), which leads one to wonder how much unit identity is warranted.

Pseudo-Hyginus, in a tactical work of the third century A.D., includes two hundred exploratores attached to the considerable force (three legions plus a large cavalry presence) that he describes in his Camp Fortifications (30); like Arrian, he gives a round number of individuals rather than units. The lack of specific references in these Imperial texts echoes a problem that stretches back to the Republic: to what extent was there an organizational structure superimposed on reconnaissance?

Still more fundamentally we find ourselves once again with a problem of definition. Small-scale reconnaissance in Latin texts is typically the province of men called exploratores or speculatores. What exactly these terms mean, and the distinctions between them, is not always certain. The general consensus is that (a) the terms do not have technical significance before the first century B.C. (at earliest), and (b) the distinction and peculiarity of the titles become more definite during the Imperial period (cf. Ezov 1996: 72, 81–3, 85–6, 90–3).

The term explorator seems to have evolved from a general label for any soldier engaged in reconnaissance to a specific military classification for a type of soldier. It is first attested in the late Republic (although later authors use it in the context of events as early as the third century B.C., e.g., Frontin. Str. 1.1.6). Caesar used the word in his own writing to denote scouts, although it is probable that he meant no more than the Greek “kataskopos”—that is, the term defines the action rather than the unit. This can be inferred from any number of examples. Caesar ordered the allied Ubii to send
exploratores into the country of the Suebi (B Gall. 6.10) and it is apparent that this is a generic term, since the organization of the Ubii, such as it was, was entirely native. Also, when Caesar sent C. Volusenus into Britain, he chose him on the grounds that he was suitable (idoneus) for the task of a protracted reconnaissance. Yet Volusenus was a military tribune with no connection to the exploratores or speculatores; if there was a standing body of such men, it would have made sense to choose among them (Caesar B Gall. 4.20–21; Austin and Rankov 1995: 100–1; cf. Gichon 1989: 158–9).

Perhaps as early as the first century A.D., and certainly by the second, the exploratores were more formally organized. Gichon (1989: 159) leans toward an earlier date (the Principate) while Austin and Rankov (1995: 189–95) are more cautious. Gichon goes on to note (1989: 159, citing Ps.-Hyginus camp fortif. 24, 30) that by the time of Hadrian “they were quartered near the 1st cohort, the equites legionis and the singulares. They are thus marked as a special unit for immediate disposal by the legatus whenever need arose, similarly to the position of our day combat intelligence and reconnaissance units in battalions and higher formations.” Austin and Rankov (1995: 190–1) cogently argue that there was a development from detachments composed of men seconded from their original (usually auxiliary) formations, to permanent standing units that were either derived from temporary units or expressly raised as exploratores. They continued to serve throughout the Empire (being particularly extensive and well attested in Upper Germany), in small units attached to infantry or mixed cohorts, or in forts along the limes (Speidel 1983; Austin and Rankov 1995; Southern 2007; Gichon 1989: 159–60, 162–5).

This evolution may have given birth not just to a new species but a new class of unit, and the formations of exploratores posted along the limes will be treated below. For the moment, it is worth noting that there is a distinct divide between the epigraphic and narrative testimony for exploratores. On the one hand, we find a fair number of numeri and cohorts of exploratores of up to a thousand strong attested in inscriptions. Yet Arrian and Ammianus Marcellinus, in the second and fourth centuries A.D. respectively, make no mention of any unit of exploratores in conjunction with a mobile force but rather refer to them in a manner strikingly like Caesar did in the first century B.C.—that is, vague references in the plural (see also Austin 1979: 118–19). Line units are given name and number, reconnaissance teams are anonymous.

Nonetheless, information about their operations is not entirely absent. When numbers are given, they range from a few to a few dozen (Austin and Rankov 1995: 192–4, Dixon and Southern 1992: 31–2) and may comprise both cavalry and foot. They operated well beyond the typical screen of outriders (Austin and Rankov 1995: 44–5; Ezov 1996: 74, giving examples of up to about twenty-four miles), and communicated with their generals by couriers, or upon their return.

The general conduct of reconnaissance changed very little over the millennium that stretched from the age of the classical polis to the late Roman Empire, and varied according to the resources of the power and the terrain rather than differences in polity or technology. True, there was an increase in the use of vanguards among the Greeks after the fourth century B.C., and among the Romans in the first. Cavalry was widely used in this role, but there was a transition from elite citizens in the age of the polis and early Republic to a heavy reliance on allies in the late Republic and Empire. Smaller-scale reconnaissance never became a specialty of the Greeks, but eventually became the task of specific types of soldiers, even of specific units, in the Roman period. Leadership of reconnaissance tasks, however, was not always entrusted to a designated unit commander, who was frequently superseded by a more trustworthy (or at least more influential) officer—at times even the general, king, or consul.
DEFENSE: SURVEILLANCE OF A FRONTIER

The fixing of a fair number of units of *exploratores* at specific locations along the frontiers during the Imperial period leads to the general question of the role of reconnaissance in border security. There are some differences between mobile reconnaissance, as described above, and essentially static surveillance: the actors may be the same, but the roles, names, organization, and method are not. Testimony for an organized watch on a frontier extends all the way back to the Mycenaean period, as Linear B archives from Pylos attest (Russell 1999: 24–5, citing Ventris and Chadwick 1956: nos. 56–60).

Towers blossomed on the heights of Greece in the classical era, flourished through the Hellenistic period, and faded in the Roman. They were particularly abundant in the northern Peloponnese, the southern mainland, and in the Aegean islands. Whether or not they were built primarily as observation posts, most could play the role, since they tended to be sited on hilltops with an extensive view. Often the view included other towers with which signals could be exchanged (Lawrence 1979: 187–9), and several scholars have described chains of towers and forts along the Attic frontier. These provided not only local security, but also a sort of early warning system designed to relay signals along one or more lines of sight back to the city (e.g., Munn 1993: 94–5). Camp (1991) has identified remnants of what might have been a parallel system on the Boeotian side, and inscriptions from other parts of Greece suggest that Athens and Thebes were by no means singular in this respect (e.g., Bean and Duyuran 1947 on Smyrna; Ma 2000 on Miletus).

The maintenance of the watch on the frontier was of particular concern to the state, which directed and funded it, and enrolled men to staff it. Commanders were appointed (typically by election in the *poleis*) to ensure that garrisons of the forts were maintained. These men tended to be of stature, and in some of the smaller cities of Asia Minor the office was eponymous (i.e., the holder’s name identified the year, cf. Sherk 1991, s.v. Clazomenae and Bithynian Cius). A third-century B.C. inscription from Teos describes the duties of one of these commanders (here called a *phrourarkhos*, SEG 26.1306). After his nomination and subsequent election, the phrourarch swore an oath, witnessed by the *strategoi* and magistrates, to discharge his duties faithfully and to remain in the vicinity of Teos, under pain of death.

The strictures and punishments were particularly exacting due to the fear of a revolt and the potential havoc that could be wrought by a force commanding the heights. So too were the qualifications: only citizens who have dwelt in Teos for at least ten years need apply. While in the *khora*, the phrourarch received four Alexandrian drachmae per day from the public treasury, while each of the citizens serving under him earned a single drachma. He was expected to maintain at least twenty men at each fort (the number of forts is not specified), who were armed as light infantry—with shield (*aspis*), helmet, spear, and knife. These men were obliged to obey him or suffer dismissal without pay. The phrourarch was also to maintain the three dogs that the state provided for each post, no doubt to alert the men to intruders by night. Dogs are also mentioned in other decrees, and there are colorful and even comical stories of infiltrators trying to elude or thwart the canine companions of night patrols along the city walls (Russell 1999: 29–31).

The arrangements for Teos reflect the general measures among the Greek *poleis*. The phrourarch’s term of office typically ranged from four months to a year—some states did not regulate
reappointment; others mandated an extended period between terms of office (e.g., five years, SEG 41.1003). Command of the Attic frontier was divided between two strategoi after around 261/260 B.C.: one holding the western, the other the eastern half of the defensive line. These posts could be held by the same person on more than occasion. The watchtowers and forts were occupied at least part of the year by garrisons, and served as bases for patrols (peripoloi) that were drawn from them, or undertaken by cavalry. Kent (1941: 347) has argued that, in the fifth and early fourth centuries, the watch on the Attic frontier waxed and waned according to international tension, and passages in Aeneas Tacticus (22.26) and Demosthenes (De cor. 37–38) confirm that more attention was paid to night watches, at least in times of crisis, implying that vigilance relaxed during the comfortable interludes of peace. On the other hand, bandits were never altogether absent from the frontiers, and the task of policing man and beast was a year-round commitment from the mid-fourth century to the early first.

In the fifth century the men who kept watch were usually citizens; as time progressed they were joined or replaced by mercenaries. For the most part, the mercenaries were hired to relieve citizens of the burden, but in Athens Macedonian mercenaries and Athenian citizens shared the watch on the frontier during the period of Macedonian domination (261–229 B.C.). While some forts, like Eleusis, could accommodate perhaps a hundred men, most were more comparable to the Tean posts of twenty or so. In practice, garrison and patrol duty often fell to the young men. In Athens, for example, the ephebes were assigned this task, which they undertook for a period of two years, until 305, when the term was reduced to a single year (Bugh 1988: 185 n. 4).

**ROMAN LIMES**

The expansive and expanding limits of Roman influence became defined more formally and elaborately in the Imperial period. While significant regional variation endured, the days of ad hoc governance faded with the ideals of the Republic. Provincial administration was increasingly entrusted to a structure of oversight built on foundations in Rome and regional capitals. In the latter were located the officia of the emperor’s legates, complete with a support staff of professionals —cornicularii (executive officers) with their assistants, commentarienses (judicial recorders), speculatores, frumentarii (logistical and police officers), quaestionarii (interrogators and torturers), interpreters, and the like—even a haruspex (diviner). These would in turn be supported by a secretarial staff, which recorded and processed the information necessary to maintain, supply, and field a complex professional army. The legions commanded by the legates were the concentrated striking force of the Empire, deliberately removed from the day-to-day watch on the frontier. That task was delegated to detached cohorts and numeri, more often than not populated by the many ethnic groups that served the idea and the paymaster that was Rome. For the purposes of exploring the question of tactical intelligence, it is possible to divide the units along the limes into two categories: fighting formations that fielded reconnaissance patrols and manned observation posts, and specialized reconnaissance units.

The larger formations, such as the cohorts of five hundred or a thousand, were often dispersed during times of peace. We are fortunate to have a number of their duty rosters (pridiana), which mention detachments on scouting assignments: in the case of duty rosters of the Cohors XX Palmyrenorum (dated to A.D. 219 and 222), ten horsemen and five infantry are recorded on a scouting mission (Dixon and Southern 1992: 135; Gichon 1989: 162 n. 33; Webster 1985: 150 n. 2); the
pridiana of the Cohors I Hispanorum Veterana quingenaria equitata, dated to around A.D. 105, lists a cavalry patrol beyond the Danube (BM Pap. 2851 ii.32, in Fink 1958: 104). Starting from the late second century, more formally constituted units of perhaps twenty to thirty exploratores might be stationed with a much larger force, as was the case at Welzheim-Ost and Walldürn on the German frontier (Southern 1989: 103–4, 111–12), and at Bremenium and Habitancum, located beyond Hadrian’s Wall (respectively modern High Rochester and Risingham, two locales separated by less than fifteen kilometers in Northumberland). The inscriptions testifying to the presence of the units in Britain are dated to the early third century (A.D. 238–241 and 238–244, respectively) and show them in association with mixed infantry and cavalry cohorts of one thousand strong. Given that a cohors equitata was suited by nature to conducting reconnaissance by itself, as we have seen in the duty rosters, the presence of the exploratores suggests a complementary role (perhaps longer-range excursions) or recognition of a need for specialized troops, or both. There is some debate whether the exploratores and the numeri were entirely separate—they are mentioned separately in inscriptions—or whether the exploratores were integrated into the larger numerus.

While some exploratores were on temporary service detached from the auxiliary formations (e.g., from a cavalry ala, Southern 1989: 110 citing CIL 8.21516, 13.11735), specific units designated as exploratores appear in the late second century. In some cases an existing unit was renamed, for instance the Brittones Triputienses at Miltenburg became the Exploratores Triputienses (Southern 1989: 108), and the Cohors IX Batavorum equitata milliaria in Raetia added expl. to its title (Southern 1989: 111). One can only presume that the redesignation was occasioned by demonstrated aptitude or experience in reconnaissance. Other units, such as the Ala Exploratorum Pomariensium in Mauretania Caesariensis and the Numerus Exploratorum Divitiensium at Niederbieber may have been raised as specialized units. These units were mobile, and often mounted (in the oft-cited case of the exploratores attached to the Cohors XX Palmyrenorum, on camels). While they might have occasionally gone out in full strength, it is probable that they more typically operated in small teams, or even singly.

Very large units, like the exploratores Divitienses, were dispersed over more than one location (Southern 1989: 104). Smaller units, like the Triputienses, Halicanenses, and Triboci et Boi, may have recruited locally, and have been quite familiar with the geography and customs of their allotted regions (Southern 1989: 114). It is generally agreed that exploratores operated well beyond the limes, at distances up to about 35 km (Austin and Rankov 1995: 44–6; Gichon 1989: 157, 164–6). As they became established for substantial periods at fixed spots on the periphery they came to resemble a more professional version of the Greek peripoloi, providing a flexible and versatile complement to the static watchtowers along the limes. They were one of the faces of Rome on the frontier, and established long-term relationships with the neighboring peoples of the barbaricum, even as they monitored the local mood and movements. Their information would flow back through messengers or reports in the relative calm that typified daily life in most areas, but when the storms of crisis broke the outposts could flash signals from point to point along the frontier (see Woolliscroft 2001).

If exploratores are occasionally difficult to define, speculatores are positively elusive. Their ambiguity is heightened by the fact that, from the first century A.D., the title is given to a number of roles (messengers, members of a governor’s praetorian guard, and even executioners) connected only tenuously by a general association with information (Austin and Rankov 1995: 54, 150; Rankov 2006: 130). Even within Caesar’s texts there is some ambiguity—the noun speculator, for example, may be found with the verb explorare (e.g., B Gall. 5.49.8)—but the general tenor is that they are agents who
operate more covertly than *exploratores*. In some episodes they appear seeking the same sort of information as reconnaissance teams, but do so under cover of darkness (*B Gall.* 2.11.2–3). In discussing Caesar’s account of a nocturnal departure of the Belgae and Bellovaci, scholars (Austin and Rankov 1995: 56; Ezov 1996: 80; Gichon 1989: 157–8) find a clear differentiation between the *speculatores*, who send reports of the move from the time it began, in the second watch of the night, and the *exploratores*, who confirm the reports after daybreak. On another occasion, Pompeian *speculatores* in Spain were captured by Caesar during the night (*B. Hisp.* 20.5); a while later (*B. Hisp.* 28.1), we read that Caesar’s *speculatores* were more successful, and sent reports on Pompey’s army activities from the third watch of the night. A similar situation is implicit in Ammianus (31.11.2) who, writing some centuries later, mentions that *speculatores* approached close to the campfires of the Goths, and heard the noises of man and beast. In other contexts, we find allusions to *speculatores* in disguise, or pretending to be deserters or diplomats (e.g., *Caes. B Afr.* 35.2–5; Austin and Rankov 1995 ad loc.). Yet we can also find them approaching the outworks of an enemy camp either as or amid mounted scouts (*B. Hisp.* 13).

Cover facilitates proximity—*speculatores* tried to get near or among the enemy. They seemed to listen as much as they observed, a curious habit given that their name is linked to vision (contrast the Greek *otakoustes*, or “eavesdropper”). Thus while the types of intelligence they sought were much the same as *exploratores*, their method differed. So too did their fate if captured. Unlike cavalry skirmishers or recon teams, whose lot if captured was no different from any other soldier, *speculatores* were killed—slaves were crucified, citizens beheaded (*Span. War* 20.5)—even by Caesar, who valued a reputation for clemency during the Civil Wars. The varied executions indicate the varied backgrounds of these sorts of agents, who included Roman citizens, allies, local inhabitants (e.g., *Span. War* 38), and slaves. In turn, the varied backgrounds and the ad hoc nature of some of the stories (e.g., Metellus Scipio’s recruitment of Gaetulian allies to pose as fake deserters, *B Afr.* 35) diminish the strength of arguments for a defined corps. Austin and Rankov do, however, identify a coin of Mark Antony’s that records a *cohors speculatorum*, suggesting that some structure, even if temporary, was emerging (1995: 189, citing Grueber 1910: 527, nos. 185–6). The question remains what sort of *speculatores* comprised this cohort. The bulk of the epigraphic evidence locates *speculatores* either on the staffs of provincial governors, where they served as aides, messengers, and apparently executioners (Austin and Rankov 1995: 150–1; Clauss 1973: 59–77), or among the Praetorian Guard (Clauss 1973: 46–58). It is quite possible that in the former case they had an intelligence role, since the staff was undoubtedly composed to facilitate the governor’s communications and decisions (see Austin and Rankov 1995: 150–4; among others, the staff included ten *speculatores* for each legion stationed in the province). *Speculatores* also seemed to have a peculiar identity—there are a number of clubs attested in provincial capitals (*scholae speculatorum*, see Clauss 1973: 158–9, nn. 100–01, 105, 108, 131) which suggest an exclusive and collegial relationship, perhaps even a professional one.  

While the bulk of the evidence leads to the conclusion that the *speculatores* attached to the legions left the field for the office sometime in the first century A.D., Gichon (1989: 167, citing Baradez 235–42) draws attention to forts along the Numidian frontier that were bases for *speculatores*, who may also have operated signal towers on heights just above their location. We may conclude, therefore, that not all were posted at headquarters, and perhaps that even those who attended the governor could be used for covert collection. Conversely, we may wonder if there is confusion between those who held the title of *speculator* (either on the governor’s staff or in the Praetorian Guard) with those who
were called *speculatores* because of their function as spies; certainly such ambiguities have parallels in the Roman world. One can find a pertinent analogy in the *frumentarii*, whose name recalls their original function as logistics officers, but who could equally be classified as staff officers in a governor’s *officium* or as secret police who monitored domestic and political threats (see Sinnigen 1959, 1961, 1962, 1964; also Clauss 1973: 82–113). Austin and Rankov (1995: 137) are probably right to dismiss the idea that the *frumentarii* contributed to the collection of military intelligence at the frontier, but their association with the *speculatores* at headquarters is as curious as their nickname (*curiosi*). Also, at some point after Diocletian disbanded the *frumentarii*, their domestic intelligence function was acquired by the civilian *agentes in rebus*, while the *arcani* or *areani* operated beyond the borders to provide advance warning of threats; both were notoriously corrupt (Gichon 1989: 169). While much of late Roman espionage is inferred from, rather than informed by, narrative sources, Lee (1989a and b, 1993) has done a fine job reconstructing the flow of information across the frontier, and assessing the credibility of Procopius’s allegation that Justinian neglected to fund his spies, and so was vulnerable to Persian moves.

**GREEK ESPIONAGE**

Whereas Roman intelligence, both covert and overt, became relatively organized and directed by the state, the Greek *poleis* tended to delegate quite a bit, whether officially or not, to magistrates and generals. Like the Roman *speculatores* of Caesar’s day, Greek spies resembled reconnaissance agents in some ways; indeed, while there are specific names for various types of spies, they all can share the label *kataskopos* with their more overt brethren (for spies in Greece generally, see Richmond 1998; Russell 1999: 103–39).

Like reconnaissance, espionage aimed at the particular goal of discovering the enemy’s numbers, location, and formations. On the other hand, spies did not focus on topography or routes, but rather on capabilities and plans, and occasionally details such as passwords. Their time in the field was longer, and they ranged farther, than other agents, and they often used a cover story together with an innocuous appearance (such as a merchant), or even a disguise. Curiously, spies are found in small groups more frequently than alone; three is a common number (see Russell 1999: 135 n. 102, 137 n. 106). According to Polyaenus (5.33.6), Pompiscus, an Arcadian *strategos*, made a habit of choosing three men unknown to each other in order to avoid collusion, and so that he could interview them separately and cross-check their reports. Spies usually reported back at the end of their mission rather than communicate during its course. There are a number of notable exceptions, and the fourth-century writer Aeneas Tacticus (31) abounds with clever devices for secret communication, including a rather ingenious dead-letter drop at a shrine (31.15–16).

Xenophon was rather interested in how spies might be useful to a general on campaign, and in the *Education of Cyrus* (6.1.31–43, 6.3.11–20), he weaves an intricate and charming tale of an ill-fated lover turned spy, Araspas by name, which serves as a lesson in how to prepare and field an agent plausibly posing as a fake deserter (cf. also *Eq. mag.* 4.8). The *kataskopoi* whom Xenophon commends are not assigned to conventional reconnaissance, since he specifically advises the recruitment of merchants, neutrals, and fake deserters, who have no place in that world. It is notable that espionage would be pertinent to the *hipparch* in Athens; perhaps it was not so in practice, or perhaps not delegated only to the *hipparch* (Nicias, for example, fielded spies in Syracuse, although these seemed to owe allegiance to him rather than to his office or the Athenian state; Russell 1999:
Similar coincidences existed at Sparta. A passage in Herodotus (1.67) tells of Lichas, a Spartan spy sent into neighboring Tegea. The details of the tale are more myth than anything else, but Herodotus speaks in the present when he says that five of the *hippeis* (here, perhaps, more the social class than cavalry per se) are sent out of the state each year on similar tasks. We also find the *hippeis* and their officers (*hippagretai*, marshals of the knights) handling the secret arrest and interrogation of Cinadon, a conspirator planning a coup in Sparta (Xen. *Hell.* 3.3.4ff.). These coincidences suggest, albeit hesitantly, a link between cavalry and espionage, one that may derive from the notion that spies are, at some level, well-disguised scouts.

Greek military intelligence never became professionalized, not even under the Macedonian monarchs, and did not reflect the sophistication of the prototypical organizations fielded by the tyrants of Cyprus and Sicily in the fourth century (see Russell 1999: 107–15). Some have proposed that the Spartan *krypteia*, and a possible Athenian counterpart, *kryptoi* (“hidden [men?]”), mentioned in a third-century Attic decree (*SEG* 24.154), may have served as a covert intelligence organization, but the evidence is far from sufficient to warrant anything but the most tenuous hypothesis at this point (Knoepfler 1993; Balcer 1976: 282–3; Russell 1999: 119–20).

While the focus of this chapter has been agents active in tactical intelligence, it would be remiss not to mention—even in passing—other sources. Among the more important were captives who, when taken in skirmishes before a battle, could provide or corroborate information for immediate exploitation, or, when taken after a battle, could help a commander understand what exactly happened, and perhaps even why it happened (Russell 1999: 42–9; Austin and Rankov 1995: 67–73). Both Greeks and Romans were known to send out troops to waylay stragglers or scouts when they needed more information than observation alone could supply. Deserters from the enemy were almost always welcome, and could even be rewarded with wealth and status (think of Josephus), but have always been and still are handled with caution, for false deserters—who might seek to misinform, spy, or betray—play many parts in our drama (Russell 1999: 49–54; Austin and Rankov 1995: 73–81). Local inhabitants might be questioned, especially about topography and routes, and even brought into service as guides (Russell 1999: 54–60; Austin and Rankov 1995: 81–3). Communication with all of these often required interpreters who, particularly in the case of the Greeks, were usually from a different people than those they served. A prudent commander needed to be able to overcome not only the nuances of language but those of motive: why would a prisoner be only too willing to talk; what would he be likely to conceal; and how could you discover something that you did not necessarily know it was important to seek?

**Conclusion**

The ancient world of intelligence is a world of shades, not so much because of its inherent secrecy, but because it was inhabited by the humbler sort, who were largely anonymous even to those they served. There are exceptions: most notable perhaps is Marcus Vettius Valens, who began as a soldier of the Praetorian Guard, served as trainer (*exercitor*) of the mounted *speculatores*, and retired as governor (*procurator*) of the province of Lusitania. A stunning career, but atypical and due more to his family position than any association with reconnaissance (Clauss 1973: 55; Syme 1939: 244; note that he never actually served as a *speculator*).

Although there may be merit to Speidel’s (1983) suggestion that at least some units of
exploratores were considered elite, Southern’s cautions (2007) regarding evidence are entirely justified. Even if it were true, the general tenor is decidedly otherwise. The Sciritae kept watch while the Spartan peers slept. Young men looked out from lonely hill forts while their elders debated policy in council. The aides of the phylarchs, the mercenaries, the social and economic inferiors of the Athenian and Macedonian cavalry classes, rode through brush, in fear of ambush, so their betters could follow in relative safety. Gauls or Goths, sometimes under Roman commanders, brought news of their kin’s misdeeds to their Roman masters. In such contexts, it was an insult to be called a son of an explorator (Tac. Ann. 11.16), although perhaps the sense of ethnic betrayal diminished as the auxilia came of age.

The peltast, the light cavalryman, and the horse archer were social lightweights. Those who fought in line of battle were the archetypes of valor and civic participation. It is in the press of battle, sang Homer, where the great go to win glory for themselves, or grant it to another in their death. Such valor is conspicuous, whereas a successful reconnaissance patrol is unnoticed. Sentry duty is boring; its trials are quiet miseries, not spectacular sacrifice. An effective watcher requires prudence as much as courage; so too, says Xenophon (Eq. mag. 7.7–8), in reconnaissance, fear is your ally. But, among the rest of mankind, courage in battle was to be admired; wariness and stealth were ambivalent. Perhaps this social phenomenon is the explanation of the otherwise inexplicable neglect of tactical intelligence by many commanders of the classical age. It is not so much that they failed to recognize that information could be useful, but that they assumed that it would work its way up the social chain or, if not, that the lion’s skin had no need of the fox’s. It was the weaker party who needed to know. Why, asked Demosthenes of the Athenians, are you making such a fuss about what Philip is said to be doing or not doing—he should be worried about what you are planning! As Lendon (2005: 4) so eloquently stated, people wage war according to their cultural values. The more successful generals, like Caesar, and innovative thinkers like Xenophon, were willing to push their cultural boundaries and pay attention to intelligence. Still, the fact remains that professionalism and unit identification in intelligence came neither to the poleis nor the kingdoms of Classical or Hellenistic Greece, and came finally to the Romans at least a century after it had pervaded the legions.

In closing, it may be fruitful to return to our beginning beside the memorial to Valerius Paternus. Who was he? He and his ilk were men of middling means. Even as they patrolled the frontier or rode beyond the column, they lived at the margins of society: a youth, a mercenary, an auxiliary from a people in the shadow of some splendid empire. His deeds would not be the stuff of legend, and his name would be far more likely to adorn a humble tombstone than the page of a history book.

BIBLIOGRAPHY


The history of the horse in war starts with availability, type or breed, and suitability, and as early as 1400 B.C. the tablets from Cnossus in Crete indicate the presence of chariot and horses, while Mycenaean frescoes show warriors equipped as cavalrymen (Hood 1953: 84–93; Worley 1994: 9f). The horse, domesticated on the Eurasian steppes well before 2000 B.C., was a partner in the lengthy second millennium B.C. migrations and raids of Indo-Europeans into western Asia, the Near East, India, and Europe (Piggott 1962: 250–1; Roux 1966: 202–6). Inevitably crosses and new acquisitions occurred in nomadic herds from territories en passant, coupled with time for breeding to be selective. Therefore well before Greek legal and military recordings appear Greece had access to a wide range of horses for racing and war. Within Greece certain areas produced excellent horses and cavalry. Over fifty-seven brands are shown in the fourth and third century Athenian cavalry archives. Some indicated breeders and owners in the horse trade, others horse breeding and/or raising areas. Brands include Pharsalus—ox head; Pherae—axe; Larissa—a centaur (Kroll 1977: 83–140). Other states that fielded cavalry probably had similar systems (see Figure 23.1).

Thrace had a significant horse culture, Thracians having been riders before the Greeks, who considered them lovers and breeders of good large stock. Horses symbolized power in military and economic fields, and were sacrificed to the Sun and before battle. Thrace also traded with horse-rich Persia. In the first century A.D., the Augustan poet Grattius Faliscus noted that Thracian horses were easy keepers and excellent performers, but had ewe necks and roach backs. Arrian in the second century A.D. commented that the Thracian Getae and the Scythians in Roman Moesia rode ugly, lean, but very enduring horses, and “for a hard day’s work they can hold out against anything.” Thracian horses, and later Thessalian stock via those from Thrace, received a genetic input from the steppe animals of the Cimmerians whose tribal roots were interwoven with those of the Scythians.
Greece was able to acquire superior war bloodstock via enemy incursions. In 479 B.C. during Xerxes’s expedition against Greece, Mardonius wintered in Macedonia and Thessaly with some sixty thousand infantry and thirty thousand cavalry. In such turmoil, local mares would have been crossed, either purposefully or accidentally, with Persian chargers. As breeders know, one prepotent stallion can strongly influence a whole strain of descendents. The year 479 culminated with the Persian disaster at Plataea where spoils in Persian horses were abundant. In Xerxes’s train the sacred chariot of Ahura Mazda was drawn by eight white mares, which were stolen by “up country Thracians” (Hdt. 1.131.2, 7.40.4). Undoubtedly these were purebred Nesaeans, as were any captured officers’ chargers. These windfalls would have influenced future generations of Greek and Macedonian horses in the quality and size of future progeny. Herodotus (Hdt. 7.40) notes the Nesaeans’ extraordinary size and bulk.

Most historians believe ancient horses were small, without quantifying small. But there are numerous significant finds of sizable horses: from Pazyryk 14.3 hands high; from 1675 B.C. Buhen about 15 hands high; the 16-hand animal came from an Achaemenid context, plus those of the Roman era noted below (Pazyryk and Buhen: Rudenko 1970: 56; Clutton-Brock 1974: 89–100; Persia: Azzaroli 1985: 177). At 15.3 1/2 hands, and of more refined conformation than the Nesaean, were the horses of Bactria and Ferghana situated in the swathe of ancient Turan (today comprising the “Stans” of central Asia; Creel 1965: 647–72; Hancar 1956). During Alexander’s conquests of the Zariaspians and Arimaspians he commandeered Bactrian remounts. Bactria was known as Zariaspa, a meaning derived from “golden horses,” since aspa was Persian for horse. The golden horses are linked to what later became known as the Akhal Teke of the Tekke Turks, one of many strains of the Turcoman breed. A first-century A.D. Chinese source noted Ferghana horses were “all of 7 chi high” (15.3½ hh), China first imported them in the second century B.C. and continued to do so for over a thousand years (Creel 1965; Jankovich 1971: 30).
Continuity of provenance from the classical age spilled over into the Roman era. By then enough time had elapsed to fix many breed/type characteristics and define performance potential. Roman literature outlines several merits and demerits. Nearly fifty breeds, the largest cluster being from Greece, were available. Additional types came from Rome’s expanding empire. The most desirable animals came from the old breeding grounds of Parthia, Persia, Media, Armenia, and Cappadocia, areas with some communal borders, and most of which were Persian satrapies in the formative years of breed evolution and had to supply annual equid tribute to the Great King. A general trait was large size, but Armenia also produced a smaller, more refined horse. The geographer Strabo gathered much data on horses:

As for the Nesaean… some say they came from there (Media), others…from Armenia. They are characteristically different in form (conformation) as also are the Parthian [and] compared with the Helladic and the other horses in Greece. (11.13.7, C525)

On Armenia, it is good for horse pasturing and Nesaean horses are also bred there, and these are not inferior to those of Media. (11.14.9, C530)

The style of horsemanship in Armenia Thessaly and Media is similar. (11.14.12 C531)

New to our caballine map were Gaul, Burgundy, Thuringia, Frisia, Spain, and Libya/Numidia/North Africa, which Romans used interchangeably when discussing horses.

Rome used several ethnic alae from countries noted for horses. Initially these units would have been mounted on horses indigenous to the area in which the unit was raised. Over time there would have been a crossing of equids resident in a garrison’s locale, especially if a trooper got a small covert payment for his entire mount covering a local mare. Sarmatians came into the Roman sphere in the mid-70s A.D. when a punitive expedition went against them north of the Danube (Sulimirski 1970: 133–4). According to Strabo they rode small, swift, unruly geldings (7.4.8). Steppe ponies are tough; in A.D. 1241 the mounted Mongol invasion of Europe covered sixty miles daily in the snow-clad Carpathians (Hyland 1994: 137). In A.D. 175 the Iazyges’s price paid to Rome for peace was 8,000 cavalrymen and mounts, of which 5,500 were sent to Britain (Dio 72.16.2). The Iazyges, part of the Sarmatian tribal confederacy, initially came from the steppes north of the Caucasus, settling in the Hungarian plains around A.D. 20 (Sulimirski 1970: 7–8). Spain has a long history of breeding excellent horses. During the Hannibalic Wars there was an interchange of cavalry between North Africa and Spain, and Hannibal used Spanish cavalry at Cannae in 216 B.C. (Livy 23.46). The Frisian was also valued in antiquity and the medieval period and almost certainly had a genetic input onto the Fell and Dales, the larger of Britain’s native breeds, which have a marked resemblance to the Frisian.

North Africa and Egypt had a notable equestrian impact on the military during the Greek and Roman eras. In Scotland the Newstead excavations revealed bones of a variety of equids, some nearly 15 hands high, others of “the Libyan variety” on the lines of the finest kinds of desert Arabs. One “Libyan” skull was so close in its measurements to that of an Arabian mare held in the British Museum as to suggest these “Libyan” horses were Arabian (Curle 1911: 368). Strabó’s assertion that Arabia had no horses but only mules (16.4.18; 26) has to be discounted as mules are the product of horse and donkey cross-breeding, and fossilized horse bones were found in Eastern Arabia in 1983 (Arabian Horse Society News 1987). Written in the late second century A.D., Ps.-Oppian’s Cynegetica noted that Aristarchus of Samothrace (217/215–145/143 B.C.) mentions the Erembian horse, equating it with the Arabian. Ps-Oppian (Cyn. 172 from B.I, from B.III lines 20–34) also
mentions the Erembian Lion of Arabia Felix, home of the later well-documented Arabian. Whether they originated from Libya is open to question.

North Africa also produced the Berber (Barb) whose ancestors almost certainly derived from the Spanish Sorraia that had entered North Africa as early as 10,000 B.C. (Loch 1986: 50–1). Ps.-Oppian comments favorably on the Moorish (Barb) from Libya, especially those from Cyrene, and praises the good pastureland of Libya, saying both the Moorish and Libyan horses were superior in the charge and very enduring, with the Libyan being of greater stature (Cyn. B.I. lines 172, 289f, 291f, 298). In Flavian/Trajanic times North Africa provided Rome with many cavalry units, and at least two alae of African cavalry were posted to Europe (Holder 1980).

Finally we come to the Hunnish horse described by Vegetius, the author also of the fourth-century *Epitoma rei militaris*. It was a difficult, ugly, but utilitarian beast, enduring mileage, cold, and hunger, and it carried the Huns into the dying days of the Empire. “Hunnish horses are large headed, with staring eyes, a narrow nose, broad jaw, strong and stiff neck. The mane hangs down to the knees: long sides [i.e., long-bodied], a bent back [roach back], thick tail, strong cannons, small base [i.e., stands over little ground], dinner plate feet, and hollow flanks complete the features. The whole body is angular, with skinny haunches, scrawny muscles. In length it is great, in height of great stature, with a gaunt belly, big bones. He is thin and his beauty is distinguished by being deformed.” This was an unkempt horse much at variance to those that Xenophon or Pelagonius would have recommended. But serviceability was often more important than looks, and in cavalry ranks there were bound to be more ordinary than superior animals.

**The Ideal Warhorse**

The ideal warhorse is ably described by Xenophon, followed in the Roman era by many Greek and Roman authors with texts so similar as to suggest plagiarism (figure 23.2). Pelagonius’s text (late fourth century A.D.) is useful, as with his veterinary work he knew what worked and what did not. Indeed, apart from a few errors some texts are still relevant (Xen. *Eq*. 1, passim; for Pelagonius see McCabe 2007: 156–80). In what follows I have added corrections where necessary, and reasons for some aspects that were clear to Greek cavalrymen, but not necessarily to those with no equestrian background. Xenophon’s requirements and the modern explanations are apparent from the terminology:

The hooves should have thick horn and be high and hollow to keep the frog off the ground. Low hooves are to be avoided. Pasterns should slope and be springy. Upright pasterns jar the rider and are apt to get inflamed. The shank (cannon) should be strong and clean. If fleshy over hard ground the shanks’ veins would become varicose, the legs swell, the flesh recede, and often the back sinew gives way and the horse becomes lame.

Xenophon is describing a ruptured tendon with attendant swelling, the result of a severe wrench, which takes months to heal, often leaving the horse unfit for strenuous work. Too sloping a pastern predisposes a horse to bowed tendons, as well as allowing excessive strain and damaging contact with the ground: “the knees should be supple (i.e., free joint movement), the forearms substantial, the chest deep and broad to allow the limbs to be free of interference.” A wide chest allows good heart room; a base-narrow horse risks one hoof clipping the other, and in extreme cases “scalping” the lower limbs: “the neck should have a clean throatlatch and no thick muscle underneath.” This fault makes a horse a “stargazer,” harder to control, and as his eyes look upward more prone to tripping
Xenophon noted that a good neck position helped to guard the rider, allowing the horse to see properly in front of him. A high neck carriage may have guarded the rider in close contact maneuvers, but for missile weapon launch a lower head carriage gave a clearer sighting. “The head should be small, dry (bony) with small ears and small equal jaws, flexing at the poll which should be wide.” A wide poll, raised crest, and wider neck are marks of an entire, or uncastrated, horse. The polls of geldings and mares are narrower, and necks have less of a crest. “Nostrils should be thin, wide and flaring.” This together with a clean throatlatch enhanced respiration, vital for warhorses under pressure. The description of the body is what we would recognize as a short-coupled horse with wide, strong loins, a well-sprung ribcage, without a gross belly. “All these parts if firm (fit) ensured speed. The hindquarters should be broad, the hind legs set well apart which will enable him to gather himself in.” This describes the levade (i.e., a rearing horse, holding its front legs off the ground), the favored way of showing the enemy being trampled. From a levade a horse can spring, turn in confined spaces, spin to face the enemy, and launch an aggressive lunge and/or strike with forefeet and teeth. “The hind legs and hocks should be similar to the forearms, sinewy, strong, and with sloping pasterns. The stones (testicles) should be small.” Xenophon states the cannon bone “which grows least” is the indicator of the size of the mature horse. It can still be used as a rough guide to mature height. A high wither and double back were desirable. The former kept the rider in the proper sitting place; the double back meant a broad back with pads of muscle either side of the spine. Both attributes were helpful in the days of (originally) saddleless, stirrupless cavalry.

Xenophon is correct to warn against a low hoof, that is, a shallow hoof liable to stone bruising. Most terrain in Xenophon’s geographical sphere was stony, dry, sandy, or mountainous—all abrasive conditions. Thick horn abrades more slowly. A hoof grows between a quarter to a half inch a month and good nutrition aids growth. A small head and refined neck allowed the horse better balance;
coarseness puts a horse on the forehand, impeding movement and balance.

Pelagonius’s ideal is similar, except he recommends “big straight shoulders,” a conformation defect as the ideal shoulder follows the angle of the pastern’s slope which should be approximately 45 degrees. Straight shoulders give a jarring ride, bad for concussive effect and the rider’s comfort. The ears were to be “small and the tail hairs long and not bristly.” Small ears and fine mane and tail hair go with good breeding. Black hooves were recommended. These are known to be of much harder consistency than gray or white hooves, so necessary in an age of barefoot riding. The recommended small knees are also wrong, a large, flat knee being desirable.

**Psychology**

A good temperament was vital in a warhorse. One too mettlesome, or a sluggard, took too much time checking or coercing (Xen. *Eq.* 3) when the rider’s priority was saving his skin. Kickers, and slow and vicious animals were to be rejected. The ideal was a horse amenable to his fellows, obedient, with a mental steadiness that via assiduous training gave it confidence to act at variance with its natural inclinations as an animal of flight which used speed to escape predators and other dangers. As a herd animal its speed had to be channeled into the aggressiveness of the massed charge, but subsumed into regimental order. Group training consolidated this at controlled speed, notched up by degrees, and maintaining cohesion, as displayed at the *antihippasia* sham fights in Athens’s hippodrome and in Arrian’s *Ars Tactica* maneuvers; solo action away from troop (herd) safety needed attention (Xen. *Eq.* 7.13–14, 17–19). Some troop horses display nappiness; amusing examples come from World War I; when using green American remounts the “Tins” were plagued with horses refusing to leave the ranks until cured by Trooper Lloyd and Lord Somers wielding long sticks on their rumps. Shortly they only had to walk behind balky mounts for them to shoot forward, to the pleasant surprise of the inspecting brigadier (Lloyd 1938: 254).

Some horses went willingly and repeatedly into battle. Several factors account for this. In earlier training they became used to swords, javelins, spears, lances, bows and arrows, maces, and, in the case of nomadic cavalry, to lassos, whirling around or by their heads; their natural fear decreased if they never got hurt. In battle the excitement, speed, and noise overrode any spookiness, and in massed work the herd instinct was uppermost. If wounded, unless immediately crippled, the horse(s) would have continued, and by the time battle ceased or cavalry withdrew any pain felt would not have registered as being caused by the earlier blow. However, pain inflicted in cold blood immediately registers as to cause and effect, and retaliation by the horse is not because of the pain, but anger and concern over who is going to win in any confrontation.

Xenophon advised that horses were to become accustomed to situations and objects that engendered fear or apprehension (Xen. *Eq.* 6.13–15). Fear transmitted to a horse by a quaking rider encourages the horse to balk. Indeed, I suggest that many routs were caused by rider fear triggering the same in the horse, who wheeled for the rear followed by its fellows. It is not uncommon for horses, no matter how well trained, to have an inordinate fear of strange animals: the visual, odiferous, and noise elements. For example, I have encountered a gelding that always panicked when he saw donkeys, even though he met them frequently. In war, horses met with camels and elephants, which were often used in the armies of the East. When Croesus of Lydia fought the Persians in 546 B.C. his cavalry horses bolted from Cyrus’s baggage camels turned cavalry mounts; some reared, some bolted, others panicked and knocked into their fellow chargers (Xen. *Cyr.* 7.1.27). Although
Xenophon’s source was probably Herodotus (1.80), the understanding of horses’ reactions was pure Xenophon. When Perseus of Macedon fought the Romans, fearing that his horses would panic at the stench of the Romans’ elephants, he forced them into the proximity of an array of dummy elephants smeared with noxious unguents until they were desensitized. In the Civil Wars both Caesar and Pompey brought elephants in to defuse their horses’ fears (Dio 43.3.5–4.1). At the Battle of Zama in 202 B.C. Hannibal’s elephants caused Scipio’s cavalry to panic, but also his own horses (Polyb. 5.12–13). Indeed, elephants were often as big a danger to their own side, especially in Indian armies. At the Battle of the Hydaspes in 326 B.C. Alexander fought Porus, King of the Pauravas; he feared that Porus’s two hundred elephants would disrupt his cavalry, but when the mahouts had been killed and the elephants had been injured, they wreaked as much injury on their own side as on the Macedonians (Arr. Anab. 5.8–20).

SEX OF CHARGERS

In the ancient world most chargers were entires, but geldings and mares were also used. Xenophon recommended gelding vicious warhorses in order to maintain their use in the cavalry ranks (Cyr. 7). In the Roman era it continued to be the norm to ride stallions. Varro comments that the army wanted spirited horses for battle but preferred more docile animals, and apparently castrated ones, for transportation (Rust. 2.7.15). But this was not a firm rule, as shown by the records of Cohors XX Palmyrenorum stationed at Dura Europos (A.D. 251). Of thirteen horses described, eight were male, three female, two not stated (Fink 1971: 18). At Krefeld Gellup, of thirty-one horse remains found half were male, half female. They were being used in the turmoil over the Batavian revolt in A.D. 69 (Nobis 1973: 251). Strabo (7.4.8) and Ammianus Marcellinus (17.18) noted how nomadic horsemen of the Sarmatians, Scythians, and Quadi gelded their mounts. Furthermore, all the Pazyryk animals were gelded (Rudenko 1970: 56). This was common practice in herds, otherwise there would have been infighting by entires competing for mares and very indiscriminate breeding.

CARE AT BASE AND ON CAMPAIGN

Xenophon advised: keep a good, clean stable; check the horse’s daily condition for over- or underweight; note the early onset of ailment or disease so preventative measures could be taken (ibid., 4–5); feed well to build stamina (11); care for his horses (4); groom assiduously (5–6); never handle or school if in a foul temper; at all times remain calm (6); give aids smoothly (9); reward good work with caress (9–10). Xenophon understood a horse’s mentality.

The Persian Persepolis Fortification Tablets from the reign of Darius I (622–486 B.C.) detail feeding horses in hard work. Most were used in the Angarium carrying dispatches, keeping the King and government advised of how the far-flung Persian Empire fared, so the animals were in effect part of the military. Many tablets cover travel rations. Varying amounts were issued to young stock, resting animals, and hard-ridden horses. The average for a Ber (mature) horse was three quarts per day, but in excessively hard work it received one bar. Mature horses held in reserve received six quarts per day. These would have been well exercised to maintain fitness and to ensure that they were ready to be used at constant speed. When carrying documents to Darius, horses were commonly fed five to six quarts per day. A Baris horse, his rider carrying sealed documents, got one bar daily. There are
indications that dispatch riders on occasion rode seventy-five miles per day on four successive days using a four-horse relay. Special rations given to Baris horses doing hard stints included extra grain called mitli (millet?) and a ration of wine. Baris horses were probably those mentioned in the Book of Esther as bred for the Angarium (8.10). We can see the relevance of the Persian diet in the fact that my eight-year-old stallion Nizzolan consumed seventeen pounds per day during the last six months of training for his first hundred miles in one day race, which he won. As an older, maturer, endurance horse he only needed fifteen pounds per day. Considering that Persia and Greece were frequently militarily involved, as shown by Xenophon, Herodotus, and Arrian, it suggests Greek animals enjoyed a similar diet. However, a cavalry horse would not always need such high feeding as most of his work was a steady fifteen miles per day stint. But occasionally high feeding was advisable as shown by some of the exploits undertaken by Alexander and his Companion Cavalry. After Gaugamela in 331 B.C. Alexander’s seventy-five mile pursuit of Darius III achieved a forty-six-mile-per-day average. When again chasing Darius, Alexander covered about two hundred miles between Ecbatana and Rhagae in eleven days, stopped for five days, then resumed pursuit. Adding nights and part-days, in five days Alexander covered between 170 and 210 miles, arriving at Damghan or Sharud, riding largely through uninhabited waterless desert, to find Darius murdered. The daily mileage never dropped below thirty-three, one forty-five mile stretch taking twelve hours. As they were mostly without water he lost many horses. The survivors must have been superb endurance horses with at least sufficient pre-pursuit adequate diet and conditioning; no doubt horses of the Companion Cavalry had preferential treatment.

Alexander’s early logistics were well thought out, and supplies shipped to ports en route were then off-loaded onto baggage animals which could carry up to thirty days’ provisions and other supplies. Each animal carried about 250 pounds. Once out of familiar zones and into landlocked territory problems began. The further his campaign went the less knowledge was available of climatic and harvest conditions. In his study of Alexander’s logistics, Engels used British cavalry rations to arrive at an approximation of the needs of chargers. However, the ten pounds hard and ten pounds long feed and eighty pounds of water per animal per day were based on a middleweight hunter of about 15.2 hands high to 16 hands high weighing about 1,200 pounds, far in excess of what an ancient army could consistently provide, and based on far larger horses than were the ancient norm. The baggage animals also ate into their load. Where possible Alexander made alliances, organized provisioning dumps, and reconnoitered supply. Forced marches conserved rations where supplies were meager, the army splitting to prevent resource depletion (Engels 1978: 15, 22, 26–9 passim, 145, 154–5).

Barley was the main grain fed to animals in the ancient world, with average yields about five hundredweight per acre (ca. 1,400 pounds per hectare), but in the heart of Alexander’s operations in Mesopotamia, the Lower Helmand Valley and the Indus, yields were far higher. Around Tehran it was double the average (e.g., Engels 1978: 3, 37, 64, 27, 55–6, 93–4, 107). Long feed—grass and hay—and water were too bulky to transport, other than the bare minimum. Considering that Alexander’s latter route was often in desert and mountainous regions, animals would often have been on starvation rations. However, much campaigning took place where Median clover, that is, alfalfa/lucerne, grew. This is exceptionally nutritious, reducing the need for a heavy grain ration. Other grains were wheat and oats, the latter being considered a type of degenerate barley. The main wheat strains were einkorn (triticum monococcum)—protein circa 17.5 percent; emmer (triticum dicoccum), 20 percent; spelt (triticum spelta), 19 percent. The three main barley groups were
hordeum distichum, hexastichum, also known as horse barley, and glabrum (White 1970: s.v. wheat and barley). Modern wheat has 8 to 9 percent and barley about 11 percent protein. Therefore the nutritional value of grain for horse and man was then far higher.

From the Roman era dietary information comes from army regulations and veterinary and farming treatises. A Roman cavalryman was allotted six bushels of barley per month. An allied trooper received four bushels, indicating the first had claims to more animals. The daily ration per horse was 3.5 pounds (Polyb. 6.39). Though not generous, it provided a basic diet. No doubt in plenteous times this was increased. However, total digestible nutrients (TDN) are approximately half the stated protein, so ancient grains gave more nutrition for less outlay. Lucerne/alfalfa hay protein approaches 20 percent, while good grass hay is about half that; poor hay has little nutritional value (Hyland 1980: 115). There were other additions to mixed feeds spelled out by various veterinary practitioners, but they formed only a modicum of value, and were generally not applicable to army diets. That rations remained constant is attested by a sixth-century A.D. Oxyrhynchus papyrus (No. 2046; see also Walker 1973).

HEALTH HAZARDS

Army animals risked many health hazards: lameness, injury, endemic diseases, and various common ailments. Pelagonius’s Ars Veterinaria has numerous cures (see McCabe 2007: 158–77). Great reliance was placed on herbal remedies, some echoing modern homeopathy. Most remedies had multiple constituents, some beneficial, some neither good nor harmful, others of doubtful benefit, some dangerous. Firings with a hot iron, blistering with caustic agents, and excessive bleedings were common and of little value. Nevertheless by observation and trial and error, the veterinarius, his army counterparts the immunes, and grooms managed to cope, aided by veterinary lore amassed over centuries. Greece was famous for producing veterinary practitioners.

Most attrition in cavalry stock would have been from lameness, mostly in the hoof and lower limbs, although shoulder and spinal lamenesses were a danger and the hardest to pinpoint. Working unfit animals, overstretching those past endurance, and wrenches to tendons, joints, and muscles and damaged hoof laminae, were among the most frequent lamenesses. Others arose from stone bruising, cuts to hoof soles, sore hooves from constant wear since they were unshod, corns, thrush, greasy and cracked heels, and “fever in the feet”—the latter often a symptom of laminitis, or, if higher up, of other lamenesses. Heat in an infected area was misunderstood and instead of letting circulating blood carry away and diffuse impurities, thus reducing infection, they resorted to severe debilitating bleeding (Hyland 1990b: 57).

Wounds

Among the most severe injuries were puncture wounds with resulting tetanus, and in those days almost certain death. Pelagonius admitted to not understanding it and his “cures” were pretty useless. Such injuries could come from arrows, javelins and lances, staking in pits, caltrops piercing hooves, or infantry crawling among horses and stabbing them, as described by Ammianus Marcellinus (16.12.21) at the Battle of Strasbourg (A.D. 357). Any penetrating injury on a mailed horse was far more serious as the links would gouge into flesh, causing a massive wound, which, as infection set in, turned gangrenous. Slash wounds, although looking more horrific than puncture wounds, were less
dangerous unless some vital artery or tendon was cut. Hamstringing the Achilles tendon was a frequent injury, which rendered the horse permanently useless. For treating wounds in humans Celsus stipulated cleanliness and stitching for those wounds easily drawn together, or secured by fibulae for those not easily stitched (Med. 5. 26.21–4; Hyland 1990b: 126). Arrows extricated by pulling through in the human could not be treated in this way in the horse except through the neck. Arrows drawn through a limb would destroy so much muscle and tendon tissue as to render the horse useless. Those not penetrating too deeply and without barbs could be extricated, though leaving scarring.

Endemic Illnesses
Equines en masse contract endemic and contagious ailments that swiftly run through the horse lines. Since contagion and infection were not understood, the mortality rate in the horse lines would have been high. Over the centuries the eastern provinces produced a greater number of communicable diseases than those of the west. This applied down the centuries. The most serious, with a high mortality rate, were equine infectious anemia, glanders, epizootic and ulcerative lymphangitis. Surra, due to a parasitic trypanosome in the blood and transmissible by biting flies, is nearly always fatal, as is dourine (horse venereal disease) in stallions, and with high mortality among mares (Hayes 1968: 220–62).

The commonest ailment in massed horses is strangles. It was recognized by Pelagonius and his description is fairly accurate under the heading “Tumor in the jaw,” “Parotitis,” and “Swollen glands.” Whereas most ailments and cures appear only once or twice, cures for strangles appear seven times, indicating its prevalence. Today rarely fatal, in Roman and Greek days it carried high mortality. Other common ailments spread by close proximity were colds, coughs, mange, and internal parasites, called “lice in the intestines” by Pelagonius. Some of his medicaments for worms, such as wormwood, have a beneficial effect, as does nigella sativa (black cumin), which is found as an anthelmintic for humans in the Dictionary of Assyrian Botany. As early as the fifteenth century B.C. at Alalakh, it was fed to horses on occasion, but at intervals such as to suggest that it was also used for worming them (Hyland 1990: ch. 3, 9, 15 passim; Hyland 2003: 61–70, veterinary practice, discussed in greater detail). Pelagonius recommends manual evacuation, but by that stage infestation is severe, and though the “lice” were extracted the eggs remained for re-infestation. Wormy horses are unthrifty and unable to perform to their best. Heavily dunged pasture grazed by a mass of horses ensures constant infestation.

TACK AND ARMOR
Tack gave the rider control over his horse and consisted first of bitting, secondly of saddlery. Other elements served to protect the horse.

Biting
This is a complex subject with scores of designs comprising snaffles and curbs. The former act primarily on the tongue and bars of the mouth; if jointed the nutcracker action of long cannons acts on the palate and the tongue. Basic curbs, which did not appear until the Roman era, in addition act on the poll, and in a true curb on the chin groove via the curb chain or strap.
Snaffles
Snaffles are generally considered milder than curbs, but most in our period were severe. Xenophon advises a bit should be flexible to prevent the horse from grasping it and holding it against the bars to prevent its correct action. He defines flexible and stiff bits, the former with smooth cannons with mobile keys and disks, but notes that whatever the pattern of the bit it must be flexible (Xen. Eq. 10.7). The Romans realized much control was lost by the horse opening its mouth and used *psalia* (see below), and rigid metal bars under the jaw to prevent this (Hyland 1992, where I analyze the action of ten bits).

Curbs and *Psalion*
Curb mouthpieces can be jointed or of one piece, the latter usually with a port—a U-shaped rising; the higher it is the more severe (figure 23.3). A wide port gives more room for the tongue; where narrow the tongue is pinched. Some ports are almost solid, like a spoon. Externally there are long lower shanks to which reins are attached, and a shorter upper branch to which the headstall is buckled. Between the lower shanks a metal bar keeps the shanks from flying apart, thus equalizing action; it also acts as a crush control on the lower jaw when a *psalion* is used. An incredibly severe bit from the Roman era, found in Thrace, has everything possible jammed onto it: a very high port, crush bar, internal accretions, and, what most lack, a true curb chain so designed that it could not lie flat and so had multiple pressure points. When the rein is activated the port hits the palate, the upper branch rotates pressuring the poll via the headstall, and the crush bar hits the delicate bones above the chin groove where the curb chain bites. The Newstead curb is an exceptionally severe bit, and there is a distinct possibility that it too had a curb chain as on one of the upper branches is a loose ring, which could have worked itself up the branch if affixed to its opposite ring (missing). A tight chain would have remained in place at the spot decided by the rider.

![Figure 23.3](image-url) The Roman curb from Thrace (a) and the Newstead curb (b).
Psalion
This is similar in action to a modern leather drop noseband, but it was very severe, being made of metal. It acted in conjunction with a bit pressuring the nose and under the jaw and stopped the horse opening its mouth to avoid or lessen bit action.

Other Nosebands
Aelian comments on the Indian spiked muzzle (noseband) which allowed a horse’s palate and tongue to go unpunished (NA 13.9), but in his Indica Arrian explains the Indian method of control by “a strap of leather fastened round the extremity of the jaw, with a rowel of brass or iron bent inwards and not very sharp….The bit is a slender bar of iron to which the bridle is fastened; and when they tighten the rein the bar and the rowel bring the horse under command. For the whole bears upon him in such a manner that he cannot but obey” (Indica 23). This suggests a noseband round the whole of the nose with a central spike over the nose set to act in Psalion fashion, coupled with a simple bar snaffle. The whole would have been mild—for the era.

Muzzles
Xenophon advises use of a muzzle when handling a horse (Xen. Eq. 5.3). As most chargers were entires this is sensible as stallions are often mouthy. When ridden in the ranks muzzles prevented biting of neighbors. They fitted around the muzzle below the bit. Their open framework allowed adequate air intake. They had another use, which has escaped comment, in that they prevented a horse opening his mouth wide to neigh—dangerous when cavalry was springing an ambush. Neighing also excites unruly stallions to challenge their neighbors.

Saddlery
It is generally considered the ancients rode on a saddle pad or saddle cloth, but due to Peter Connolly’s reconstruction from archaeological finds we know Roman cavalry used a hard treed saddle with retentive front and rear horns to aid seat security. However, other early cultures used saddles. The Pazyryk horse burials had saddles constructed of two cushions with rigid bow arches to front and rear of each cushion with wooden spacers between cushions to prevent them splaying out; the whole was attached to a felt underpad (Rudenko 1970: 133). The Tien Shan mountains inhabited by Tocharians revealed a well-preserved saddle from the fourth century B.C., and the Chinese were using saddles with haunch and breast straps and front and rear retentive risings by the third century B.C. An Achaemenid bronze figure of a Persian heavy cavalryman shows a vestigial saddle and fringed blanket with breast and haunch retention (girth hidden by the rider’s leg).7 Xenophon had noted Persian saddlery during the march of the Ten Thousand described in his Anabasis, and later when he observed the Persian cavalry of Pharnabazus, satrap of Phrygia (Hell. 3.2.11–20); his literary works were influenced by his experiences. He advised:

Above all the horse’s belly should be protected as being the most vital and the weakest part. It may be protected with the cloth. This cloth must also be of such material and so sewed together as to give the rider a safe seat and not gall the horse’s back.

The horse was to be armed with a frontlet (chamfron), breastplate, and thigh pieces: “the last to
serve at the same time to cover the thighs of the rider” (Xen. *Eq.* 12.8). Such armor is seen on the sarcophagus of Payava found in Lycia. Another example is on a bas relief at Yeniceköy in the former Persian satrapy of Daskyleion in northwestern Asia Minor (Bernard 1964: 195–212). For such heavy metal (or cuir-bouilli, boiled or toughened leather) to be used, the “cloth” (saddle) had to have been of substantial structure to bear the armor’s weight as it is almost impossible that both breastplate and thigh pieces bore solely on the horse’s neck (Xen. *Cyr.* 8.1.2).

Figure 23.4 A reconstruction of the Roman four-horned saddle, which had retentive front and rear horns to aid seat security. Simon James, after Connolly 1986.

Without efficient tack a horseman was disadvantaged. Any fighting capabilities he and his horse had were reduced if he was unable to control his horse and his own body movements when armored and handling weapons whose weight had a very unbalancing effect, especially when weapons were backed with full poundage of rider’s delivery, be it long-range missile or close-encounter weapon. The development of the superior Roman four-horned saddle, especially those with horns curving over the rider’s thighs, locked the rider into his saddle (figure 23.4). But if a horse fell the rider had difficulty bailing out. From personal experience of both types, the small-horned and large curved-horned saddles, I found the latter really difficult to get out of, the more so as there were no stirrups to assist extrication. I found greater force could be put behind a sword thrust to right or left without losing balance, and greater velocity to missile weapons using front horns to brace against. The horse had to be trained to take the correct lead in any display maneuvers on the circle as wrong leads made the ride rough. This would have hampered weapon accuracy, although in actual battle there would have been no time for such niceties. Nor was subtle handling of severe bitting possible away from the *Hippika Gymnasia*. The jaw-breaking bitting was designed for instant response, but as Aulus Atticus found at Mons Graupius the opposite happened when his horse bolted into the enemy (Tac. *Agr.* 37). Severity can have the opposite effect, the horse panicking and bolting from fear and pain. Too many such harsh bit handlings on a sensitive horse could have turned it into a dangerous rearer, preconfirmed bolter, useless as a charger. I rode my horse Katchina with replicas of the Newstead snaffle and curb bits. The curb, even gently used, upset him so much he felt as if he were going to
bolt. The twisted snaffle he accepted well. Both were designed for cavalry use as full action did not happen until the reins were held about two feet above the withers, the height where a four-foot cavalry shield was able to protect the upper body and the lower torso and thighs (Hyland 1990a: 138–9, for the Newstead curb; Hyland 1994: 56–9, both with photographs).

ARMOR

The literary and archaeological evidence shows that Roman horse armor developed from the chamfrons and peytrals of Republican days to the later Roman Empire when nine units of clibanarii were attested in the Notitia Dignitatum (Eadie 1967: 161–73, 171). A major advance came when Hadrian (A.D. 117–138) formed the Ala I Gallorum et Pannoniorum Cataphractariorum (CIL 12.5632). In A.D. 136 he commissioned Arrian’s military manual; the equestrian section details equipment and performance for the Hippika Gymnasia and regular cavalry action. Some cavalry were armored, both men and horses: men in scale, linen, or horn corselets, thigh guards, greaves, helmets, and shields, horses with “covers for their sides and chamfrons” (Rostovtzeff 1936: 445; Arr. Tact. 4.1). Weaponry included archer equipment, javelins, spears, pikes, lances, swords, and small spiked axes or maces (Arr. Tact. 4.1).

Cataphractarii and clibanarii were armored horse units. The first term could cover both types. The cataphract was an armored man on a horse usually but not necessarily armored. The clibanarius (“oven man”) and his horse were fully armored, the horse in a scale or leather housing. Ammianus Marcellinus’s several descriptions of a Persian clibanarius reveal horses clad in leather, men in scale armor, in which the only openings vulnerable to a weapon were nose- and eyeholes. He seemed so in awe of them that apparently clibanarii were still unusual in Roman cavalry ranks (Amm. Marc. 24.6; 25.1). Heliodorus describes a cataphract’s horse: “the horse is armored like its rider. On its legs are strapped estivals (greaves) and its head is completely covered by a chamfron. From its back to its belly on either side hangs a housing of iron mail which both protects it and by its looseness does not hinder its course” (Aeth. 9.15).

Two almost complete third-century A.D. mail bards from Dura Europos match Heliodorus’s description. Fragments found could have been neck crinet. One bard photographed on a “weedy” horse hung further down than it would have done on a robust cavalry horse, covering the forearm and hind-leg gaskin area. Estivals could only have been fitted around the cannon bones on all four limbs. The hind-leg shape made it impossible to strap to the upper limb. If any upper limbs were protected they had to have been forelimbs but their shape also precluded secure fit. The size of the bard without breast coverings accords with a modern blanket measurement suggesting the height and body mass of a 14.2 hands high to 15 hands high horse. The armored man and its own armor would not have overburdened a horse which can carry far more than is generally assumed, the stocky animal being a better weight carrier than its lanky “weed.”

There were finds of leather bards from “Newstead, Vindolanda and Carlisle, and with odd fragments coming from virtually every military complex of any size in Britain” (correspondence from Dr. van Driel-Murray to the author). These finds indicate that leather horse armor was more common than previously thought. Being leather they were cheaper to make and easier to work than costly mail, which was also extremely expensive in terms of the armorers’ time. For the Hippika Gymnasia the horse’s equipment was more ornate than for regular duties, especially chamfrons, which for business use could be either of plain metal or leather, or even merely eye protectors fixed to the bridle. Some
chamfrons did not cover the entire frontal plane; some had holes at the lower extremity to which muzzles could be attached by thongs.

**BIBLIOGRAPHY**


In classical Greece warfare was dominated by the clash of infantry phalanxes and cavalry tended to play a peripheral role. For example, cavalry could be deployed successfully when the phalanx formation had been broken. During the Peloponnesian War Athenian and Spartan cavalry acting alone had little impact, though Athens shipped a small number of horses (two to three hundred) in special transports when raiding the Peloponnese and elsewhere. Some Spartan allies were strong in cavalry: Boeotia could field a thousand, a force matched by the Macedonians and Chalcidians. At Delium (424 B.C.) Boeotian horse contributed to the Athenian rout, and in Upper Macedonia Brasidas’s Macedonian and Chalcidian cavalry overwhelmed the Lyncestians (Thuc. 4.89, 102, with Spence 1993: 9–30).

Philip and Alexander of Macedon were the first Europeans to make consistent, extensive, and successful use of hard-hitting cavalry, which on Philip’s assassination Alexander took deep into Asia Minor, Iran, and ultimately India. Alexander inherited an army of some 32,000 infantry and 5,100 cavalry; the horses came principally from Macedon and Thessaly, both renowned for their cavalry, to the tune of 1,800 each. Greece supplied another six hundred, Thrace and Paeonia nine hundred. Another one thousand already in Asia Minor raised the total to about 6,100. Alexander owned an exceptional, but vicious, large, black Thessalian stallion called Bucephalus; the famous story has it that the twelve-year-old Alexander saw that it shied at its own shadow—a common occurrence with young, green horses. Skillfully positioning it Alexander successfully rode it. It stayed with him as his favorite charger until dying aged thirty ostensibly from old age or battle wounds (Arr. Anab. 5.19).

Under Alexander Greek cavalry reached its pinnacle and chroniclers have left more information on this phase of cavalry growth than any other. From 336 to 326 he fought four major battles, and made frequent assaults on tribal territories, in all of which cavalry played a prominent part. The huge enemy numbers and their losses, quoted in multiples of thousands, were often plainly fictitious, set against Alexander’s moderate numbers. For example, at the Granicus (334 B.C.) Alexander’s Companion Cavalry lost twenty-five, other horsed units over sixty, infantry thirty, set against one thousand Persian cavalry and infantry and two thousand Persian prisoners. Sources offer comparable figures for the battle of Issus (cf. Arr. Anab. 2.8, with Diod. 31.2 and Just. 11.9, Curt. 3.2.4–9). Among the spoils at both was a huge haul in Persian horses, largely Nisaeans from the battlefield and the baggage park, as no high-ranking Persian went to war with only one charger. Lower-grade remounts and sumpters swelled the spoils.

By 331 Alexander’s cavalry reached seven thousand, plus units left in strategic garrisons; his infantry about forty thousand. Opposing him at Gaugamela Darius probably had about 200,000 infantry and 34,000 cavalry. Darius’s horses came largely from Turan in which lay Bactria, Sogdia, and Arachosia. Median, Hyrcanian, and Parthian cavalry used horses from south of the Caspian Sea.
Other horses were of Cappadocian, Armenian, and Syrian stock, while the Scythian tribes rode fully armored horses. Although some Persians were drafted into Macedonian ranks after Issus, it was after Gaugamela that the equid composition changed even more radically.

As Persia’s master Alexander had the best of the ancient world’s horses. Babylon welcomed him with herds of horses and cattle and spoil from the baggage park included camels and elephants. Some idea of Babylonia’s equid wealth is given in Herodotus who noted the satrap Tritantaechmes’s stud of 16,000 mares and 800 stallions (Hdt. 1.192; cf. Arr. Anab. 3.15). The Nisaean herds of the Median plains were reckoned at fifty thousand (Arr. Anab. 7.13.1), Bactrian remounts also fell to Alexander (Arr. Anab. 3.30) as well as those of other mounted units. In addition, five hundred cavalry arrived from Macedonia and Thessaly (Arr. Anab. 1.24; 29; 3.17). Five years later in India, welcomed by the people of Taxila, Alexander faced Porus at the Hydaspes River. Alexander fielded about five thousand cavalry among whom were his elite agema and Companions, the superior cavalry of Bactria, Sogdia, and Scythia, plus mounted archers of the Daae; the cavalry played a crucial part in Alexander’s last decisive set-piece battle. At the Hyphasis (Beas) Alexander’s army mutinied (Arr. Anab. 5.8–27) and the long exodus from India through the hellish Gedrosian desert began.

Alexander’s army was ravaged by nature’s most hostile elements. The cavalry, built so meticulously over many years was wasted, animals dying from thirst, hunger, and exhaustion, butchered for meat, or drowned in a flash flood (Arr. Anab. 6.17; 5.21–8).

**Historical Introduction: Rome**

Rome’s cavalry went through the same process of small beginnings, massive expansion, and eventual decline, but with a legacy that outlived its decline as it reemerged as a strong element in the Byzantine army. In Rome’s early years horse ownership was mostly confined to the equestrian class, men wealthy enough to support such a luxury. As her conquests expanded Rome adopted many of the practices of her opponents, especially those of military equestrianism. The rise from city-state to master of Italy increased scope for cavalry recruitment and access to noted horse-breeding areas.

Etruria had a traditional equestrian society, an efficient balanced-seat riding style, and maintained cavalry. Campania’s famous cavalry predated Rome’s expansion. In Magna Graecia and Sicily there was Greek influence in horsemanship and breeding (Frederiksen 1968: 3–31). Under Roman rule Sicily became a location for large stock-raising latifundia. Greek expertise in cavalry and in raising and acquiring suitable animals must have given Rome’s fledgling cavalry a boost.

After the Roman victory at Pydna (168 B.C.), the Achaean-born historian Polybius was taken to Rome as hostage along with other leading figures. As an active cavalryman he was well suited to report on the current state of Rome’s cavalry structure, and that of her enemies. In the conflict between Rome and Gaul in 225/4 B.C., levies on Italian allies provided most cavalry mounts. Rome allegedly fielded conveniently rounded figures of 700,000 foot and 70,000 horse (Polyb. 2.23–4). Nevertheless Italy offered numerous remounts. Certain areas were rich in horses, as illustrated by six thousand requisitioned by Hannibal’s men in Apulian and Sallentine lands for cavalry use after being broken in (Livy 24.20). In fact after crossing the Alps, Hannibal arrived in Italy with at least six thousand cavalry, including Spanish and Numidian forces. In general, Carthaginian horsemanship was superior to that of the Romans. At the battle of the Trebia (218 B.C.) Hannibal’s Numidian horsemen, riding small, agile horses, terrified the Romans with their hit, run, re-form, hit and harry tactics. At Trasimene the next year Hannibal’s cavalry pursued and cornered the Romans, driving them into the
lake where many were killed or drowned. At Cannae (216 B.C.) ten thousand Carthaginian cavalry, commanded by Hasdrubal, Hannibal’s brother, played a notable part in the victory as they defeated the Roman cavalry and turned to attack the infantry in the rear. Only 370 Roman horsemen survived out of six thousand (Polyb. 3.113–17). Scipio Africanus’s eventual defeat of Hannibal at Zama (202 B.C.) showed that lessons had been learned. Africanus used the cavalry of an ally, King Massinissa of Numidia. Henceforward Numidian cavalry frequently served in Roman armies. They are mentioned as fighting under Fulvius Flaccus against the Saluvii (Ridgeway 1905: 261), and in Caesar’s Gallic War (B Gall. 2.10). Caesar’s cavalry was very cosmopolitan as he levied units from several pro-Roman Gallic tribes, and purchased numerous remounts from Italy and Spain (B Gall. 8.55).

Furthermore, better weapons were supplied: a robust lance pointed at both ends, a larger and better shield, both on the Greek pattern.

By Augustus’s time auxiliary cavalry were formed into alae (wings), either of 512 men (cingenaria), or 768 men (milliaria), including officers. In a mixed unit (cohors equitata cingenaria) 128 were cavalry, and in a milliaria unit 256. A cavalry turma (troop) was thirty men, plus two officers. Auxiliary cavalry was drawn from allies, client kings, mercenaries, and peoples conquered then attached to Rome. As cavalry increased in number so did the ethnic content of auxiliary alae, fighting after their own methods, using native weapons and indigenous horses, until the hazards of war or old age dictated fresh remounts, culled from an ala’s current posting.

Ethnic units were posted throughout the Empire. For instance, Thracian cavalry saw service in Britain, Germany, Raetia, both Pannonias, Syria, Egypt, and Mauretania Caesariensis (Hyland 1990b: 191–2.). In the east, Syria, a Roman province since 64 B.C., supplied a steady stream of remounts for Vespasian and Titus’s Jewish War, and was to be an important supplier of horses through the Imperial period. Antiochus, Soeamus of Emesa, Agrippa, and the Arab king Malchus sent cavalry contingents. Many Syrian allied cavalry were cataphracts, protected by armor from head to foot and using couched lances. It had long been eastern practice to have heavy cavalry horses at least partially or fully armored, and in some cases the armor consisted of leather or padded cloth—common down the centuries for eastern and Indian horse. Cataphracts started appearing in Roman cavalry from at least Hadrian’s day, as separate from the eastern allied horse noted above. From A.D. 166 to 175 there were repeated conflicts with the Iazyges, Sarmatians, and the Marcomanni (Dio 72.7.1–5); peace was concluded in 175, the price to the Iazyges being eight thousand cavalymen, making Sarmatian mounts the second largest influx of foreign horses. Fifty-five hundred were sent to Britain (Dio 72.16.2), where Ribchester (Bremetennacum) had a full Sarmatian unit. Their presence in the north of Britain was long-lived, shown from an inscription from the time of the Gordians (Richmond 1945: 15–29).

With the Emperor Gallienus the horse’s role changed. Vast distances and the need to deal with many separate incursions called for speedier movements that could only be accomplished by cavalry. To cope with this Gallienus created a fast, mobile force (fifty-sixty alae) composed largely of Dalmatian, Moorish, and Osrhoenian horse, armed with their own missile weapons (Williams 1985). From their base at Milan, these forces were able to launch rapid attacks sometimes covering fifty miles per day). It is significant that Moorish and Osrhoenian horsemen were used, as their indigenous horses (as are many eastern horses) were light framed and noted for endurance, better suited to sustained speed and able to recover rapidly from excessive exertion under heat conditions.

In the late Empire under Diocletian, the army possibly expanded by 30 to 50 percent, cavalry being about a third of the projected 600,000 total. Under Diocletian vexillations became permanently
detached and eventually were termed legions at one thousand, while *alae* became known as vexillations (Jones 1964: 679ff.). The Illyrian emperors were beset by revolts and between A.D. 287 and 298 moved massive numbers of troops, especially cavalry. In the vulnerable territory five hundred strong vexillations were placed at twenty-mile intervals to render rapid aid to beleaguered forts. Fit, well-fed horses can easily sustain sixteen miles per hour, and at speed can travel in excess of twenty (Hyland 1990b: 193).

Constantine created the posts of *Magister Peditum* and *Magister Equitum* in overall command of the two military spheres. The number of mobile cavalry vexillations was increased. His crack cavalry were five hundred strong units (*Scholae*): seven in the east, five in the west. From these his forty mounted bodyguards were chosen, initially from elite cavalry with Roman citizenship, but later mostly from Germanic peoples (Jones 1964: 613). In respect of providing remounts, the *Theodosian Code* specifies army horse acquisition from Constantine to Honorius. Several methods were used: exaction of cash from taxpayers liable to contribute to the “horse fund” (11.17.1, A.D. 367); direct levy of a certain number of horses per district (11.1.29, A.D. 401); levy on persons up for government preferment (7.23.1, A.D. 369). Some horses came with cavalry recruits (7.22.2.1, A.D. 326). Later the law changed to cash only, but some, defying the law, still brought horses, as shown by Flavius Abbinnaeus, a thirty-year veteran cavalry officer stationed in Egypt in A.D. 342. One of his duties was tax collection. When he sent a batch of horses to the exactor Plutammon, he received an irate reply complaining of receiving horses instead of cash (Bell 1962: Papyrus 13).

**GREEK AND ROMAN CAVALRY TRAINING**

Xenophon advises on training, and much of his advice is present in modern horsemanship techniques. His treatise *The Cavalry Commander* (*Eq. mag.*) gives commonsense advice any good trooper could follow. Athenian cavalry archives show troopers owned their mounts. Appraised values ranged from 100 to 1,200 drachmas. The fourth-century B.C. average was about 700 drachmas, the third century about 400. Values fell 50 to 100 per annum, troopers regularly changing horses. However, Cleochares of Cephisia’s unbranded chestnut remained valued at 600 drachmas for four years. It has been suggested it might have been several chestnut horses, as they were common. I see no reason for this as a superior animal bonding with his rider and the avoidance of mental and physical trauma would be invaluable. Many 1,200 drachmas horses were not devalued as their true value was considerably higher than the maximum allowed (Kroll 1977: 83–140; Spence 1993: 191–211).

Xenophon advocated trooper recruitment by persuasion, or if necessary by court order. It was to be ongoing to replace those vacating the ranks (*Eq. mag.* 1.2: 8–12). Horse recruitment would have been similar. Exemptions from service were: infirmity, age, lack of means; unfit recruits were to be dismissed. If chargers lost condition, the owner/cavalryman was fined the cost of its feed. Those that could not keep up with the squadron, or jibbed at keeping in line, were to be dismissed, branded on the jaw with the sign of the wheel (Arist. [*Ath. Pol.*] 49.1, 2). Brilliant horsemanship was encouraged to promote enthusiasm. Mounting was “from the spring,” many owing their lives to this ability as they could remount after a fall, or after being unseated in battle (Xen. *Eq. mag.* 1.11, 1.5). A spear aided mounting, akin to pole vaulting without the run-up; grasping the mane, pushing off the withers with the left hand, and leaping was another means, and was possible wearing full panoply (for documentary proof in full medieval panoply, see Hyland 1999: 108).

Xenophon implies Athenian cavalry and care of horses had deteriorated, reminding cavalymen of
even the basics: horses were to be well fed to enable them to work at speed both harrying and escaping from the enemy; hoof care was essential to maintain soundness; chargers were to be docile (i.e., obedient) as fractious horses and kickers were a nuisance and helped the enemy (Eq. mag. 1. 3–4). Dominant horses, especially stallions, could have been aggressive against neighbors, disrupting cavalry cohesion: “the men too were to be made obedient, or their good horses, horsemanship and fine armor would be useless.” This is slightly comical, perhaps indicating privileged Athenian youth resented orders. By Xenophon’s day cavalry numbers had dropped from about 1,000 to 650. They fell again to below two hundred in the early third century, rising to three hundred by mid-century. Eventually by raising the number of tribes from ten to thirteen cavalry numbers rose, fixed by law at one thousand (Xen. Eq. mag. 2.2; Arist. [Ath. Pol.] 1.11.5; Kroll 1977: 83–140, at 95ff).

Rather neglected in battle accounts are one-to-one combats which happened once a charge’s cohesion was lost. The Arthashastra ascribed to Kautilya, a work from Mauryan India of the late fourth and early third century B.C., sheds some light on such combat. After the agreement (ca. 306) reached by Seleucus I and Sandracottus (Chandragupta to the Greeks), founder of the Mauryan Empire, some Indian cavalry tactics related by Kautilya were absorbed into Seleucus’s own military (Shamastry 1951). Significantly many of these continued to be practiced into Mughal India (Hyland 1998: ch. 9). Indeed many are mirrored in modern dressage, showing how highly trained a well-proportioned, balanced, and intelligent horse can be—three requisites for a good warhorse. Equestrian historians link haute école to the Italian and French masters of the sixteenth century and later, but they should be credited to ancient India. Understanding equitation fundamentals illustrates what it took to produce Greek and Roman cavalrymen.

**Arrian’s Ars Tactica**

Arrian describes complicated cavalry maneuvers, the details of which military horsemasters knew how to impart to their equid and human recruits. The maneuvers have certain affinities with some modern equestrian competitions, notably the American Quarter Horse Association’s reining patterns and India’s hog-sticking attacks, so it is possible to trace essential elements in Roman cavalry training. Crack Roman alae rode in the spectacular Hippika Gymnasia. All maneuvers had their practical combat aspect. Horses were highly trained and troopers used weapons, especially missiles, with deadly accuracy. At first reading, the maneuvers seem simple. In our mechanized age it is difficult to appreciate, without extensive equestrian understanding, how complex they were. Arrian describes each move stride by stride, each weapon use angle by angle. The full implication did not become really clear until each move was worked slowly, section by section, on horseback—reins in one hand, text in the other, and later at a more recognizable cavalry speed of fast canter. Incorporated in the moves were rapid missile launches by troopers moving at blistering speed; contact aggression of the Cantabrian Gallop as troopers circled, one by one meeting their individual adversary head on; the Celtic Toloutegon, the rapid rollback over the hocks from the gallop. These “Roman” maneuvers linked with the specifics of Xenophon, and indeed Arrian referred to himself as Xenophon.

There is a strong thread of Roman horsemanship in modern riding, particularly in American Western riding which initially reached the Americas from Spain whose own early equestrianism owed much to the Arabs. It has to be remembered that much of Roman cavalry came from Spain. The round pen breaking circle evolved from the Roman gyrus. A British gyrus has been reconstructed at The Lunt, near Coventry in Warwickshire. The high sides concentrated a horse’s mind on his work, giving a sense of containment and control, and the curved track kept the movement flowing. In a
rectangular arena some horses have a favorite place to balk—repeatedly. At some permanent camps there was a Basilica Exercitatoria, or indoor riding school. Inchtuthil had a timber structure 140 by 90 feet, very close in size to a modern school, and Chester a stone built one 250 by 80 feet. At Newstead at first troopers made do with the parade ground but in the second century A.D. a 160 by 50-foot indoor school was constructed (Davies 1968: 73–100). In the Gyrus and Basilica Exercitatoria basic horsemanship would have been drilled into horses and riders, and selection made for different grades according to obedience, willingness, temperament, and ability of both men and horses. We know from Hadrian’s adlocutio at Lambaesis in North Africa that alae and cohortes equitatae had different grades of horses.

It is difficult for the cavalry of the cohorts to make a good impression … after the exercise of the auxiliary cavalry. They have a larger ground coverage, a larger number of men throwing javelins; their right wheeling is in close array, their Cantabrian maneuver closely knit, the beauty of their horses and the elegance of their equipment is in keeping with their level of pay…. The performance of the Ala I Pannoniorum warranted an unusual extra cash reward (ILS 2487 and 9134; see Speidel 2006).

Common sense dictates that hopeless cases were rejected, the horses sold or demoted to the baggage train, appalling riders sent to the infantry. Neither would have been any use in an ala, except to the enemy. Superior combinations would have been chosen for team spectacles, brilliant ones for solo performances.

Ideally the usual Roman parade arena was square. The Tribunal (including an area for spectators) was sited centrally for a clear view of the whole proceedings. However, some of Arrian’s moves needed the whole space clear; the Tribunal was best sited on one side, in front of which the men performed. The best surface was a fine tilth (Tact. 34.1), giving better traction, especially on the fast turns. It prevented concussion which could produce a variety of lamenesses. Of course parade space differed and compromises were made. On smaller grounds I suspect a full complement of riders was not always possible. Two turmae, sixty-four men, working on a three-acre plot, such as that at Hardknott Castle, meant a very crowded arena with no room for maneuvering well at speed. Individual missile launches at extended gallop would not have been possible. A 15-hand horse’s stride at only extended canter is 11 feet 6 inches to 12 feet. I would hesitate to put any horse into a full gallop in such a confined space. Lambaesis had a 220 square yard area, one mile west of the legionary fortress. In its center was the monument on which Hadrian’s adlocutio was inscribed, hinting that this ten-acre site was a parade ground. Legionary forts had much larger grounds than those for cohortes equitatae (Davies 1989: 97–100).

After basic grounding troopers tested their horsemanship on route marches. In his Epitome Rei Militaris, Vegetius notes cavalry conducted twenty-mile marches three times a month. En route riders practiced their evolutions, pursuing, retreating, charging, and countercharging. Terrain used was to be a mix of flat and hill work to fit horses for all eventualities. The main Ars Tactica moves listed were:

the charge from concealment the testudo and petrinos
the Cantabrian Gallop javelin and lance handling and delivery
Missile launch and the Touloutegon hand-to-hand combat

The Charge from Concealment
For parade purposes concealment was hypothetical. In reality it would have been an ambush. The en masse entry was explosive, men shouting war cries (Tact. 37.1), hooves drumming, standards whipping in the wind created by the horses’ speed. Standards were riders’ reference points. Arrian says they helped control maneuvering and prevented teams becoming mixed. Signifers (standard bearers) dictated speed, turns, changing patterns, the charge and its velocity, this also being signaled by trumpet (Tact. 36.3). A signifer needed exceptional horsemanship, his instructions to his horse second nature, concentrating on giving orders via the signum. The horse would have recognized trumpet calls and acted accordingly. Horses do recognize sounds that mean orders, and even if the rider is slow the horse reacts correctly.

This charge was aggressive. A vital requirement was sustained control, horses well balanced, working off their hocks, forehands lightened, enabling rapid turns in all evolutions. The epistrophai (Tact. 35.6) defined by Professor Frank Walbank as “a movement by which a whole body of troops swings round, pivoting on the left or right file leader, so as to finish at a 90° angle to its former position,” clarifies one of the preparatory moves (Walbank 2: 226). Opposing teams rode in single file toward the Tribunal, side by side but a considerable distance apart. Keeping to a controlled canter the team to the Tribunal’s right kept horses on the right lead, while that on the Tribunal’s left kept horses on the left lead. As the signifers reached just in front of the Tribunal and signaled, each team wheeled 90 degrees to face their opponents, launching a head-on charge. It required split-second timing and placement and echoes the Athenian cavalry’s antihippasia sham fights when troops divided into opposing teams, three times interleaving at increasing speed, until at full gallop the final charge (Xen. Eq. mag. 3.10–14). These widely time-separated moves prepared for battlefield action, interleaving at impact point.

The Testudo and Petrinos

After a halt from the gallop two turmae, for convenience A and B with A the superior, went smoothly into the complicated Testudo and Petrinos movement (Tact. 36–9). It was a severe test of horsemanship, split-second timing, adroit and fast handling and delivery of javelins from any angle. In battle it translated into relentless missile attacks coming from all directions. A trooper with the ability to hurl successive javelins at any angle, maintain control of his mount, defend himself, change course, and come in repeatedly was a valuable addition to any unit.

A and B lined up opposite the Tribunal, horses side by side but with a space between teams. In the interspace two target horses and riders from B lined up head to tail but with several strides between them, allowing 15 to 16 feet per stride. The teams each formed a testudo with, as Arrian said, “the horses’ heads turned away.” This meant the horses stood obliquely, the 4-foot cavalry shield covered the rider’s side and the side and back of his horse. When tried out on horseback using two horses placed in close echelon it worked out that the second (and subsequent) horse’s head was also tucked in behind the shield of the first rider. The shield I held on the lead horse had its center covering my side and back, the bottom half covered the second horse’s head, part of his neck, his chest, and my horse’s back behind the saddle. Horses chosen would have been of equal height and similar stride extension or the line would have been ragged with movements lacking synchronicity.

Each team had its turn at missile delivery, the numerous javelins held in the concavity of the shield and transferred from left to right hands at delivery, the troopers managing reins, shield, and javelins in the left hand, the edge of the shield pressing on the left of the neck functioning as a rein for a turn to
the right. The horse quickly equated shield edge with rein pressure. The petrinos’s first stage was for A riders to come out in quick succession bearing left on a curve as aggressors and hurl as many javelins as possible at the B targets. Meanwhile B riders moved singly to the right trying to hit A riders’ shields before each A member completed his curve and launched into his missile run. To avoid collision this section had to be perfectly spaced. Before the crossover a B rider had clear sight of an A’s shield to aim at, but exposed his unprotected right side to oncoming A riders who had not yet crossed over into their dead run at the targets. The rider aimed to protect his right side while loosing his javelin(s) to the right. As he then swung left toward the arena’s edge a B rider had to twist in his saddle to hurl a javelin over his horse’s rump at an oncoming A. As each B loosed his last javelin at an A he swung his shield over his back to protect it from A’s javelins. These moves needed exceptional dexterity so the poor horse did not get clouted in the process. With two turmae in action this rapid fire exercise exhibited superb horsemanship. The target horses were sure to have been carefully selected. A horse would stand for one or two blows on a shield, especially when he realized the headless javelins were doing him no harm. However, with the constant barrage of thirty-two yelling troopers hurling missiles they had to have been very trusting and phlegmatic.

The petrinos’s finale allowed the best marksmen from A to shine. After their turn at the targets each galloped as far as the Tribunal, his horse on its right lead, and at the Tribunal circled right, at the same time loosing a javelin under the eyes of the dignitaries, aiming across the horse’s neck at the oblique angle that took it to the farthest part of the arena. The best two continued galloping on the circle, each aiming his next javelin behind him at a tangent to his arc of travel. The speed gave a safety margin for the next trooper coming up behind for the final launch (such maneuvers have been analyzed stride by stride and illustrated in Hyland 1993).

The Cantabrian Gallop
The teams lined up as in the testudo: team A from the right, wheeling right into a circle; B team charging from the Tribunal’s left, also wheeling into a circle (Tact. 40.1–7). The description of the opening of the Cantabrian Gallop is a rather confused set of orders, no doubt understood by those used to such maneuvers. It might be expected that opposing teams would take opposite directions, but this would negate the purpose of the exercise which was to have an A and B rider meet at precisely the same spot on the arcs of both circles, putting them in position to deliver a thrust at their opposite number’s shield, with the more dangerous “whittled spear” replacing the headless javelin. This spot was directly in front of the Tribunal, the dignitaries receiving a perfect view of the front of the attacking rider, his weapon handling, and the rear view of B rider, defending himself by parrying A’s spear. Both teams had to be on the right lead and on the right rein. If B riders were to provide frontal views in front of the Tribunal at the point of impact the lead would have been the left, and the rein the left, that is, a reversal of roles with B attacking and A defending (see further Campbell 2004: 44–5).

This maneuver was also worked out on horseback at canter. It became clear that speed and size of circles were mirror images. It may sound easy to ride a circle but it is not. To have thirty-two perfectly spaced riders in each circle, without any horse falling into the arc, a tendency with most horses, needed superb riding, timing, and accurate leg aids. The spear’s impact was to be delivered with enough poundage to drive right through the opponent’s shield.

Javelin Throwing and Lance Exercises
Next came an exhibition of long-range javelin throwing by the most proficient horsemen (Tact. 40.8–10). With the Tribunal high up on their right each rider held his horse ready at one edge of the ground, then exploded into a dead run, throwing as many javelins as possible before reaching the opposite arena edge. Arrian says “a really good man will succeed in releasing javelins in the correct fashion before his horse leaves this area.” In speed terms and using the Lambaesis measurements of 220 yards/660 feet per side it took a horse with a 15-foot stride, the average for a galloping 15-hander, traveling at 20 miles per hour, 22 seconds to cover the distance and loose fifteen javelins. At 25 miles per hour it took approximately 17 seconds. It can be appreciated just how skilled these marksman were, and how honest their horses. At a gallop on a free rein each horse would have lowered its head, neck, and topline thus facilitating javelin launch. In hand-to-hand combat at vastly reduced speed, if any at all, a horse’s head, on a tight rein, was higher, so head and neck offered some protection to the rider. In skirmishing such expert javelin men were very valuable.

In lance exercises a target was set up to the left of the Tribunal. Now armored “with iron corselets, helmets and shields which are no longer light ones” (Tact. 41.1), riders had to contend with the unbalancing effect of a weighted torso and of the shield’s weight when wielding weapons, and had to counteract the added pull to the left when delivering a strike, especially in a turn at the gallop. Equilibrium was maintained by utilizing the saddle horns and thigh and lower leg muscles. There is a textual discrepancy in Ars Tactica 41.1 where lances are discharged, while in 42.1 they are referred to as javelins, before reverting to lances: but the operational section was 41.2. Individuals hurled lances at the target; the more skilled launched a second, even a third lance (Tact. 41.3). The second, and successive, charges were made with two lances, requiring some considerable dexterity in weapon handling. No mention of a quiver is made, but Josephus’ Bellum Judaicum mentions cavalrmen carrying javelins in a quiver, although he does not say where it was positioned (3.97). The best position was on the offside (right) rear saddle horn, attached so the javelin would have been ready to cast. With successive missiles the movements of withdraw, raise, draw back the arm, loose, and curve down to withdraw another weapon would have been perfected until fast and smooth. The only other position would have been on the offside front horn, but withdrawal would not have been so smooth. On the back is the worst position because of fouling with the shield unless withdrawal was super-accurate.

The horse had to be very honest and move straight or the lance(s) in the initial shots would have missed the target. The last exercise is with three lances, the first loosed from the arena’s edge, the second when level with the Tribunal, the third as the horse begins his turn to the right for a cast at an additional target. This final throw needed greater precision as it had to be made before the turn was completed. Arrian notes that this throw was the most difficult of all (Tact. 42.3). To add to the cast on the turn the horse had to decelerate, collect himself on the right lead, transfer his weight onto his quarters, and shorten his topline. Accompanied by a certain raising of head and neck it made the cast across the neck more difficult. In horsemanship terms it meant supreme coordination by both rider and horse. Exceptional marksmen discharged three, some four, lances before the turn to the right and the final shot. It is unclear if the second target is in line with the first, set in the corner of the arena, or at some distance on the side of the arena along which the horse travels after turning. On balance I suggest the second target was in line with the first, or in the corner, as Arrian clearly states the last throw was the most difficult. If it was the third option it would have been no more difficult than the earlier shots which did not need an across the neck aim. Arrian considered successful troopers were “truly well trained for warfare” (Tact. 42.5).
The finale involved a variety of team and individual mounted exercises that tested the proficiency of riders with all cavalry weapons, and their horses’ training to the full, including jumping. Such horses had to have had temperaments submissive to a rider’s dictat, but able to show aggression and power in executing maneuvers. This may sound contradictory but some horses appear docile but are also extremely courageous, and have the character to work in complete harmony with riders without in the least being cowed, at the lightest signal leaping into action, at the same time remaining under full control. Such would have been *Hippika Gymnasia* horses, especially those of the elite troopers. Brutal handling nearly always ends in a worthless horse that would in a crisis have left a trooper vulnerable to an enemy (figure 23.5).

Figure 23.5 Diagram detailing one of the Roman cavalry drills, the Cantabrian gallop maneuver (from Campbell 2004: 44–5). Examples of the indoor exercise halls discussed here may still be seen on the grounds of West Point, the United States Military Academy.

The *Celtic Touloutegon*

The majority of the exercises were with handheld missiles—javelin, spear, lance, pike, but in addition there were casts made with stones both from the hand and from slings. In the stave exercise Arrian is imprecise. He uses “they” for troopers and “horse” in the singular:

…they now charge carrying straight staves, first as if to provide a defense, and then as if reaching after an enemy in flight, next as if attacking another enemy. As the horse turns they raise their shields above their heads and move them over to cover their backs and they complete this movement, whirling their staves as if another enemy were charging. (*Tact.* 43.2)

This turn was the *Touloutegon*. Arrian does not say if this was a complete about-face, or only a very sharp turn to the right or left. As the shields were spun over the riders’ heads to protect their backs it would appear it was a 180-degree turn, and that the new enemy came in directly behind them. Done at speed this was difficult, since the rider had to check the horse onto its hocks and before he lost momentum spin him to right (or left) until he faced the direction from which he had come and was
in a position to face the “new” enemy. Presumably the other unmentioned first attacker had been seen off. If the horse was well balanced he would have been able to jump off his hocks at speed, and give his rider the impetus for a renewed charge against the “other enemy.” This move is now called a rollback, done by superbly schooled horses and talented riders. It would have been invaluable for a single horse in chasing a particular enemy who was ducking and weaving, rather than for a concerted pursuit by a whole unit. For a Roman trooper the turn was exacerbated as it was combined with swinging his shield over his back with his left (rein) hand, while wielding his weapon with his right. The turn had to be communicated to the horse by leg and body weight signals. In pursuit it is an established fact that horses, especially stallions, can be really helpful using teeth, and on occasion a front hoof to strike at their quarry.

Sword Exercises

Another major weapon used by the Roman cavalry was the *spatha* (*Tact. 43.3*), longer than the *gladius* and intended for sweeping slash strokes to either side of the horse, or with its point into a fallen foe. There were a series of strokes incorporating attack, parry, riposte, and counterattack. When delivered from a static position while the horse maneuvered to keep head on to the opponent, thus offering a small target, turns on the haunches and turns on the forehand were useful movements, the extra *spatha* length keeping the assailant at bay. With a running side-by-side confrontation the trooper’s outside leg kept his mount close enough to deliver lateral strokes. In all sword strokes the front saddle horns aided the trooper’s seat retention, the rear horns prevented him being butted out of the plate by lance or spear. The front horns allowed the rider to put extra poundage behind his stroke. In pursuit with either lance or sword the fast horse with an ability to keep on the enemy’s tail was invaluable. Intelligent horses learn very quickly. Some are born with an innate sense of “boss horse.” It reflects wild behavior from when horses ran in herds and a stallion chivvied mares and youngstock along. Horses learn to follow and work cattle, to control a herd, block a breakaway, head it, return it to the herd, and generally push the bunch in the direction a rider wants. A cutting horse’s job is to bring a selected animal out of the herd and prevent its return. In pursuit the same scenario obtained, substituting man for cow. In harrying a good horse was a great help, often anticipating avoidance tactics before his rider recognized them.

Although Rome used units of mounted archers, particularly in the eastern provinces, Arrian specifically alludes to missiles shot from “a machine” (*Tact. 43.1*). This can only be a form of crossbow. China used crossbows as early as the fourth century B.C. It was one of many armaments the elite *Hippika Gymnasia* trooper was expected to be proficient with. A ballista hole in a piece of leather horse armor from Dura Europos attests to such a machine’s use, even if by an enemy (China: Loewe 1980: 249; Dura Europos: Rostovtzeff 1936: 430).

Lastly every trooper showed his upper-body strength, spring in his legs, and optimum timing as, fully accoutered, he sprang onto his galloping horse. In this the front and rear saddle horns formed an ideal hold to push against and swing high and clear over the horse’s back.

Arrian’s maneuvers show the depth of training given to the best Roman cavalry, but to reach these heights it is obvious the grounding in basic horsemanship was thorough. If not, the average trooper would have been a liability, as would his uncontrolled horse. We know from Aelian (*NA 13.9*) that lunging was practiced in the Roman sphere:
Indians compel them (the horses) to go round and round returning to the same point. Now if a man would do this he requires strength of hand and a very thorough understanding of horses.

This teaches obedience, smoothes out a horse’s paces, and gets it supple working on a circle. We know from sculptures that Roman saddle horses were long reined. This teaches obedience to the bit, gets the horse moving in a straight line, and the signals, especially on the turns, from the reins on its sides prepare a horse for the transference of these aids to the rider’s lower legs once the horse progresses to ridden work.

In conclusion neither Greece nor Rome was in the first league in terms of general horsemanship and horsemastership. The works of Xenophon and Arrian on cavalry training aimed at a pinnacle of expertise. But high-caliber horses that had received superb training and were matched with superb riders were not the norm in the ancient world. However, to offset this both the Greeks and the Romans had access to knowledge gained from significant equestrian nations and tribes. As is clear from ancient texts and treatises, they learned from their enemies. Greece frequently clashed with Persia, and the Persian army was renowned not only for its equestrianism but also its use of equestrian tribal allies. The Romans had the good sense to adopt the equestrian skills of peoples such as the Sarmatians, introducing armored cavalry and also employing Syrian mounted archers. Certainly from the third century onward cavalry was to play an increasingly important role in the imperial army as the Romans found themselves fighting skilled horsemen such as the Persians and the Huns.
As the battle of Marathon loomed, Greek forces performed sacrifices, *sphagia* (Hdt. 6.112, Pritchett 1: 112). Their Spartan allies, delayed by the phases of the moon and Carneia festival, were not on hand, but the Greeks won anyway (Hdt. 6.106–7, Pritchett 1: 117). After defeating the Persians, the Greeks burned and buried bodies (Pritchett 4: 83), and erected and sacrificed to a trophy (Pritchett 2: 248). A decade later, after the Battle of Salamis, the Greeks gathered booty (Pritchett 5: 369, 506), buried their dead, erected a cenotaph (Pritchett 4: 126, 173, 258), sent the first fruits to Delphi (Pritchett 1: 55), sacrificed, and set up a trophy (Pritchett 2: 248, 271 n. 75).

These battles adumbrate the larger picture of Greek military ritual, indicating that routine stages of Greek combat were dignified by formal moments or gestures that were a) communal and cohesive; b) frequently religious, involving a sacrifice; and c) frequently culturally distinctive within the Hellenic population, as the absence of the Spartans indicates.

After discussing each of these topics, this chapter concludes with a review of recent interpretations of military ritual, suggesting that the term “ritual” in the present day has taken on so many connotations as to reduce its analytic utility, and that the claim that rituals promote “social cohesion” requires careful review.

**The Rituals of Greek Combat**

Scholarship on Greek military history in the past four decades has been distinguished for its rigor, breadth, and inquisitiveness. W. K. Pritchett’s thorough coverage of ancient texts and inscriptions and modern scholarship, and his patient consideration of different approaches to a multitude of military topics, make his multivolume work, *The Greek State at War*, an ideal starting point for a review of military ritual. Using Pritchett’s work, we can distinguish the following generic elements of battles in Classical Greece (i.e., roughly from the early sixth century to the time of Phillip and Alexander in the late fourth century).

**Before Combat: Oracles**

Greek states and others seeking guidance on decisions often consulted oracles, asking, “Will we marry?” “Does sea trade look profitable?” “Will we conquer?” Of questions routinely posed to the Oracle at Delphi, Pritchett says the last was the most common, and we see it both in Thucydides
But when the female routs and banishes the male,
Winning fame among the Argives,
Many Argive women will tear their cheeks.
In future days, observers will note
“The terrible triple-coiled snake has perished, conquered by the spear.”

This oracle, Herodotus says, “caused fear among the Argives,” evidently because they recognized that “the female” was their enemy Sparta, a feminine noun (for full discussion, see Pritchett 3: 296–321).

Military Vows

A second ritual before entering combat was the vow, “on behalf of the whole community” (Pritchett 3: 231), promising gifts to the deity in return for assistance in battle. Hector in the Iliad (6.274–278) calls for substantial gifts to Athena for assistance against Diomedes, and the Greek leaders pledge to force a tithe from Greek states that had voluntarily gone over to the Persian side (Hdt. 7.132.2; Pritchett 3: 232).

The most important recurring word in Pritchett’s chapter on vows (3: 230–9) is “if.” Max Weber (1993: 25–7) distinguishes between the “technically rational … purely business-like, rationalized” quality of magic, which is supposed to imply a divine obligation to an entreaty, and prayers that have conditional, “non-magical motives” and far from expecting automatic divine assistance, treat the god as a “great lord … whom one cannot approach with devices of magical compulsion, but only with entreaties and gifts…. The pervasive and central theme is: do ut des.” (“I give in order that you give.”).

ON CAMPAIGN: SACRIFICE BEFORE BATTLE

Sacrifice before battle took two forms, usefully distinguished by Pritchett (1: 109–15). Greek armies offered ta hiera, “sacrifices taken for divination purposes before an enterprise,” and ta sphagia, “supplicatory and propitiatory” sacrifices during the battle: the difference in scheduling hinged on the different functions of these rites. In the first case, omens were consulted: “hiera are the sacred parts of the sacrificed animals,” especially the liver. If the reading was negative, the army did not leave camp: this happens to the Spartans three times in Book 5 of Thucydides (5.54.2, 55.3, 116; Pritchett 1: 113). On the other hand, ta sphagia were “last-minute sacrifices to invoke the gods’ continued favor” (Pritchett 1: 111), sometimes offered after a battle had been begun, as in Thucydides 6.69. Their purpose was simply to keep the gods’ favor. Herodotus mentions sphagia six times during the Greek preparation for the battle of Plataea.

The Athenian general Phocion performed the usual sacrifices before the battle of Tamynae (349/8); Plutarch (Phoc. 13.1–3) suggests that Phocion kept his men in camp even as opposing troops were marshaling for battle, then, when he was ready, attacked.

Pritchett’s useful chart (1: 114) shows that Thucydides and Polybius discuss sacrifice before
battles far less often than Xenophon and Herodotus. Michael Jameson (1991: 197) concludes that Spartans “offer the fullest examples of religious practice in warfare,” including the king’s sacrifice to “Zeus the Leader.” He notes that both Athenians and Spartans sacrificed the sphagia to Artemis Agrotera, “Artemis the Huntress,” a title that perhaps shows that warfare originated in disputes over unsettled border regions (Jameson 1991: 204–6).

Festivals and Phases of the Moon

It would be easy to conclude from the massive scholarly attention to the Dorian Carneia that lunar festivals as a genre deeply influenced Greek military behavior. In fact, however, aside from the Carneia (see Hdt. 6.106–7), lunar influence occurs nowhere else in Herodotus and in Thucydides only apropos Nicias’s distinctive religiosity (7.50.1) and the single-sanded escape on a moonless night from Plataea (3.22.1, which continues to perplex scholars; cf. Hornblower 1992: 172, and West 2003: 439). Indeed, Herodotus’s Magi remark that Greeks were more influenced by the sun than the moon (7.37).

Festivals occasionally prevented Sparta, as well as some other states (never Athens), from undertaking expeditions. “One may conclude,” Pritchett says, “that it was part of the etiquette of ancient warfare that religious obligations … often prevailed over purely military considerations, but abstinence from aggressive military operations during enemy festivals was not always observed. The legality of aggression seems to have hinged on the issue of a formal proclamation of a truce” (Pritchett 1: 119–26, at 126). Pritchett mentions the Spartan annihilation of Plataea in Thucydides (see 3.3.56, 65) as one such case.

Purification

Greeks did not practice “purification” on a Roman scale. But several accounts record purification practices, sometimes involving a march between the severed halves of a person (Apollod. 3.13.7; Hdt. 7.39–40) or animal (Curt. 10.9.11; see in general Pritchett 3: 196–202).

Initiating Combat

Infantry battles did not generally involve a “challenge” from one side to the other, but they often did begin with the two sides facing each other openly, sometimes, as before the battle of Marathon, for several days (Hdt. 6.110). Similar behavior was common in naval warfare. In these confrontations, opponents might engage in taunting, as at Plataea (Thuc. 6.63.3, 7.3.1; Hdt. 9.20). “In 407, when the Peloponnesian fleet lay at anchor in the mouth of the harbor of Ephesos, the Athenian Antiochus entered the harbor with his own ship and another, shouting insults and making contemptuous gestures” in violation of Alcibiades’s orders: he is killed in the ensuing battle (Plut. Alc. 35.5). Taunting can be treated as a form of ritual.

The Marching Paian

In introducing the paian, Pritchett remarks that “Greek history presents many mysteries and imponderables—facts which in spite of literary and other evidence are hard to interpret or understand” (Pritchett 1: 105). Singing the paian, of course, removed any possibility of surprise
attack. Ancient authors seem unperturbed by this. They also disagree as to the paian’s original purpose, which might have been “to avert evils” (see Ath. 14.701 et al.), or to enable marching in step (Thuc. 5.69–70).

The paian is initially associated with Spartans and Dorians; that is, at least, a possible inference from surviving sources. Dorian allies of Athens use the paian in a night battle in Thucydides (7.44.6), with disastrous consequences. It is only after a century of Dorian paian-singing that an Athenian recommends it (Thrasybulus, in Xen. Hell. 2.4.17; see Pritchett 1: 105–8.)

**After Combat: The Battlefield Trophy**

Thucydides and Xenophon list fifty-eight and thirty trophies. In all of Herodotus and Polybius, only one trophy appears. W. K. Pritchett notes that “it is far from clear that the Greeks ever thought about the origins of the war-offering, whatever that origin may have been.” Pritchett suggests not an origin but a function: trophies were erected as “more or less permanent” memorials either immediately after the battle (thus serving as “rituals of warfare”) or later (see Pritchett 2: 246–75, who lists the conventions of trophy erection). The victor placed a trophy at the battle’s turning point (trophé; see for instance Thucydides 2.92.5 and 7.54). In naval victories, the nearest shore served. In one case, a “victorious Peloponnesian fleet sailed more than 80 km to erect a trophy in enemy territory, evidently to make a statement” (Krentz 2007: 175).

Trophies were considered inviolable; they were not renewed when they decayed; they could be erected only by the side that held possession of the battlefield. Pride and patriotism, however, could disturb this seemingly orderly protocol often, as seen in the six disputes over which side has the right to set up a trophy (Thuc. 1.54.1, 1.105.6, 2.92.4–5, 4.134, 7.34.7–8, 7.54.1, 8.24.1).

**Dedications of Armor**

Dedications of spoils have a long history in Greek culture, going back to Heracles, who dedicated akrothina and established the Olympic festival (Pind. Ol 10.56). Publicly displayed, spoils reminded citizens of the glories of past battles but also “showed … that in war as in peace the gods had answered the city’s prayers, and that they might do so again” (Jackson 1991: 235). Leaders and individual soldiers made the dedications (Pritchett 3: 244, 269). Some dedications commemorated noteworthy victories (e.g., the shields from Pylos; Lippman et al. 2006). Dedications from naval victories could take the form of a ship left on land (Thuc. 2.92.5; Pritchett 3: 283). Pritchett says the “most interesting account” concerns a land victory of Athenians over Ambraciots (Thuc. 3.113–14): a herald, arriving to request permission to bury Ambraciot dead from a defeat two days earlier, learns suddenly, only after seeing a huge pile of armor, that an additional massive slaughter of countrymen had intervened. Shattered, he departs with his mission unaccomplished (Pritchett 3: 286).

**Stripping the Dead**

Immediately after the battle, victors stripped the dead of panoplies, leaving nude bodies on the field and dividing the spoils, with a large number to the commander. In the Ambracia victory, Demosthenes, the general, received three hundred panoplies and dedicated them in Attic shrines. Pritchett summarizes the herald’s mission again in discussing burials (4.246; see also Tritle 1997).
Booty from war was traditionally tithed, producing, as Plutarch notes, a boon for religious sites like Delphi. A speaker in Plutarch’s *The Pythia’s Prophecies* says, “you see the god completely surrounded by choice offerings and tithes from murderers, wars, and plunderings, and his temple crowded with spoils and booty from the Greeks … upon the beautiful votive offerings you read the most disgraceful inscriptions: ‘Brasidas and the Acanthians from the Athenians…’” Booty could include slaves, land, and money. As the quotation indicates, booty was labeled with inscriptions (*Mor*. 401C–D; further discussion in Pritchett 1: 93–100).

Burial of the War Dead

“Soldiers explain the imperiling of live soldiers to bring in the bodies of their dead comrades as fundamental to morale and unit cohesion: it is the pledge of the group to the individual, which allows the group to demand in return that the individual risk his life” (Lendon 2005: 3). Warriors, as Pritchett said (4: 96), could be sure of a burial.

The custom of returning enemy dead has a long history in Greek culture, going back to mythical figures such as Theseus or Heracles (Pritchett 4: 97). As to the location of the burial, Pritchett concludes after reviewing the evidence that Jacoby, Gomme, and Andrewes err in saying that it was “common Hellenic custom to bury the fallen in a polyandrion on the battlefield” (Pritchett 4: 94–7). As Krentz notes, “Greeks took recovery and proper burial of battle dead very seriously…. The failure of Athenian commanders to recover all their dead from the naval battle at Arginusae (406) resulted in the trial and execution of six generals” (Krentz 2007: 212).

Bodies could be disposed of either by inhumation or cremation. Krentz reviews the key evidence from the fifth century in a single paragraph: Athenians generally cremated their dead, bringing bones and ashes back to Athens for burial: exceptions occurred at Marathon and Plataea; Spartans buried their dead on the field or nearby; practices in other cities varied (Krentz 2007: 175). The burial ritual, as Pritchett points out (4: 102), followed elaborate rules for *prothesis*, lying in state; *ekphora*, carrying out to burial, and a feast.

The Athenian agon epitaphios and logos epitaphios

Athenian burials included games (*agon*, not mentioned in Thucydides) and a speech (*logos*; see further Pritchett 4: 106–25). The speech for the dead appears in a series of “versions” in the fifth and fourth centuries, the most famous being the one attributed to Pericles by Thucydides (2.34–46). Gorgias, Lysias, Plato (*Menexenus*), Demosthenes, and Hypereides all composed versions of the funeral speech (Loraux 1986 discusses the *genre* of the funeral speech and various versions).

Sacrifice after the Battle

The *epinikia* (victory) sacrifice accompanied erection of the trophy. Historians vary in their treatment: Herodotus records no post-battle sacrifices, others have scattered references (Thuc. 4.116, 7.73.2); Pritchett (3: 186–9) provides an extensive list.
There is no canonical number of Greek “rituals of combat”: other scholars could easily classify additional examples of military behavior as “ritual,” expanding the list above: examples might include the various Athenian festivals with military associations, like the Niketeria (commemorating Athena’s defeat of Poseidon, Pritchett 3: 168) or celebrations of “major military victories” (Pritchett 3: 171–83, citing Plut. Mor. 349D–E). For many of these details are lacking, though we do learn that Athenians held a rowing race for ephebes to commemorate the victory at Salamis, and initially promised sacrifice of a goat to Artemis Agrotera “for every barbarian killed” at Marathon, then, “after the battle, when the immense number of the dead became apparent … passed a resolution asking the goddess to release them from their vow on condition that they sacrifice five hundred goats every year” (Pritchett 3: 173–6).

It would also be possible to annul some entries in the list of “rituals” above, for instance “Initiating Combat,” on the ground that they are not genuinely “ritualistic.” We can stipulate to these fairly obvious points and move on to another, possibly more interesting one: how much of the ritualized behavior described above is “universal” in the Greek world, and how much is culture-specific, that is, found only in Ionic, Dorian, or other settings; and why is this so?

To some degree the clustering of certain festivals as Dorian or Ionian (or sometimes, Spartan or Athenian), may simply be accidental, the function of a particular author’s emphasis. The historians do not explain, for instance, why the paian dates only to 404/403 B.C. in Athens, while other Greeks employed it from the time of Salamis. On the other hand, some phenomena, identifiably Spartan or at least Dorian, may yield more worthwhile information. These include the Carneia festival and the temple of Phobos, “Panic Fear.” It is also worth noting that “rituals” were not timeless, but seem introduced at specific points in time, for particular reasons.

The Carneia

“[W]ar could not be waged during the period of the festival,” according to Walter Burkert (1985: 234). Pritchett’s more precise discussion (1: 117) relies on Herodotus 6.106.3: departure (on a military mission) must be postponed at Sparta “until … the full moon … in the first half of the month”; or in Athens, until the first quarter. In either case, Dorians observed the festival of Carneia in the late summer even when observance interfered with missions at Marathon in 490 and Thermopylae in 480 (Hdt. 6.106, 7.206).

For the purpose of this discussion, we can leave aside the substantial (though fascinating) topic of local calendars in Greece and ask a) whether it is credible that religious motives caused the Spartans, the acknowledged leaders in Greek infantry warfare, to forgo combat on two important occasions; and b) whether other Greeks would have behaved like the Spartans in such emergencies.

As to a), the question is difficult to answer, but we need to distance ourselves from modern attitudes and preconceptions. As Kenneth Dover suggests (1987: 195), “To understand pre-Christian religious attitudes requires a great imaginative effort, and those who make it are commonly regarded as imposters by those who cannot.” It is indeed entirely feasible that in the cultural, psychological, and emotional context of the time major state activities could be conditioned by religious observances that were considered essential for the well-being of the community.

Turning to b), Pritchett insists that “the Greeks, especially those of the Peloponnesus, among whom the force of religious routine appears to have been the strongest, could not bring themselves easily to forego observance of venerated solemnities.” Pritchett adds that Spartans did once attack during a
festival, but also that “the Olympia and Carneia [Hdt 8.72] … like the Hyakinthia in 479 B.C. [Hdt. 9.7] … prevailed over the necessities of defense, and the Lakedaimonians put out of mind both the duties of fidelity toward an exposed ally, and the bond of an expressed promise” (1: 125–6). Ionian or Athenian equivalents to this Spartan behavior seem not to exist.

Phobos at Sparta

In a discussion of “military calendric festivals” (3: 157–63), Pritchett focuses on “Peace” (Eirene) and “Panic Fear” (Phobos). Discussing the latter deity, Nicholas Richer (2005: 111–22) notes that an earlier representation of “panic,” the theriomorphic Pan, was shunted aside in Spartan practice and replaced by the more abstract, and thus more capacious, Phobos.

Plutarch says more about these abstractions:

The Spartans have temples not only of fear but also of death, laughter, and other such feelings [pathematon]. And they honor fear not as divinities whom they avoid, considering them as harmful, but believing that the constitution is best held together by fear.

Plutarch adds that citizens who most fear the laws are the most courageous in war. Where there is deos (“apprehensive fear”) there is also aidos (a sense of shame and reverence). Though a deity, Phobos had no festivals, and his temple was closed in times of peace (Agis and Cleomenes 9, my translation; Pritchett 3: 162).

The Spartan temple to Phobos is steeped in ambiguity. Phobos has two implications: it can help Spartan hoplites cause “panic among the enemy,” but it may also testify to the worry and anxiety that underlies Spartan behavior at key moments (Richer 2005: 113).

And deos introduces a further ambiguity: deos in Thucydides can range from “dread” to “serious apprehension,” and be translated as “apprehension that leads to rational decisions.” It does not usually mean “panic fear,” while phobos rarely means “apprehension,”

When Thucydides’s Athenians twice say they were compelled by deos, “apprehension” (along with time, “honor,” and ophelia, “interest,” 1.75.3, 1.76.2), they place themselves at a distance from the Spartans, who in two key passages are moved by “alarm at the Athenians as their power increased” (1.88, 23.6). Although political scientists often view this triad, “honor, apprehension, and interest,” as universal and applicable to all governments, it retains specific application to Athens as distinct from Sparta. By this argument, it is Athenian culture, not universal drives, that motivated Athenian imperialism.

JUSTIFYING WAR

When and why should a polity or a culture decide to go to war? When and why should peace seem preferable? For centuries in Western Europe, the language of Thomas Aquinas encouraged leaders to be punctilious in declaring, though no less sanguinary in practicing, war:

Sovereign authority within a state (auctoritas principis)
Just cause (causa iusta)
Right intention (intentio recta)
Thomas Aquinas, Summa Theologica (2.2.40.1)
More recently, the 1997 catechism jettisoned Aquinas’s language, reducing these causes to a single *ius ad bellum*, “self-defense” (2308).  

The arc of ancient Greek commentary on justification of war yields, not the systematic reflections of an Aquinas, but multiple illustrations of the “agonistic” spirit, the fiercely competitive attitude that led to many Greek conflicts. The *Iliad* is famous not only as a poem about war but also as a portrayal of interpersonal conflict. Interpersonal and interstate motivations overlap: the quarrel between Agamemnon and Achilles, full of references to honor, shame, and lost face, sheds light on the motives for interstate disputes as well: these often seem to grow out of disputes about face, recognition, and revenge. Homeric justifications for war sometimes lapse into unanswerable questions and non sequiturs (see the speeches of Achilles and Sarpedon, at *Iliad* 9.318–343 and 12.310–328.). Herodotus opens his historical epic with a condensed parody of accounts of Greek-Asian abduction and revenge (*tisis*): Io, Europa, Medea, and Helen, all in two short chapters (1.2–3). As the narrative proceeds, this light-hearted sendup gives way to increasingly brutal manifestations of *tisis*: revenge between states, punishments by absolute rulers.  

At first sight, Thucydides seems to dismiss Herodotean *tisis*, presenting an Agamemnon who relied not on pledges of group revenge but on superior power (1.10). Even this “realistic” historian, however, recognizes that Greeks go to war over matters of honor (1.25). “Is it really credible,” Beaumont asks, “that the Corinthians disliked the Corcyraeans to such an extent as to fight them for the reasons that he [Thucydides] gives,” that is, over slights, honor, and prestige? Moses Finley answers affirmatively, historicizing the complaint: “What does it mean to call the silver trade a ‘more concrete’ reason than the one offered by Thucydides? Does it not mean merely that someone living in the 1930s preferred trade to honor and prestige as the explanation for the outbreak of a major conflict?”

The tension between “cultural” and “realistic” justifications of ancient wars—between honor and profit—continues unabated (Lebow 2010: 123–7 summarizes the weakness of “realistic” analyses of war). Josef Wiesehöfer (2010: 75), for instance, insists that the Persian invasion of Greece was not a matter of revenge, but part of an effort to build a “protective ring of territories” that also included Macedonia, Scytha, Arabia, and possibly Ethiopia.  

*Koine eirene*, “common peace,” is the label applied to a group of treaties from the fourth century. It might in fact be said to begin in 412/11 with the Spartan peace treaty with Persia that stipulated that “the King may plan as he wishes” about the Greek coastal cities of Asia Minor in return for Persian support: a “Faustian bargain,” according to David Lewis (Thuc. 8.58.2; Cartledge 1987: 79). The Peace of Antalcidas in 387/6 then ceded control of these cities to Persia in a “Spartan betrayal of panhellenism” (Lewis 1977: 144). A series of agreements with the King followed, ending only after mid-century when Philip the Great filled his role (in 338). Did these efforts reveal a Greek consensus on the need for peace, or did they simply reflect new devices for powerful states to exercise control? Cawkwell (1961: 86) hints at the former: “the various congresses [were less] mere endings of wars [than] a series of diplomatic negotiations in which concessions were made by various parties in recognition of the changing balance of power. In this way much was accomplished by diplomacy that might have made wars more difficult to conclude.” Cartledge, on the other hand, notes that the peaces with Persia subjugated Greek cities as “Persian subjects ruled by oligarchies” for fifty years, when they moved “from the frying-pan of the Achaemenids to the fire of Alexander’s Successors.” Cartledge (1987: 196) emphasizes the “exploitation of the majority” that was to be expected in such an arrangement.
What Do We Mean when We Speak of “Ritual”?

The topic of this chapter is “rituals of warfare.” But what does “ritual” mean today? The question is not an idle one. It is nearly a century since Robert Park, one of the founders of the Chicago school of sociology, began to write about “social ritual” (see e.g., Park 1915: 584, 1921: 11). When Robert Merton (1938: 673) spoke of “ritualistic adherence to institutionally prescribed conduct” in the 1930s, he meant routinized, sometimes obsessive, behavior. Subsequent studies in the social sciences have given “ritual” a range of meanings.

In classical scholarship, “ritual” is less secularized than in some other disciplines, but it remains a broad and ill-defined category. “Diffusion of military success to the community was achieved in antiquity primarily by three different means: rituals, monuments, and ideological concepts. Rituals included triumphal processions, sacrifices to the gods of victory, organized celebrations, and ceremonial departures and arrivals to and from military campaigns” (Hölscher 2003: 13).

Triumphs, celebrations, departures, and arrivals: Tonio Hölscher says that these enabled “emotional participation of broad groups of the population” and “solidarity, psychological effort, and dedication to normative values.” Hölscher does mention religion several times, but even then insists that in Greece and Rome the “religious dimension was not as strong as in other states of the eastern Mediterranean world” (2003: 13–14). Hölscher is speaking of “social ritual.” On the other hand, Walter Burkert’s approach is far less secularized: he describes war itself as a “ritual, a self-portrayal and self-affirmation of male society,” which “finds stability in confronting death, in defying it through a display of readiness to die, and in the ecstasy of survival” (Burkert 1984: 47).

A third example of outstanding scholarship recognizes Burkert’s perspective but emphasizes social ritual more than ecstasy and self-affirmation. This is Robert Connor’s essay (1988) on “early Greek land warfare as symbolic expression.” Connor notices the organization of the army into tribal divisions, the bronze armor, the trophies, all of which “validates the pre-eminence of the hoplite class.” Like other scholars, Connor notes the changes in combat—the increased use of light-armed soldiers, for instance, that came with the heavy fighting of the Peloponnesian War. These tended to “devalue the status of the hoplite class.” The new prominence of “slingers, archers, javelin-hurlers … traditionally drawn from those classes in society that could not afford the investment in heavy armor … elevate[d] their civic status at the expense of the hoplite classes, and risk[ed] eventual political repercussions” (Connor 1988: 27).

The studies mentioned above, samplings from a rich trove of anthropologically oriented scholarship on ancient warfare, reveal that “ritual” provides a useful but often imprecise tool for understanding military behavior.

Social versus Task Cohesion

The German Wehrmacht by many accounts remained an effective fighting force in World War II even when defeat seemed certain. Desertion rates were low and loyalty to unit leaders high. Seeking to analyze and understand this success, scholars developed theories that influenced historians in other fields, including our own. “Social cohesion,” one of the most influential concepts to emerge from this activity, shaped the interpretive community of military historians even when unacknowledged (see further Culham, 258–9).

Two chief strands of work on “social cohesion” were historical and sociological. Military
historian S. L. A. Marshall’s forcefully written and initially persuasive book, *Men against Fire*, asserted that most American infantrymen refused to fire their weapons in combat: a startling claim that was accepted by the most eminent authorities. Marshall argued that readiness to fire coupled with improved communication skills would lead to improvements in “tactical cohesion.” Marshall’s vivid portrayals of men in battle continue to be influential in some circles today, even though Roger Spiller showed more than two decades ago that Marshall had falsified his data, inventing “ratio of fire” findings that misrepresented the actual behavior of American soldiers in combat (cf. Marshall 1947; Spiller 1988).

The sociological strand derives chiefly from the pioneering essay by Edward Shils and Morris Janowitz, “Cohesion and disintegration in the Wehrmacht in World War II” (1948). Interviewing Wehrmacht veterans, Shils and Janowitz concluded that ideology was far less effective in motivating German soldiers than “primary group loyalty,” and that this loyalty resulted from conscious, often manipulative, leadership. More recent work, for example, Omer Bartov’s *Hitler’s Army*, concludes, against the Shils-Janowitz study, that only “brutalization” held a unit together under the adverse conditions of the Eastern Front. “It was precisely because, rather than in spite of what they called the ‘Verwilderung’ of the troops, that it became possible to enforce such brutal combat discipline on them without stirring any visible spirit of rebellion” (Bartov 1992: 32–5, 72).

“Social cohesion” is a popular concept in many quarters. Supporters of democracy would be gratified to find a direct connection, for instance, between battlefield organization (e.g., as hoplites) and civic association. But what one scholar has called “the simple mechanism of the phalanx in maintaining the cohesion of the polis” (Berent 2000: 184) turns out not to be simple at all, for reasons that include the following:

“Social cohesion” is itself a fairly vague concept that lacks analytic value. “When social cohesion becomes synonymous with a good society, it no longer carries analytical value.” (Chan, To, and Chan 2006: 280)

Unless the scholar follows Marshall and takes up fiction writing, evidence is required. One of the best sorts of evidence is the interview: but even this is not conclusive. Though both Bartov, on the one hand, and Shils and Janowitz on the other relied on interviews, their findings were contradictory. In antiquity, we have *no interviews at all*. We are forced to engage in *bricolage* from the shreds of evidence that remain. Drawing conclusions about the mental state of social groups is thus far more difficult than it is when a large sample of veterans is on hand.

To the extent it has been studied by social scientists in recent years, “social cohesion”—coming together as a social group, for instance a family or clan or club—has been found not to contribute to military effectiveness: “social cohesion” in the sense of “the emotional bonds of friendship, liking, caring, and closeness among group members … to the extent that its members like each other … and feel emotionally close to one another … has no reliable correlation with performance and … can even undermine task performance.” Recent studies suggest that focused “task cohesion,” with the emphasis not on camaraderie but on job completion, is more useful in practice than “social cohesion.” (MacCoun, Kier and Belkin 2005: 2–3. National Defense Research Institute 1993: 283–331)

What does this mean for ancient military history? Nothing dire. The fine scholarship of recent decades will stand on its own. But looking forward, it may be worthwhile to seek a finer-grained understanding of the relationship between the “rituals” of ancient warfare and the “social cohesion”
that is sometimes deemed a correlate, while noticing too that “social cohesion” is an elusive concept. It may now be appropriate to ask further questions: what argument is required to demonstrate that ritualized practice (marching in the phalanx, for instance) correlates with social cohesion, or that social cohesion itself is easily attained. Lisa Kallet-Marx (1994) has urged attention to

the social variety that existed even in a predominantly peasant society like Athens. Did urban dwellers think the same as the rural citizenry? Was old wealth of like mind as new? Did landless sailors have the same values as the moderately well-off peasant? The conclusion is unavoidable that the composition of both juries and Assembly was not entirely homogeneous in background or in values; rather, as Wesley Thompson has shown, Athenians were a mosaic of disjunctive ideologies.

“Disjunctive ideologies”? Kallet-Marx is not alone in pointing to these bumps and fissures (note, for instance, the disruptions described in Hanson’s lament, “Hoplites as Dinosaurs,” 1999: 321–49). Clearly, Athens at its most successful overcame the disjunctions, but they remain worth noticing if we are to recapture the rich texture of Greek military history.

**BIBLIOGRAPHY**


Hornblower, S. 1992. “The religious dimension to the Peloponnesian War, or, what Thucydides does


Wheeler, E. L. “Land Battles,” in *CHGRW* 1, 186–222.

“THROUGH piety and religion … we overcame all peoples and nations,” so Cicero wrote (Har. Resp. 19), and it was indeed a Roman commonplace to claim that their devotion to the gods was exceptional and their empire its reward (Cic. ND 2.8; Hor. Odes 3.6.5; Livy 6.41.8, 44.1.11; Tert. Apol. 25; early stress on Roman piety: Sherk 1969, nos. 34.11–17, 38.23–25; cf. Polyb. 6.56.). Roman religion centered on ritual observance, and, in view of the prominence of warfare in Roman life, it was natural that rituals related to warfare should play an important part in their religious activity. However, although it had conservative elements, Roman religious practice also showed great adaptability, and Roman war rituals evolved radically in response to changed circumstances.\(^1\)

This inquiry extends from the earliest times to the Principate of Augustus. The study of Roman religious practice over this long period is hampered by source problems. Our fullest information comes from Roman historical and antiquarian writing, but this, like other forms of Roman literature, did not begin until the late third century, and most of the surviving works date from the time of Augustus or later. For the first century we have plentiful contemporary evidence, above all from Cicero. For the period 218–167 we have a detailed historical account in Livy, Books 21–45: much of the information on religion in this part of Livy’s history may derive ultimately from archives, although even this was subject to distortion by his annalistic predecessors. Thus we know a good deal about Roman religious life from the later third century on. For the earlier period we are on much shakier ground, despite the detailed narratives of Livy and Dionysius. This has not deterred either ancient or modern scholars eager to speculate on primitive religious practice or ritual origins.

These issues—continuity and change and problematic sources—are well illustrated by the rituals considered in the next section, which were—or have been thought to be—related to the incidence of war and peace. The three following sections consider rituals related to command in war, from the commander’s departure from the city to his return in triumph. We then turn to the role of the fetiales, priests with special responsibilities in respect to war and peace.

WAR AND PEACE

Imperial expansion from the later fourth century on involved the Republic in almost continuous war: it has been estimated that in the period 327 to 100 there were at most thirteen years of peace (Harris 1979: 10). The presence of so many competing peoples in the Tiber plain and its hinterland meant that in the earlier centuries too the Romans will have been very frequently at war (but cf. Rich 2007: 8–16
for a more tranquil fifth century).

The annual regularity of war in early times has been commonly thought to be reflected in various rituals, which were held in March and October: the March ceremonies are interpreted as ritual preparations for war at the start of the campaigning season, while those in October are taken to mark the end of the season and the putting aside of arms for the winter. On March 1, 9 and 19 the Salii, priests of Mars who were found not only at Rome but in other Latin communities and whose distinctive costume included archaic weaponry, performed ritual dances with their sacred figure-of-eight shields (ancilia) and sang their ancient hymn. On February 27 and March 14 horse races (the Equirria) were held in honor of Mars on the Campus Martius. On March 23 and May 23 another festival of Mars, the Tubilustrium, involved the purification of trumpets. On October 15 the ceremony of the October Horse took place, another horse race on the Campus, at which one of the victorious horses was sacrificed to Mars. Finally, on October 19 the Aramilustrium was performed at a site of the same name on the Aventine; the name suggests that this festival was a purification of weapons, though the Byzantine writer John the Lydian (De mens. 4.141) is the only source to give this explanation. How far these various ceremonies were interrelated is not clear; there is, for example, only weak evidence for associating the Salii with the Tubilustrium and the Aramilustrium (sources for these rituals in Degrassi 1963: 416–18, 421–2, 426–30, 460–1, 521–4).

Mars was a god of agriculture as well as war, and there has been much scholarly dispute as to whether most of these rituals were agricultural or military in origin. There is, nonetheless, wide agreement that, as Beard, North, and Price put it (1998: 1.43), “whatever these ceremonies originally meant … at least by the fifth century B.C., they represented a celebration of the annual rhythm of war-making.” This consensus is merely conjectural, unsupported by the ancient evidence (cf. Rüpke 1990: 23–6). Ancient writers who discussed the rituals could themselves only speculate as to their meaning. Some of their references to the individual rituals describe them as honoring Mars as a war god, but that may be merely because this was his predominant role in the author’s own day. No ancient writer treats the various rituals as a group or links them with the campaigning season.

Two rituals could only be performed in time of peace, namely the augurium salutis and the closing of the shrine of Janus. In the augurium salutis the safety (salus) of the Roman people was prayed for, after the augurs had first sought divine permission; the ceremony was annual, but could only be carried out on a day when Roman forces were nowhere at war. It may once have been regularly performed, but the only occasions under the Republic when we know it to have been enacted were in 160 and in 63. It was revived after a long intermission in 29 in celebration of Augustus’s victory over Antony and Cleopatra; he continued to have the ritual performed from time to time: an inscription shows that it was celebrated in A.D. 3 and 17, and Claudius revived it in A.D. 49 after a twenty-five-year lapse (160: Plut. Aem. 39.3–4; 63: Cic. Div. 1.105; Dio 37.24; Augustus: Suet. Aug. 31.4; Dio 51.20.5; ILS 9337; Claudius: Tac. Ann. 12.23.1; see Liegle 1942; Linderski 1986: 2178–80, 2255–6; Rüpke 1990: 141–3).

The Janus ritual was a greater rarity and, under Augustus, a correspondingly powerful symbol. He himself noted in his record of his achievements that the doors had been closed only twice altogether since the foundation of the city, “but the senate decreed that it should be closed on three occasions while I was leading citizen” (Res Gestae 13).

The shrine of Janus Geminus (also known as Janus Quirinus) was a small rectangular building with double doors in the Forum. The first of the pre-Augustan closures is certainly legendary: it was attributed to Rome’s second king, Numa Pompilius, whose reign was held to have been a time of
peace and religious innovation. The other closure, which lasted only a few months, is well attested and must be historical. Sources associate it with the end of the First Punic War; this was Rome’s longest war, and so its ending might well have prompted special commemoration, but the war ended in 241 and, puzzlingly, the closure did not take place until 235, following a campaign in Sardinia (Varro, *Ling. Lat.* 5.165, Livy 1.19.3; other sources at Broughton 1951–1952: 1.223). It is uncertain whether the 235 celebration marked the revival or the invention of a tradition. Scholars who suppose that the practice was of ancient origin have offered various explanations, for example that the shrine marked an early boundary of the city or had bridged a stream, but these hypotheses are mere conjecture.\(^3\)

Augustus’s first closure of Janus was carried out in 29 in celebration of his ending of the civil wars (Livy 1.19.3; Dio 51.20.4; Degrassi 1963: 395). The fact that various campaigns against external enemies were still in progress was conveniently disregarded. The occurrence of the same phrase in several sources’ reference to this closing suggests that the Senate’s decree expressly linked it with the establishment of peace “on land and sea,” adapting a formula first used by Hellenistic rulers (Momigliano 1942; Schuler 2007).

Having established his claim to be bringer of universal peace, Augustus in 27 declared a continuing program of pacification against Rome’s external enemies, thereby conveniently justifying the division of the provinces which enabled him to retain most of the legions under his command (Rich 2003). Janus was at first employed as a symbol of this pacification program: the shrine was closed for the second time in 25, following Augustus’s war in northern Spain (Dio 53.26.5). It may not have been reopened until his next departure for a war theater, to Gaul in 16. Thereafter he may never have closed it again: Dio (54.36.2) records an abortive senatorial decree for its closure in 11, and in the *Res Gestae* Augustus says merely that the Senate decreed its closure three times, not that all these decrees were implemented (see further Syme 1984: 1179–97, 1991: 441–50; Rich 2003: 349, 355–6). Another symbol of his achievements in pacification had now been created, namely the still-surviving Altar of Augustan Peace (Pax Augusta), which was decreed on his return from Gaul in 13 and dedicated in 9, and provided Peace with its first cult site at Rome (*RG* 12.2; Galinsky 1996: 141–55).

Only three subsequent emperors resorted to the Janus ritual (Syme 1984: 1192–7). Nero closed the shrine in celebration of his Parthian policy, and Vespasian did so after his victorious conclusion of the Jewish War (an event also commemorated through the establishment of the Temple of Peace). Much later, in 242, Gordian III staged an opening of the temple when he set out for war against the Persians.

### The Departing Commander

Livy’s surviving narrative of the years 218–167 gives us a clear picture of the structure of the magistrates’ year in the middle Republic. At the start of their year of office the consuls performed various state duties at Rome, many of them religious in character. They then departed for their provinces. One of the consuls normally returned before the end of the year to hold the elections, but the other might remain in his province, with his command prorogued as proconsul. One or two of the praetors remained at Rome throughout the year, but the others went out to provinces and might be prorogued. Various changes to this pattern occurred in the first century: from early in the century consuls and praetors customarily left for their provinces only near or after the end of their year of
office (Giovannini 1983); in 52 Pompey imposed a five-year interval between magistracy and provincial command.

Under the Republic departing commanders often held a levy. On enrollment legionaries had to swear an oath of loyalty, the *sacramentum*, to their commander, under the Empire to the emperor (Campbell 1984: 19–32; Rüpke 1990: 76–91).

Polybius (6.14.10) states that the Roman people decided on war and peace, and other sources assert that the people’s consent was required for war. In practice, however, there was only limited observance of this principle (Rich 1976: 13–17; Harris 1979: 263; Zack 2001: 75–166). When the people did vote on war, it was generally just to ratify a decision of the Senate. Before major wars began with the formality of a war vote, special religious observances might be held to assure success. Livy gives lavish details of those held before the great wars with kings Philip, Antiochus, and Perseus in respectively 200, 191, and 171. Before the Senate voted for war, a consul held sacrifices and prayers, following which the *haruspices* (Etruscan priests whose divining included the interpretation of sacrificial entrails) announced that the entrails portended victory, triumph, and the extension of the boundaries. (The last is a surprising detail, possibly an invention by Livy’s source, since these wars in fact resulted in an extension of the Romans’ power, but not of their territory.) Later, a *supplicatio* was held (a rite in which offerings and prayers were made by the whole people to the gods displayed on couches, *pulvinaria*, outside their temples), and games and gifts were vowed to the gods in the event of a successful outcome (Livy’s notices: 31.5–9, 36.1–2, 42.28–30; cf. 4.27.1, 7.11.4 [games vowed before some early wars]; 21.17.4—*supplicatio* before the Second Punic War).

The last known occasion when the formalities of a war vote were enacted was in 32, against Cleopatra (Plut. *Ant*. 60.1; Dio 50.4.4–5). To avoid the odium of starting civil war, Octavian (the future Augustus) represented the conflict as an attack on the Republic by a foreign queen; Antony and his followers were thus portrayed as starting civil war by remaining at the side of Rome’s enemy. With the establishment of the Principate, no more is heard of war votes: war and peace were now the prerogative of the Emperor (Str. 840).

Other rituals associated with the start of wars will be discussed below. Here we must notice one further ceremony which all departing consuls and praetors were expected to perform during the middle and late Republic. Having taken the auspices (see next section), the magistrate with his lictors ascended the Capitol to the Temple of Jupiter Optimus Maximus (and also of Juno and Minerva) and there proclaimed a vow, as Cicero (*Verr*. 2.5.34) tells us, “for his command and for the public welfare.” He and his lictors then donned the *paludamentum*, the purple military cloak, and, accompanied by friends and well-wishers, crossed the *pomerium*, the sacred boundary of the city, so passing from the civil sphere (*domi*, “home”) to the military (*militiae*). Numerous texts attest the observance of this ceremony (e.g., Varro *Ling. Lat.* 7.37; Festus 176L; Livy 31.14.1, 42.49.1–8, 45.39.11; Dio 39.39.6 [Crassus in 55, with hostile tribunes]; Caes. *B Civ.* 1.6.6 [praetors in 49]; cf. Mommsen 1887–8: 1.63–4, 431–3; Rüpke 1990: 131–6; 1995: 38–40; Sumi 2005: 35–8). Strong disapproval was expressed of a commander who dispensed with it through haste, as when C. Flaminius left for his province even before his entry into office, one of the instances of religious neglect which was perceived as contributing to his defeat and death at Lake Trasimene in 217 (Livy 21.63.7–9, 22.1.6–7; cf. Livy 41.10.5–13; Cic. *Phil.* 3.11, 5.24).

Occasionally doubts subsequently arose about the validity of the auspices taken at departure, and the magistrate then had to return to the city “to seek the auspices again” (Livy 8.30.2, 10.3.6, 23.19.3; Val. *Max.* 3.2.9; Degrassi 1937, no. 62; Rüpke 1990: 45–6; Linderski 1993: 62–3).
Commanders redeemed the undertaking made in their vow to the Capitoline gods when they triumphed, in the concluding act on the Capitol, when they performed sacrifices and deposited laurel from their fasces in the lap of Jupiter’s statue in his temple. (That these acts fulfilled departure vows is shown by Livy 45.39.10–12 Res Gestae 4.1). Thus, somewhat surprisingly, only those commanders who triumphed redeemed their vow. It is striking too that commanders continued to make a vow which could only be redeemed through success in war down to the late Republic, although by then the duties of many provincial governors were primarily civil. The new arrangements for provincial commands introduced by Augustus put an end to the departure ritual, and thenceforth the emperor alone wore the paludamentum, which now became one of the symbols of the imperial role.

ON CAMPAIGN

Commanders in all periods occasionally performed a “lustration” of their army. Common occasions for carrying out this ceremony were when a commander first took over his army or at the start of a new campaign: thus Cn. Manlius Vulso lustrated his army in Asia Minor in 189 and again in spring 188 (Livy 38.12.2, 37.8), as did Scipio in 209 (App. Iber. 19) and Cicero in 51 (Att. 5.20.2). Besides frequent references in literary sources, the ceremony is also depicted on sculptured reliefs, notably Trajan’s Column (scenes 8, 53, 103; Lepper and Frere 1988: 58–9, 100, 157–9). Its purpose would have been partly practical, as an army review, but it was also a religious ritual, which, as with the related ceremony performed by the censors at the end of the census, centered on a suovetaurilia, a sacrifice of a boar, a ram, and a bull. The term “lustration” implies purification, and is so translated by Greek writers, but scholars dispute the further significance of the rite (e.g., Rüpke 1990: 144–6). Roman fleets also underwent lustration, as in 191 (Livy 36.46.2) and by Octavian in 36 (App. B Civ. 5.96).

Magistrates were able to communicate with the gods and ascertain that conditions were favorable for action by two means, the auspices (divination from birds) and by offering sacrifice, with haruspices interpreting the entrails (divination: Scheid 2003: 111–26; augural practice: Linderski 1986). They employed both procedures before important actions, both civil and military, including battles (auspices and sacrifice before battles: Livy 6.12.7, 9.14.4, 35.48.13, 38.26.1; auspices: Cato, ORF fr. 36; see Rosenstein 1990: 60 ff.). The methods used usually ensured a satisfactory response. Thus the auspices were normally taken from the feeding of chickens in the charge of a chicken keeper (pullarius): when food dropped from a chicken’s mouth, this was a tripudium and constituted a favorable auspice. A favorable response did not guarantee a successful outcome. However, on several occasions a commander’s neglect of unfavorable auspices or entrails was held to have led to disaster, as for example at Lake Trasimene (Cic. Div. 1.77, from Coelius Antipater (fr. 20 Peter); cf. Cic. N.D. 2.8; Livy 22.3.9–14). The most celebrated instance concerned the naval defeat at Drepana in 249. It was said that before the battle the chickens had refused to eat and the commander, C. Claudius Pulcher, had ordered them to be thrown overboard, saying, “If they won’t eat, let them drink.” The story has sometimes been regarded as a historian’s fabrication, but it is more likely that it was current at the time and formed part of the case against Claudius at his subsequent trial (Broughton 1951–1952: 1.214; Rosenstein 1990: 79, 90, 157–60; other instances of neglected auspices or sacrifice: Livy 5.38.1, 25.16.1–4, 27.26.13–14, 41.18.7–14; Obsequens 55).

No doubt there were some occasions when unfavorable auspices or entrails led commanders to delay, but the reported cases of neglect suggest that commanders were sometimes prepared to
disregard such signs when military imperatives appeared to require it, despite the risk of recriminations in the event of defeat.

Taking the auspices was the prerogative of magistrates, and it appears that promagistrates did not have this right. As we saw above, from the middle Republic Roman commanders were often promagistrates, usually magistrates whose command had been prorogued once their year of office had expired, and from the early first century military command was almost exclusively held by promagistrates. Some sources do speak of campaigns being conducted under the *auspicium* of a promagistrate, but here the term appears to be used loosely to mean no more than independent command. Practical administrative needs thus resulted in the consultation of the auspices becoming obsolete on campaign and confined to the civil sphere. Since they could not take the auspices, promagistrates had to rely exclusively on the interpretation of the sacrificial entrails to ascertain the gods’ favor. The view just stated is controversial, but I think it is the best interpretation of Cicero’s claim that divination by birds was no longer employed in war since “for many years, our wars have been conducted by proconsuls and propraetors, who do not have auspices” (*Div. 2.76; Nat.D. 2.9; Rich 1996a: 101–5*).

Certain days are reported as not propitious for initiating fighting. Antiquarian writers inform us that, while other days were *proeliares* (“fit for battle”), combat was not to be initiated on days which were *religiosi* or *atri*, “black” (Michels 1967: 62–7; Rüpke 1995: 563–75; Oakley 1997–2005: 1.395–9). The *dies religiosi* comprised certain days of special ritual significance and the *dies Alliensis* (July 18), the anniversary of the Gauls’ victory at the River Allia in 387/386 before their sack of Rome. This day is said to have been declared *religiosus* after the Gauls’ withdrawal, following the discovery that several earlier defeats had occurred on the same day. The *dies atri* were the days following the Kalends, Nones, and Ides in each month, and some writers connect these too with the Allia disaster. Thus these rules precluded Roman commanders from initiating hostilities on about fifty days each year. However, in practice these constraints seem to have had little effect (Holladay and Goodman 1986: 160–2; Rüpke 1990: 179–80; Rosenstein 1990: 67–85). The decisive victory against King Antiochus in 190 is said to have been fought on a day offering tactical advantage although it was *religiosus* (Frontin. *Str. 4.7.30*). The disastrous defeat at Cannae in 216 is said to have taken place on August 2, the day after the Kalends, but the commander Varro appears not to have been criticized for offering battle on a *dies ater* (Claudius Quadrigarius F53 Peter, cited by Gell. 4.9.5; Macr. *Sat. 1.16.26*; cf. Rosenstein 1990: 84–5). Lucullus defeated the Armenian king Tigranes on October 6, 69, having insisted on engaging despite the day’s being the anniversary of the great defeat at Arausio in 105 (Plut. *Luc. 27.8–9*). Despite Octavian/Augustus’s scrupulous concern for religious propriety, his victory over Antony and Cleopatra at Actium (September 2, 31) is one of several first-century battles fought on a *dies ater*.

Special methods were sometimes employed to win divine support in combat. In battles, commanders quite often made a vow (*votum*) to a named god, to be paid in the event of victory. Usually the god was promised a temple, but vows for games are also reported, and in 293 a mere libation of *mulsum* (sweetened wine) was found sufficient. Such vows happened most often in the third and early second centuries; by the first century the practice seems to have effectively lapsed.4

When the permanent destruction of a besieged city was planned (a relatively rare occurrence), the Roman commander sometimes pronounced an *evocatio* (“calling away”) before its capture. This was a form of vow in which the tutelary god was asked to desert the city and come to Rome, with the promise of a temple and cult. *Evocatio* was certainly enacted against some of Rome’s near neighbors
in Italy: Livy describes Camillus’s transfer of Juno Regina and its cult statue to Rome when he destroyed Veii in 396; Vortumnum was brought from Volsinii in 264, and probably Minerva Capta from Falterii in 241 (Veii: Livy 5.21.3, 2.3–8, 23.7, 52.10. Volsinii: Prop. 4.2.1–4. Falterii: Ovid, Fasti 3.843–4). The later writer Macrobius (Sat. 3.9.1–8) preserves a prayer formula for evocatio in a version purporting to have been used at the sack of Carthage in 146. However, our main sources for the fall of Carthage make no reference to evocatio, and a cult for Juno Caelestis (the name by which the Romans referred to Carthage’s principal deity) is not attested at Rome before the third century A.D. Many scholars therefore formerly held that evocatio was not practiced outside Italy; however, an inscription from Isaura Vetus, in southern Asia Minor (Hall 1973; AE 1977: 816), shows that a form of the ritual was in use overseas as late as 75. Erected by P. Servilius Vatia, it records his sacking of the town and fulfillment of a vow made to “whether it is a god or goddess in whose protection was the town of Isaura Vetus” (the traditional formula to cover uncertainty over the identity of the tutelary god). What Servilius vowed is left unclear: he can hardly have transferred the cult to Rome, but may perhaps have provided for a new temple and continued cult at the site of the destroyed town. (On evocatio see also Pliny, NH 28.18; Plut. QR 61; Festus 268L; Serv. Aen. 2.351; evocatio for Carthage is explicitly attested only by Serv. Aen. 12.841; see now Ando 2008: 113–86.)

In the same passage Macrobius (Sat. 3.9.9–13) goes on to provide a formula for the devotio of enemies: once their gods have been “evoked,” the Roman commander “devotes” the city, army to the nother gods in return for his own army’s safety, and promises three black sheep to these gods. The formula again purports to be for use against Carthage, but Macrobius states that it was employed widely: Veii, Fidenae, and Fregellae in Italy, Carthage and Corinth overseas. If this is correct, it may, as Versnel (1976) has argued, have been the original form of devotio and the better-attested “self-devotion” of commanders then a derivative. However, since the devotio of enemies is attested only in this single, late source, its authenticity should be regarded as questionable.

The devotio of commanders is attested solely for members of a single family, the Decii, celebrated as exemplary instances of Roman virtus. Numerous sources report that a father and son, both with the name P. Decius Mus, performed a devotio when commanding with their fellow consul in a crucial battle, subsequently won by the Romans. The elder Decius is said to have sacrificed himself, prompted by a dream, at the battle of the Veseris in 340 against the Latins and Campanians, and the younger to have imitated his father’s example at the battle of Sendinum in 295 against the Samnites and Gauls. Each is said to have uttered a prayer formula, dictated by a priest, calling on the gods to destroy the enemy army and devoting himself on behalf of the Roman people and their army to the nother gods Manes and Mother Earth, and then to have ridden into the midst of the enemy to their death. In 279 yet another P. Decius Mus, probably son of the consul of 295, was one of the consuls commanding at the battle of Ausculum at which the Romans were defeated by Pyrrhus; some sources credit him too with a devotio, but the claim is not supported by the rest of the tradition and is surely a fabrication. However, despite some scholarly skepticism, the probability is that at least the Sendinum devotio is historical, and the earlier episode may be so as well (Livy 8.6.9–13, 9.1–13, 10.10–14; 10.28.6–18 provides our fullest accounts; other sources in Broughton 1951/1952: 1.135, 177; see also Oakley 1997–2005: 2.477–86; Feldherr 1998: 85–92).

One further Roman combat ritual which deserves notice is the burning of enemy arms after a victory as a dedication to one or more gods (Livy 1.37.5, 8.1.6, 8.30.8–9, 10.29.18, 23.46.5, 30.6–9, 38.23.10, 41.12.6, 45.33.1–2; App. Ib. 59, Lib. 48, 133, Syr. 42, Mithr. 45; Plut. Mar. 22; discussions: Oakley 1997–2005: 2.397–8; Östenberg 2003: 24–6). Reported recipients include
Vulcan, Mars, Minerva, and the obscure Lua Mater. The practice is attested quite often down to the early first century, but Sulla at Chaeronea in 86 is the last commander reported as observing it. Different practices are reported in the early Imperial period: the dedicating of mounds of weapons as monuments and even, on one occasion, the throwing of broken weapons into rivers (Tac. Ann. 2.22.1; Florus 2.24.9, 30.23). It has been thought that burning of enemy weapons was originally intended to dispose of objects felt to be taboo, but there is no reason to think that there was ever a requirement that all captured arms should be disposed of in this way. Selected items were brought back to Rome to be carried in triumphs and displayed permanently in temples or on private houses (Rawson 1990).

THE RETURNING VICTOR

On returning to Rome, and if authorized to do so, victorious commanders entered the city in a triumph, a ceremony in which, as Polybius perceptively remarked (6.15.8), “a vivid impression of their achievements is put before the citizens’ eyes by the generals.” Said to have been celebrated over three hundred times over the course of Roman history, the triumph is by far the most important and the best documented of Roman war rituals. From the later fourth century to the end of the Republic, it was the supreme expression of the competitive ethos of the elite and of the Roman people’s delight in their success in war. The evidence comprises plentiful literary accounts of individual triumphs, artistic representations, and the remains of inscribed lists of triumphs (the Fasti Triumphales) from the later first century, of which the fullest forms part of the so-called Capitoline Fasti, probably set up on the Arch of Augustus in the Forum. While the triumphs reported for the kings and some of those for the early Republic are not historical, the record is reliable and nearly complete from at least the early third century. A good deal can be reconstructed about triumphal custom as it operated in the last two centuries of the Republic, and some of the main points will be outlined below. Much, however, remains obscure, and it is clear that individual triumphs varied considerably and practice evolved greatly over time.

The origins of the triumph were in dispute in antiquity. Different etymologies were proposed for the name and different explanations for the use of laurel, while the first triumph was credited by some to Romulus and by others to the elder Tarquin (etymology: Varro, LL 6.68; Pliny, NH 7.191; Isidore, Orig. 18.2.3; laurel: Plin. HN 15.133–5; Festus 104L; Romulus or Tarquin: Dion. Hal. 2.34; Plut. Rom. 16; Livy 1.38.3; Degrassi 1947: 534–5). Florus (1.1.5) alleges that Tarquin introduced the triumph from Etruria, identified by several writers as the source of the triumphing commander’s dress. An Etruscan origin for the triumph has been widely accepted in modern times, and may be correct, but the evidence is thin, and the related belief that Rome was under Etruscan rule during the reigns of the last kings has been refuted. There has been much modern discussion about the triumph’s supposed origin in religious ritual: one theory interprets it as a purification rite, while another holds that both the triumph and the circus games derive from an Etruscan New Year festival. All these suggestions are mere speculation, and they have nothing to tell us about what the triumph meant to participants and spectators in the mid- and late Republic, for whom the religious element in the celebration consisted simply of the closing observances on the Capitol (triumphal origins: Bonfante Warren 1970; Versnel 1970; Coarelli 1988: 414–37; Rüpke 2006; cf. Beard 2007: 305–18 [salutary skepticism]; Etruscan rule refuted: Cornell 1995: 151–72).

The process of claiming a triumph began in the field. A commander who won a significant victory was hailed “Imperator” by his troops. He then had his fasces decorated with laurel and continued to
use the laurel and the title Imperator until his return. Following such an acclamation, the commander would send a “laurelled letter,” a tablet wreathed in laurel (litterae laureatae), to the Senate announcing the victory and requesting the voting of a supplicatio. This ritual was used not only (as above p. 546) to seek the gods’ support, but also in thanksgiving. The voting of a supplicatio created the presumption that a triumph would follow. Cicero’s correspondence of 51–50 vividly illustrates the lengths to which commanders and their friends might go to secure a favorable vote (Beard 2007: 190–9).

Claims to a triumph normally required the approval of the senate, which allocated funding from the treasury for the costs of approved triumphs. On their return to Rome commanders who aspired to a triumph were received at a Senate meeting convened to consider their claim in a temple outside the pomerium, usually one of the adjacent temples of Apollo and Bellona near the Circus Flaminius, northwest of the city. Promagistrates, whose imperium would otherwise lapse when they crossed the pomerium, also required a law to be passed by the assembly granting them imperium for the day of the triumph. (There is no reason to suppose that such a law was also required for magistrates still in office.) Triumphs celebrated without senatorial approval were very rare: in 223 C. Flaminius (in another of his disputes with the Senate) and his fellow consul secured approval from the popular assembly instead; two consuls, L. Postumius Megellus in 294 (or 291) and Ap. Claudius Pulcher in 143, triumphed without approval and despite tribunes’ opposition (223: Zonaras 8.20.7; Postumius: Livy 10.37.6–12; Dion. Hal. 17/18.5.3; Claudius: McDougall 1992).

On four occasions between 231 and 172 commanders whose applications had been rejected by the Senate organized triumphs outside Rome on the Alban Mount, with its temple of Jupiter Latiaris (Brennan 1996). Some of those denied a full triumph by the Senate were accorded the lesser honor of an ovation, in which the commander processed on foot (or occasionally horseback) rather than in a chariot, wearing the toga praetexta (the purple-bordered toga which was magistrates’ normal garb) rather than the triumphal dress, and garlanded with myrtle rather than laurel (see Rohde 1942; Richardson 1975: 54–7).

We are particularly well informed about senatorial debates on triumphs in the late third and early second century, thanks to the survival of this part of Livy’s history. One factor which made these issues particularly pressing in the early second century was the exceptional opportunities for triumph-seeking provided by the frequent warfare in Spain, northern Italy, and the Greek East, not only for consuls, but also for praetors, who seldom triumphed at other periods (Rich 1993: 49–52).

Livy’s accounts make it clear that, while various criteria were taken into account, they were not applied with full consistency and political influence played a part (see Richardson 1975; Develin 1978; Beard 2007: 199–214; Pittenger 2008). Only those commanding in their own right and in or following a magistracy were deemed eligible. Private citizens holding special commands in Spain in 210–197 were thus denied a full triumph, though some obtained ovations. Pompey was finally to force the abandonment of this principle, with all three of his triumphs (in 81, 71, and 61) following such special commands. A new factor which became an issue in some of the debates reported by Livy was whether the commander had brought his army back. In earlier times victorious commanders had always brought their armies home, but Rome now needed to garrison some provinces permanently. Not having brought his army home was the pretext used for decreeing Marcellus an ovation rather than a full triumph following his capture of Syracuse. From 200 some commanders who had passed their armies to their successors were allowed to triumph if they had left their provinces pacified, but, when L. Manlius Acidinus returned from Spain in 185, he was held not to have met this requirement
and so accorded only an ovation (Livy 39.29.4–5; Develin 1978: 432–5).

Most often, however, the outcome turned on whether the commander’s achievements merited a triumph. Usually a significant victory, with substantial enemy losses, was required, and heavy Roman losses sometimes led to refusal. However, in some early second-century cases, triumphs were approved without significant enemy losses, and in 180 the previous year’s consuls secured triumphs just for deporting Ligurian tribesmen, although no blood had been shed (Livy 40.38). It may have been in reaction to this episode that the reported law requiring five thousand enemy casualties was passed, if it is historical (Val. Max. 2.8.1; Oros. 5.4.7; cf. Beard 2007: 209–10). Disputes about whether commanders’ achievements truly merited a triumph continued in the first century: in 95 the triumph decreed for L. Licinius Crassus just for repressing raiders in northern Italy was vetoed by his fellow consul Scaevola, who claimed that it had only been voted because of Crassus’s status and influence (Cic. Pis. 62; Asconius 14–15), and in 62 Cato and another tribune passed a law imposing penalties for false casualty declarations (Val. Max. 2.8.1).

Two further criteria came into play in the late Republic. Full triumphs required a “legitimate enemy” (iustus hostis: Gell. 5.6.21), and so the slave wars fought in Sicily and Italy earned only ovations. Only external wars could be celebrated, and so the triumphs which Pompey, Caesar, and Octavian won in what were in reality civil wars were presented as over external enemies or regions. In 36 Octavian took an ovation for his defeat of Sex. Pompeius, representing it as a victory over slaves and pirates.

Once the triumph had been approved and his preparations were ready, the commander formed up his procession outside the city in the Circus Flaminius and Campus Martius. In front of the commander’s chariot were paraded spoils and captives, as well as musicians, the animals to be sacrificed, and sometimes gold crowns donated by allied communities. The spoils could include enemy weapons, chariots, and standards; bullion; art works and other precious objects; and even captured animals such as war elephants (first displayed in 275 and 250). Pride of place among the captives would go to any captured enemy leaders, especially royalty. Also often paraded before the chariot were placards proclaiming the commander’s achievements and sculpted or painted representations of his conquests, which might show conquered cities, rivers, and nations, or absent leaders, such as Cleopatra. The commander’s young children could ride with him, either in the chariot, or, if they were youths, alongside. After the chariot came the officers and troops who had served under him, and sometimes Roman citizens whom he had freed (on triumphal display; see especially Beard 2007: 107–86; Östenberg 2009).

The commander’s chariot, drawn by four horses led by a slave, had a high, tower-like shape, and was elaborately decorated. The commander himself wore the tunica palmata and, over it, the toga picta, both purple and embroidered, and he carried in his right hand a laurel branch and in his left an ivory scepter, topped by an eagle. He wore a laurel crown, and a slave riding with him held a heavy gold crown over his head. Some sources report a custom that the commander’s face, or even his body, was painted red, but the best authority, Pliny (HN 33.11), implies that the practice was long obsolete. We should not infer from this evidence, as many scholars have done, that the triumphant commander represented a king or a god or both, a claim made by no ancient source. The distinctive tunic and toga, the scepter and the gold crown were all also used by the presiding magistrate at the procession for the circus games, and were presented along with other magisterial insignia to foreign kings recognized as friends of the Roman people. Roman tradition held, perhaps rightly, that these items had been the insignia of their kings, but this did not mean that magistrates using them appeared as kings for the day.
The triumphal insignia were kept in the temple of Jupiter on the Capitol and brought out when required (SHA 18.40.8, 20.4.4), and this fact and the god’s role in the triumph and the games adequately explains why Livy describes the triumphing commander as “decorated with the costume of Jupiter” (10.7.10: Iovis ... ornatu decoratus) and Juvenal (10.38), writing of the circus procession, speaks of the “tunic of Jupiter.” Some late sources associate the red paint on the commander’s face with the periodic touching up with such paint of the terracotta cult statues of Jupiter and other gods, but this is merely an antiquarian attempt to explain the archaic practice.

The slave accompanying the commander was required repeatedly to tell him to “Look behind” (Respice). Like the ribald songs sung by the troops, some at the commander’s expense, this served as a warning against arrogance and perhaps to ward off evil. The addition “Remember that you are a man” appears only in Christian sources (Tertullian, Apol. 33; Jerome, Epist. 39.2.8). 8

Once it was drawn up, the procession advanced from the Circus Flaminius and crossed the pomerium at the Triumphal Gate (Porta Triumphalis), of uncertain location. The route followed within the city is disputed, and may not have been fixed, but all triumphs culminated in the approach, by the Sacred Way, to the Forum. 9 Once at the Forum, commanders could, if they chose, have elite prisoners executed in the carcer, the state prison (Beard 2007: 128–32).

From the Forum, the commander ascended to the Capitol, and there sacrificed the victims to Jupiter Optimus Maximus and his fellow gods and deposited laurel from his fasces in the lap of Jupiter’s statue. As we saw above, these acts constituted the fulfillment of the vow he had made on his departure from the city (above, pp. 546–7; the laurel: Plin. NH 15.134; Obsequens 61a). Thus the Senate’s decisions on triumphs were in effect religious as well as political judgments, assessing not only the commander’s achievements, but also whether Jupiter had fulfilled the request made in the departure vow.

The festivities were concluded by a banquet for the senators on the Capitol. Some triumphing commanders feasted the whole populace, but this appears to be a late development: Lucullus (in 63) and Caesar are the first certainly attested instances (see Beard 2007: 257–63, correcting misconceptions).

The distinction conferred by the triumph continued to be enjoyed by the commander during the rest of his life and by his family after his death: those who had triumphed were entitled to wear a laurel crown at the games, and after their death the actors representing them in the funeral processions of their descendants wore a toga picta (Mommsen 1887–8: 1.437–41; funerals: Polyb. 6.53.7). From the later second century, triumphal temple building became less common, but other public buildings, such as porticoes, were built from commanders’ spoils. Pompey and Caesar demonstrated their preeminence with monuments on a wholly new scale: Pompey constructed Rome’s first theater, with an accompanying portico, on the Campus Martius, and Caesar’s buildings included a whole new forum (triumphal building: Ziolkowski 1992; Orlin 1997; Bastien 2007: 331–42).

The fall of the Republic led to a transformation in the role of the triumph (Hickson 1991; Beard 2007: 68–71, 295–305; Krasser et al. 2008). At first triumphs were numerous: the triumvirs were happy for their supporters holding provincial commands to claim triumphs, and twenty such commanders celebrated triumphs in the period 43–26. Triumphant building revived too: many of these commanders restored temples, erected secular buildings, or repaired roads. After the constitutional settlement of 27, however, by which the provinces were divided between Augustus and the Roman people, the governors of the emperor’s provinces (legati if senators, praefecti if equestrian) commanded under his auspices and held imperium not in their own right, but by delegation from him.
They were thus not eligible to be saluted *imperator* or hold a triumph. In the course of Augustus’s reign, a consolation prize was devised: *legati* who achieved success in war might be awarded the *ornamenta triumphalia*, in effect the right to wear the laurel crown at the games, usually accompanied by the erection of an honorific statue in Augustus’s new Forum.

Warfare in Africa early in Augustus’s reign enabled two of its proconsuls to win triumphs: L. Sempronius Atratinus and L. Cornelius Balbus triumphed in 22 and 19 respectively, and Balbus dedicated a theater in 13. However, Balbus proved to be the last commander to triumph outside the imperial family. There is no reason to postulate a deliberate policy to permit no more such triumphs in the aftermath of Balbus’s celebration. From circa 11, Africa was the only one of the people’s provinces to retain an army, and, after Balbus, there was no further warfare there until A.D. 3. By then the practice of granting triumphal ornaments to *legati* was well established, and it will have seemed natural that victorious proconsuls should be content with the same. However, the effect was to secure a monopoly not only of the triumph itself, but also of triumphal imagery and ideology for the emperor and his family.

Augustus held no further triumphs after his three-day triumph on August 13–15, 29, declining those decreed by the Senate. He only held command in person once more, in Spain in 26/25, and to hold a triumph for this war or for successes won by others commanding on his behalf would merely have dimmed the luster of the triple triumph. However, having won eight acclamations as *imperator* in person, he continued to accept further acclamations for successes won by members of his family, bringing his total to twenty-one by the end of the reign, and, when returning from war zones after such an acclamation, he dedicated his laurels on the Capitol (*Res Gestae* 4.1; Dio 54.25.4, 55.5.1). Augustus planned to enhance the prestige of family members by granting them commands with independent *imperium* and then allowing them to triumph. However, in the event only his stepson (and later adopted son) Tiberius triumphed, in 7 and A.D. 12. Similarly, under Tiberius, Germanicus was accorded a triumph in A.D. 17. Thereafter triumphs were celebrated only by emperors in person, and were rarities: from Claudius’s in 47 to Severus Alexander’s in 233 just ten triumphs were held (see Campbell 1984: 133–42).

Although triumphs under Augustus and his successors became infrequent, triumphal themes played a central part in the imagery and ideology of the Imperial regime. Two of the most vivid expressions of this under Augustus were the new Forum Augustum with its temple of Mars Ultor, dedicated in 2, and his funeral in A.D. 14. The colonnades of the Forum held statues of great Romans, most of them men who had triumphed; inscriptions commemorated the peoples Augustus had conquered, and in the center of the Forum stood a triumphal chariot, originally voted in his honor in 19; it was decreed that the temple should henceforth play an important part in triumphal ritual (Suet. *Aug.* 29.2; Dio 55.10.3). The funeral procession included a triumphal chariot carrying his image and images of the nations he had conquered (Dio 56.34.3).

Another, much rarer, ritual of military return also came into renewed prominence under Augustus, namely the dedication of *spolia opima*, that is, arms and armor taken from the body of an enemy commander killed in battle (Rich 1996a; Kehne 1998; Flower 2000; Tarpin 2003; McDonnell 2005; Sailor 2006). According to tradition, such spoils should be dedicated by the man who had killed the commander in the tiny, ancient temple of Jupiter Feretrius on the Capitol, but only three such dedications had been made. The first, certainly legendary, dedication was ascribed to Romulus, who was said to have killed Acron, king of Caenina, and founded the temple to receive such spoils. The other two dedicators were A. Cornelius Cossus, who killed Lars Tolumnius, king of Veii (ca. 437 or
and the great Marcellus, who killed the Gallic king Viridomarus as consul in 222 and made the dedication as part of his triumph.

Marcellus’s dedication, which was celebrated in a play by the contemporary poet Naevius, will have made a great impression, and probably helped to shape the tradition about the ritual, as Flower (2000) observes, but he cannot have invented it, as she suggests, and the feat ascribed to the otherwise obscure Cossus must be historical. The spolia opima tradition may, as some scholars have suggested, derive from a primitive ritual, perhaps an early form of triumph or linked to dueling by champions (archaic triumph: Bonfante Warren 1970: 51–7; single combat: Oakley 1985: 398). An alternative possibility is that it began just with the celebration of Cossus’s feat, with the legendary Romulean precedent forming a later accretion.

A key aspect of the ritual became the subject of ancient scholarly dispute: some held that the spolia opima could be won only by the general under whose command the war was fought, but the great antiquarian Varro maintained that even a common soldier could win them. A further complication was provided by an obscure regulation, anachronistically ascribed to Numa, which distinguished three categories of spoils for dedication to three different gods (Festus 202–4 L; Plut. Marc. 8.9–10; Serv. Aen. 6.859). Support for Varro’s view was afforded by the Roman historians’ accounts of Cossus, which all reported him as achieving his feat under the command of the dictator Mam. Aemilius, in some versions as a military tribune, in others as magister equitum (Livy 4.17–20; Dion. Hal. 12.5; Val. Max. 3.2.4; Serv. Aen. 6.841; vir. ill. 25).

Augustus himself contributed to this debate, as we learn from Livy. In his narrative of the episode Livy follows the version in which Cossus was military tribune, which he says he found in all his authorities. However, he then inserts a perplexed excursus (4.20.5–11, perhaps a later addition) in which he acknowledges that the account he has given is incompatible both with the principle that spolia opima must be those “which a commander has taken from a commander” (quae dux duci detraxit), and with the evidence of the spoils themselves. He had, he says, heard that Augustus, who had restored the dilapidated temple of Jupiter Feretrius, had seen there a linen corselet with an inscription declaring that Cossus had won it as a consul (an office he held in 428). Augustus, however, can at best have seen only a later restoration, so his evidence cannot decide the question of Cossus’s status. In view of the unanimity of the historical tradition, it seems likely that Cossus was only a subordinate when he dedicated his spoils, and that the claim that only a commander could dedicate them is a later development.

By an extraordinary chance, M. Licinius Crassus, proconsul of Macedonia, achieved the feat of killing an enemy commander, Deldo, king of the Bastarnae, in battle, the very year of Octavian’s triple triumph (29). Crassus, however, did not go on to dedicate spolia opima. The extensive modern discussion of this episode, for which Dio (51.24.4) is our only source, starts from the influential article of Dessau (1906). Dessau rightly observed that for a proconsul at this time to achieve the rare distinction of dedicating spolia opima would have been most unwelcome to Octavian/Augustus, particularly in view of the ritual’s connection with Romulus, with whom he had long sought to associate himself. Dessau accordingly argues that Augustus had Crassus’s request to dedicate spolia opima rejected by the Senate on the grounds that he was not qualified to make the dedication, and that he exploited the discovery that he claimed to have made about Cossus to justify the rebuff to Crassus.

This conclusion has been generally accepted, but suffers from a grave difficulty: Augustus would have been hard put to find a plausible ground to challenge Crassus’s right to make the dedication. Crassus, contrary to Dio’s misconception (51.24.4, 25.2), was in independent command, and
accordingly was hailed *Imperator* and triumphed on his return. No source states that Crassus was refused permission to dedicate *spolia opima*, and it is more likely that, recognizing that it would be impolitic, he chose not to exercise his right, either of his own accord or as the result of informal pressure. Crassus’s entitlement to dedicate *spolia opima* will thus not have come into dispute, and Augustus therefore cannot have had a political motivation for his claim that Cossus was consul when he dedicated his spoils. Augustus’s interest in the problem of Cossus’s status is better explained as arising from his keen interest in Roman antiquities. The issue was probably drawn to his attention by the great scholar Atticus, at whose urging he had undertaken the restoration of Jupiter Feretrius’s temple (Nep. *Att*. 20.3; the [controversial] view presented here is argued in full at Rich 1996a; see also Flower 2000: 49–53).

The *spolia opima* tradition was subsequently exploited to serve the purposes of the Augustan regime. When in 20 news arrived that Augustus had secured the return of the captured Roman standards and prisoners from the Parthians, the honors which the Senate decreed in celebration included the erection of a temple to Mars Ulter on the Capitol to receive the standards “in imitation of that of Jupiter Feretrius” (Dio 54.8.2). Like Romulus, therefore, Augustus was to be the founder of a temple for the receipt of a special category of spoils. In the event, the temple decreed for the Capitol was probably not built, and its role as a repository for the standards recovered from Parthia and future recovered standards was transferred to the great temple of Mars Ultor which Augustus dedicated in his new Forum. Pride of place in the Forum’s statue gallery was assigned, along with Aeneas, to Romulus, who was depicted carrying his *spolia opima* (Rich 1998: 79–97; Spannagel 1999: 15–25).

Suetonius (*Claud*. 1.4) tells us that Augustus’s stepson, Drusus, sought to win the *spolia opima*. Drusus commanded the invasion of Germany from 12 to 9; in his final campaign he reached the Elbe, but died on the way back. When Augustus next reentered the city, he dedicated his laurels not, as was customary, in the temple of Jupiter Optimus Maximus, but in the neighboring temple of Jupiter Feretrius (Dio 55.5.1). This action was most likely a tribute to Drusus’s aspiration to win the *spolia opima*, probably also commemorated on the arch erected in his honor, on which, as coins of his son Claudia show, he was depicted as a charging horseman. Drusus, who was consul in 9, may have made a vow to Jupiter Feretrius on his departure from Rome, seeking his help in winning the *spolia opima*. While Augustus will not have wished a senator like Crassus to dedicate *spolia opima*, he will have been delighted for so signal an honor to befall a member of his family, whose military prestige he was eager to enhance (see Kehne 1998: 206–11; Rich 1999).

## The Fetials

In the preceding sections our focus has been on the ritual activities of Roman commanders. We turn finally to the fetials, the college of priests with ritual responsibilities in respect to war and peace. The fetials’ rituals concerned the preliminaries of war, the solemnization of treaties, and the surrender of Roman offenders. The priesthood was clearly very ancient, and in early times the Latin and some neighboring communities probably had their own fetials. Some of what we are told about the fetials’ rituals is evidently archaic; for example, their use of *sagmina*, grass clumps taken from the Arx (the northern summit of the Capitoline Hill), and the designation of an individual fetial as *pater patratus*, empowered to act on behalf of the Roman people. However, much of our evidence about the priesthood derives from antiquarian constructions and has been influenced by the idealizing
deployment of the institution in support of Roman claims to have fought “just and pious wars.” One instance is the claim of some writers that the fetials had once had an adjudicatory role, deciding, for example, on whether wars were just. Their expertise was surely confined to ritual and procedure, and the two reported consultations of the college by the Senate, in 200 and 191, concern matters of that kind (consultations: Livy 31.8.3, 36.3.7–12; alleged adjudication: Varro ap. Nonius 850L; Cic. Leg. 2.21; Dion. Hal. 2.72.4–5; Plut. Num. 12.13, Cam. 18.1–3).

According to Livy, who gives the fullest account (1.24.3–9), the fetial treaty ceremony concluded, on the Roman side, with the pater patratus striking a pig dead with a flintstone and swearing an oath calling on Jupiter to strike the Roman people similarly if it were the first to break the treaty. This procedure was used to solemnize the peace treaty with Carthage in 201, as is shown by Livy’s report (30.43.9) of a Senate decree authorizing fetials to leave Italy with flintstones and grasses. It appears that fetials still enacted treaties in the later first century: Varro (LL 5.86) states that they did so in his day, and two recently discovered inscriptions relating to treaties of 46 and 39 may mention fetial celebrants (Reynolds 1982: 89–90; Mitchell 2005: 240–1). However, other Roman treaty ceremonies are known: there is evidence for the pig-slaughter ceremony being performed by commanders instead of fetials (Cic. Inv. 2.91: the Caudine Forks treaty), and Polybius (3.25.6–9) reports different rituals for the swearing of Rome’s early treaties with Carthage. Some scholars have concluded that fetial involvement with treaties was a late development (Rawson 1973: 167; Rüpke 1990: 111–5), but it is more likely that the various procedures are all of early origin (cf. Zack 2001: 55–9; Richardson 2008).

We hear of five occasions when fetials, on the instruction of the Roman government, surrendered Roman offenders to the nation they had injured. In each case the surrenders are reported to have been rejected, but it was nonetheless held that they had served to avert responsibility for the offenses from the Roman people in the eyes of the gods. In three of the cases those surrendered were commanders (and sometimes perhaps also others) who had sworn to treaties subsequently repudiated: the occasions were an obscure incident in Corsica in 236 and two famous episodes in which treaties had been made to extricate armies, in 321 with the Samnites at the Caudine Forks, and in 137 with the Numantines in Spain (Caudine Forks: esp. Cic. Off. 3.109; Livy 9.1–12; Oakley 1997–2005: 3.3–38, 648–51; Corsica: Val. Max. 6.3.3; Dio fr. 45, Zon. 8.18.7–8; Amm. Marc. 14.11.32; Numantia: Rosenstein 1986). The other two cases concerned injuries to ambassadors, from Apollonia in 266 (Livy Per. 15; Val. Max. 6.6.5; Dio fr. 42, Zon. 8.7.3) and Carthage in 188 (Livy 38.42.7; Val. Max. 6.6.3; Dio fr. 61). The four later cases are certainly historical. The tradition on the Caudine Forks disaster has clearly been influenced by the later episode at Numantia, and many scholars hold that the reported repudiation of the Samnite treaty in 320 is a fiction. However, it may be historical (cf. Cornell 1989: 370–1), and the expedient of a voluntary Roman surrender of offenders to avert blame may indeed have been an innovation pioneered at that point. Its extension in 266 to those who injured ambassadors may have been prompted by the fact that the Romans had used the insulting of their ambassadors in 282 as a ground for war against Tarentum (see Barnes 2005). The highly controversial surrender of Mancinus to the Numantines in 136 was the last time the practice was observed (Saturninus underwent a capital trial in 102/101 for insulting ambassadors [Diod. 36.15], surely before a jury empaneled from the Senate rather than the fetial college as argued by Broughton 1987).

While the fetials were involved in swearing treaties and surrendering offenders in the later Republic, the traditions about their enactment of war preliminaries relate to earlier times. The fullest
version is again given by Livy (1.32.5–14), who ascribes the introduction of the ritual to King Ancus Marcius (other sources credit it to Numa or Tullus Hostilius). Livy’s account opens with a mission to present Roman demands for satisfaction (res repetere); if the offending state does not comply, a war vote follows; finally, a fetial declares war by throwing a spear across the enemy border. However, this narrative betrays signs of having been patched together, and Livy appears to have combined two distinct fetial rituals, which are elsewhere mostly recounted separately.

We hear of two forms of the spear rite, one performed at the enemy border, the other at Rome, with the spear being thrown over a column in front of the temple of Bellona. In either version the rite merely initiated war; it did not convey notification to the enemy, whose presence was not required. The rite was performed at Rome in person by Octavian in 32 against Cleopatra, and again by Marcus Aurelius in A.D. 178 (Dio 50.4.5, 71.33.3). A late source (Servius Danielis, Aen. 9.52) states that it was transferred to Rome at the time of the war with Rome’s first overseas enemy, Pyrrhus, but this account is flawed (not least in that no declaration was required against Pyrrhus, who joined Tarentum as its ally in a war already under way). Octavian’s use of the spear rite served to support his portrayal of his war as against a foreign aggressor and of Antony as a traitor, and some scholars have suggested that he invented the entire rite for the occasion (Wiedemann 1986: 481–3; Rüpke 1990: 105–8). However, such an imposture would have been too readily exposed, and the spear rite at the enemy border predates Octavian’s enactment [Diod. 8.26, cited by Tzetzes]. Octavian, then, enacted a rite for which there was established tradition. However, by Octavian’s time it will have been at best long obsolete, and it may well be that at least one and perhaps both forms of the rite were antiquarian inventions.

Livy and Dionysius (2.72.6–8) give closely similar accounts of the fetial res repetere procedure, which evidently derive from a common source (other somewhat divergent sources include Cic. Rep. 2.31; Varro ap. Nonius 850L; Plin. HN 22.5; Serv. Aen. 9.52). The fetial goes to the offending nation and, cursing himself if the claim is unjust, proclaims the Roman demand for the surrender of property and persons at the border to the first man encountered at the city gate and in the forum. If the demand is not met, the fetial returns after an interval and calls the gods to witness that the Romans have not been given justice. Livy specifies the interval as 33 days, Dionysius as 30 (with the fetial returning every ten days). Much of this account is likely to be antiquarian invention. However, the tradition that the fetials were involved in presenting demands for satisfaction in early times must be sound, and it is probably also an authentic feature that the demands are specified, as for the return of stolen property and the persons responsible. Such a claim figures not only in reports of the fetial procedure, but also in our earliest account of a Roman demand for satisfaction, Plautus’s parody in the Amphitryo (203–10): before battle Amphitryo sends an embassy to demand the return of “the plundered and plunderers” (rapta et raptores). Recent studies have emphasized the likely frequency of raiding and private wars among the early communities of Latium and between them and their neighbors. It is thus plausible to suppose that the practice of demanding restitution through fetials originated as a means by which the communities could control such private warfare, giving the raiders’ community the choice between disowning them or accepting responsibility.  

Our information on the preliminaries of subsequent Roman wars is bedeviled by our sources’ preconception that Roman wars were generally fought in response to injuries to the Roman people or its allies and following the presentation of grievances and a declaration of war. Such principles are enunciated in Cicero’s philosophical works, and the late annalists who were Livy’s main sources took pains to construct their narratives to demonstrate Roman conformity with them (Cicero: Rep.
Before several of the wars of the early centuries of the Republic, Livy and Dionysius report the dispatch of fetials to present demands for satisfaction (ad res repetendas), either on their own or in association with senatorial ambassadors (legati), followed by a war vote and declaration, the last such notice being for war against the Falisci in 293 (see Oakley 1997–2005: 2.312–4; Santangelo 2008: 66–72; Rich 2011: 216–22). For what it is worth, this evidence certainly does not suggest that observance of the fetial ritual was standard before Rome’s wars in this period: such preliminaries are mentioned for only a few of the very numerous wars reported in the tradition. In fact most, perhaps all, of these notices are probably annalists’ inventions. It is likely that fetials continued to be dispatched to present demands for satisfaction before some of Rome’s wars during the early Republic and the conquest of Italy, especially when these demands could be couched in the form of claims for restitution and the surrender of offenders. However, all the fetial priests could do was proclaim demands, and from early times diplomacy was probably also conducted through ambassadors. We should not suppose that there was any period in which all wars were preceded by the dispatch of fetials.

From 264, the Romans were embroiled in numerous overseas wars, most notably against Carthage and, later, the kings of the Greek East, and, as we saw above (p. 546), the most important wars were usually begun with formalities including a war vote in the assembly. Fetials were no longer deployed on missions to other powers, which were now conducted solely through legati. However, the procedures for initiating war were still felt to form part of their expertise, and so, before the wars against Philip and Antiochus, the Senate consulted them as to whether the war needed to be declared to the king in person or whether an announcement at one of his guard posts would suffice, and the college responded that either method would be correct.

F. W. Walbank (McDonald and Walbank 1937: 192–7; Walbank 1941, 1949) argues that the Romans, before major wars in the second and third centuries, observed as standard a modified version of the fetial procedure in which the war vote in the Senate and assembly was followed by the dispatch of an embassy to present an ultimatum (res repetere) and, if it was rejected, declare war (bellum indicere). However, this view is not in accord with the evidence, and no standard procedure can in fact be discerned in the preliminaries of the major wars, which varied widely according to the circumstances. Diplomatic exchanges and Roman presentations of grievances took place before most of these wars over the period before the Senate reached its consensus for war (itself often months before the formal vote in the assembly). After that consensus had been reached, diplomatic contacts usually took place only at the initiative of the other party, although the Senate did, at least for a time, recognize an obligation to have a formal announcement of war conveyed to the enemy. Only for the Second Punic War was a war decision followed by an ultimatum: in 218, following the fall of Saguntum, a Roman embassy presented Carthage with the alternative of surrendering its commander Hannibal, or war. This appears to be the product of disagreements in the Senate and doubts about whether Hannibal had the backing of his home government. Resort was thus made to the old fetial device of offering the other party the alternative of surrendering the offender or accepting responsibility for their actions.14

Thus the ritual activities of the fetials all centered on the issue of communal responsibility. When fetials solemnized treaties, they bound the Roman people. When they presented demands for satisfaction to another community, they offered it the alternative of making restitution and surrendering...
offenders or accepting responsibility, and, when by a voluntary Roman decision they surrendered Roman offenders, they absolved the Roman people of responsibility for their acts.

It has commonly been supposed that the fetial law provided a comprehensive procedure to be observed before all wars. Some scholars have supposed that this imposed a moral constraint which the Romans scrupulously observed, others that it was a matter merely of ritual observance, devoid of moral content. As we have seen, in reality procedures were probably a good deal less clearly defined. The Romans did, however, for the most part recognize moral obligations both about how wars should be started and about the need for a just cause. They did not, however, usually find it difficult to convince themselves of the justice of their cause.

CONCLUSION

The material we have surveyed attests to the centrality of both war and religion in the life of the Roman Republic. Roman institutions were and remained in many ways strongly militarist, as is strikingly illustrated both by the supreme importance attached to triumphs and by the fact that, even when many of them ceased to have a realistic prospect of achieving this goal, all imperium holders, on departure from Rome, undertook vows which they could only fulfill by holding a triumph. Roman religious scrupulousness, however, was tempered both by readiness to innovate and by sober practicality: thus military requirements were not hampered by the incidence of dies atri or religiosi, and the administrative utility of the promagistracy led to its being increasingly widely used, although promagistrates could not take the auspices.

Change and innovation occurred throughout in response to particular needs and alterations in political and social circumstances. The period between the first two Punic Wars provides a good illustration: this brief interval saw such notable ritual episodes as the surrender of a commander to the Corsicans (236), the first historical closure of Janus (235), the first Alban Mount triumph (231), Marcellus’s dedication of spolia opima (222), and the demand for the surrender of Hannibal, modeled on the old fetial practice (218). However, the most radical change came with the replacement of the Republic by the rule of emperors. As with other Republican institutions, Augustus subtly deployed war rituals, some little known except to antiquarians, in the construction of his regime (e.g., the fetial spear rite and the closure of Janus). The new power dynamic was, however, expressed above all in the monopolization of the triumph, and its rarer counterpart, the spolia opima, by the emperor and his family.

BIBLIOGRAPHY


——. 1990. Cassius Dio, the Augustan settlement (Roman History 53–55.9). Warminster.


Shortly before the fateful battle of Cunaxa (401), Cyrus the Younger, the man who would be Great King, addressed his Greek officers telling them why they fought and how their lives would be enriched if they should defeat the army of his brother, Artaxerxes II. In his speech (Xen. An. 1.7.3–4), Cyrus draws on three common Greek perceptions that form part of a larger (and by then long-standing) Greek stereotype of the barbarian, the barbarian world, and the Greeks’ relationship with it. The first is that Greeks are “better and braver” and therefore a smaller number of them, Cyrus implies, can easily defeat a vast horde of barbarians. The calm, steadfast discipline and the courage of the Greeks will prevail over the noisy, ill-organized, and cowardly barbarians. Second, Cyrus says that he envies the Greeks their freedom, which he would rather have than all his own wealth and more. According to the stereotype, the Greeks, because they live in small, independent city-states under the rule of law, are free. By contrast, everyone in the Persian realm, apart from the Great King himself, even a prince such as Cyrus, was in Greek eyes not free but a slave (see Xen. An. 1.9.28–29; Eur. Hel. 276; Missiou 1993: 377–91). Hence Cyrus’s supposed envy of his Greek troops’ freedom. Third, Cyrus presents the Persian Empire as vast, wealthy, and, because it is defended by barbarians, easy for an army of Greeks to acquire. He expands on this point, telling the Greeks (1.7.6–7) they should not worry about the size of their reward as much since there were not enough of them to reward!

The chief elements of this stereotype of the Greek-barbarian dichotomy date back to the fifth-century Persian Wars; its roots, though, go back further still and can be glimpsed in the works of Archaic era poets such as Archilochus, Sappho, and Mimnermus, perhaps even Homer. The elements of the dichotomy are both clear and vague at once. The term barbarian, for example, most often refers to the Persians but by no means exclusively so; its limits were flexible and open to debate. There was no clear consensus in fourth-century Athens about the Greekness of the Macedonians, for example.

The surprising Greek repulse of the Persian invasions in the early fifth century produced the rough outlines. The Greeks, though comparatively poor, were politically independent, lived under the rule of law, valued free speech, and fought mainly in close-ordered ranks as hoplites: heavily armed infantrymen who fought hand to hand with shield and spear. The Persians lived as slaves under the rule of a capricious and all-powerful tyrant, amid debilitating luxury and plenty; they fought in vast,
undisciplined armies, preferred weapons that struck from a distance such as the bow, or fought as cavalry. Often they had to be whipped into battle. These traits appear in numerous permutations, combinations, and varying degrees of fullness depending on the context, genre, date, and purposes of the writer or speaker. The general outline of the stereotype, however, is clear: Greeks were masculine, disciplined, self-ruled, free, hard, while barbarians were feminine, emotional, cowardly, cruel, enslaved, soft. More often than not the details were vague and necessarily so; the political and military realities of any given situation rarely approached the clarity of the stereotype in its purest form (which is not to imply that the stereotypes ever could represent actual conditions).

Indeed, the Greek success in the Persian Wars (499–479), from which the core beliefs of the Greek-barbarian stereotype arose, did not consistently reflect that dichotomy. For one thing, most Greek states fought on the Persian side (whether of necessity or in order to take advantage of the opportunity to get the upper hand in long-standing enmities with their Greek neighbors). Although Marathon, Thermopylae, and Plataea all arguably support the superiority of Greek hoplites over barbarian troops, the crucial victory at Salamis, a naval battle, does not fit the pattern as neatly. Similarly, the work that first lays out clearly the Greek-barbarian dichotomy, Aeschylus’s *Persae* (472), also contains elements that undercut it. Present are the Greek reliance on hand-to-hand fighting with spears versus the Persian preference for the bow, as well as the portrait of the grasping, tyrannical, hubristic Eastern monarch in Xerxes (see E. Hall 1989: 56–100 for a full analysis of the *Persae* and its presentation of The Other). Yet the ghost of Darius, who laments Xerxes’s arrogance and folly, is an Eastern ruler of an entirely different and much more positive type, one that continued to appear in Greek writing (alongside the negative stereotype), notably in Xenophon (e.g., *Oeconomicus* 4.4–25, *Cyropaedia*, and the Younger Cyrus in the Persian Expedition) and Plato (*Laws* III 694b).

Herodotus’s history of the Persian Wars follows this pattern. Often the narrative reflects and reinforces the dichotomy. For example, Herodotus relates a conversation near the start of the invasion in which the exiled Spartan king Demaratus tells Xerxes that the Greeks’ independence and allegiance to the rule of law is what makes them formidable warriors who will fight regardless of the odds against them. Xerxes, however, refuses to believe that men will fight effectively if they are free and not under the compulsion of a single master (7.102–104). But in key ways Herodotus undercuts the stereotype. Demaratus, for example, refers specifically only to Dorian Greeks and in particular to Spartans; he pointedly excludes all other Greeks. Thus the Greek norm is not monolithic. In similar fashion barbarians do not always conform to the stereotype. Herodotus says that at Plataea the Persians matched the Greeks in courage and strength, though their equipment and training were inferior (9.62).

In the late fifth and throughout the fourth centuries Greek writers and speakers typically invoke Greek/barbarian stereotypes in contexts where they have little or no bearing on the immediate political or military conditions which, of course, in no way resemble those obtaining during the Persian Wars of a century or so earlier. The speech of Cyrus the Younger cited above is a case in point. Here the Greeks are not in a contest pitting Greek freedom against Persian tyranny. Rather the Greeks are mercenaries serving one side in a dynastic struggle within the Persian royal house; this is Persian against Persian, with Cyrus attempting to seize his brother’s throne. Nonetheless Cyrus casts his speech entirely in terms of the Greek/barbarian dichotomy: Greek skill and discipline versus an unorganized and noisy horde of barbarians; Greek freedom versus his own slavery; the vast wealth of Asia, poorly defended, awaiting those brave enough to take it. Patently, none of these points applied,
at least not directly. But with a battle imminent Cyrus needed to boost the Greeks’ morale, bolster their loyalty, and spur their willingness to fight. Regardless of how inflated Xenophon’s numbers for the opposing army might be, there is no question that Artaxerxes’s troops considerably outnumbered the Greeks and Cyrus’s army. Arguably the most attractive inducement at Cyrus’s disposal was the potential wealth and power he might bestow once on the throne. However, there are some indications that at least some Greeks saw mercenary service as less than honorable and to some degree demeaning. Cyrus therefore took a tactful approach. He suggests that the largess he could distribute to his loyal followers as Great King would be the natural outcome of a Greek-led victory.

How did it come about that by the end of the fifth century even a Persian could give a speech to a Greek audience exploiting Greek stereotypes about Greeks and barbarians not only without eliciting a skeptical response but even to great positive effect? How did the Greeks, at least in some contexts, come to view themselves and foreigners in terms of these stereotypes; to what extent did they believe in, and act on, them? Addressing these questions requires glancing, briefly, at the development of Greek ethnicity, a focus of much recent scholarly work and debate (cf. J. Hall 2007; 2002; 1997; Malkin 2001; Isaac 2004; Mitchell 2007). A popular approach has been to posit that the Greeks defined what made them Greek by comparing themselves to peoples who were different and using them as a mirror (e.g., Hartog 1988; V. D. Hanson plays on this in the title of his 1995 book on nonelite Greeks, *The Other Greeks*). This modern model of defining one by what one is not, that is, by The Other, though clearly useful in illuminating Greek perceptions of ethnic identity, has also occasionally obscured, or distracted attention from, relationships that do not easily fit a bipartite model (cf. Malkin 2001: 12–14 on the limitations of The Other, and Harrison 2000: 41–2). The Greek world, the non-Other world that the model supposes, was far from monolithic, despite the famous Athenian statement in Herodotus (8.144) that Greek ethnic solidarity rested on shared blood, language, temples, rituals, and customs. There was, of course, no united political entity called Greece; instead there were approximately a thousand independent city-states scattered throughout the Mediterranean world. Relations among them, notoriously, often were hostile. Moreover, spread out, as they were, all along the Mediterranean and Black Sea coasts and across three continents, different city-states bordered a wide range of Others. Within each city-state there were several groupings, such as tribe, clan, and economic class, that were at least as likely (if not more so) to claim priority as an individual’s chief means of identifying himself as was his Greekness, or even in some instances his membership in a particular city-state’s community. Of the items on the Herodotean list cited above some scholars recently have begun to question the extent to which language functioned as a shared characteristic. A similar reappraisal points out the numerous contrasts and idiosyncrasies in religious practices among city-states (Malkin 2001: 13–14; Cartledge 1993/2002: 177; E. Hall 1989: 173–80; cf. Thuc. 3.94). In short, there are reasons to suspect that the Athenians in Herodotus’s quote may have overstated the case. Furthermore, some of the characteristics that many if not most city-states shared are social and economic distinctions, not ethnic. Thus, intermarriage and ritualized guest-friendships, common between Greek and even non-Greek aristocrats, might make identification among elites, regardless of ethnicity or political allegiance, stronger than a tie between an elite and a commoner based solely on belonging to the same *polis* community (Mitchell 2007: 39–43; J. Hall 2007: 261). Recognition of shared values among elites, however, in no way guaranteed political unity, as the fierce rivalry among powerful families such as the Alcmaeonids, Philaids, and Peisistratids of sixth-century Attica attests.

To illustrate how key aspects of the Greek/barbarian dichotomy developed there follows a survey
of the literary evidence from Homer through the fourth century. It in no way aims to be comprehensive or even broadly representative. Rather, it presents a few selected striking examples that should provide a general sense of how the stereotypes developed.

Homer

The earliest Western work of literature, Homer’s *Iliad* (ca. 800) is set against a backdrop of war between Europeans (Greeks) and Asians (Trojans). Yet in the poem Trojans and Greeks are all but completely indistinguishable; none of the later Greek/barbarian stereotypes that Cyrus draws on, for example, appear. Both sides use the same weapons and tactics, both sides fight according to a single set of conventions and rules (van Wees 2004: 161–2). It is sometimes argued that Homer depicts the Greeks fighting in silent, orderly formations against a noisy and chaotic mass of Trojans and their allies. But in the two passages most frequently cited (3.1–9; 4.427–38) to support this assertion it is not Trojan disorder in the ranks that Homer highlights with his similes but rather the cacophonous sounds of the various languages spoken by the Trojans and their multiethnic allies (Baldry 1965: 9). In fact, the Trojans clearly do fight in disciplined formations when appropriate or necessary, for example when they have chased the Greeks back to the ditch and fortifications protecting the ships. The Trojans dismount from their chariots and form up into five well-ordered battalions (12.75–110).

The heroes on both sides belonged to the same aristocratic world and shared in its values (as opposed to those of the commoners or demos). As a prelude to engaging in combat the Greek Diomedes and the Lycian Glaucus (a Trojan ally) announce to one another their respective genealogies (6.119–235). They discover that their grandfathers were guest-friends, an important form of ritualized friendship (*xenos/xenia*). Diomedes proposes that they respect the old alliance and not fight each other but instead find others to kill (6.215; 224–9). Diomedes and Glaucus belong to the same world. They share a common history, have the same gods, the same values, and fight by the same rules and conventions. In short, they in no way supply for one another a noticeably different Other. The scene stresses their sameness.

In the world of the *Iliad* the distinction between Greek and Trojan was not as sharply defined as that between elite and commoner (cf. e.g., 12.310–321). Homer does not provide much information on individual commoners on either side except for the striking portrait of the Greek rabble-rouser Thersites with whom Odysseus tangles before a meeting of the army (2.211–269). Odysseus had much more in common with Hector or Glaucus, clearly, than with Thersites who, though Homer depicts him as for the most part ugly, tactless, and abusive, is not an entirely unsympathetic figure; his fellows felt sorry for him even as they laughed at him (2.270).

Archaic Era Poetry

In the seventh and sixth centuries the rise of the Lydian and Persian empires, and their subjugation of the Greek cities along the west coast of what is now Turkey, began to sharpen a Greek perception of difference (Harrison 2002: 3–4 discusses elements of the Greek/barbarian dichotomy before the Persian Wars). In the Greek poetry of this period, which survives today chiefly in fragments, the Lydians, Medes (often = Persians), and Persians represent fabulous luxury and wealth, though not always necessarily in a negative way; the Eastern empires signified sophistication too (see further
Millett, 49–52). Alcman (mid-to late seventh century) captures this in a poem (West 1993: 34, fragment 16) that contrasts the rusticity of a Greek swineherd with the urbane refinements of a Lydian of lofty Sardis (note too Sappho’s approval of Lydian luxury (West 1993: 44, fr. 98).

Archilochus (seventh century), though, suggests that from a humble Greek’s point of view the Lydian ruler Gyges is excessively wealthy and ambitious, grasping for too much (West 1993: 9, fr. 19); so too Anacreon (West 1993: 104, fr. 361). Similarly, a fragment of Xenophanes (late sixth to early fifth century) describes in vividly damning detail how adapting a uselessly luxurious Lydian lifestyle led his fellow Greek citizens of Colophon to lose their freedom at the hands of Persians (West 1993: 158, fr. 3). Finally, a gnomic saying traditionally attributed to Phocylides (first half of the sixth century) argues that a well-ordered Greek city, no matter how small, is better than a wealthy Eastern imperial capital such as Nineveh (Lattimore 1960: 23).

These last two poems prefigure key elements of the later Greek/barbarian dichotomy. For Xenophanes luxury is useless and made the Colophonians easier to conquer. He also associates it with repressive rule. Phocylides compares favorably a small and well-governed (kata kosmon) Greek city with the failed imperial ambitions of foolish (aphrainouses) Nineveh. Still, while Lydia was a byword for luxury it was not therefore also inevitably decadent and weak; both Mimnermus (West 1993: 30, fr. 14) and Sappho (West 1993: 37, fr. 16) refer to the intimidating Lydian cavalry: the military might of the empires to the east was formidable (Mitchell 2007: 128).

The poetry from Homer until the Persian Wars contains only hints of the Greek/barbarian stereotypes that are to come. To the Greeks the imperial powers to the east are wealthy, sophisticated, and militarily powerful. It seems many Greeks found Eastern luxury alluring and they adopted Lydian and Persian fashions and customs. Even a critical poem like Archilochus’s renunciation of Gyges probably confirms an overall Greek fascination with such riches. The association of wealth with the East, of course, goes back to Priam’s Troy. However, the Greeks in the Iliad are not, by contrast, correspondingly poor. In the world of Homer’s successors in the seventh and sixth centuries the distinction in wealth between Greeks and the East is sharper and there are scattered hints that perhaps some Greeks saw advantages in their comparative poverty. But these hints are no more than that and quite rare.

**AESCHYLUS: PERSAE**

The stunning Greek repulse of Xerxes in 480/479, won despite seemingly overwhelming odds, and the immediately preceding period in which the Persian threat had loomed, helped crystallize a strong sense of Greek identity. Quite naturally this Greek identity defined itself in key ways as not Persian and as a result the Greek/barbarian dichotomy began to take a much fuller, discernible shape. However, aristocratic ties and sympathies across the dichotomy did not necessarily diminish significantly. Moreover, rivalries among Greeks, both within a polis and among poleis, remained strong, even fierce. At Athens, for example, supporters of the democracy linked its aristocratic opponents to a pro-Persian stance, not least because of Persia’s attempt in 490 to topple the democracy and reinstall the former Peisistratid tyrant Hippias in its place. The aristocratic Greeks’ taste for Eastern luxuries helped cement their identification, in democrats’ eyes, with the Persians (J. Hall 2007: 269–70; E. Hall 1989: 16). The defeat of Xerxes opened up space not for a united Greek world but for competition on a grander scale among Greeks. The Greeks may have had a heightened sense of what made them Greek (as opposed to Persian or barbarian) but they each also felt a
correspondingly greater pride in their respective cities. These two paradoxical tendencies will continue to characterize Greek history through the fifth and fourth centuries, with the latter, polis patriotism, usually undercutting or modulating any trend toward greater Greek political unity.

Aeschylus’s *Persae*, presented in 472, establishes this pattern. It lays out for the first time the basic Greek/barbarian dichotomy. Yet at the same time it highlights the victories over Xerxes as distinctly Athenian, rather than simply Greek. Aeschylus presents Persia as fabulously wealthy, a vast empire encompassing a variety of peoples. The opening sixty lines of the play review the contingents of the enormous expedition Xerxes led out of Asia against Greece, elaborating Persian leaders and units, as well as those of the Egyptians, Lydians, Mysians, and Babylonians: Xerxes mustered the entire Orient. This power led the Persian King to overreach himself in the classical pattern of excessive wealth producing hubris that then leads to destruction (E. Hall 1989: 70). Xerxes, as Aeschylus presents him, rules absolutely and is accountable legally to nobody. His mother, the Persian Queen, as she awaits the news from Greece, tries to soothe her growing foreboding by reminding herself that even if his attempt to conquer the Greeks fails Persia cannot hold Xerxes accountable and that so long as he lives his reign will continue (210–14). Thus Xerxes can treat his subjects with a capricious cruelty; Aeschylus repeatedly underscores that Xerxes’s blind arrogance and folly led directly to the deaths of countless of his own soldiers. The Persian herald, for example, in describing the slaughter of Persian soldiers on the island of Psyttaleia notes that the troops themselves, who were in their prime, well-bred, and high-spirited, were hardly to blame (441–444; cf. also 740).

Persian rule for its Asian subjects meant paying tribute, being ruled as suppliants, making obeisance, no freedom of speech, in fact, no freedom at all. This description comes from the chorus of Persian elders as they lament Xerxes’s defeat and consider its ramifications, though the perspective is clearly Greek (584–597). Only the Great King is free; all his subjects are slaves. Xerxes’s defeat therefore has freed everyone else in Asia.

In Aeschylus the Persians value quantity and put a premium on having what would seem to be an overwhelming advantage in numbers of troops and ships. While their numbers are not insignificant—a reference to Marathon makes that point—the Athenians rely on skill and discipline. Unlike the Persians, whose chief weapon is the bow, the Athenians rely on spears and shields wielded in close formation. Greek honor gave pride of place to the heavy-armed hoplite infantryman who fought hand to hand with an eight-foot thrusting spear and a three-foot diameter concave shield of wood with a bronze overlay. This held true even in democratic Athens where far-reaching imperial ambitions gave wide scope for the use of light-armed troops, cavalry, and above all its navy (Osborne 2000: 21–42; Strauss 1996: 313–14; van Wees 2004: 45–60). The Greeks associated Persians and other barbarians, by contrast, with weaponry and tactics that avoided intense sustained fighting at close quarters, notably cavalry and above all the bow. In this passage the Persian Queen wonders if the Athenians, the Other from her perspective, are armed as the Persians are, “with bow plucked shaft.” Similarly, when the herald reports the vast extent of the Persian disaster he notes that, “in vain the crowd of arrows, massed, came on the hostile land” (268–271) and that “the bow protected none” (278).

Aeschylus further develops the contrast between Athenians and Persians in his description of the fighting at Salamis. This comes in the form of a dialogue between the herald and the Persian Queen. With typical Persian emphasis on quantity she asks first about the size of the Greek fleet. The Persians, we are told, held a seemingly overwhelming advantage, 1207 to 310 ships, but, as the
herald notes, fortune sided with the Greeks; the Persians’ great numbers proved a disadvantage in the close confines of the Salamis straits. Greek guile played a role, too, as Xerxes believed a specious report that the Greeks would try to escape and therefore kept his fleet at their stations rowing all night (353–368). When battle begins the Greek ships advance in good order, their crews chanting the paean in unison; by contrast, “babel Persian tongues rose to meet it.” (406–7). A Greek ship struck first, ramming a Phoenician vessel, and for a while the two navies clashed in formation. But the Persian fleet, hampered by its size, soon became entangled in the narrow waters. The Greek ships circled and struck with a lethal precision until the Persian fleet fell apart.

Greek skill, discipline, love of freedom, and a dash of guile overcome the much larger but poorly led and less disciplined Persian fleet. The patriotic paean the Greeks sing at the outset (401–406), emphasizing freedom, contrasts strongly with Xerxes’s threat to behead any Persian who lets the Greeks escape (361–371). The Persians fare equally badly on land. Xerxes stationed Persian infantry on the little island of Psyttaleia near the entrance to the straits of Salamis in order to kill shipwrecked Greeks but “he conned the future ill.” Athenian hoplites annihilate them.

Seeing these twin defeats from his vantage point on a nearby hill Xerxes orders his troops to retreat and they flee in disorder (469–471). By giving equal weight and prominence to the action on Psyttaleia, a small if brutal and bloody sideshow to the main naval engagement, Aeschylus has the more aristocratic hoplite class at Athens share credit for the overall victory with the demos-dominated navy. Aeschylus assigns the lion’s share of the blame for both Persian defeats to Xerxes (361–363): he succumbed to Greek guile before the sea battle and he miscalculated badly in placing troops on Psyttaleia. This both underscores the failings of tyrannical rule and, along with the vivid descriptions of the violence of the battles, creates, perhaps, a little sympathy for the rank and file of Xerxes’s force who suffer so horrifically because of his flawed leadership. Aeschylus highlights the excellence of the Persian infantry who died on Psyttaleia in a way that may, perhaps, betray a preference or at least a greater respect for infantry than for navy men (441–444): they were good men betrayed by a bad leader. A similar sentiment appears later in Herodotus’s account of Persian courage at Plataea where it is inferior equipment that lets them down (9.62). There is nothing here to suggest that the Persian rank and file lost because their luxurious lifestyle had made them soft and vulnerable. Instead Aeschylus seems to assign the blame overall to Xerxes’s arrogance and failure to stay within reasonable boundaries (e.g., 129–130; 739–750; 803–807). Still, the Persians themselves bear some blame for the disaster, as the ghost of Darius notes, they plundered and burned many Greek temples and altars (809–815).

In the Persae Aeschylus presents the victorious Greeks as free men, fighting collectively in disciplined well-organized fashion, their numbers and resources comparatively modest. Xerxes capriciously wields his immense army and navy, reckless of their safety, and accountable to nobody. His wealth, resources, and ambitions are limitless. The Greeks rely primarily on the spear and prefer hand-to-hand fighting; the Persians prefer the bow. Aeschylus’s battle of Salamis likewise highlights Greek skill, discipline, and intelligence. These differences become key components of the Greeks’ sense of themselves and of their stereotype of barbarians.

And yet Aeschylus occasionally undercuts the dichotomy, or even highlights similarities between Greeks and Persians. The Persian Queen dreams that Xerxes tries to yoke two sisters to a chariot, one, who lived in Greece, dressed in Doric robes, the other wearing Persian clothes and living in Asia. The Persian woman accepts the bridle with proud obedience; the Greek breaks the harness and overturns the chariot and Xerxes. While the Greek sister differs in her preference for freedom, the
two women are nonetheless sisters, thus related, and both are beautiful, spotless, and splendidly
dressed (180–200).

Finally, the *Persae* presents the victory at Salamis overwhelmingly as an Athenian triumph, one
that reflects well on both the hoplites and the rowers of the navy, rather than simply a Greek victory.
This foreshadows the often undercutting role *polis* patriotism will frequently play in later fifth-
century and fourth-century manifestations of the Greek/barbarian dichotomy.

**HERODOTUS**

In the introduction to his account of the Persian Wars, Herodotus distinguishes Greeks from
barbarians. But he also notes that *both* peoples performed deeds worthy of glory and commemoration,
which his work will include. Herodotus recognized that many values and mores are culturally
determined and therefore relative, not absolute, a view that by implication advocated some degree of
tolerance of different cultures’ norms (though Herodotus did not think all norms were equally good or
desirable: cf. his disapproval of temple prostitution at Babylon [1.199]). His account includes lengthy
and broad ethnographic surveys of the peoples and nations the Persians conquered as they expanded
westward ultimately to clash with the Greeks. Though Herodotus writes for a Greek audience and
therefore primarily from a Greek viewpoint, that does not mean that the dichotomy in his world is
simply Greeks and barbarians. In fact, everybody, seemingly, plays the Other to somebody sooner or
later as the narrative proceeds. The overarching contrast compares Greeks to Persians. But as
Persians encounter peoples such as the Scythians, the viewpoint shifts: Persians become the norm and
Scythians the Other. When Scythians meet the Amazons the dichotomy shifts again and the latter take
over as the Other while the reader’s viewpoint shifts to that of the Scythians. These shifts work to
underscore the relativity of cultural values, as well as to weaken or blur the distinctions between
contrasted peoples.

For Herodotus patterns in human behavior and history apply to all peoples regardless of race or
ethnicity. A consistent contrast throughout his *Histories* is that between hard and soft cultures. In the
concluding paragraphs of the work he harkens back to an anecdote about Cyrus the Great, founder of
the Persian Empire. In it Cyrus rejects a suggestion that the Persians, having acquired an empire,
abandon their small, barren homeland and appropriate a richer, more productive one. He warns that if
the Persians do make such a move they must be ready to give up their rule and instead be ruled by
others: “Soft countries breed soft men. It is not the property of any one soil to produce fine fruits and
good soldiers too” (9.122). Cultures that were originally hard, such as the Medes, Lydians, and
Babylonians, enervated by their wealth and success, succumbed to the Persians who, in turn, led by a
grasping king made too ambitious by the Persians’ success, suffer defeat at the hands of the Greeks,
whose land is much smaller and poorer. The Ghost of Darius in Aeschylus’s *Persae* makes the same
point when he warns the Persians never again to invade Greece because the poor Greek soil itself is
the Greeks’ greatest ally: it starves large armies (789–794).

A central tenet of later fourth-century Panhellenist rhetoric stems from the hard/soft contrast. The
Persian Empire, soft because of its immense wealth and vast resources, the argument went, was ripe
for the plucking if only the Greek states might stop squabbling among themselves long enough to form
a coalition and invade. Herodotus has the Ionian leader Aristagoras deploy this theme when trying to
persuade first the Spartan king Cleomenes (unsuccessfully) and then the Athenians (successfully) to
aid the Ionian rebellion from Persian rule in 499. Addressing Cleomenes, Aristagoras tells him that
defeating these foreigners (barbaroi) will be easy as they have little taste for war, fighting in trousers and turbans with bows and short spears, while the Spartans are the best in the world. Richer than all the rest of the world, Persia’s wealth will be ripe for plucking (5.49).

This speech so neatly summarizes the post-Persian Wars Greek stereotype of Asia that some scholars, probably rightly, have suggested that Herodotus may have transferred the sentiments of his own era to that of Aristagoras (e.g., Flower 2000: 76).

**THERMOPYLAE**

Perhaps the most vivid and one of the best-known sections of Herodotus’s work is his account of the battle at Thermopylae (480). By the time Herodotus was writing, some half-century or so after the battle, Leonidas and the Three Hundred Spartans had long since achieved legendary status. Herodotus’s almost reverential narrative only serves to enhance their reputation; the Spartans’ stand at Thermopylae enshrines the dichotomy between Greeks and barbarians. The conversations between Xerxes and Demaratus, the exiled Spartan king, who warns the Persian that the Spartans will fight to the death no matter the odds, raise the reader’s expectations and heighten the drama (7.101–105; 209, and below). Xerxes expected the Greeks to give way without fighting, cowed into submission simply by the size of his force. But after four days of Persian attacks the Greeks were still in place: “they made it plain enough to anyone, not least the king himself, that he had in his army many men, indeed, but few soldiers” (7.210). The confined space in the pass negated the Persian advantage in numbers; moreover, just as Aristagoras’s speech had predicted, the Persians suffered because they wielded shorter spears. Overall, the Spartans enjoyed great success in the early fighting because “they were men who understood war pitted against an inexperienced enemy” (7.211). Ultimately, of course, the treachery of Ephialtes, who shows the Persians a way around the pass at Thermopylae, allows the Persians to defeat the Spartans. Even so, the Persian troops still fighting in the pass have to be whipped into battle (7.223). The Spartans fight to the very end, using their hands and teeth when their weapons break, and succumb only under a hail of arrows, rocks, and other missiles sent from a safe distance (7.225). Spartan conduct at Thermopylae seems to confirm the words of both Aristagoras and Demaratus. A small number of highly skilled, well-disciplined, properly armed, free Spartans could accomplish exceptional deeds against numerically superior, though less well-armed Asiatic troops commanded by a tyrannical king.

**PLATAEA**

A year later (479) the Spartans led the Greek coalition in a decisive victory over the Persians at Plataea. Though a much more important battle in nearly all ways, Plataea lacks the dramatic impact of Leonidas and the Three Hundred’s last stand at Thermopylae. At Plataea the opposing forces are much more evenly matched. The Greeks often find themselves in difficulty, at times cut off from their supply lines or a good source of water. Relations among the various Greek contingents are periodically fractious and tainted by mistrust. Even the Spartans, though ultimately brilliant, occasionally seem reluctant to fight and most unlike their counterparts at Thermopylae (e.g., 9.47–49). Throughout the campaign the Persians present a formidable challenge even though they no longer have an overwhelming numerical advantage. Their bravery matches that of the Greeks, especially
their cavalry who were not easy to close with: when they moved forward, they harmed the Greek line with their arrows and javelins (9.49; see also, e.g., 9.17–18; 20–21).

When the climactic battle does come the Persians fight well; they make a barricade out of their wicker shields and from behind it pin down the Spartans with arrows. When the Spartans move forward against them the Persians meet them in fierce and protracted hand-to-hand fighting. Herodotus tells how the Persians, attacking the Spartans individually or in small groups, grabbed on to Spartan spears and broke them. In courage and strength the Persians were as good as their adversaries, but they lacked defensive armor and adequate training. The chief reason for the Spartan success, and Persian failure, is equipment and training, not that the Spartans are better men. As Herodotus makes clear, the chief cause for the Persian defeat was their lack of armor, as they fought against better-armed hoplites (9.62–63).

Still, Herodotus hints at another reason the Persians lost. He says that they fought hardest where their commander Mardonius and his personal bodyguard of one thousand elite soldiers were. When Mardonius was killed and his guard destroyed, the rest of the Persians took to flight (9.63). This is the same crucial distinction between Greek and barbarian troops that Aeschylus invoked earlier in the Persae when the Persian Queen is surprised to learn that the Athenians have no leader under whose compulsion they fight but instead are “slaves to none, nor are they subject” (242–244). Unlike barbarian soldiers Greeks do not fight because a tyrannical ruler compels them but rather as members of a community who share a stake in its survival.

Perhaps Herodotus’s most vivid illustration of the difference between free Greek and enslaved barbarian soldiers occurs in Xerxes’s interview of the exiled Spartan king Demaratus. Xerxes expresses surprise, or rather disbelief, similar to that of the Persae’s Persian Queen. Having just crossed to Europe and conducted a review of his army and fleet, Xerxes summoned Demaratus to ask him if he thought the Greeks would dare to resist his immense force. Skeptical when Demaratus tells him that the Spartans will resist no matter the odds, Xerxes questions the actions of free men (7.103). In a telling response, Demaratus answers that the Spartans are not entirely free, as they fear the Law more than Xerxes’s subjects fear him. Whatever the Law commands, they do. And this command never varies: never to retreat in battle, whatever the odds, but stand fast and conquer or die (7.104).

A commander’s oversight is central to a barbarian army’s success. Thus the Persians fought well at Plataea until their commander Mardonius was killed. Wherever possible Xerxes watched his troops from a highly visible position. Indeed, he explains the relatively poor performance of the Persian fleet at Artemisium as due to his being away with the army at Thermopylae (8.69). At Salamis he watched the battle from a seat on Mount Aegaleus and with a cadre of secretaries kept careful account of how all of his officers and contingents performed (8.90). Xerxes often exercised his close oversight with a sudden and vicious cruelty, ranging from whipping troops into battle—a standard part of the Greek stereotype of Persian armies—to on the spot beheading for failure to perform according to expectations. The atmosphere around the Great King was not conducive to free expression and exchange of ideas. Herodotus regularly presents subordinates as afraid to speak plainly or truthfully in front of Xerxes, or other superiors (e.g., 7.10, 9.42).

**HERODOTUS IN REVIEW**

Though the Greek/barbarian model has proved an often useful shorthand way of looking at the ancient
world, in Herodotus the dichotomy quickly splinters into a much more complex ethnographic picture: the Greek world is not monolithic; there are many Others. More meaningful is the contrast between rich, advanced soft cultures, for example, Persia in 480, and those that are poor, simple, and hard, for example, the Greek cities. Another key contrast is between free and slave, with the Greeks free, that is, self-ruling, and the Persians at the mercy of, or in Greek terms, slaves to, an absolute monarch. These dichotomies are not static; the Persians originally were a hard culture but became softer as they grew more powerful and wealthy. Nor, therefore, does race play a significant role in determining whether a culture is hard or soft. Barbarian troops often are a match for Greeks in courage and strength; in certain circumstances non-Greek weapons such as the bow and cavalry can inflict near-mortal damage on the elite Greek soldier, the hoplite. In hand-to-hand fighting, though, Greek equipment and training usually provide an advantage. Greek soldiers excel and ultimately prevail during the Persian Wars because they fight as free men and not out of fear of, or compulsion by, a tyrant. Finally, it should be noted that the Greek/barbarian dichotomy breaks down quickly on the Greek side of the equation as well. Greek unity is always fragile, tenuous, and ephemeral. Moreover, pronouncements or examples of what are often considered paradigmatic greatness are almost always limited to a particular subset of Greeks. For example, Demaratus admires Dorian Greeks but just up to a point; he vouches only for the Spartans’ conduct in battle. He omits entirely Ionians, Aeolians, and the rest of the Greeks. Similarly, Aeschylus’s *Persae* celebrates Athenian achievements. Herodotus notes that, in the face of Xerxes’s invasion, “most of the Greeks were unwilling to fight and all too ready to accept Persian dominion” (7.138).

**THE ATHENIAN EMPIRE AND THE PELOPONNESIAN WAR: NO ROLE FOR THE OTHER?**

The Greek/barbarian stereotypes first seen in Aeschylus’s *Persae* continue to develop throughout the fifth century and barbarians appear often in tragedy, mostly set in mythical or heroic times (figures
As many scholars have pointed out, these barbarians usually display characteristics that are the opposite of Greek ideals: they are often cruel, cowardly, servile, corrupt, faithless, luxury-loving, and so on (cf. J. Hall 2007: 267–8, E. Hall 1989: 17, 121–2, and Momigliano 1979: 146; all list and discuss these Greek ideals and their barbarian opposites). It is unclear how widespread a negative view of barbarians was among the Greek states—many had sided with Xerxes—but the Athenians certainly had much to gain from promoting these stereotypes. Their heroics at Salamis had greatly enhanced their status and power. Invoking those glorious days, along with the threat of another Persian attack, helped justify their continued tight control of the Delian League. Note that the propaganda is not directed against barbarians but rather other Greeks, a tactic that becomes common, indeed, the norm, in the fifth and fourth centuries. A Greek could attack a Greek rival by characterizing him as the Other, that is, by accusing him of having stereotypical barbarian traits. To take one example from tragedy, scholars have argued that in his *Andromache*, which dates to the early stages of the Peloponnesian War, Euripides portrays the Spartans in the play as barbarians, as Greeks who behave barbarously (see, e.g., lines 168–75; 445–53; 595–600; Green 1996: 15–16; E. Hall 1989: 214).

Indeed, after the repulse of Xerxes the major conflict of the fifth century was not Greek against barbarian but the war between Athens and Sparta, a struggle that would seem to leave little scope to exploit Greek/barbarian stereotypes for propaganda. In fact, though, Sparta cast herself from the outset in the role of liberator of Greece, the champion of Greek freedom, thereby evoking unmistakable echoes of the victory over Xerxes. This time, though, the repressive tyrant was not the Persian Great King but Athens, Sparta’s former partner in panhellenic glory. Thucydides describes the mood in Greece when the war broke out, revealing how in the beginning goodwill favored the Spartans, as they proclaimed they were freeing Greece. Cities and individuals were enthusiastic to support them in every possible way as the general feeling against Athens was so bitter (2.8.4).
The Spartans’ stance as liberator, with its emotional appeal to the panhellenic spirit of 480/479, mirrors the Athenians’ exploitation of Greek/barbarian stereotypes to justify their empire. In both instances the much more narrow ambitions of the *polis* lie not far below the surface of the broad panhellenic rhetoric.

**LONGING FOR THE OTHER**

After the first few decades of the Delian League, barbarians, in particular Persians, do not play a major role in Greek warfare or politics. However, that changed after the Athenian disaster at Syracuse in 415–413. The subsequent weakening of Athenian control in Ionia allowed the Persians to emerge as power brokers in the Greek world, a role they would maintain until the rise of Macedon.

The half-century following Sparta’s defeat of Athens in 404 saw first Sparta, then Thebes and a resurgent Athens all contend for dominance in the Greek world. None attained it for long, nor did any state reach the level of either Athens or Sparta before the Peloponnesian War. Each city sought Persian money and endorsement, with Sparta obtaining it most often. With the Great King’s support Sparta enforced a series of common peace treaties. None brought lasting stability to Greece. In his assessment of the battle of Mantinea in 362 (Thebes versus Athens and Sparta), Xenophon effectively sums up the whole era, noting that both sides claimed victory, but none of those fighting was any better off after the battle than before, and in fact there was more disorder in Greece after the battle (*Hell.* 7.5.27).

The Persians played a paradoxical role in this period. On the one hand they were the most sought after of allies, one whose backing was essential for any state hoping to dominate the rest of the Greeks. But to many Greeks Persia was the enemy against whom it was in the best interests of all Greeks to set aside internal differences and unite. Thus in many Greeks there arose almost a longing for the Other as an alternative focus for Greek military and political ambition, and a hazy nostalgia for the glory days of the Persian Wars. An early manifestation of this occurs in Aristophanes’s *Lysistrata*, put on in 411 during the last third of the Peloponnesian War, at about the time when Sparta was making an alliance with Persia. Lysistrata, leader of the rebellious Greek women, addresses Spartan and Athenian men hoping to persuade them to make peace with each other and redirect their energies against Persia. This Aristophanes states clearly, emphasizing the irony of panhellenic unity mocked by internecine warfare and Persians sitting and waiting to capitalize on the madness of Greek destroying Greek (*Lys.* 1128–1134).

This vision of a panhellenic campaign against Persia, and an end to internecine Greek warfare, remained a powerful if unrealistic dream down to the time of Philip and Alexander. Drawing on panhellenic themes, even if vague or not entirely appropriate to the circumstance, was a highly effective rhetorical technique. It packed an emotional punch. Yet these ideas rarely had any impact in the real world of politics and warfare. *Polis* patriotism nearly always worked to undercut it. The fourth-century Athenian writer and teacher Isocrates published a number of treatises calling on the Greeks to unite against Persia. In these, however, he usually argued that his native Athens was best suited to lead this crusade (or at worst share the leadership jointly with Sparta). By the 340s, when Athens and Sparta were too weak to be considered for such leadership, Isocrates turned to Philip of Macedon. Likewise the affinity among elites that prevailed in Homer’s *Iliad* remained an occasionally countervailing force to unity among Greeks. Xenophon, for example, deployed panhellenic rhetoric in his encomium of the Spartan king Agesilaus. In particular he contrasts the
simple, frugal, and disciplined lifestyle of the Spartan with the lavishly luxurious, self-indulgent, and enervating life led by the Persian Great King. Yet Xenophon also knew and deeply admired Persians such as Cyrus the Younger and the satrap Pharnabazus. His crowning political, philosophical, and military treatise, the Cyropaedia, takes the form of a semifictional biography of Cyrus the Great, founder of the Persian Empire.

A final illustration of both the force and the elasticity of the Greek/barbarian stereotypes comes in the speech Alexander the Great delivers to his army just before the battle of Issus in 333 and reported by the later historian Arrian. Most of the key elements are here: free men/slaves, battle hardened/soft from luxury, robust/indolent. These date back at least to Aeschylus’s Persae. Yet in this battle both armies are a mix. Alexander’s consisted of Macedonians (themselves barbarians in the eyes of many Greeks), Greeks, and a variety of barbarian contingents. For Darius, Greek mercenary hoplites formed the very heart of his army, along with troops from the western and central portions of the Persian Empire. Nonetheless, Alexander still utilizes the Greek/barbarian dichotomy as the underpinning of his rhetoric, telling his Macedonians as they are about to fight at Issus (333) they are free men fighting slaves, that their own “barbarian” allies—Thracians, Paeonians, among others—will be fighting the softest tribes of Asia (2.7.4–5).

BIBLIOGRAPHY


Figure 26.3 The Roman Empire and the Germans, circa A.D. 300. From P. Heather, *The Fall of the Roman Empire: A New History of Rome and the Barbarians*. Oxford: OUP, 2006: Map 1: “Germania in the early Roman period” (pp. 50–1) and Map 2: “Germanic and Germanic-dominated confederations of the Fourth Century” (p. 81).
The Rhine-Danube frontier, which, with a few alterations over time, formed the boundary between the Roman Empire and the unconquered lands to the east and north for over four hundred years, was established by Julius Caesar’s Gallic campaigns in the 50s B.C., Tiberius and Drusus’s conquest of southern Bavaria in 15 B.C., and conquests of the middle and lower Danube lands during the first and early second centuries A.D. Throughout these four centuries, interactions between the peoples of the Roman provinces and communities on the other side of the frontiers were frequent, mostly in the form of trade and exchange, but also in military confrontations. Roman texts inform us about the names the Romans used to designate the transfrontier peoples and about major battles in which Roman armies engaged (Burns 2003). The archaeological evidence enables us to examine the character of the societies beyond the frontier and the ways in which those peoples responded to their interactions with the Roman world.

ESTABLISHING THE FRONTIERS

Throughout the Bronze and Iron ages, there is abundant evidence for the movement of people and circulation of goods between the Mediterranean world and temperate Europe. During the second and first centuries B.C., commerce between Italy and lands to the north intensified, and the large numbers of Roman amphorae, bronze wine vessels, coins, and other imports in the north enable us to plot the chronology and geography of those interactions. Toward the end of the second century B.C., Roman military forces engaged several groups of armed intruders north of the Alps, among whom the Cimbri and the Teutones are the most familiar (Wells 1999).

When Julius Caesar began his campaigns against the Gauls in 58 B.C., this event was not a radical departure from earlier interactions between Rome and peoples they considered barbarians to the north, but it is much better documented than earlier interactions, thanks to Caesar’s commentaries. As his account makes clear, the Gauls offered stiff resistance to the Roman legions. Only Caesar’s skill at playing one group off against another brought Roman success. Had the Gallic peoples faced the Roman intruders as a unified force, it is likely that the Gauls would have prevailed. Through the archaeological evidence we know that the Iron Age Gauls (and their contemporaries in other parts of Europe) had weapons that were as effective as those of Rome (Ulbert 1976), though they lacked siege weaponry such as catapults. The long iron swords, lances, spears, helmets, and shields crafted by Late Iron Age smiths were of high technological quality (Pleiner 1993).
Caesar’s commentaries inform us about Roman ideas concerning the people he called Germans. Caesar states several times that the Rhine formed the border between Gauls and Germans, and that German society was much smaller in scale and of less complexity than that of the Gauls. Yet he had respect for German military prowess and he employed German cavalry troops.

There is no evidence that Caesar or any other Roman was aware of the effects that Roman military adventures in Gaul were having on the peoples east of the Rhine (even though Caesar had made forays across the Rhine in 55 and 53 B.C.), but the archaeology shows that important changes were taking place there. Though Caesar emphasizes the differences between the peoples he calls Gauls west of the Rhine and those he calls Germans east of the river, the archaeology shows that these peoples were not very different (Wells 1999: 99–121). The character of settlements, domestic architecture, pottery, metalwork, coinage, and other aspects of material culture, shows that groups on the two sides of the river were in close contact (Collis 1995). The peoples east of the Rhine (Caesar’s “Germans”) were much affected by the Roman military activities across the river. The archaeology shows a new emphasis on militarism, reflected in the adoption of a new burial ritual—the placement of sets of weapons in graves—around the middle of the first century B.C., when Caesar was engaged in Gaul. Communities began outfitting many men’s graves with iron swords, spears, and shields, as for example in the large cemeteries at Grossromstedt and Harsefeld (Schultze 1986).

After Caesar’s assassination in 44 B.C., during the decades of civil war, Rome apparently made no significant effort to conquer further eastward beyond the Rhine. Roman texts mention raids from east of the Rhine into Gaul but do not provide much detail about them (Kunow 1987). During the years 16–13 B.C., Augustus spent time in the Rhineland, establishing military bases along the west bank of the river at sites that include the modern cities of Nijmegen, Xanten, Cologne, Bonn, Mainz, and Strasbourg. In 15 B.C., Augustus’s generals Tiberius and Drusus led their legions into what is now southern Bavaria, between the upper Danube and the Alps, and conquered that region in a single season’s campaign.

From 12 B.C. until A.D. 9, Augustus’s generals led forays across the Rhine toward the Elbe, especially from the bases at Xanten and Mainz, with the apparent aim of establishing a new province between the Rhine and the Elbe. This policy led to the establishing of military bases on the Lippe River east of the Rhine, one of which at Haltern has been most thoroughly investigated archaeologically (Asskamp and Wiechers 1996). Recent archaeological research at Waldgirmes, north of Frankfurt, reveals the remains of a planned administrative center for the new province (Becker and Rasbach 2003). This two-decade-long policy was brought to a sudden end with the disastrous defeat in A.D. 9 in what Tacitus called the Teutoburg Forest, now identified as a site at Kalkriese, north of Osnabrück in northern Germany, where native warriors led by a man the Roman writers called Arminius virtually annihilated three legions (XVII, XVIII, and XIX) and associated troops under the command of Varus, Augustus’s governor of the Rhineland (Wells 2003). Except for some punitive raids undertaken by Germanicus between A.D. 15 and 17, this defeat ended Roman designs on expanding eastward beyond the middle and lower Rhine. The last major Roman conquest beyond the Rhine was of the land between the upper Rhine and the upper Danube, the agri decumates, in the latter half of the first century A.D.

On the lower Danube, historical sources document a series of conflicts between Roman forces and the group known as Dacians, before Roman military victories in the early decades of the first century A.D. quieted the situation temporarily. More incursions during the 60s and 70s A.D. led to an increase in the number of legions on the Danube. But throughout the latter decades of the first century tensions
persisted. Trajan’s campaigns in 101/102 and 105/106 were successful for Rome, resulting in the establishment of the province Dacia north of the Danube.

**The Transfrontier Peoples**

Roman written sources, from Caesar through Tacitus to Ammianus Marcellinus and Saint Jerome, generally portray the peoples across the frontiers as “barbarians”—peoples whose ways of life were very different from that of Romans and who were in many respects the antithesis of what cultivated Romans admired (Timpe 1996, Ferris 2000). All of these texts need to be read with the understanding that they represent people whom the Roman writers did not understand and against whom the Roman military was fighting. The archaeology of these groups, deriving as it does from the people themselves, shows them in a different light.

We know the names of the various transfrontier peoples, such as Marcomanni, Quadi, Cherusci, Alamanni, Franks, Burgundians, Goths, Gepids, Alans, Huns, Avars, and Slavs, from the surviving texts by Roman writers. We do not know what these peoples called themselves, if they had any sense of common identity at all. Our knowledge of specific confrontations with Roman armies is exclusively through the eyes of Roman commentators. The texts tell us very little about any other aspects of life among the transfrontier peoples except their warfare. The archaeological evidence enables us to learn much about those societies, and to place the military aspects into a broader cultural context. The archaeological evidence of graves that contain weapons often supports Roman texts that describe weaponry and fighting techniques of peoples beyond the frontiers.

I shall treat the transfrontier peoples in two main groupings. One consists of peoples east of the Rhine and north of the upper Danube, as far east as modern Hungary. These were referred to as Germans by Caesar, Tacitus, and later writers. Among the names that commonly appear in the Roman texts are Frisii, Marcomanni, Quadi, Sugambri, Chauki, Cherusci, Chatti, and, from the third century on, Alamanni, Franks, Burgundians, Saxons, and Suebi. The second major geographical grouping consists of peoples north of the middle and lower Danube, from Hungary to the Black Sea. Among names that Roman writers associate with peoples in this part of Europe are Sarmatians, Dacians, Gepids, Goths, Alans, Huns, Avars, and Slavs.

**Transfrontier Peoples East of the Rhine and North of the Upper Danube**

At the time of Caesar and at the beginning of the first century A.D., the peoples east of the Rhine whom Caesar called Germans lived in farmsteads and small villages, many of which have been investigated archaeologically. Their economy was based on cultivation of cereals, mainly wheat, barley, and rye, along with several garden crops such as peas and lentils. They raised cattle, sheep, goats, pigs, and horses. Communities made their own pottery, tools of wood and bone, and wool and linen clothing. Iron metallurgy was well developed, and many villages smelted ore and forged the tools and weapons they needed. Most communities produced surplus goods that they exchanged for other materials, such as bronze ornaments and glass beads. Burial practice in most regions was commonly by cremation, with cremated remains in a ceramic urn buried in the ground, often with a few simple objects such as items of jewelry. Ritual sites such as Oberdorla in Thuringia (Dušek 2002) show that, in contrast to Caesar’s remarks, these peoples had elaborate religious practices, some involving
complex structures and rituals that included making deposits of tools, weapons, and ornaments in ponds and rivers (Ilkjaer 2003). The “bog bodies” of northern Europe date largely to the final century B.C. and the first three centuries A.D. and, whatever else they show (interpretation is complex and disputed), they indicate an enormous social investment in ritual practice (Chamberlain and Pearson 2001).

All communities were linked into networks along which both social relations and goods circulated. We can trace the outlines of these networks through the distributions of trade items that archaeologists recover through excavation, such as bronze ornaments (the copper and tin to make bronze had to be imported) and amber (brought in from the Baltic coast). There also existed overarching political structures, linking village communities over considerable distances. The numerous wooden trackways built across boggy ground from the beginning of the Iron Age on attest to the ability of leaders to marshal labor efforts of hundreds of workers for regional infrastructure projects, and early weapon deposits, such as that at Hjortspring in southern Denmark (Randsborg 1995), show the organizing of military forces of considerable complexity as early as the mid-fourth century B.C. This kind of far-flung political organization, and the networks along which information traveled, help us to understand how local military forces often were able to defeat the Roman legions.

Until the end of the final century B.C., there is relatively little evidence for social differentiation among the peoples east of the Rhine. Lavish burials are rare. But this situation changed when interactions with the Roman world intensified. From the middle of the first century A.D. on, wealthy burials, containing weapons, Roman luxury objects, and ornaments of precious metal offer a view to an emerging military elite that gained its status largely through relations with the Roman army. These relations could be friendly, in the case of client kings along the frontiers or auxiliary officers commanding auxiliary troops on the Roman side of the frontier. Or they could be hostile, as warriors gained status, power, and wealth through leading their troops against Roman provinces and military forces.

At the cemetery of Putensen near Hamburg, Grave 150 is likely that of a man who served as an auxiliary officer with the Roman army (Roggenbuck 1983). When he died, in the middle decades of the first century A.D., he was buried with objects that marked his status as a warrior—an iron sword in an iron scabbard, a shield, a lance head, and a knife. Horse harness ornaments and three pairs of spurs suggest he rode with the cavalry. A pair of Roman bronze casseroles and two drinking horns represent a feasting set. Six silver fibulae and a silver pin indicate special status. For the following four centuries, similar burial outfits characterize military leaders among the transfrontier peoples, and they reflect specific traditions in weaponry and fighting tactics of Rome’s enemies.

The set of weapons in Putensen 150 (and many others like it) enable us to understand such outcomes as the success of Arminius’s attack on the Roman legions. The lightly armed and highly mobile native warriors were able to surprise and quickly defeat the heavily armed legionaries (see above figure 11.2). In burials less richly outfitted than Putensen 150, lances are the most common weapons, together with shields (Adler 1993). In the early Roman period, both one-sided and two-sided swords were in use. Battle axes occur occasionally in graves.

Along with graves, the great weapon deposits of northern Germany, Denmark, and southern Sweden provide rich information about armaments and military organization (Jensen, Jørgensen, and Hansen 2003). About thirty such deposits have been identified, all apparently made in the course of ritual activities that celebrated the defeat of an enemy. Analyses of the find at Illerup have documented deposition events that occurred about A.D. 200 (Ilkjaer 1997). There archaeologists
recovered 225 swords, 1,410 lances and spears, and several hundred shields. On the basis of the material from which shield bosses were made, archaeologists have identified a three-tier hierarchy of military rank. Six bosses were made of silver, another six (some bronze, some iron) were covered with gold foil, these twelve representing high officers. Thirty bosses were bronze, the equipment of lower-status officers. More than 350 shield bosses were made of iron, representing the equipment of the rank-and-file soldiers. Twelve sets of horse harness gear attest to a small equestrian component. A high proportion of the swords at Illerup and other deposits were of Roman manufacture, often with factory stamps at the upper end of the blade. One explanation of this phenomenon is that many soldiers from Denmark served as auxiliary troops with the Roman armies, often under the command of their local Germanic leaders, and brought home with them the weapons that they had used during their service. Another is that the swords were captured from Roman soldiers, as the northern warriors fought against them on the side of Rome’s enemies along the frontiers.

**Later Confrontations and Change on the Rhine and Upper Danube Frontiers**

Several conflicts along the frontiers between the mid-second and fifth centuries played major roles in Roman thinking about the transfrontier peoples and influenced Roman military tactics. The Marcomannic Wars (A.D. 166–180) were a well-documented series of conflicts on the upper and middle Danube. According to textual accounts, a series of peoples, of whom the Marcomanni and Quadi were the most prominent, attacked points along the frontier from Regensburg eastward, in some cases penetrating far into Roman territory. The invaders were able to destroy a number of Roman military bases as well as civilian settlements. Roman forces launched counteroffenses from Carnuntum, near Vienna in Austria, and other sites, and many frontier bases, such as Regensburg, were strengthened at this time.

According to the historical tradition based on textual sources, the limes fell to the invading Alamanni during the years 259–260, and following that event, Rome reconfigured its frontier lines at the upper Rhine and the upper Danube, where they had been before the conquest of the *agri decumates*. But a research project headed by H.-P. Kuhnen (1992) found no archaeological trace of violent incursions associated with that event. Instead, the evidence suggests that the political change happened primarily as the result of the gradual adoption by inhabitants of the region of material culture and lifestyles of the peoples beyond the frontier.

In 357 the Emperor Julian led his army to victory over a group of Alamanni at Strasbourg, an event that Ammianus Marcellinus described as a major accomplishment in the subduing of Germanic warrior bands, but which many modern historians regard as less significant (Heather 2006). According to Ammianus’s account, the Roman army of some thirteen thousand men defeated thirty-five thousand enemy fighters.

During the late Roman period, from the mid-third to the mid-fifth century, increasing similarities can be seen between the weapons used by Roman troops along the frontiers and by warriors on the other side of the boundary (Garbsch 1976). Many swords wielded by Germanic soldiers beyond the frontier were made in shapes similar to that of the Roman short sword (*gladius*). One-edged swords went out of favor. In the late Roman period, Germanic armies began to employ archers, apparently in response to the Roman archers they faced. In part this increasing uniformity resulted from each side adopting military practices from the other, in order to compete effectively on the field of battle. But service by Germanic soldiers in the auxiliary forces of the Roman army also played a part. It is
increasingly difficult to distinguish “Roman” from “Germanic” soldiers during the final decades of the Roman period. The complexities are especially well illustrated in the cemeteries of the late third and fourth centuries along the Danube at Regensburg and Straubing. In the cemetery at Straubing-Azlbürg I, for example, some late third-century graves contain typical provincial Roman grave goods, such as oil lamps, glass vessels, and ceramic urns, while others have in them objects characteristic of practices beyond the frontier, such as iron knives and strike-a-lights. This pattern of “Roman style” graves and “transfrontier barbarian” graves side by side continued in the cemeteries of this region throughout the fourth, fifth, and sixth centuries (Prammer 1989).

**Transfrontier Peoples: North of the Middle and Lower Danube**

In the early Roman period, peoples known to the Romans as Sarmatians and Dacians were among the Empire’s principal opponents on the middle and lower Danube. While the Dacians were understood as indigenous and pursued a way of life not unlike the Germanic groups to the west, the Sarmatians were believed to have migrated into Europe from the steppe lands of western Asia, like their predecessors the Scythians. Until the second half of the second century, they lived in small communities with little indication of broader political organization. The economy of Sarmatian communities was based on the raising of livestock, and their way of life retained a nomadic character (Sulimirski 1970). Craft production in a variety of materials is well documented, and imported ornaments and other objects attest to interactions with neighboring peoples. Before the middle of the second century, Sarmatian society seems to have been essentially egalitarian in character. But much changed in the latter half of that century (Eggers 2004; Ioniță 2004b).

While in the earlier period leadership of communities seems to have been in the hands of a local chief, in the later period a king was recognized. Between the late second and fourth centuries, Sarmatian groups moved gradually westward, partly in search of new pastures for their livestock and partly in response to the movement of new peoples coming in from the east, including some linked with the Goths. A group of Sarmatians known as the Iazyges, based on the middle Danube in the plain of modern Hungary, are mentioned as participants in the Marcomannic Wars.

Sarmatian fighting techniques were based on mounted warfare. Roman armies in the middle and lower Danube regions had to contend with these horse-riding warriors wearing battle armor and fighting with lances and long swords (Bishop and Coulston 2006: 205–6). These tactics and armaments influenced both Roman and Gothic military practices during the third and fourth centuries.

The importance of warfare among these people is apparent in the men’s graves, which often included swords and daggers, and sometimes arrowheads. Harness equipment was sometimes present. Women’s graves were often more richly outfitted than men’s and included metal fibulae, bracelets, and earrings; amber, glass, and stone beads; bronze mirrors; and pottery, glass, or metal vessels.

In the third, fourth, fifth, and sixth centuries, the groups with whom Rome fought most consistently and most significantly in the middle and lower Danube frontier regions were known to them as Goths, Huns, Avars, and Slavs. The Goths are considered of Germanic origin, the others are associated with central Asian peoples. Throughout the Roman period, the transfrontier regions along the Danube are characterized archaeologically by great diversity and change. Links eastward, with peoples associated with horseback riding and cavalry warfare are common. In this complex region, it is very
difficult to draw clear connections between the written sources and the material evidence.

The archaeological manifestation of peoples commonly associated with the Goths is known as the Sântana-de-Mureș-Černjachov Culture, named after cemeteries in Transylvania (Romania) and Ukraine, respectively (Ioniță 2004a). Many settlement sites have been identified, but little excavation has taken place on them. Fireplaces, ovens, and storage pits indicate a way of life and economy similar to those of the Germanic groups east of the Rhine. Kilns for firing pottery and workshop debris from metalsmithing, bone carving, and the making of glass ornaments represent industrial activities of these communities.

Both inhumation and cremation were practiced in the cemeteries, with inhumation predominating in the later periods. Common grave goods include pairs of fibulae (especially in women’s burials) and other personal ornaments, toilet items, and pottery vessels that held food and beverages. In contrast to the Sarmatian cemeteries, in Gothic culture weapons were rarely placed in graves. Wealthy burials, sometimes housed in elaborate wooden chambers, contained such luxuries as Roman-made ceramic, glass, and bronze vessels; silver ornaments; and gold neck, arm, and finger rings. Roman coins were brought into these transfrontier regions in large numbers and are found individually and in hoards, but rarely in graves. Other imports from the Roman world included wine and olive oil, brought in ceramic amphorae.

The Goths were one of Rome’s most formidable enemies during the later Roman period (Kulikowski 2007). Like the peoples known as Alamanni and Franks along the Rhine and upper Danube, the Goths seem to have been comprised of a variety of groups who joined together in a confederation on the lower Danube. At the same time that the Marcomannic Wars took place on the upper Danube, groups on the middle and lower Danube also made incursions across the river into Roman territory. While the textual sources portray these invasions as separate events involving different peoples—Marcomanni, Quadi, Goths, and others (the battle of Adrianople in 378 was particularly well remembered, as recorded by Ammianus Marcellinus)—the archaeological evidence suggests that all were part of a single phenomenon reflecting large-scale political and social changes brought about through interaction with the Roman Empire.

Texts mention the appearance in Europe of the Huns at the end of the fourth century, and they present Roman forces with many challenges throughout the first half of the fifth century (Heather 2006). Their military tactics emphasized light weapons and rapid movement, and they were famous for both their horsemanship and their archery. Written sources note that their warriors shot arrows from a distance, then rode into battle with either bow and arrow or sword to engage at closer range. Graves associated with the Hunnic settlement of the middle Danube region are distinguished by bows, bronze cauldrons, and the practice of cranial deformation, accomplished by tightly wrapping babies’ heads with cloth bands.

In the sixth century Slavs and Avars are mentioned on the middle and lower Danube. Like other groups cited above, the people known as Slavs are thought to have been made up of diverse groups from eastern and northern Europe. Their settlements were small and comprised of plain wooden houses. Pottery and metal tools tended to be quite simple in character. Unlike many of the groups mentioned above, ornaments and objects imported from outside are rare on sites associated with Slavs. The name Avar was given to horse-keeping nomadic peoples who arrived in the Hungarian Plain in the early part of the sixth century. Avar burials are characterized by numerous ornaments from the bridles of horses, along with bows, stirrups, lances, and ornate belt buckles. The important
role of horseback riding and bow-and-arrow combat is characteristic of many of these peoples who migrated from western Asia and eastern Europe and settled in the Danubian lands.

**FRONTIER-WIDE PATTERNS: NETWORKS OF INTERACTION**

While the Roman written sources distinguish different peoples by name and location, and the archaeology shows regional variation in material culture, burial evidence shows that warrior elites throughout the transfrontier regions shared values and practices. These patterns indicate both common cultural traditions and maintenance of contacts among these enemies of Rome. Common to the rich burials in the transfrontier regions are sets of weapons (swords, spears and lances, shields, ornate fittings for weapon belts), horse-riding equipment (harness fittings, saddles), feasting equipment (both Roman imports and local vessels), and gold and silver ornaments (by the fifth century with garnet inset into gold). Well-documented examples of these practices include graves at Marwedel on the Elbe around A.D. 125 (Laux 1992), Łęg Piekarski in Poland around A.D. 150 (Wielowiejski 1989), Mušov in Moravia around A.D. 175 (Peška and Tejral 2002), Gomern in northeastern Germany around A.D. 300 (Becker 1993), Beroun-Závodi in Bohemia around A.D. 380 (Tejral 1999: 239–41), Kemathen in northern Bavaria around A.D. 415 (Keller and Rieder 1992), Szirmabesenyö in Hungary around 425 (Tejral 1999: 257), and Apahida in Romania around A.D. 475 (Horedt and Protase 1972). The continuity through time and space of specific burial practices reflected in these and hundreds of other rich graves of the transfrontier zone shows a degree of contact and communication among its enemies that Rome did not comprehend.

**NEW CENTERS IN THE NORTH**

Many thousands of Roman imports, including bronze vessels, fine pottery and glassware, and coins, arrived in northern and northeastern Europe between the first and fifth centuries A.D., attesting to intensive commercial interactions between transfrontier peoples and the Roman provinces (Hansen 1995). New centers of economic and political activity emerged among groups that interacted with the Roman world, such as at Gudme on the Danish island of Fyn (Nielsen, Randsborg, and Thrane 1994), Uppåkra in southern Sweden (Larsson 2002), and Jakuszowice in southern Poland (Godłowski 1995). At these and other places, larger and more complex communities developed than had existed in pre-Roman times, and the association of Roman objects at these places indicates a strong Roman component to the changes. The larger-scale political organization apparent at these centers is directly related to changes in patterns of military activity. They emerged as central places of political, economic, and ritual importance in the third and fourth centuries, the same time that Roman authors first write of the great “confederations” of peoples beyond the frontiers. The results of archaeological studies of these centers indicate that these peoples were much more highly organized politically and economically than the Roman texts suggest.

**BIBLIOGRAPHY**


Along the main access road northwest of the Sasanian royal city of Firuzabad (Ardashir-Kurra/Gor), below the early Sasanian palace of Qal’a-ye Dokhtar, are two carved rock reliefs, one depicting Ardashir I’s overthrow of the Arsacid king Artabanus/Ardavan V and the other his investiture as Ardashir, “King of Kings of Eran [Aryans]” (Huff 2008). The first relief depicts three scenes of single combats: to the left, a Persian noble clutching a Parthian warrior, in the center, the royal Prince Shapur impaling the Parthian minister Dadhbundadh on his lance, and at the far right, Ardashir personally unhorsing the king Artabanus. This scene briefly illustrates the official Sasanian account of the battle of the plain of Hormizdagan (28 April 224 [all dates are A.D. unless indicated otherwise]), a tradition also echoed in al-Tabari and numerous other post-Sasanian sources in Arabic and New Persian (al-Tabari, Ta’rikh: 1.818–19; Shahbazi 2004; Bosworth 1999: 13–14). The second relief, perhaps meant to illustrate the aftermath of the battle, shows the victorious Ardashir, backed by Shapur and two other princes, receiving a ribboned ring representing sovereignty over a fire altar from the god Ohrmazd.¹

These two scenes provide significant insight into the military ideology of the Sasanians, the Persian dynasty that would contest with Rome for dominion over West Asia for the next four centuries. The reliefs allude to peculiar circumstances of Ardashir’s rise to power, as a Persian rebel against his Parthian king, one who claimed divine sanction for his rebellion (Ardashir’s rebellion: Huff 2008; Frye 1984a: 116–24; Frye 1984b: 291–5, Widengren 1971). Above all these reliefs point out how the Sasanians linked military acumen with religious piety and social order. Central to Sasanian royal ideology was the idea of the king as a warrior, given victory and kingship by the gods. The Sasanian polity, despite significant changes over its four-hundred-year existence, remained wedded to the formula of the king as the bringer of justice, order, and peace through military victory (cf. Widengren 1959; Frye 1964; Choksy 1988; Daryaee 2008).

A. D. Lee’s chapter in this volume has effectively sketched the capabilities of the Sasanian military in its confrontation with the Roman Empire over the period 220–628. This chapter will look specifically at the military as an institution in Iranian politics and society, beginning in the Parthian era and focusing on Sasanian developments. Although the sources will exhibit a significant overlap with those featured in Lee’s chapter, whenever possible reference will be made to material produced within the Sasanian world, whether primary evidence, such as epigraphy, architecture, sculpture, coins, seals and bullae, or epistles and literature composed in Middle Iranian, Aramaic, and Armenian. Post-Sasanian writings in these languages, and in Arabic and New Persian, will also be consulted, although their use presents significant historiographical challenges (on the difficulties inherent in the study of pre-Islamic Iran see Wiesehöfer 1996: 153–64; Morony 1997).
The Roots of Sasanian Military Ideology

The cavalry-centric armies that faced each other on the plain of Hormizdagan were the culmination of four centuries of Parthian tactical innovation (Shahbazi 1987). Parthian armies under the Arsacid dynasty had evolved to confront the Macedonian-style phalanges of the Seleucids in the long campaign that established Parthian hegemony over the Iranian plateau and in Babylonia. To avoid meeting the superior Macedonian (and, later, Roman) infantry on their own terms, Parthian armies emphasized mobility through superior horsemanship, in both rapid cavalry charges and feigned retreats. The bulk of the Parthian cavalry consisted of lightly armored horse archers who could strike infantry from long range or lure enemies from tight formations to their doom through feigned retreat and the use of the “Parthian shot” (Rostovtzeff 1943: 174ff). The additional Central Asian innovation of the kataphraktoi, horsemen (and horses) massively armored in iron scale and armed with lance and compound bow, was adopted wholeheartedly by the Parthians, with devastating effect on the battlefield (Bivar 1972: 273f.). Indeed, at Carrhae (53 B.C.) Crassus and his legions found that Parthian arrows could punch through legionary armor at a distance, while charging lancers might even skewer two Roman soldiers at once (Plut. Crass. 24.4–6, 27.1–2).

However tactically innovative the Parthians were in their use of cavalry, this rarely translated into lasting territorial gains following their expulsion of the Seleucids from Babylonia (129 B.C.). Mobility came with a cost of slighting the development of nonaristocratic infantry (Plut. Crass. 19; App. B Civ. 2.18), and the Parthians seem to have lacked the capability to engage in the siege warfare necessary to capture frontier cities and fortresses, such as those established by the Romans in Syria, Mesopotamia, and Armenia (Plut. Ant. 38).

Further, Arsacid ambitions were highly circumscribed by the decentralized character of their regime. The Arsacid Great King was essentially primus inter pares among the Parthian noble families, and, according to Pliny, ruled over some eighteen subordinate monarchs outside of the Parthian heartlands (Plin. HN 6.29; Wolski 1981, 1988). As such, the Arsacids could seldom count on the ready availability of all the potential military power of their empire, or the undivided loyalty of their soldiers. Moreover, the Arsacid dynasty was prone to schism, which often divided its Parthian aristocrats and client kingdoms in civil war. Indeed, Roman generals and emperors proved especially skilled in exploiting these divides both diplomatically and militarily, encouraging civil war and ravaging the fertile lands of Babylonia on a generational basis (Isaac 1992: 28–33).

The Sasanian revolution of the 220s arose from this background of Arsacid civil war and Roman invasion. The Sasanians, guardians of the temple of Anahita at Estakhr, had over a decade consolidated a power base in Persis (al-Tabari, Ta’rikh: 1.814; Azarnoush 1987; Boyce 1985; Chaumont 1958; Nöldeke 1879: 17). With the support of several of the great Parthian aristocratic families, the Sasanians toppled the Arsacids through military force and propaganda that portrayed their opponents as militarily and morally weak rulers, deserted by the gods, who were unable to defend the “land of the Aryans” (Eranshahr). After his victory, the Sasanian king, Ardashir I, emphasized his right to the monarchy though his consolidation of the client kingdoms that formerly lent their allegiance to the Arsacids (Chaumont 1975). Ardashir also initiated an aggressive campaign of raids and attacks on the Roman East, culminating under his successor, Shapur I, in the sack of Roman Antioch (260). These activities are described in detail on the inscription of Shapur at the Ka’ba-i Zardosht (Huyse 1999).

The early Sasanian military (spah) was essentially Parthian in character. Indeed, the bulk of
“Sasanian” cavalrymen were those same Parthian aristocrats who had fought under their Arsacid predecessors (Shahbazi 1987). Nevertheless, the Sasanians appear to have employed greater numbers of *kataphraktoi* wearing lighter, Roman-style chain-mail armor (Bivar 1972: 275). Indeed, by the fourth century it appears that the Parthian and Persian nobility were entirely outfitted as *kataphraktoi* (or, *elibanarii*: Amm. Marc. 25.1.12–13; Heliod. *Aeth*. 9.15), with allied federate troops (see below) providing more lightly armed cavalry. The Sasanians also quickly adopted siege technologies, apparently in imitation of Roman models (see further A.D. Lee, 721–3).

However, notwithstanding the Sasanian adoption of Roman techniques (and vice versa) structurally, the Sasanian military remained unlike that of their Roman foes. While Iranian society was highly militarized and its elites defined themselves as a “warrior aristocracy” (*arteshtaran, arteshtarih*), Sasanian Iran was still a considerably less populous, poorer, and far more decentralized polity than Rome (Rubin 1995; Howard-Johnston 1995a, 2008). Consequently, the Sasanian kings had few full-time soldiers at their disposal, relying instead on aristocratic levies. The few exceptions to this were the royal cavalry bodyguard (apparently called “immortals” in imitation of Achaemenid practice), small garrison forces, and some foreign contingents. However, the numbers of soldiers in full-time service to the dynasty may have increased in the sixth and seventh centuries, through military restructuring and the press of more frequent conflicts with the Roman state (see below).

The backbone of Sasanian military power, the Iranian (“Aryan”) cavalry, was, for lack of a more accurate term, a “feudal” army organized around the banners of the aristocratic *azadan* (“the free”), most prominently the *vuzurgan* (“great families”) of Parthian descent (on the difficulties of using the term “feudal,” see Wiesehöfer 2007; Frye 1987; Widengren 1976; Altheim and Stiehl 1954). These aristocrats fought as heavy cavalry, conscripting infantry from among their own peasantry (Amm. Marc. 23.6.83). This organization reflected the essential nature of the Sasanian polity, which was from its inception defined by cooperation and tension between the Persian Sasanian monarchy and large, essentially autonomous Parthian aristocratic families based on the Iranian plateau.²

Indeed the Sasanian kings had notably little direct influence over the *vuzurgan* who dominated the Iranian plateau and provided the bulk of their offensive forces. Despite legendary embellishments, the initial development of Sasanian military power, and their overthrow of the Parthian Arsacids, was more a product of Ardashir I’s successful exploitation of resentments and tensions between the great families than the creation of a truly new military order. Indeed, an alternate narrative of Sasanian origins might argue that factions among the great families took advantage of Sasanian ambitions to topple the Arsacids and realign power in the Iranian plateau to their own advantage. Thus, kings who demonstrated the sanction of the gods through victory and distribution of the consequent spoils, generally gained aristocratic support, while those Sasanian kings who attempted to curb the traditional “freedoms” of the Parthian nobility tended to meet gruesome ends.³ In the end, the Parthian aristocracy served the Sasanian monarchy out of self-interest, personal oath, and, perhaps, a shared sense of “Aryan” (Eran) identity with their Persian kings.

Indeed, from an ideological perspective the primary raison d’être of the Sasanian king was the protection and unification of Eranshahr, the “land of the Aryans” (Gnoli 1987, 1989) The early Sasanian conception of Eran (“Aryan”) is difficult to characterize, as it interwove notions of cultural, ethno-linguistic, religious, and territorial identity that were probably kept deliberately vague. Yet, the notion of the Sasanians as the blessed champions of a unified “Aryan” people, a people sharing common language, culture, and religion, was a rallying cry in their struggle against the divided and
The protection of Eranshahr provided justification for both the Sasanian subjugation of the Aneran and for the raiding and conquest of regions outside of Sasanian control. Within the first century of their regime, the Sasanians established suzerainty over all subordinate kingdoms of the Parthian Empire and aggressively pursued expansion in the Caucasus, Central Asia, and on their eastern frontier (for a narrative of this expansion: Kettenhöfen 1982; Frye 1984a: 124–40; Frye 1984b: 296–312; Dodgeon and Lieu 1994). The Sasanians maintained a network of client kingdoms and the basic forms of Parthian administration, including the title “King of Kings.” However, they aggressively consolidated power over these client kingdoms through warfare, assassination, and diplomacy. By the fourth-century reign of Shapur II (309–379), many of the original Parthian client kingdoms were directly under the administration of Sasanian princes. Perhaps as a consequence of dynastic struggles between “client kings” of the Sasanian family, these kingdoms were further reduced to the status of provinces beginning in the late fourth and fifth centuries, to be governed by shahraban (“satraps”) or royal military appointees, the marzpanan (“border lords”). By the end of the Sasanian period, Sasanian kings appear to have envisioned all the provinces of their empire as effectively part of “Eranshahr,” whatever the cultural, ethnic, or linguistic character of their inhabitants.

The military roles of the peoples of conquered territories varied considerably. Few, if any, soldiers were recruited from the Aramaic-speaking (Aramaean) populations of Adiabene, Garmakan, Asorestan, and Mayshan, although small garrisons and ad hoc militias helped defend the cities of these regions (Amm. Marc. 24.2.9–22, 24.3.10–11). The vast agricultural and commercial wealth of these lowlands, the economic core of both the Arsacid and Sasanian polities, coupled with the presence of distinct non-Iranian local populations, and the preponderance of politically suspect Jews and Christians among these populations may perhaps explain the Sasanian reluctance to conscript forces there.

By contrast, regions on the “bleeding edge” of Sasanian expansion came to contribute significant portions of Sasanian military strength. These were often groups who had recently been conquered or had submitted by treaty to Sasanian rule. Thus Ammianus describes large groups of Chionites (Huns) at the siege of Amida in 359, some of whom had recently been conquered in Shapur II’s eastern campaigns (Amm. Marc. 19.1). Similarly, pseudo-Joshua the Stylite and Procopius note the presence of large numbers of Hephthalite warriors in the armies of Kavad (488–496, 498–531), probably a consequence of Kavad’s marital alliance with the Hephthalite king (ps.-Josh. Styl. 1.277; Procop. Pers. 1.7.5–11). These patterns of recruitment removed armed men from circulation in their homelands and gave them a chance to demonstrate their new loyalties to the Sasanian state and family. Indeed, accounts of Sasanian armies suggest a general tendency to draw forces from the east to fight militarily ineffectual regime of the Arsacids. On the throne, the crucial juxtaposition of civilized Eranshahr surrounded and menaced by the apocalyptic forces of the Aneran (“non-Aryans”) was a standard trope of Sasanian-era Middle Iranian literature, persisting into the Islamic period in Zoroastrian texts and Persian epic (Gignoux 1987). Setting out into the lands of the Aneran, the Sasanian kings assembled their armies at the great fire temples (like Adur Gushnasp, modern Takht-i Suleiman). On their return, they offered sacrifices of foreign booty and the heads of their enemies to the gods (al-Tabari, Ta’rikh: 1.819; Labourt 1904: 71 n. 2; Nöldeke 1879: 4 n. 2, 17). For as long as they protected Eranshahr from its foes, Sasanian kings could depend on the sanction of the gods.

**ERAN UD ANERAN: RECRUITMENT, ETHNICITY, AND ORDER IN THE SASANIAN MILITARY**

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on the Roman frontier, and from the Transcaucasian regions to fight in Central Asia. The loyalties of
soldiers recruited from these groups, when not secured by abstract notions of honor, were guaranteed
by the granting of privileges and royal stipends and by invitations to the Sasanian court, a thinly

Armenia and other regions of the Transcaucasus also supplied aristocratic heavy cavalry for
Sasanian campaigns, although the question of “identity” among the Caucasian cavalry would prove
highly problematic in the Sasanian military system (McDonough 2006). The question of whether the
frontier peoples of the south Caucasus, particularly Armenians, were “Aryan” was a problematic one
for Iranians and Parthians alike. Armenia was at least nominally ruled by a branch of the Parthian
Arsacids (from 64 to 428); its language was Indo-European with a massive contribution of Iranian
loan words; its culture was, essentially, Iranian, and Armenian aristocrats contributed significantly to
Sasanian military efforts (on Armenian links with “Eran” see Garsoïan 1996, 1982, 1976; Russell
1987; Schmitt et al. 1987). Yet Armenia was divided between Roman and Persian spheres of
influence, and was, from the fourth century, increasingly Christianized. The Armenian revolts against
Sasanian rule of 450/451 and 572 reflect one response to the competing pulls of Iran and Rome
(Adontz 1970).

After the Sasanian polity’s initial wave of expansion its military (*spah*) was comprised of four
categories of troops, organized by regiment (*gund*). First were conscripted infantry, regarded with
distain by a late observer as “a multitude of miserable peasants, who follow the army only for
demolishing walls, pillaging corpses and serving the soldiers” (*Procop. Pers.* 1.18.31–34). Second
were more skilled and specialized infantry units, especially archers, who are, unfortunately, little
attested in the sources. Third were “foreign” units of infantry and cavalry, recruited from among
recently conquered peoples or from the “allied” forces of tributary client kings. In the fourth century
account of warfare on the Roman eastern frontier given by Ammianus Marcellinus, these were
Chionites (Huns) and Sakas, while later authors mention Lakhmid and other allied Arabs, Hephthalite
Huns, and Daylamites in fifth- and sixth-century Sasanian armies (Greatrex 1998: 55–6). Finally, the
core of the Sasanid *spah* was the heavy cavalry drawn from the “Aryan” aristocracies of Eranshahr
discussed above (*figure 26.4*). These were also organized along ethnic lines, as attested in
inscriptions, such as that of Narseh at Paikuli and on late Sasanian sealings, such as those inscribed
with the titles “*aspbedan of the Persians*” and “*aspbedan of the Parthians*” (Gyselen 2007: 57–8,
284–7).
Judging from military titles (e.g., hasarbed: “commander of one thousand”), the early Sasanian spah was at least theoretically organized along decimal lines, although it would be naïve to assume that the Sasanians consistently maintained such an organized military “system.” Aristocratic generals (spahbedan) led the Sasanian spah, perhaps serving under a single “Iran-General” (Eran-spahbed) drawn from the ranks of the Parthian “Great Families.” However, regional subject-kings, members of the Sasanian family, and the kings themselves also played vital roles on campaign. Judging from the letters of the fifth-century bishop of Nisibis, Barsama, the marzpanan gradually introduced as military governors of frontier provinces from the fifth century commanded local garrison troops (where available) and played roles mustering and commanding soldiers in larger campaigns (Barsama ep. 2–4).

A variety of other Sasanian military officials are attested from seals, bullae, and literary evidence with responsibilities over royal granaries and other military provisions. Yet while generals were clearly able to requisition food for their armies, Sasanian kings took pride in their armies’ ability to live lightly off their subjects’ land, a fact admired by some Roman observers (Mazzucchi 2002: 14 [= f. 298r]). Early Sasanian soldiers were largely self-sufficient, serving for their oaths and personal loyalty, as well as the expectation of battlefield remuneration in the form of booty. Regular military pay, along with military land grants, were more an aspect of administrative reforms instituted by the kings Kavad and Kusro I (531–579), and expanded by Kusro II (590, 591–628), which significantly transformed the character of the Sasanian spah.

**A Sasanian “Grand Strategy”?**

As A. D. Lee’s contribution in this volume demonstrates, the fully assembled Sasanian military was a
highly effective offensive force, devastating against disorganized enemies and certainly the match of Roman armies of smaller or equal size. Yet, while the early Sasanian kings theoretically commanded impressive, even overwhelming armies, as a strategic consequence of their political and social systems, Sasanian forces were slow to assemble, difficult to weld into a coherent fighting force, and sustained largely by the personal charisma of their king or commander.

What were the goals of Sasanian offensive efforts? The Sasanians used their offensive forces to raid Roman territories, and, less frequently, in larger attempts to occupy and hold territories through the besieging of cities and set-piece battles with Roman forces. On the northeastern frontier, Sasanian armies raided deep into the Central Asian steppe to challenge confederations of nomads and seminomads and assert their authority over kingdoms and city-states of the silk routes.

As noted above, Sasanians framed this offensive warfare as “defending” Eran. Conflict with the Aneran was a pious act that expanded the abode of the gods and demonstrated divine favor for the Sasanian monarchy. Moreover, successful offensive warfare provided the Sasanians with a deeper base of military manpower from new “allies.”

Economic predation also shaped Sasanian military activities. Successful campaigns could result in the negotiation of financial subsidies, the taking of loot from raids and campaigns against neighbors, and, significantly, the taking of captives. Roman prisoners were deported in large numbers in Sasanian Khuzestan and Asorestan, with those taken from the two Sasanian sacks of Antioch (260 and 540) resettled in the immodestly named royal foundations *Veh-andiyok-i Shapur* (“the better Antioch of Shapur”) and *Veh-andiyok-i Kusro* (“the better Antioch of Kusro”). Captives played significant roles in the economic development of the Sasanian royal domain (*ostan*), providing skilled artisans and (evidently) mass labor for the construction of infrastructure (Lieu 1986; Kettenhofen 1996b; Morony 2004). While the economic benefits of warfare were widely disseminated, they served particularly to enhance the economic base of the Sasanian kings, gradually shifting the balance of power in the “Parthian-Sasanian Confederation” toward the monarchy.

However, while the Sasanian offense was fearsome, its range was also rather limited, at least until the sixth and seventh centuries. The parochial interests of the Iranian aristocratic cavalry made short-term raiding more feasible than sustained fighting on the frontiers. Although far better organized than their Arsacid predecessors and more effective in mimicking Roman tactics, the Sasanians lacked Rome’s deep logistical and financial resources, its efficiencies realized through Mediterranean transport and the cohesion of Roman armies. On its steppe frontiers, Sasanian cavalry were known for their use of nomadic tactics like the so-called “Parthian shot” and tactical retreats, but royal forces were ultimately dependent on the resources of cities and vulnerable agricultural regions for material support. As a consequence of these limitations, small bands of determined invaders were able to push quite quickly into the economic heartlands of the Sasanian Empire, as in the 395 Hunnic raid that penetrated into Sasanian Mesopotamia and Asorestan (Greatrex and Greatrex 1999). Larger armies, such as those of the Roman emperors Galerius, Julian, and Maurice ravaged the rich agricultural lands of the Tigris-Euphrates floodplain without significant opposition for considerable periods of time.

Sasanian efforts to retain offensive initiative, the tactical skill of individual commanders, and the general over-commitment of their primary foes in the Roman Empire partially mitigated these inherent defensive weaknesses. Further, the archaeological record presents considerable, but uneven, evidence of Sasanian fortifications, constructed to compensate for the offensive orientation of Iranian military power. Thus, while invaders ravaged the Sasanian countryside without immediate fear of
confrontation, they faced a variety of walled cities, fortresses, and linear defenses constructed by local, aristocratic, and royal initiative that hindered their freedom of movement (Kleiss 2001).

Most Sasanian cities were walled, typically in mud brick, with stone-rubble or cut-stone walls reserved for exceptional fortifications (Negroponzi and Cavallero 1967 discuss Sasanian mud-brick fortifications at Kokhe [Veh-Ardashir]). In the lowlands of the Tigris-Euphrates valley, urban sites also incorporated rivers and canals into the defensive systems, as seen by the armies of the Roman emperors Julian, Maurice, and Heraclius in their campaigns into Sasanian Babylonia. In this, the Sasanians continued the architectural traditions of their Mesopotamian and Iranian predecessors. Indeed, in Mesopotamia, Babylonia, and Khuzestan, millennia of construction, fortification, accretion, and abandonment at urban sites further enhanced sites’ defensibility by raising tells above the flat floodplain landscape.

Probably only a few Sasanian frontier cities, such as Nisibis, Dvin, Darband, and Merv, and unique sites like Takht-i Suleiman, were sufficiently well-fortified and garrisoned to withstand a long siege, especially one (in the west) led by Roman military engineers. Instead, the fortification of cities, coupled with the establishment of castles and fortified way stations, provided basic protection from banditry and raiding, particularly on the Arabian, Caucasian, and Central Asian limes, and served as a statement of Sasanian rulers’ power and commitment to defend their lands. Despite this, fortifications, backed by local militias, were sufficient to significantly delay any invader, who had to laboriously besiege each city and fortress, or face harassment from these strong-points to his rear. For ideological and fiscal reasons, the Sasanian kings could not allow such incursions to continue long term, but the establishment of fortifications served to delay invaders long enough for the Sasanian kings to assemble field armies to confront their enemies on equal terms.

Yet fortifications also proved something of a mixed blessing to the Sasanian kings in times of civil conflict or revolt. At several moments, cities served as focal points of insurrection, as in such cases as the revolt of Susa under Shapur II or Bet Lafat under Kusro I. Indeed, after his defeat of the rebels in Susa, Shapur II had the city’s walls and buildings pulled down by massed elephants and trampled into dust (Potts 1999: 426). Nevertheless these urban rebellions seldom spread widely. By contrast, fortifications used by the rural aristocracy of the Iranian plateau and south Caucasus were considerably more troubling foci of rebellion, particularly the revolts of Bahram Chobin and Bistam in the late sixth century.

The military functions of the “long walls” constructed by the Sasanians are rather more mysterious (on which see Frye 1977; Kettenhofen 1996a; Kiani 1982; Nokandeh et al. 2006; Hoffmann 2007). The most notable of these are found at (and extending considerably south of) the narrow pass between the Greater Caucasus Mountains and the Caspian Sea at Darband (Persian: “Barred Gate”); north of the Gorgan plain between the Elburz Mountains and the Caspian Sea (the so-called “Alexander Wall”); and at the interface between the lands watered by the Euphrates and the Arabian steppe. The massive fortress at Darband, thought by medieval authors to be Alexander the Great’s defenses against the tribes of Gog and Magog (van Bladel 2008), was evidently an effective impediment to the incursions from the Eurasian steppe and a center of long-distance trade, as well as a powerful bargaining chip in negotiations with the Romans, whose territories it also protected. However, it is unlikely that more extensive linear fortifications, such as the 135-km “Alexander Wall” in Gurgan, the Arabian limes, or fortifications in Sistan were (or could be) permanently garrisoned. That leaves the question of what function these fortifications served. Presumably, these fortifications could be rapidly refurbished and occupied in times of conflict, while serving as convenient lookout points at most
times. Arabic *futuh* literature also suggests a program of settling lesser nobles (the *dihqanan*) near these frontiers. Ultimately though the symbolic value of walls as markers of the boundaries between “civilization” and “barbarity” should not be discounted.

The disposition of Sasanian fortifications and walled cities indicates a Sasanian strategic interest in defending, controlling, exploiting, and developing royal properties (*ostan*) and the lands of subject populations in fertile lowland regions beyond the traditional range of “Eran.” The construction of linear fortifications on the Arabian, Caucasian, and Gurgan frontiers all aimed to shelter revenue-generating agricultural lands from threatening migrants traversing these frontiers. The foundation of royal cities in these regions further strengthened local defenses, while serving in the development of markets for local and long-distance trade (Pigulevskaja 1963; Wenke 1975–1976; Christensen 1993: 67–116; Alizadeh and Ur 2007). Many of the core agricultural regions of the empire were further developed through the settlement of captives taken in raids and military campaigns, notably the inhabitants of Antioch deported to Khuzestan by Shapur I in 260, and from the same city to Asorestan by Kusro I in 540. In this sense, the Sasanians exerted significant military power in the defense and development of agricultural and urban resources exploitable by the Sasanian family. Sasanian efforts in this respect appear to have contributed significantly to the urban and agrarian development of the economic core of the empire: Khuzestan, Maishan, and Asorestan, as well as more remote regions, such as Azerbaijan, Gurgan, and Tabaristan. The roads, bridges and fortifications constructed along routes of travel, trade, and communication in the Sasanian era may provide further insight into the “development agenda” of the Sasanian kings (or local kings and aristocrats).

What becomes clear from examining the offensive and defensive measures of the era is a slight disjunction between the goals of the Parthian aristocratic families and the Sasanian dynasty. The Parthian aristocracy viewed warfare as a means to protect their Iranian estates, gain income from warfare, and influence (or intimidate) the Sasanian King of Kings. By contrast, the successive Sasanian monarchs evidently viewed warfare and its rewards as a means to enhance their weak position vis-à-vis the traditional aristocracies of Eran. For the king, war provided the opportunity to demonstrate decisive, charismatic leadership, to expand networks of patronage and personal loyalty, to recruit military forces independent of the traditional aristocracies, and to build economic and social networks that might act as a counterweight to the military power of the traditional aristocracy.

**THE FINAL CENTURIES OF SASANIAN MILITARY POWER**

The final two centuries of the Sasanian era saw first a military crisis and the restructuring of the Sasanian military and society. At its roots, this era saw the Sasanian monarchy attempt to renegotiate the terms of the aristocratic alliance between Persian and Parthian great families to the advantage of the Sasanians. While this renegotiation saw only limited success from the perspective of the Sasanian kings, the related transformation of the military in the sixth century dramatically reshaped the ambitions of the Sasanian polity in its final years.

In the fifth century, the Sasanian regime was threatened with three major challenges. The first of these was the development of large, politically suspect Christian populations, especially on the western frontiers of the empire (Brock 1982). Second was the increasing resistance, particularly among the aristocracies, to royal attempts to centralize power in the monarchy and Sasanian family. Finally, the establishment of aggressive Hunnic confederations, such as the Hephthalites, on the empire’s northeastern frontiers placed enormous stress on Sasanian armies.
Although each of these issues would trouble the Sasanian kings into the sixth century, they would all, in combination, contribute to the Armenian (or Caucasian) revolt of 450/451. In that year, Yazdgard II demanded the conversion (or reconversion) of the Armenian military aristocracy to Magianism/Zoroastrianism. Although these events are largely narrated by Armenian sources inveterately hostile to Yazdgard II, the king’s edicts were clearly rooted in a series of anxieties based on the nature of Sasanian recruitment and Sasanian military ideology (McDonough 2006). The aristocracy of Armenia had, over the previous century, substantially Christianized, despite their deep cultural affinities with the peoples of the Iranian plateau. Christian conversion undermined the complex and informal web of relations that traditionally bound the military strength of the empire to the king’s authority. Without a common culture, shared belief in the gods and the oaths they guaranteed, and respect for tradition, how could Christians be trusted to fight for Iran?

Doubts about Christian loyalties and the failures of the Sasanian army in the latter days of the fifth century critically shaped the internal and external policies of the kings in the late Sasanian era. The revolt of Armenia and the loss of its cavalry likely undermined Sasanian efforts to maintain military pressure on the Hephthalites of the northeastern frontier. Indeed, the years after 451 saw a progressive deterioration of the Sasanian position in Central Asia, culminating in the decimation of their army and the death of King Peroz in 484. Certainly a lack of soldiers forced the Sasanian kings Peroz, Balash, Jamasp, and Kavad to negotiate with the Hephthalites and ultimately to employ abnormally large numbers of federate troops (Arabs and Hephthalites, especially) to fill out their armies (Greatrex 1998: 55, 57–8). Kavad’s stint as his father’s hostage to the Hephthalites, and his return to the throne with Hephthalite backing further emphasizes the depth of the military crisis at the turn of the sixth century. Contemporary with, and probably related to, these stresses were a series of social disturbances among the Iranian aristocracy arising out the Magian communal religious movements of the Zaradushtakan and the Mazdakan, which had the consequence of upsetting (temporarily) the military, economic, and political power of the aristocracy and “Great Families” of Eranshahr (on which see Crone 1991, 1994; Gaube 1982; Tafazzoli 1984; Klima 1977, 1957; Christensen 1925).

The consequences of these crises may perhaps also be seen in the social and administrative reorganizations of the Sasanian polity under Kavad and Kusro. In the wake of their forcible repression of the Zaradushti and Mazdaki movements, Kavad and his son Kusro I Anoshirvan (“Of the immortal soul”) undertook a general survey of the empire’s economic resources and revised taxation systems to strengthen the empire’s fiscal position (Rubin 1995). In a related reform, Kusro enrolled a new lesser military aristocracy (the diqhanan), whose service was compensated through royal land grants. Recruiting the diqhanan, Kusro and his successors appear to have expanded the size of the Sasanian armies significantly, and may have aimed (with limited success) to reduce the monarchy’s dependence on the military resources of the vuzurgan (Tafazzoli 1996). The elaboration of a Sasanian version of “chivalry,” codified in this period (and recently discussed by Mohsen Zakeri), may also be related to development of the diqhan class.11 In a further development, the centralizing kings of the sixth century reorganized the empire into four regional military commands, each under an Eran-spahbed who reported directly to the monarch (Gyselen 2000). Other contemporary administrative changes were directed specifically at Christians, to ensure that even if they did not practice the “Good Religion” of Magianism, they might at least obey their king. The Sasanian monarchs officially encouraged Christian heterodoxy to sever Christian churches under Sasanian political control (e.g., the Church of the East, Miaphysite Armenia) from the Roman Church.
Sasanian kings, particularly Kusro II, invested considerable patronage in Christian shrines and institutions. Further, Sasanian kings appear to have generally accepted that Christians might play significant roles in administration or that the king might interfere in the administration of “his” Christian churches (Morony 1984: 332–83; McDonough 2008). Finally, and most significant from a military perspective, Sasanian kings made a tentative peace with their Armenian Christian subjects, accepting that culturally “Aryan” military aristocrats could loyally serve the Sasanian monarchy, even as Christians. The extensive Sasanian use of Armenian cavalry in Central Asia during the late sixth and early seventh centuries, especially under the Armenian general Smbat Bagratuni, illustrated this new modus vivendi.\textsuperscript{12}

These military reforms were at least superficially successful. Beginning in 540, Kusro I initiated a new era of conflict against the Roman Empire and its allies, fought from the South Caucasus to the Yemen. Further, Kusro’s armies effectively eliminated the kingdoms of the Hephthalites that had threatened the Sasanian northeast for a century. These campaigns, wars against the newly established Göktürk Khaganate in the later sixth century, and, finally, the massive invasion of the Roman Empire by Kusro II (602–628) characterized an era of aggressive military activity unseen since the first century of Sasanian rule (see Whittow 1996: 15–68 for a useful survey of the geopolitical situation of the sixth and early seventh century).

However, the revitalization of the Sasanian army in the sixth and seventh century had a variety of deleterious consequences. Sasanian campaigns against the Hephthalites and Arabs, while successful, created a power vacuum on both frontiers, filled by Turks and other Arab tribes. Incessant warfare placed great strain on the resources of the empire, even following the reforms and development activities of the late Sasanian kings. While these stresses were partially mitigated by wealth extracted from new conquests, they had the effect of “hollowing out” the inherently weak defenses of the Sasanian polity. Finally, the wars of the later Sasanian kings empowered a number of aristocratic warlords given extraordinary military commands in the Sasanian northeast and west.

Perhaps the most successful of these warlords was the Parthian general Bahram Chobin, whose career neatly illustrates the triumph and troubles of the late Sasanian military system. Given command of the Sasanian east by King Hormizd IV, Bahram lead Sasanian armies to victory over the Turks, killing the Great Khagan in single combat. Yet Bahram’s successes cast doubt on the martial valor of the king himself, leading to the general’s recall and his revolt against the Hormizd. In the subsequent revolt, Bahram declared himself King of Kings, explicitly claiming for himself the mantle of the defender of Eranshahr, and marking the first time in almost four centuries that anyone had mounted a serious challenge to Sasanian claims to kingship.\textsuperscript{13}

While Bahram’s rebellion was defeated by Kusro II (albeit only with Roman assistance) and Kusro’s armies achieved incredible successes in the east (under the Armenian Smbat Bagratuni) and against the Roman Empire in the west (sacking Jerusalem in 614 and besieging Constantinople in 626), these victories were ephemeral. The overstretched Sasanian armies proved incapable of capturing Constantinople (Howard-Johnston 1995b). Simultaneously, the Roman emperor Heraclius, allied with Turkish khans, exploited Sasanian weaknesses, smashing the irrigation works laboriously constructed by kings and nobles over centuries, and destroying the great fire temple at Adur Gushnap, the point of origin for so many campaigns against the Roman Empire (on Heraclius’s campaigns see Kaegi 2003: 100–91; Howard-Johnston 1994, 1999, 2004; Whittow 1996: 69–82). At Nineveh (627), Heraclius and his allies defeated the Sasanian field army, leaving King Kusro with no support. His previously loyal subjects and commanders in the field turned on their king, executing
Kusro, and perhaps the Sasanian Empire with him.

THE END OF THE SASANIAN ARMY

In the style of his ancestors, Kusro II had planned a great rock relief sculpture to commemorate his unprecedented victories. This monument to Kusro’s personal glory, and to the power of the Sasanian dynasty, was never to be completed, with only its platform and cleared canvas left at Taq-i Bustan to attest to Kusro’s ambitions. The more lasting legacy of Kusro’s wars was the physical and financial ruination of the Sasanian economic heartland and a half-decade of civil conflict (Howard-Johnston 2004).

In the years to come, the Sasanian polity would face the new challenge of Arab invaders, energized by the unification of the Arabian peninsula and the promise of Islam (see further, e.g., Hoyland 1998; Kaegi 1995; Crone 1987; Morony 1984; Donner 1981). In a series of battles, Arab Muslim armies repeatedly humbled the previously formidable Sasanian military. In the face of Arab Muslim successes, the aristocrats and warlords who had risen during the era of Sasanian success died on the battlefield, carved out their own fiefdoms in the Caucasus, the Iranian plateau and beyond, or, as they had at the dawn of the Sasanian period, allied themselves with the new, rising power.

Facing the ruin of his empire, the last Sasanian king, Yazdgard III, died, murdered in Merv, the most remote Central Asian outpost of the once-powerful Sasanian polity. His surviving son, last loyal generals and soldiers would reappear in service to Tang China, hoping for the eventual restoration of a Sasanian King of Kings of Eranshahr. While these hopes were stillborn, the soldiers and principles of the Sasanian military would live on in Iran and beyond through the Middle Ages.

BIBLIOGRAPHY


———. 1944. L’Iran sous les sassanides. 2nd ed. Copenhagen.


——. 2005. “Smbat Bagratuni.” *Encyclopaedia Iranica Online* ([wwwiranica.com](http://wwwiranica.com)).


Gignoux, P. 1987. “Aneran.” *Encyclopaedia Iranica Online* ([wwwiranica.com](http://wwwiranica.com)).


PART IV
CASE STUDIES

The Classical World at War
In summer 415, Athens sent a large military force to Sicily in what has come to be called the Sicilian Expedition. At the time Athens and Sparta were enjoying an uneasy peace, the Peace of Nicias, which they had agreed to in 421, ending the Archidamian phase of the Peloponnesian War (Thuc. 5.14–25.1). The expedition (not a violation of the Peace) began with an appeal from the Sicilian city of Egesta for assistance, but it quickly grew into a massive military effort led by multiple generals. The force included triremes, transports, and supply ships loaded with all manner of personnel and matériel from Athens and its allies. In Thucydides’s words, it was “the costliest and grandest” fleet ever to set sail from a single Greek city (6.31.1).¹ In Sicily what began with a naval expedition became a siege of Syracuse including battles on land and sea. Regardless of the original intentions, this expedition would lead to a significant Athenian defeat, the end of the Peace of Nicias, and contribute to the ultimate Spartan victory in the war. Since it eventually involved nearly every kind of warfare employed by Greeks during this period the expedition provides an instructive case study for the state of Greek military practices and technology in the late fifth century.

What would become a disastrous campaign grew out of an embassy in 416 from Egesta asking Athens to honor an old treaty and aid them and other Sicilian allies. Athens had signed treaties of alliance (symmachia) with a number of Sicilian cities including Egesta and Leontini during their western campaigns of 427–424, but in the interim Egesta had been defeated by Selinus while Leontini had been depopulated by Syracuse. The Egestaeans promised to pay sixty talents for the wages of sixty ship crews. Athens proceeded cautiously, sending envoys to confirm the situation and the funds (6.6.2–7.1, 6.8.1–2, 6.46; Diod. 12.83.1–4; Kallet 2001: 27–31). Once the envoys confirmed the presence of the funds in Egesta and returned to Athens in 415, there were public assemblies in which Alcibiades presented a proposal to sail to Sicily and Nicias argued against the proposal. After much political maneuvering in two assemblies spread over the course of several days, the Athenians selected Alcibiades, Nicias, and Lamachus as generals (strategoi) of a force that far exceeded the original request (6.8.3–26; Diod. 13.2.1; on these debates and the Egestaean offer, see Kallet 2001: 21–84). The expedition thus started out with multiple leaders, one of whom, Nicias, had opposed it from the beginning.

The Opposing Forces

The force sent to Sicily ended up being a large force even if it was not the largest ever sent out by
Athens. After departing the harbor at Piraeus in glory, the Athenian force met up with additional allies at Corcyra. The combined flotilla included two Rhodian penteconters, 134 triremes, of which one hundred were Athenian, and one horse transport (hippagogos). The only detail we have on the ship types is that of the Athenian ships, sixty were “fast” (tacheiai) ships and forty were transports (stratiotides, hoplitagogoi), and all were fitted out expensively. Presumably the transports could be converted if necessary, but there is little evidence that they ever were. In addition to the warships, there were thirty cargo ships carrying food, supplies, tools, bakers, stonemasons and carpenters, as well as over one hundred smaller boats pressed into service, presumably to carry supplies, and additional merchant vessels that voluntarily accompanied the fleet (6.31.1, 43–44.1).

The soldiers sent initially were no less mixed. There were 5,100 hoplites including 1,500 Athenians drawn from the hoplite rolls, 700 Athenian thetes serving as marines (epibatai), 500 Argives, 250 Mantineans, and mercenaries, the remainder drawn from other allies. Additional manpower included 480 archers, 80 of whom were Cretan, 700 Rhodian slingers, and 120 light-armed Megarians.\textsuperscript{2} The extent to which Athens relied on its allies emerges from Thucydides’s catalog of participants, which includes thirty-eight cities and peoples on the Athenian side (7.56–57). The oarsmen who were not included in the rolls provided by Thucydides would have included a variety of personnel that could fill various roles from laborers to light-armed fighters (Strauss 2007: 229). The one military element in which the Athenians were weak was cavalry. The limited number of horses (thirty) in the fleet suggests they planned to secure more in Sicily, but there were no cavalrymen in Thucydides’s catalog and he later reports that there were none present (6.64.1). Lack of cavalry would be a recurrent problem throughout the campaign. Given the resources available to Athens through its population and empire during this period, the force is surprisingly small.

Later Athens added to the initial force with an array of reinforcements. In spring 414 they dispatched 250 cavalrymen and another 30 mounted archers along with cash to purchase horses. Since Thucydides does not state that any ships joined the fleet they probably returned to Athens (6.94.5). About a year later, Eurymedon arrived with ten more ships and silver, but no new troops (7.16). When Demosthenes arrived later in the year he brought with him some seventy-three ships, 5,000 hoplites (1,200 Athenians), and numerous light-armed troops (7.42.1). The total number of men may seem small for an invasion of Sicily, but it was a significant commitment of resources and it confirms that they had planned to use diplomacy extensively to meet their ends.

Athens was not solely dependent on the soldiers it brought along. Additional manpower would be found among Athens’s allies in Sicily—Leontini, Zankle, Catana, and Egesta, as well as some of the Sicel settlements. They had probably counted on military support from some of the Greek cities in southern Italy, but such hopes turned out to be largely misplaced with the exception, eventually, of Thurii and Metapontum (7.57). Local allies were also critical for providing cavalry. In 414, the cities of Egesta, Zankle, Sicel, and some other allies provided cavalry and horses to the Athenian force (6.98). Additional manpower for labor could be found among sailors, craftsmen, traders, and camp followers in the various ships that tagged along as well as among allies.

The Syracusans were ill-prepared for the coming invasion. The Syracusan leadership was disunited. The lack of agreement on whether the Athenians were even approaching is a key theme of Thucydides’s account of a debate at Syracuse (6.32–41). Only when Athens was obviously present and intent on military action did the Syracusans finally agree to appoint generals and take what measures were necessary (6.41; Diod. 13.4). Sources do not detail the extent of such preparations, but they must have included mustering all available men and material (Plut. \textit{Nic.} 14.4).
The city’s own resources were similarly mixed in quality and quantity. Ortygia, the original settlement of Syracuse, was on a peninsula protected by walls (Gomme-Andrewes-Dover 4: 471). Syracuse maintained no regular vigilance against attack, thinking Sicily was secure (6.32–36). Although it has occasionally been asserted that the Syracusans had no fleet in 415 (Kagan 1981: 220), they must have had some ships. Thucydides makes no mention of the number of Syracusan warships when the Athenians arrived, but he includes in the Syracusan debate discussion of manning ships and sending a force against the Athenians (6.32–34) and it is unlikely that the eighty ships launched in 414 (7.22) were built over the prior winter. As for infantry, no source provides any specific numbers. Although Syracuse’s hoplites and military leadership were inexperienced in comparison to the Athenians and their allies, the city was large and wealthy and could draw on considerable manpower and resources (Scheidel 2003: 131–5).

Syracuse had other potential sources of manpower. Various local allies including Gela, Selinus, Camarina, Himera, and some allied Sicel communities could provide additional manpower and cavalry (Diod. 13.1–2). The numerous recruiting missions undertaken by the Syracusans and their allies demonstrate the importance of this reserve (6.72.2–73, 76–81, 88.6–8, 7.1.3–5, 21.1, 32–33.1, 46, 50.1–2). Although Syracuse necessarily could not count on assistance from Greece, it had maintained a relationship with its metropolis, Corinth, and could request aid from the Peloponnesian League. The Peace in Greece and Alcibiades’s encouragement after he defected led to the dispatch of small numbers of men and ships from Sparta, Corinth, Leucas, and Ambracia after the Athenian arrival (6.91.4, 104.1, 7.1–2). In Thucydides’s catalog (7.58) there are more than thirteen cities and peoples allied with Syracuse in this fight. These reinforcements, especially those from Greece, were key to Syracuse’s survival.

After assembling in Corcyra, the Athenian flotilla sailed west. The fleet split into three groups in order to avoid the logistical demands such a large force would create (6.42; Krentz 2007: 153–4). Despite the extra ships hauling provisions, the flotilla had to make several stops along the southern Italian coastline. These stops were intended to provide individual ships with opportunities to acquire water and buy necessities, but as it turned out most of the coastal cities would provide nothing more than a place to pull up their ships and gather water (6.44; Diod. 13.3.4). The weakness of Athenian intelligence emerged at Rhegium where the three divisions met again. Although the Athenians had expected their former allies to welcome them and provide assistance, the city provided a marketplace outside its walls, but no support of any kind, preferring not to take sides (6.44). Simultaneously, the generals learned that the Egestaeans, through a clever ruse, had deceived the Athenians over the available resources to fund the expedition (6.46; Kallet 2001: 69–79). According to Thucydides, it was this news that drove the generals to meet and discuss the strategy to be followed in Sicily (6.47).

**War Aims**

Before approaching the generals’ conference at Rhegium further it is useful to review the war aims reported by sources. The directive given to the generals by the first Athenian assembly included three parts: relieving Egesta, restoring Leontini, and also “taking measures in Sicily in a manner they think best for Athens,” (6.8.2). After the city selected the expedition’s commanders in the second assembly, it also granted them authority to “act as they think best” (6.26.1). The directives issued by the second assembly are very nearly those of the first. These directives are not the only things reported as the city’s aims. After a long preface on the size and diversity of Greek settlements in Sicily, but before
narrating the assemblies that authorized the expedition, Thucydides asserts that Athens’s “true intent” was “conquest of the entire island” (6.6.1, 8.4; Diod. 13.2.6, in rough agreement). Thucydides apparently based his assertion more on his observation of events than on anything explicit in his report of the assemblies. Thucydides’s assertion has led to a heated debate that shows no sign of easing. Regardless of whether one accepts that the ambiguous orders originating in the assemblies were hiding Athens’s “true intent,” it is clear that the mission carried from the beginning a vague mandate that left much discretion to the commanders on the scene (Thucydides’s statement [6.6.1] regarding Athenian intent has evoked considerable debate; see Lazenby [2004: 132–6] for discussion).

The conference convened by the generals at Rhegium demonstrates the ambiguity of Athenian aims and the commanders’ plans. Although the funds originally promised by the Egestaeans were no longer available, the generals declined to abandon the expedition and now planned accordingly (6.44). Nicias proposed they sail to Selinus to assist Egesta by force or by treaty and demand the originally promised funds. He also called for a show of force as they sailed down the coast, and if no easy opportunity to assist Leontini appeared they should return to Athens (6.47). Alcibiades took a more aggressive stance, calling for diplomatic maneuvers in Sicily to secure support followed by attacking Syracuse and Selinus unless they came to terms with Athens’s allies (6.48). Lamachus made the most aggressive proposal. He proposed an immediate surprise attack on Syracuse, arguing that such an attack could win over allies and intimidate their primary opponent on the island (6.49). According to Thucydides, having made his opinion known, Lamachus then supported Alcibiades’s proposal. The reported debate conforms to what we know about mixed commands (Hamel 1998: 94–9). While Nicias’s proposal was prudent and focused on the basic directive from the assembly, Alcibiades’s plan conformed no less to the assembly’s orders. In fact, even Lamachus’s proposal would conform to the orders issued by the Athenian assembly. The orders were so vague that they permitted the commanders to undertake nearly anything in Sicily; under such circumstances there were many ways of achieving failure.

Syracusans war aims were more limited. In relation to Sicily as a whole, Syracuse expected to maintain its dominant position. The city had contended with an Athenian campaign in the previous decade, but this had not turned out to be a long-term threat to Syracusan dominance.3 The Syracusans, once they realized the Athenian expedition was genuine, only had to maintain their independence in order to succeed. While such a strategy was easier than Athens’s aims, it was not without difficulty. Syracuse was a democracy and there is no reason to assume that it was any less divided in its decision making than any other democracy. As events would prove, maintaining independence was complicated by the lack of strong leadership and Athenian attempts to turn the city from within.
Following the conference at Rhegium, the generals began to implement Alcibiades’s strategy of diplomacy, but with mixed results. They were unsuccessful in Messana, Camarina, and initially in Catana too, but found Naxos a willing ally (6.50.1). Later, when the generals were invited to speak in Catana, the army infiltrated the city during Alcibiades’s speech, obliging the city to ally with the Athenians and provide a base of operations (6.51). The manner in which the Athenians turned Catana demonstrates how effective and valuable subterfuge could be as a strategy. Several forays into Syracuse’s harbor and territory during this period achieved nothing (6.50.2–5, 52). The turning of Catana was a positive step, but overall the generals achieved little. They had found only two Sicilian cities willing to be allies and had even found themselves rejected by cities they had expected to welcome them.

On conclusion of this diplomatic activity, the Salaminia, one of the official ships of state, arrived with orders for Alcibiades to return to Athens for trial. The charges rose out of several religiously
provocative incidents that had occurred in Athens before the fleet sailed, but which had been under investigation since then.⁴ Alcibiades departed in his own ship along with the *Salaminia*, but on the voyage back he jumped ship in Thurii and later defected to Sparta where he did plenty of damage to the expedition (6.61.6–7, 88.9–93; Diod. 13.5.2–4, 7.1). Alcibiades’s departure left the expedition short of its most vigorous proponent.

The generals continued to pursue diplomacy, but now turned to Egesta. Splitting the force, they moved along the north coast. According to Thucydides (6.62.1), the goal was to get available funds from Egesta and investigate the conflict with Selinus, but since they did not need the entire force to complete this goal it is probable they had other intentions including intimidating the cities along the coast, chastising enemies, and encouraging would-be allies to join (Hornblower 3: 457–61). Although they secured no additional allies and Nicias achieved little in his visit to Egesta, they successfully captured the Sicanian city of Hyccara, an enemy of Egesta, and enslaved the population. The fleet returned to Catana where the sale of the slaves brought in 120 talents. The army, for which there was no longer space in the ships, marched overland through Sicel territory, attacking the city of Hybla, but “failed to capture it” (6.62.2–5; Diod. 13.6.1–2).

Late in 415 the Athenian force finally struck at Syracuse. After luring Syracusan forces toward Catana with some false intelligence, the Athenians sailed south, landing unopposed and establishing a beachhead on the Great Harbor’s shore south of the Anapus River (6.63–66). Despite knowing standard methods for protecting a harbor (7.25.3), the Syracusans had taken no effort to protect the Great Harbor. Evidently they did not take seriously the chance of an Athenian attack.

Thucydides provides an account of the first full-scale battle (6.67–70). The Athenian generals broke their army into two parts arrayed in front of their palisade. The advance line was eight ranks deep with the Mantineans and Argives on the right wing, Athenian forces in the center, and the other allies on the left wing. The other half of the Athenian force was a reserve (*epitaktoi*) in a box-like formation (*plaision*) with the baggage and carriers occupying the center. The Syracusan forces, including allies from Selinus, Gela, and Camarina, lined up sixteen deep (6.67). After a speech by Nicias the battle began with light-armed troops of both sides but these accomplished little. Then with a trumpet and sacrifices the hoplite lines advanced and engaged. At first neither side gained an advantage, but eventually the Athenian and Argive experience won the day as they pushed back the Syracusan line, which finally broke and ran. Only the presence of Syracusan cavalry kept the Athenians from pursuing, but they did set up a trophy. The next day, after exchanging their dead, the Athenians, concluding they were unprepared for a siege, sailed back to Catana (6.69–71; Diod. 13.4–6).

Several observations can be drawn from this first fight. Thucydides presents the fight as a hoplite engagement, as would be expected in this Greek context, and he provides good details such as the steps involved in engagement and Nicias’s use of a reserve force (Lazenby 2004: 143; Wheeler 2007: 203–4). Thucydides also makes clear that the Syracusans were numerous, supported by allies, and just as brave as the Athenians. They were, however, inexperienced (6.69.1). Syracusan cavalry also made a difference in the overall outcome of the day’s engagement; its success highlighted the Athenian deficiency in cavalry.

The Athenian withdrawal seems initially to have been ridiculous given their success, but as Thucydides explained, it was based on the late season and the lack of cavalry, money, allies, and supplies (6.71.2). To hold Nicias responsible for the success or the failure to follow it up is unreasonable. While the Athenians had waited until late in the year to attack, the sequence of events to
that point did not seem to have offered opportunity for movement against Syracuse. Thucydides’s emphasis on Nicias probably has more to do with later events than with any responsibility for Athenian success or delay. At this point Lamachus was still present and other than Plutarch’s treatment (Nic. 14.4, 15.1) there is little reason to suppose that Nicias was making all the decisions himself (Hamel 1998: 94–9).

Both sides were busy during the winter of 415/414. The Athenians sent to Athens for cavalry and cash. They tried and failed to bring Messana, Camarina, Carthage, and Etruria over as allies, but they were more successful at securing Sicel allies (6.74, 82–88.2). The Syracusans sent representatives to Corinth and Sparta for assistance and tried to secure Camarina and the southern Italian cities as allies (6.72.2–73, 76–81, 88.6–8). They also built defenses including setting stakes in the harbor, building fortifications at strategic points, and setting up a wall across the Epipolai (the heights) northwest of Syracuse proper to enlarge the city size in the event of a siege (6.75, 7.25.3). The extended wall would make the city more difficult to circumvallate and could resist a siege (Gomme-Andrewes-Dover 4:471–3; Lazenby 2004: 144–5). Each side received the assistance they requested. Corinth committed ships and Sparta, spurred by Corinth and Alcibiades, appointed Gylippus to go to Syracuse and aid in the city’s defense (6.88.7–93.3). Athens committed money and cavalry to aid their expedition (6.88.6, 93.4).

After the mixed results of the previous year, 414 started well for the Athenian generals. Following raids on Megara Hyblaea and the Sicel towns of Kentoripa, Inessa, and Hybla, the reinforcements from Athens arrived: 250 cavalrymen without horses, thirty mounted archers (also without horses), and three hundred talents of silver (6.94; ML 77. ll. 73–74). With these additional funds, horses could now be purchased. A little later, after maneuvering to Trogilus (just north of Syracuse) unnoticed, they launched a successful surprise attack from the north on Epipolai that permitted the Athenians to set up a fort at Labdalon on the steep northern edge of the heights (6.96–97). Soon afterward they seized a point called “the Fig Tree” (Syke) on the heights of Epipolai between Labdalon and the Great Harbor and constructed a fort there that Thucydides referred to as “the Circle” (kuklos).5 Despite having created an elite unit of 600 before the surprise attack, the Syracusan hoplites were in disarray during these encounters and only the cavalry provided any resistance (6.97–98).

The “Circle” became the hub from which the Athenians began building a stone and wood wall of circumvallation to the north and south to cut Syracuse from the rest of Sicily. The masons in the original flotilla and the small blocks they started making late in 415 (88.6) indicate that this had always been a strategy. The combination of the wall and Athenian naval superiority was intended to result in the eventual fall of Syracuse, although treachery would be faster and was another available option (see also Seaman this volume, 642–56). Circumvallation was the height of siege warfare in the late fifth century; it was slow and expensive, but successful if prosecuted steadily (Strauss 2007: 237–47). At this point, the Syracusans gave up fighting head-on against the Athenian hoplites and started a counter wall perpendicular to the route of the Athenian wall south of the Circle. The Athenians broke pipes bringing extra water into the city, but since the spring of Arethusa was in the city the Syracusans could not be reduced by this measure. After the Syracusans had made progress on their first counter wall, a picked force of three hundred Athenians were able to capture the first counter wall and destroy it (6.99–101). Soon afterward the Athenians began building the wall south of the “Circle” and the Syracusans responded with a new counter wall across this line too. The Athenians successfully assaulted this wall also, but in the fight Lamachus was killed (6.101.6; Plut. Nic. 18.3). A sudden Syracusan assault on the “Circle” was stopped only by the quick intervention of
Nicisco who was convalescing there and by the appearance of the Athenian fleet in the Great Harbor. The Athenians were then finally able to establish a beachhead with stockade on the shore of the Great Harbor (6.102–103).

It must have appeared to many participants that now with the Athenian forces concentrated the campaign must come to a successful Athenian conclusion. The double circumvallation walls south to the harbor would be completed without any further intervention by Syracuse. Supplies now came in from Italy and several new allies joined them, including some Sicels and three penteconters from Etruria. The Syracusans despaired of success and began to debate their options. As a result, they opened peace negotiations with Nicisco and deposed their generals (6.103). Nicisco, whom Diodorus calls a proxenus of Syracuse (13.27.3), may have planned turning the city through treachery. It had worked in Catana and there is no reason to think it would not work again (7.48.2–3, 49.1; Plut. Nic. 21.3, 22.4; Green 1970: 4–5; Ellis 1979: 59; Trevett 1995; contra Grant 1974: 87). Unknown to the Syracusans, Gylippus and the Corinthian commander Pythen were delayed in Leucas. After leaving with four triremes ahead of their small force of thirteen ships, they sailed west but were further delayed by negotiations and weather in Tarentum. Nicisco learned of their approach but given the small size of the force dismissed them as unimportant and initially took no action (6.104).

Syracuse Seizes the Initiative

In the spring of 414, Gylippus and the Corinthians arrived in Sicily and immediately began working to turn the tide against Athens. Having learned in Locri that Syracuse was still accessible, they landed in Himera with four ships, the crews of which provided them the seven hundred or so sailors and marines they would lead to Syracuse. There they acquired Himera as an active ally to supply arms for their men and additional forces and sent word to Selinus, Gela, and some of the Sicel settlements to send troops. These answered positively and quickly so that when they departed Himera they led a force of around three thousand men and three hundred cavalry (7.1; Diod. 13.7.7). Even as Gylippus departed Himera one of the Corinthian ships that had remained behind in Leucas arrived in Syracuse. According to Thucydides, they found the Syracusans on the verge of voting to make peace, but they were able to stop them from proceeding and restored the city’s spirits (7.2.1). Although contemporaries could not know it yet, Thucydides makes clear these arrivals were the turning point of the Sicilian campaign (Kern 1989).

Gylippus, finding the circumvallation of Syracuse now nearing completion, took up command of the land forces and pursued an aggressive posture. South of the “Circle” the wall was nearly complete and some parts to the north were already finished with stones set out for the parts still incomplete. He marched onto Epipolai in battle line and joined up with the Syracusan forces, but after offering peace and being spurned Gylippus did not engage because he found his forces unready for combat (7.2.3–3.3). The next day, shielded by a line of battle, he captured the Athenian fort at Labdalon. The Syracusans also captured a ship that had been blockading the Little Harbor. They then began building a new counter wall (the third) that was to cross Epipolai east to west and stop the Athenian circumvallation (7.3.3–4.3). During all of this activity Nicisco seems to have taken a passive approach on land and sea.

After these initial successes Gylippus kept up the pressure on the Athenians with assaults on their wall north of the “Circle” (7.4.1–3). Concerned about supplies and the naval position, Nicisco fortified Plemmyrion, the headland at the southern mouth of the Great Harbor, and moved part of the
base camp there. This new site was less satisfactory because water and forage were less easily accessible, but it certainly seemed a secure base for resupply from sea. Syracusan cavalry used Olympieion as a cavalry base and harassed anyone who foraged outside Athenian-controlled areas (7.4.4–6). Back on Epipolai, Gylippus kept deploying daily for combat and pushed his men to continue the counter wall, even using the stones previously set out by the Athenians. Once when he tried an unsuccessful attack between the Syracusan winter wall and the Athenian circumvallation, he lost, perhaps because his cavalry could not assist. When Nicias realized the counter wall was going to cut his circumvallation he finally took the offensive, but Gylippus, arrayed in a position where his cavalry could participate, defeated him, and thus carried the Syracusan wall across the Athenian circumvallation route (7.5.2–6). Once the counter wall was pushed across the route of the Athenian wall Nicias had to capture it if he was to complete his investment of the city, but because of Gylippus’s consistent harassment Nicias had to employ his forces defensively, guarding what he had built instead of attacking. The Syracusans continued extending their counter wall to the east through the rest of 414 and into 413.

The Athenian land forces were not the only part of the expedition to be in trouble. In addition to the noncombatants who had been brought along and had little to do once Nicias stopped building the siege walls, the naval forces also suffered. The fleet had been maintaining a blockade since the force moved south from Catana in the spring (7.3.5, 12.2–13.1). The problem with such a strategy is that the ships could only be pulled out of the water for maintenance if taken to Catana or Naxos. But in doing so Nicias lost the use of both the ships and their crews, and all the while the ships were deteriorating from water damage and wear (Morrison et al. 2000: 151–2; Harrison 2003). Moreover, the crews suffered from fatigue and from cavalry raids while foraging; when the ships shifted to Plemmyrion the Syracusan cavalry kept them close to camp. Nicias cited desertions of sailors and slaves as well as other personnel issues as regular and major problems (7.13.2–14.3). Evidence that there were naval problems showed up in the earlier capture of a ship in the blockade (7.3.5) and then at the end of fighting in 414, the rest of the Corinthian, Ambraciot, and Leucadian ships (twelve in all) arrived, having slipped past both the Athenian force sent to intercept them and the blockade (7.7.1). By the end of 414 the Athenian ships were no better off than the land force.

Both sides then made preparations for the winter lull and the following spring. Now that campaigning was over for the season, Gylippus went out into Sicily seeking additional reinforcements and new allies. A delegation of Syracusans and Corinthians sailed east to request additional support from Sparta and Corinth. Increasingly confident of their fortunes, the Syracusans undertook naval preparations by manning a fleet and beginning training, probably under Corinthian direction (7.7). Meanwhile, Nicias committed himself to a defensive strategy and decided to avoid unnecessary risks (7.8). He sent messengers to Athens with a letter summarizing the weakness of his position and requesting either recall or reinforcements before the following spring. The letter specifically points out both the deterioration of the fleet (waterlogged ships) and his own declining health (kidney disease?; 7.8, 10–15). By the end of 414 both sides may have sensed a turning of the tide.

Despite the demands of conflict in Greece, the Athenians and the Peloponnesians responded readily to the requests for assistance. The Athenians responded to Nicias’s letter by committing a new force. They first sent two men to act as commanders (Menander and Euthydemus) until the new generals arrived and then chose two new generals, Eurymedon and Demosthenes, to join Nicias. Of these two colleagues Eurymedon departed earliest, at the winter solstice, with ten ships and 120 talents. They also sent twenty ships to Naupactus to stop reinforcements from going to Sicily (7.16.2–
Demosthenes was to depart in spring. By the time he arrived in Sicily he would have seventy-three ships, with five thousand hoplites (1,200 Athenian), and numerous light-armed troops (7.17.2, 19, 42.1; Diod. 13.11.1–2).

When Demosthenes embarked for Sicily in spring 413 the Peace of Nicias was a dead letter. The Athenians had raided the eastern Peloponnesian coast in summer 414 and the Spartans, having refused to submit to arbitration, declared the Peace to have been violated by Athens. Sparta now invaded Attica and established a permanent garrison at Decelea (6.105; 7.18–19.2). Ongoing operations in Sicily had made the Peace one in name only. Now in winter 414/413 Thucydides provides a formal end to the Peace.

The Syracusan force received reinforcements from the Peloponnese and Sicily. Sparta sent out six hundred hoplites drawn from among the helots and *neodamodeis*. Other members of the league contributed hoplites too: three hundred Boeotians, five hundred from Corinth and Arcadia, and two hundred Sicyonians. The men rode out in merchant ships screened by the Corinthian fleet across from Naupactus (7.17.4, 19.3–5). Gylippus raised a force in Sicily, but Thucydides does not provide details (7.21.1). Even though his reinforcements from Greece would not arrive for weeks he had reason to be optimistic.

Knowing from defections that the Athenians had sent for reinforcements, Gylippus vigorously opened the campaigning season of 413 by initiating a sea-and-land assault on the Athenian fortifications at Plemmyrion. The Syracusans mustered thirty-five triremes in the Great Harbor and brought forty-five more around from the Little Harbor. The Athenians met these with sixty triremes, twenty of which stayed in the Great Harbor, the rest attacking as the Syracusans entered the harbor. Initially, the Syracusans fared well, but when the ships from the Little Harbor broke into the Great Harbor they became entangled and the Athenians successfully counterattacked, losing only three ships, the Syracusans eleven. While Athenian ships may have been in poor repair (originally they had 134 triremes), Athenian experience made the difference (7.21.2–23).

Although the Athenians won at sea, the battle on land went differently. During the previous night, Gylippus led his land forces closer to the forts so that while the Athenians were watching the battle in the harbor he attacked, capturing all three of their forts, meeting little resistance. They captured some personnel, three ships, and took much matériel including, grain, ship tackle, and personal property. They then garrisoned and strengthened two of the forts and dismantled the third. While each side’s morale responded in accordance with their fortunes, the capture of Plemmyrion was much more important than the loss at sea. In addition to the captured supplies, the Syracusans now hemmed in the Athenian camp entirely on land and had broken the blockade, meaning that ships delivering Athenian supplies would have to fight to get into the Great Harbor (7.23–24).

Following the battle, naval activity continued on several fronts. The Syracusans responded by sending a ship to the Peloponnese to speed up the reinforcements. Also, a small squadron (eleven ships) sailed north where they intercepted and burned Athenian supplies and took on board some Thespian hoplites en route from the Peloponnese, before returning to Syracuse with the loss of only one ship (7.25.1–4). Activity in the Great Harbor sheds light on naval siege tactics as the two sides vied for dominance. The Syracusans had driven pilings into the harbor to protect their ships at dock. The Athenians tried to undermine the Syracusan defenses by pulling up, snapping off, or sawing through the pilings, using a huge boat equipped with towers and shields as well as divers. This strategy was among several employed by both sides, but not elaborated by Thucydides (7.25.3–9).

Both sides continued to secure their allies. Several delegations went out from Syracuse to the
Sicilian cities to convey good news, dispel any negative rumors concerning the first naval engagement, and request additional manpower with which to crush the Athenian forces before their reinforcements arrived. Due to an ambush by Sicels, only 1,500 men and one envoy made it to Syracuse where they arrived simultaneously with Camarinean and Geloan soldiers and sailors (7.32–33.1). Meanwhile, Demosthenes made his slow way to Sicily. He was unable to stop the Peloponnesian reinforcements from reaching Syracuse, but he picked up various allied troops, mostly light-armed, in various ports along the way in Greece and Italy (7.26, 31, 33.3–6, 35).

The second battle of the year was another land and sea engagement. The Syracusans had been practicing and building their confidence. The strategy they proposed took advantage of their strengths and the limited space in the Great Harbor—ramming bow-on-bow. They had followed the example of the Corinthians, adjusting and strengthening their prows for this uncommon ramming tactic. Such a strategy was well-suited to the weakness of the light Athenian ships, but even more to the closed space of the Great Harbor (7.36; Morrison et al. 2000: 163–7). Walls on land and pilings in the sea protected the Athenian camp and beach, but since the successful capture of Plemmyrion the Syracusans controlled access to the harbor and much of the coastline inside so the Athenian ships had limited options in the event of trouble at sea. Both sides in the naval battle were evenly matched: seventy-five Athenian ships defending against the eighty attacking them. Simultaneously, Gylippus attacked the Athenian walls with a force from the city and from Olympieion. The first two days were inconclusive, though Nicias succeeded in anchoring some ships in order to shield the Athenian stockade and provide cover for ships in trouble. On the third day, after a ruse in which they tricked the Athenians into thinking they were breaking for the day, the Syracusans were able to win by combining head-on ramming with javelin men stationed on decks and in smaller craft sailing up to the triremes and throwing through the oar ports (7.37–41; Lazenby 2004: 155). The close quarters inside the harbor made all the difference. Although they sank fewer than ten ships, the Syracusans won and seemingly had now taken the initiative at sea away from the Athenians.

Syracuse’s elation was short-lived, however. According to Thucydides, at exactly this moment Demosthenes and Eurymedon arrived with some seventy-three ships and five thousand hoplites (7.42.1). Once he surveyed the situation and consulted with his colleagues, Demosthenes decided to recover the initiative through swift action and selected as his target the Syracusan counter wall that had stopped Nicias (7.42.3–5; Diod. 13.11.3; Plut. Nic. 21). He initially attempted to use siege engines (probably battering rams) but the Syracusans set these on fire. After this attempt failed, the Athenian commanders agreed on a night assault (7.42.4–43.2; Diod. 13.11.3). This was a high-risk strategy born of impatience (so Roisman 1993: 56–63). The Athenian attack on Epipolai started well: the fort at Euryelos was captured quickly and the Athenians pushed on, taking part of the counter wall and dismantling it. But in taking the Euryelos fort, some of the guards escaped and raised the alarm among the special unit of 600 advance guards as well as the three Syracusan and allied outworks (proteichismata) on Epipolai. The elite unit arrived on the scene first, but the Athenians, led by Demosthenes, defeated them handily. Then Gylippus and the other three detachments showed up. The Syracusans and their allies began to hold, slowing the advance of fresh Athenian forces now approaching the Euryelos. On the heights the confusion increased as more Syracusan forces arrived, defending ground they knew against an enemy fighting in the dark on confined, unfamiliar ground with poor communications. The attack was entirely repulsed and the Athenians surrendered the heights with much loss of equipment and life. The next day Syracusan cavalry mopped up Athenian stragglers (7.43–45; Diod. 13.11.3–6).
In the immediate aftermath, both sides reassessed their situation and responded accordingly. Syracusan morale was high. They immediately sought further reinforcements from their allies in Sicily. This initiative was extremely successful and Gylippus brought in both Sicilians and some Peloponnesian troops who had gotten lost on the way (7.46, 50.1–2). Now that they had an enlarged force and confidence they resumed the offensive.

The Athenian response was tempered. Their morale sank as the army suffered from the defeat and poor conditions in camp. Demosthenes proposed an evacuation to Athens, but the failed night assault had undermined his influence. Nicias now asserted himself, perhaps with Eurymedon’s support, determined to continue the fight. His decision may reflect fear of the Athenian assembly should he return home unsuccessful, or he may have hoped still to take Syracuse by treachery as allies within the city encouraged him it might still fall from within (7.47–49; Plut. Nic. 21.3, 22.4). When the Athenians learned that the Syracusans were preparing a new offensive, they decided to evacuate, only to be stopped in their tracks by a lunar eclipse. Whether it was piety or superstition, the Athenians remained in place for twenty-seven days in accordance with the seers’ (theiasmoi) advice (7.50.3–4; Diod. 13.12.6). Perhaps Nicias was at fault for being excessively religious, as most ancient sources find (Gomme-Andrewes-Dover 4: 428–9; Hornblower 3: 642–4), but he was not the only one who reacted this way and the Athenians had reason to believe they might hold out until the period was complete. It is too easy to forget that although this delay appears in hindsight to make the end of the expedition inevitable, at no point yet would contemporaries have seen the outcome as predictable.

It should be no surprise that the final phase of the expedition began with a naval battle. The Syracusans, full of confidence and hoping to keep the fight in narrow waters, sent their seventy-six ships against the Athenians’ eighty-six ships while also attacking by land. Despite some mixed success on land the Athenians came off worse, losing numerous ships and crews as well as another general, Eurymedon. Afterward, the Syracusans tried to burn the Athenian fleet with a fire ship, but this failed (7.51–54). This attempt was followed by a blockade with ships of all sorts anchored in line across the harbor mouth. The Athenians responded by consolidating their camp and then manning every available craft and setting as many troops as possible on board. This engagement, which Thucydides reports included nearly two hundred ships, was more similar to a land battle than a typical naval battle because the tight space and number of ships restricted movement. After much effort on both sides, the Syracusans won and recovered the wrecked and grounded ships. The Athenians were in such a state of shock they did not even recover their dead (7.59.2–72.2; Krentz 2007: 173–6). With escape by sea closed, the Athenians saw that their only escape route was by land. While their invasion was effectively over, the Athenians still retained the capacity to do much damage in retreat.

The expedition that had begun in 415 with such a grand send off in Athens concluded in 413 with a tortuous retreat and pursuit. A Syracusan ruse delayed the Athenian departure by two days after the final battle in the harbor. Some forty thousand men abandoned their camp leaving the wounded and sick to fend for themselves (Devoto 2002; Hornblower 3: 1061–6). Because the Syracusans knew the direction the Athenians must take, they were able to send out forces to intercept the fugitive force. During the retreat the Athenians had to deal with blocked passes, infantry skirmishes, and harassing cavalry. The cavalry not only attacked the flanks, but also kept the fugitives hemmed in so that they could not forage for food and water. Circumstances were so bad that Nicias and Demosthenes divided the army into two parts and went south toward the coast in the hopes of faring better and tried to escape from harassment by marching at night. This strategy led to the groups getting further
separated so that the Syracusans were able to surround, attack, and capture each group in turn over several days. Demosthenes’s group, the slower one, was trapped and surrendered under terms. Nicias’s men made better progress, but his group also was cut down and captured after not being permitted to make terms (7.75–86; Devoto 2002). By any measure, the retreat was a catastrophe.

Thucydides’s tally of prisoners revealed the deadliness of the Syracusan pursuit. He includes “at least seven thousand” out of the original fugitive force (7.87.4; Diod. 13.19.1–4; Devoto 2002: 67–8). Syracuse kept some of the captives in a stone quarry until they perished, while others were enslaved when captured or after serving time in the quarries. Nicias and Demosthenes were both executed despite surrendering under terms. Some men escaped and made their way back to Athens with news, but this number was small in comparison to the number that had set out. Back in Athens, the news was received with surprise, anger, and despair (7.87–8.1; Plut. Nic. 29). Despite the immense losses, the war did not end in the near term.

**Errors and Miscalculations**

Many mistakes were made, such that the difficulty is not finding errors, but in not dismissing the entire expedition as an error from beginning to end. Certainly, that was Thucydides’s conclusion, who blamed especially those at home for not properly supporting those in the field (2.65.4). Since the city sent more ships, men, and money out in 413, it is unlikely that Thucydides’s most pointed criticism is aimed at Athens’s material support. Rather, he seems to be criticizing the recall of Alcibiades since as a result he defected and advised Sparta on Syracuse and the war in general.  

Even if one accepts that most Athenians in 416/415 saw the campaign as a potential success, it was certainly contrary to Pericles’s advice to avoid expanding the empire in the middle of the war (1.144.1) and there were those like Nicias who saw it as an error and said so (6.8.3–4).

The selection of three generals, especially those with such opposed views, was likely to create problems. Nicias and Alcibiades took opposite positions in the assembly debates and disliked each other personally. Although some historians have seen this split command as the campaign’s fundamental flaw (Hanson 2005: 206), the appointment of multiple generals was not unusual, nor that they must agree with the policy they were appointed to direct (Hamel 1998: 14–23). None of the three seems to have had more authority and once they reached the west, the generals debated policy and appeared to work together as should be expected (6.44.4–49). That such collegial command was normal during the expedition is shown in 413 by Demosthenes’s efforts to gain the assent of the other generals before assaulting Epipolai (7.43.1) and they continued to work together until they separated while on retreat (Hamel 1998: 94–9). The command structure was not as much of a mistake as historians sometimes have assumed, but that does not absolve individual commanders of responsibility.

One serious miscalculation was diplomatic intelligence. Despite dispatch of envoys, the Egestaeans successfully tricked the Athenians into expecting adequate financial support. Athenian commanders anticipated that a number of communities in southern Italy would provide significant material and military assistance, but such aid failed to materialize and in the end only Thurii and Metapontum contributed men. Even in Sicily the Athenians were seemingly surprised by their quiet reception at Messana and Camarina as well as, initially, at Catana. Thucydides’s repeated references to participants (in Greece, Sicily, and en route) responding to fresh information argues that there were networks of military intelligence and that information moved quickly. Nicias, for example, evidently
had effective intelligence in and from Syracuse, which nearly proved decisive before Gylippus’s arrival. In the end, however, it may also have worked against Athenian interests as it delayed their retreat (cf. Russell 1999).

There were a number of military errors, most of which were made after Alcibiades’s recall. There is little point in trying to set them in order of significance since each contributed to ultimate failure. The failure to address the cavalry deficiency earlier was an error. Transporting enough horses was impractical, but the Athenians did not bring any cavalrymen in the initial flotilla. Nicias’s initial delay at the end of 415 was unfortunate and Demosthenes criticized it (7.42.3), but it is important to remember that the strategy originally agreed upon was not Lamachus’s but Alcibiades’s plan. The plan to besiege Syracuse was consistent with prior Athenian practice, but it was not prosecuted vigorously enough after the initial success. Nicias defeated the first two counter walls, but seems to have lost his spirit after Gylippus succeeded in throwing the third across his path. That the third counter wall was only a single wall (haploos, 7.42.4) suggests that it was weak and Demosthenes’s focus on it was correct. The failure of the Athenian assembly to withdraw Nicias in 414/413 after receiving his letter is surprising. The extent to which the Athenians underestimated Syracusan naval resistance contributed to the series of difficulties in 413. Splitting forces on retreat was expected given the situation; the outcome was likely to have been the same regardless. It was Nicias’s and Demosthenes’s failure to withdraw after the death of Eurymedon in 413 that was the ultimate failure.

Most of these errors, taken singly, would not have resulted in failure of the campaign. The error in not acquiring horses earlier, for example, could have been overcome. Some miscalculations, like the Egostian ruse or the failure to fight their way out of the Great Harbor, were specific to this campaign. Other problems, including poor intelligence, lethargic leadership, and overextension, are typical of war in all periods and can always be lethal. It was a concatenation of errors that overwhelmed the Athenian efforts.

**Outcomes**

Syracuse came out of the campaign strong and confident of its position in Sicily. According to Diodorus, the most complete source for the aftermath in Syracuse, the Syracusans won much wealth and material from the end of the campaign. They gave Gylippus and his men rewards from the spoils, but surprisingly perhaps they apparently did not award Gylippus any special honors. They also dispatched a force of thirty-five triremes commanded by Hermocrates, who had played no small part in the city’s defense, to aid the Peloponnesians against Athens. Finally, the Syracusans reformed their constitution making it even more democratic (Diod. 13.34.4).

The Peloponnesians, especially Gylippus, enjoyed limited gains from the victory at Syracuse. In addition to receiving no special honors in Syracuse, Gylippus was not honored in Sparta after his return, although that would have been consistent with Spartan attitudes. He also does not appear to have ever won another major independent command and when he was banished from Sparta in 402 he was serving under Lysander (Plut. Lys. 16.1–17; Diod. 13.106.8–9; Westlake 1968: 284–9).

Ostensibly Alcibiades advised the Spartans on how to prosecute the war, but they failed to pursue new opportunities with sufficient vigor. The Spartans also failed to capitalize on Syracusan assistance, whether because they did not want to grant Syracuse a share of the glory or for some unknown reason. Sparta acted as if the victory in the west had never occurred.

The most surprising outcome of this expedition is not its failure, which was immense, but the fact
that it did not lead to the immediate or even short-term end of the war. In less than three years campaigning against Syracuse, Athens and its allies lost more than forty thousand men (soldiers, sailors, and support personnel), more than two hundred ships, some five hundred talents of silver, and a great deal of goodwill and prestige. Despite the horrendous losses, Athens continued fighting for nearly ten more years. Alcibiades returned to Athens triumphantly in 407 and the war dragged on. Athens found the expedition devastating but not terminal. The extent to which it led directly to the eventual defeat of the city remains a topic for debate.

**BIBLIOGRAPHY**


In ancient Greece, laying siege to a town took two forms, both of which entailed surrounding the town in order to prevent the escape of the inhabitants, the importing of provisions, or securing of reinforcements. Direct attack by assaulting a city’s walls and gates was, except when this proved too difficult, the preferred method of siege warfare. The alternative method was capture by circumvallation, in effect forcing the surrender of the town by starving the citizens through blockade. Attacking armies normally attempted to capture a polis by storm before resorting to encirclement since the latter form of capture took much longer and could prove far costlier. A besieging army could force entry by penetrating the fortifications, mining under them or advancing over them. Despite their affinity for war, the Greeks of the archaic and classical periods lagged behind the peoples of the Near East in techniques of siegecraft. The Assyrians, and their Persian neighbors who dominated the Near East after them and continued the development of siege techniques, could draw upon the large resources necessary for effective sieges. The independent Greek poleis, by contrast, with more limited resources and manpower, and reluctance to incur high rates of casualties, were slow to develop effective methods of siege warfare. Despite these limitations, Greek poleis undertook sieges in the archaic and classical periods which often resulted in the capture and destruction of a city.

Just how often Greek armies in these earlier periods would attempt the conquest of enemy cities and the degree of success besieging armies achieved are matters of some debate. Most military historians believe that hoplite battle was the preferred and dominant form of warfare among Greeks in the archaic and classical periods and that conventions in warfare kept the Greeks from committing wholesale destruction of towns and cities until the middle or late fifth century (see Hanson 1996: 606; Hanson 2000: 206; Ober 1994: 12–26; Connor 1988 3–28). This argument holds that sieges of cities, wanton plunder, and massacres were gradually introduced into Greek warfare in the period from 450–300, particularly in the period of the Peloponnesian War, which witnessed a permanent breakdown in these conventions. The theory might find support in a well-known passage in Thucydides’s introduction to his history, in which he makes the case that the Peloponnesian War was the greatest war ever to befall Greece:

The greatest achievement of former times was the Persian War, and yet this was quickly decided in two sea-fights and two land-battles. But the Peloponnesian War was protracted to a great length, and in the course of it disasters befall Hellas the like of which had never occurred in any equal space of time. Never had so many cities been taken and left desolate, some by the Barbarians and others by Hellenes themselves warring against one another; while several, after their capture, underwent a change of inhabitants. Never had so many human beings been exiled, or so much human blood been shed, whether in the course of the war itself or as the result of civil dissensions. (1.23.1–2; trans. C. F. Smith)
The message seems clear: the Peloponnesian War, by virtue of the extent of participation and duration, brought more misery to the Greeks than all previous wars. In fact his narrative would support this judgment. The evils of a war of exceptional length and one that involves nearly the whole of the Greek world in one way or another are bound to surpass those that marked earlier wars. However, some scholars hold that Thucydides may be attributing more to “his” war than the sheer number of atrocities that accompanied it, and that in the Peloponnesian War the Greeks behaved with greater brutality than they had in the past (Kiechle 1958; Strauss 2008: 240). Certainly Thucydides believed that “war is a violent teacher” (Thuc. 3.82.2) and few can deny that in the fifth and fourth centuries, sieges, death, enslavement, and forced exile were grim, though ever-present, possibilities as an outcome for a polis that went to war. However, a survey of Greek siege warfare down to the Hellenistic period suggests more continuity in siege warfare than is commonly thought.

We begin to see an increase in sieges and war atrocities in the fifth century, due in part to an improvement in our sources but also to the fact that the Greeks, namely the Athenians, were able to overcome some of the difficulties inherent in besieging an enemy polis. Thucydides states that the Peloponnesian War saw an increase in the number of cities taken and Greeks killed or exiled because the war was fought over many years and involved a great number of poleis. The historian does not, however, state or imply that this behavior was a recent phenomenon, only that its scale was unprecedented. In fact, besieging towns and committing what might be termed war atrocities were prevalent in Greek warfare long before the middle and late fifth century. It is only in the early fifth century, however, with the advent of a new and powerful coalition of Greek poleis under the leadership of an aggressive hegemon, that Greek armies had the manpower, finances, and ability to regularly undertake sieges with high rates of success.

During the approximately fifty years between the Persian and Peloponnesian Wars, the era known as the Pentecontaetia, at least thirty Greek poleis were besieged (see Appendix I for a list of these). With the advent of the Peloponnesian War, the Greeks experienced a dramatic rise in the number of sieges, as Thucydides observes (1.23.1–2). Throughout the course of the twenty-seven-year war, Greeks attempted no less than one hundred sieges, fifty-eight of which were successful (see Appendix II). Several observations can be made. This represents a threefold increase in sieges compared with those known from Pentecontaetia. The increase, in part, is surely the consequence of a large-scale war fought between two great coalitions faced by rebellious allies on one side and stubborn foes on the other, unwilling or reluctant to offer head-on battle. No less a factor in the higher number of sieges recorded for the Peloponnesian War and later historical periods is the expansion of the historical tradition itself beginning with Thucydides.

From the outset of the war, we see a drop in the overall success rate of sieges from the previous period. Of the thirty known sieges undertaken by Greeks in the years between the Persian and Peloponnesian Wars, twenty-seven ended with the capitulation of the city under attack, a success rate of 90 percent. During the Peloponnesian War, armies enjoyed an overall success rate of only 58 percent. Second, there is a marked shift away from circumvallation on the part of the Athenians and the Delian League, the only polis or coalition that attempted siege warfare in the Pentecontaetia (i.e., thirty known sieges by circumvallation: e.g., Sestos, Eion, Scyros, Naxos, Thasos, Aegina, Samos, and Potidaea). In the earlier period, the Athenians and their Delian League allies attempted a total of twenty-four sieges, twenty-one of which, or 88 percent, ended successfully. Of these, eight, or one-third, appear to have been siege by circumvallation. This contrasts sharply with Athenian siege warfare in the Peloponnesian War: of Athens’s fifty-seven sieges, only seven, or 12 percent, were
attempted circumvallation. What accounts for the rise in Athenian attempts at storming towns? Surely, it was the enormous financial cost of a long siege that was the greatest disincentive. While the walling up of a city incurred less risk to the attacking army than launching repeated assaults on a town, not many poleis had the finances at hand to invest in a protracted siege that now easily lasted over a year or longer. Even Athens had trouble financing circumvallation while fighting the Peloponnesian War. It was while investing Mytilene, their eighth siege of the war, though only their first attempt at circumvallation, that the Athenians found themselves short on funds and resorted for the first time to a property tax (Thuc. 3.19.1–2). It is telling that Athens’s next attempts at circumvallation are those of Scione, Melos and Syracuse, the first of which takes place after the armistice with Sparta, and the others during the Peace of Nicias. About the same time, the Athenians and other allies assisted the Argives in their investment of Epidaurus (418), before evacuating Epidaurus as stipulated in a treaty (Thuc. 5.80.3; 5.75.5–6). The three attempts at circumvallation by Athens in the Ionian War, those of Chios, Miletus, and Phocaea, all end in failure. Athens prior to the Peloponnesian War, while at the height of its power and wealth, could afford the costs of circumvallation, repeatedly bringing sieges to successful conclusion no matter how long they lasted. But once it became involved in a long and extremely expensive war, it rarely could afford such luxury.

The large number of poleis stormed during the Peloponnesian War is striking. Circumvallation was almost always preceded by an attempt to seize the town by force, leaving the more expensive option as a last resort. But even discounting the almost certain assaults undertaken prior to each circumvallation, at least ninety attempts to violently capture Greek towns took place over less than three decades. As in the Pentecontaetia, it was a powerful coalition, with its large number of soldiers that gives an invading army the ability to overwhelm a town’s defenses. On several occasions the generals of a coalition army argued over which town they ought to campaign against, and then proceeded to execute their plan of action (e.g., Demosthenes in Leucas prior to his Aetolian campaign [Thuc. 3.94.2–3]). This was the case with the so-called “Quadruple Alliance” following its successful siege of Orchomenus in Arcadia in 418:

After this, being now in possession of Orchomenus, the allies deliberated which of the remaining places they should next proceed against. The Eleans were urging them to go against Lepreum, the Mantineans against Tegea; and the Argives and the Athenians sided with the Mantineans. (5.62.1; trans. C. F. Smith)

The large armies marching through Greece during the Peloponnesian War must have been intimidating to most Greek poleis. Brasidas’s army struck panic into the Amphipolitans when he appeared outside the city (Diod. 12.68.3; so too that of Sitalces as it marched through Macedonia overpowering and terrifying cities [Thuc. 2.101.2–3]). Some cities capitulated before hostilities commenced, as did Messana in 426: the city submitted on the approach of the Athenians and their allies, willingly giving up hostages and making other pledges in order to avoid being besieged (Thuc. 3.90.4; other poleis that surrendered without a fight: Cephalenlia [Thuc. 2.30.2], Acanthus [Thuc. 4.67.3], Centoripa [Thuc. 6.94.3], and Abdera [Diod. 13.72.2]). Such intimidation can be seen in 418 when, upon the approach of the forces of the “Quadruple Alliance,” Tegea made a desperate appeal for Spartan assistance, warning their allies that, unless help arrived immediately, the Tegeans would be forced to join the enemy “and had all but already done so” (Thuc. 5.64.1).

It is clear from the sources that the capture of a town by siege was often accomplished in a matter of days. Frequently in Thucydides we read how a city was taken “at first assault” (autoboei). This is
presumably before the defenders could get organized and while the besiegers still held an element of surprise. Consequently, the Athenians were able to retake Mytilene, in revolt for the second time, at the first assault, “for the Athenians, arriving unexpectedly, had immediately sailed into the harbor and defeated the Chian ships” and so took possession of the city (Thuc. 8.23.2). We are told that Brasidas would have taken Amphipolis at first assault “had he not stopped to pillage the countryside” (Thuc. 4.104.2), and earlier that it was his heroic act of bravery that prevented the rapid fall of Methone when, with one hundred hoplites, he dashed through enemy lines into the besieged city, whose “walls were weak and without sufficient defenders” (Thuc. 2.25.1–2; cf. the sudden winter attack and capture of Mecyberna by the Olynthians in 421/420 [Thuc. 5.39.1]; a Peloponnesian surprise attack took Carian Iasus [Thuc. 8.28.2–3]). Thucydides expresses certainty that had the Athenians and their allies attempted to storm Ambracia in 426, as Demosthenes had urged, “they would have taken it on the first assault” (3.113.6). And Xenophon relates how Lysander captured by storm Cedreiae in Caria in 405 “on the second day’s assault” (Hell. 2.1.15). It must therefore have been somewhat reasonable to expect that a town could be taken with a few days of assaults, and sieges are frequently abandoned after only one or two days, as at, for example, Stagirus (Thuc. 5.6.1), Elaeus (Thuc. 8.103.1), Haerae on Teos (Thuc. 8.20.2), and on Andros (Xen. Hell. 1.4.21–23). After unsuccessfully attempting to storm an unwalled Cnidus for a day, the Athenians returned on the second day only to find that the city’s defenses had been shored up during the night and that the city had been reinforced by men from outside and so they lifted the siege (Thuc. 8.35.3–4).

An attacking army might persist in launching assaults if it had reason to believe that their cause might be helped by treachery from “friends” within the walls. It is frequently the case in Greek siege warfare that a city capitulates after internal ideological strife brings about a betrayal of the town. When the Mytilenaeans marched against Methymna in 428, they launched assaults and were under the impression that the city would be “delivered into their hands,” but when events did not turn out as they planned they departed (Thuc. 3.18.1). When the Peloponnesian garrison in Mende called for a sortie against the besieging Athenians, the “democratic faction” protested and routed the garrison, in part because the Peloponnesians “were terrified when the gates were opened to the Athenians, for they thought that the attack had been made as a result of a prearranged agreement” (Thuc. 4.130.2–5). There was obviously a danger in putting too much faith in the abilities of traitors, though occasionally efforts were rewarded, as during Cimon’s siege of Phaselis in Lycia certain Chian soldiers who were fighting alongside the Athenians and who were old friends with the people of Phaselis, “shot arrows over the town walls with notes attached” thereby affecting the town’s capitulation (Plut. Cim. 12.3–4). But the elaborate plot of Demosthenes in 424 for the betrayal of several Boeotian towns simultaneously failed miserably (Thuc. 4.76–77, 4.89; cf. also Platea, betrayed in a time of peace and on a festival day [Thuc. 2.2], also the elaborate plot to seize Megara [Thuc. 4.66–67]). Despite the advice of his fellow generals, Demosthenes and Eurymedon, to evacuate Syracuse, Nicias insisted that the Athenians remain where they were, in part because he kept receiving messages from certain Syracusans with regard to the betrayal of the city, so that “there was some suspicion that it was due to some superior information that he was so obstinate” (Thuc. 7.49).

Even entry into a city by stealth did not automatically bring about capitulation. When certain Byzantines had stealthilly brought in Alcibiades and his hoplites to betray the city, a battle ensued in which the Athenians would not have emerged victorious had not Alcibiades publicly proclaimed leniency toward the conquered (Diod. 13.67). The Athenian general Simonides was not so fortunate. No sooner had he taken Mende by treachery in 425 than the Chalcidians and Bottiaeans came up and
“forced him out of town with the loss of many of his soldiers” (Thuc. 4.7).

Siege at Plataea

With the Peloponnesian War we get the first detailed look at Greek siege warfare. Thucydides provides a thorough description of the Spartan siege of Plataea (429–427), from the initial betrayal of the town, to the variety of assaults and means of defense, to the final execution of the surviving Plataeans (Thuc. 2.2–6; 2.71–78; 3.20–24; 3.52–68). Expecting a siege, the Plataeans first gathered all their movable property from the outlying areas and then evacuated their women, children, and older men to Athens. The remaining Plataeans numbered four hundred men, along with eighty Athenian allies and 110 women to prepare the food. The Spartans and their allies launched a number of attacks which were in turn effectively met by Plataean countermeasures, with Thucydides providing what is essentially a play-by-play commentary. It seems reasonable to assume that the entire siege was planned in Sparta since the Peloponnesians did not make their annual invasion of Attica but marched straight to Plataea at the beginning of the campaigning season. The Spartans began the siege in spring 429 at the beginning of the campaign season (Thuc. 2.71.1), completing the wall of circumvallation “about the time of the rising of Arcturus” (i.e., mid-September) of the same year (Thuc. 2.78.2), precisely two years after the Theban surprise attack on Plataea and ensuing massacre of the Theban prisoners. Clearly the Plataeans had prepared.5

Once the decision to commence the siege was taken, the first order of business for the attacking army was to cut down the surrounding trees in order to build a wooden palisade around the city to prevent the defenders from making sorties. The attackers then spent the next seventy days, working in teams around the clock, building a giant mound against the city in an attempt to scale the wall. Not to be outdone, the Plataeans countered by first raising the height of their wall opposite the mound by erecting a wooden and brick tower, made from demolished houses. They then sapped the mound both by dismantling a section of the town wall and removing dirt into the city and by tunneling underneath. Next, as a protection in case their high wall was taken, the Plataeans built a crescent-shaped wall within their city wall which would force the invading army, assuming they breached the first wall, to build another mound to scale the newly formed second wall and leave them exposed on nearly all sides. The Peloponnesians then brought up their battering rams (embole), but to little effect since the defenders lassoed some rams and dropped onto others large beams suspended by iron chains from the walls thereby breaking off their tips. Finally, an attempt was made to burn the city by creating an enormous fire adjacent to the town wall. But instead of a favorable wind, which the besiegers hoped would carry the flames into the city, a thunderstorm arose and extinguished the great fire. Thus, after a siege of approximately four to five months, the Spartans were forced to settle for the slower and more costly siege by circumvallation. They dismissed the larger part of their army and threw up a brick wall around the city, digging trenches on either side, out of which they got the clay for the bricks. The Plataeans were slowly starved into surrender and capitulated in the summer of 427, after two years, but not before roughly half of them had made a dramatic escape on a stormy night the previous winter.
The initial continuous assaults over the first summer must have taken a toll on both sides. Of the 480 Plataeans in the city at the beginning of the siege, 220 attempted escape (of which 212 succeeded), leaving approximately 260 men in town for the remainder of the siege. Thucydides states that about 225 Plataeans and Athenians were executed by the Spartans, meaning about thirty-five of them died in the four to five months of assaults prior to circumvallation. Thucydides is silent on how many Peloponnesians perished while attempting to storm the city but the number was surely much higher. When the Spartans in 425 were besieging the Athenians at Pylos, they made every effort to storm the fort, and assaulted the walls in successive waves. Diodorus writes that every day fighting took place before the walls and that many Spartans were slain and countless wounded in the series of attacks (Diod. 12.61–62; cf. also Thuc. 4.11–13).

Some scholars consider the siege of Plataea to be “ingenious” and “the acme” of Greek siege warfare (Adcock 1957: 58, now Campbell 2006: 39) but it was not. Nowhere does any ancient author state or imply that what took place at Plataea was revolutionary or even out of the ordinary. Plataea did not fall to siegecraft but by circumvallation; the defenders had expected and defended well against every means of attack, another indication that the various means of assault were not extraordinary in Greek siege warfare.

The siege of Plataea, as it is told, is probably the way most sieges unfolded in the fifth century, with the exception that the Spartans eventually relied on circumvallation, which, as we know, was attempted only on rare occasions, especially by non-Athenians. Therefore we should not read too much into Thucydides’s digression on the siege of Plataea. It is more likely that the passage is another example of Thucydides providing his reader with a detailed look at one aspect of the war, akin to his
digression on the stasis at Corcyra. It is telling that in his description of the siege of Plataea, Diodorus confines his description to the initial betrayal of the town and the dramatic escape of the Plataeans, passing over completely the siege itself (Diod. 12.41.2–42.2; 12.56). Elsewhere Diodorus does not hesitate to relate a new development in siege warfare, such as Pericles’s novel use of battering rams (Diod. 12.28). It is also worth noting that Thucydides, who began writing his history at the outset of the war (Thuc. 1.1.1), was likely present in Athens after the siege and would have learned firsthand the details from surviving Plataeans who escaped to Athens (Thuc. 3.24.2) and were later settled at Scione (Thuc. 5.32.1). Moreover, the Spartan siege of Plataea, their only attempt at circumvallation in the war, leaving aside the naval blockade of Athens, makes for an interesting contrast with the Athenian siege of Melos in 416, not only because the two sieges relate the fate of a captured city, but because both explore warped forms of justice and realpolitik, the power politics that are practiced by both sides in war. Moreover, Thucydides is careful to point out a key difference between the two aggressors: the Spartans arrive and insist the Plataeans be neutral in the war (Thuc. 2.72.1), whereas the Athenians demand Melos join the Athenian Empire, rejecting Melian pleas to remain allied to neither side (Thuc. 5.94; see further Seaman 1997: 385–418.).

We may wonder, given their success at Plataea, why the Spartans did not attempt more sieges by circumvallation in the war. Circumvallation required an abundance of time and money and, while the Spartans themselves did not till their land with their own hands, their Peloponnesian allies did (Thuc. 1.141.3). The Peloponnesians were less zealous for war than the Spartans and often more concerned with the harvest (Thuc. 3.15.2). But few allies were as close to Athens as was Plataea (Diod. 12.56.6, 15.46.6), having been their allies since 519 (Thuc. 3.68.5), and, since it was situated in Boeotia but always at variance with Thebes (Thuc. 2.2.3), there was a special hatred felt toward them by the Thebans, whom the Spartans wanted particularly to please and count as allies (Thuc. 3.68.4). The Thebans constituted at least half of the hoplites who undertook the circumvallation and may in fact have been the only allies who participated in the siege (cf. Thuc. 2.78.1–2). Further, the annihilation of poleis would not likely have fit well with Spartan propaganda identifying themselves as “the liberators of Hellas” (cf., e.g., Thuc. 1.69.1, 2.8.4).

FATE OF THE DEFEATED

The Greeks experienced a dramatic rise in the number of sieges during the Peloponnesian War but sieges and the atrocities that often accompanied them were experienced by Greek poleis before the Peloponnesian War and long before the late fifth century. There was not, therefore, any “breakdown in permanent conventions” during the war because there were never any real conventions in place. Greeks made assaults on cities throughout the Peloponnesian War, oftentimes vanquishing the besieged, committing what might be termed an atrocity. About the same number of sieges are undertaken in the Archidamian War (forty-four, three by circumvallation) as those in the Ionian War (forty-one, four by circumvallation, counting the blockade of Athens). There is no evidence for a buildup or worsening of atrocities as the war progresses, as these too are committed by both sides throughout the war and even before its outbreak. At Epidamnus in 434, captured enemies were sold into slavery or put to death (Thuc. 1.29.5–30.1; Diod. 12.31.2). In the first years of the war, the Athenians murdered Spartan and Peloponnesian envoys without trial, and the Spartans put to death anyone captured at sea, whether they were fighting on the side of the enemy or not, a habit which they apparently only had at the beginning of the war (Thuc. 2.67). The siege of Potidaea was brought to a
successful conclusion by the Athenians in the winter of 430/429, approximately eighteen months after
the beginning of the war and at enormous expense. When the Athenian generals accepted the
proposals of the Potidaeans to hand over their city and depart with only one garment each, they were
blamed by the Athenians for having granted such lenient terms (Thuc. 2.70.4). Recall that the Athenian
massacre of the Melians did not take place while Athens was in the throes of war but deep into the
Peace of Nicias. And the Spartans destroyed Plataea at the outset of the war but at its conclusion
spared the Athenians, against the wishes of many of their allies (Xen. Hell. 2.2.19).

The determining factor in the fate of a defeated polis in the Peloponnesian War was not the year it
took place but was rather the disposition of those whose decision it was to negotiate the terms of
surrender. At Athens, this could be the generals leading the siege (as Hagnon and his colleagues at
Potidaea), but it often meant the assembly. On two occasions, the Athenian general Cleon, who was
“not only the most violent of the citizens and who had by far the greatest influence with the masses”
(Thuc. 3.36.6), convinced the Athenians to inflict capital punishment on allies in revolt: the
Mytileneans in 427 (Thuc. 3.36.6, 3.37–40) and then the Scioneans in 423 (Thuc. 4.122.6). The anger
of the people at Athens was apparently something that demagogues could appeal to and something
generals knew well to avoid. At Potidaea, Hagnon feared raising the two-year siege because he knew
that the Athenians were angry with the Potidaeans, both because they were the first to join the
Spartans and because the siege had already surpassed the massive sum of one thousand talents (Diod.
12.46.4). Besides anger, expediency was often a motive in deciding how to treat the vanquished.
Thucydides is specific in stating that the Spartans killed the Plataeans at the conclusion of that siege
in order to please the Thebans (Thuc. 3.68.4).

Conclusion

When taken in the context of the history of Greek sieges, not a few of which ended in the massacre or
enslavement of the inhabitants, what happened at Melos, for example, would not have seemed all that
extraordinary to contemporaries. The lesson of the Melian affair is not one of brutality but rather a
look at the use (or abuse) of power in war.

We know about more sieges and atrocities in the Peloponnesian War than in earlier periods
because we have a first-rate historian who provides us with a detailed examination of the conflict.
But it would be a mistake to conclude that, because of the increase in numbers of sieges, some
resulting in atrocities, that the Greek attitude toward a defeated enemy had only recently become
brutal. Therefore, when it comes to siege warfare, the Peloponnesian War is not the major turning
point that some scholars would have us believe. The fact that the Greeks always behaved in a similar
way in warfare is entirely consistent with Thucydides’s views (and this author’s) that human nature
remains constant (Thuc. 1.22.4).

Appendix I: Sieges Undertaken in the Pentecontaetia

Sestos (Hdt. 9.114–121; Thuc. 1.89.2; Diod. 11.37.4–5; Plut. Cim. 9.2–4; Polyaenus, Strat. 1.34.2);
Eion (Hdt. 7.107; Thuc. 1.98.1; Plut. Cim. 7.1–8.2; Paus. 8.8.9; Diod. 11.60.2); Scyros (Thuc. 1.98.2;
Plut. Cim. 8.3–6; Nep. Cim. 2.5; cf. also Thes. 36.1; Diod. 11.60.2; Paus. 3.3.7); Byzantium (Thuc.
1.131; Plut. Cim. 9.2–4; Polyaenus, Strat. 1.34.2; cf. Justin 9.1); Phaselis (Plut. Cim. 12.3–4; cf.
Diod. 11.60.4); Carystus (Thuc. 2.16.4); Thasos (Thuc. 1.100.2–101.3; Diod. 11.70; Plut. Cim. 14.2); Aegina (Thuc. 1.105.2, 1.108.4; Diod. 11.70.2–4; cf. Thuc. 2.27.1–2; Diod. 12.44.2–3; Plut. Per. 34.1); Tanagra, following the battle of Oenophyta (Diod. 11.82.5; cf. Thuc. 1.108.2–3, who mentions only that the Tanagreans were made to tear down their walls); Tolmides’s sieges of Methone, Gymthium, and Boia, in the First Peloponnesian War, and his capture of Chaeronea, undoubtedly resulting from a siege (Diod. 11.84; Paus. 1.27.6; *sch. ad* Aeschin. 2.75; Thuc. 1.108.5, 1.113.1); Naupactus (Diod. 11.84; cf. Thuc. 1.103.3); Pericles’s unsuccessful sieges of Oeniadae (Thuc. 1.111.2–3; Diod. 11.85.2; Plut. Per. 19.4) and Sicyon (Diod. 11.88.1–2; cf. also Thuc. 1.111.2; the poleis of Citium, Marium, and Salamis on Cyprus (Thuc. 1.112.2–4; Diod. 12.3–4; Plut. Cim. 19.1); Histiaeia on Euboea (Thuc. 1.114; Diod. 12.7.1; Plut. Per. 22.1–2, 23.2); the re-founded Sybaris (Diod. 11.48.4, 12.10.1–3); Samos (*IG I³*) 363 = ML 55; Thuc. 1.116–117; Diod. 12.27.2–28; Plut. Per. 26–28; Nep. Timoth. 1.2); the Sicilian town of Trinacie (Diod. 122.29); the Athenian attacks on Therme, Pydna, and Strepsa (Thuc. 1.61.2–4) preceding their siege of Potidaea (Thuc. 1.64.1–2, 65.1–2, 66.1, 67.1, 2.58.1–3, 70.1; cf. 3.17; Diod. 12.34.2–4, 37.1, 40.2, 45.2–46); the successful siege of Oeniadae by the Messenians of Naupactus (Paus. 4.25.1–2). Omitted are: sieges of forts (e.g., Ithome: Thuc. 1.101–102; Diod. 11.64.4, 12.6.1); sieges undertaken by non-Greeks (e.g., of Morgantina by the Sicels: Diod. 11.78.5); attacks on cities whose identity is not precisely known (e.g., Cimon’s attack on Persian garrisons in Caria preceding the battle of the Eurymedon; Diod. 11.60.3–4). The three failures were Pericles’ sieges at Oeniadae ca. 454, at Sicyon the following year, and that of Callias et al. at Strepsa in 434.

**APPENDIX II: SIEGES OF THE PELOPONNESIAN WAR**

(Success is measured by capitulation, whether or not the town attacked fell by siegework or circumvallation.) Epidamus (Thuc. 1.26.4–5; 1.29.4; Diod. 12.30.2–5, 12.31.2), included here given its integral role in the outbreak of the Peloponnesian War; Plataea (Thuc. 2.2–6; 2.71–78; 3.20–24; 3.52–68; Diod. 12.41.2–42.2; 12.56), Oenoe (Thuc. 2.18.1–2.19.1); Methone (Thuc. 2.25.1–2; Diod. 12.43.2–3); Pheia (Thuc. 2.25.3–5; Diod. 12.43.4–5); Thronium (Thuc. 2.26.2; Diod. 12.44.1); Sollium (Thuc. 2.30); Astacus (Thuc. 2.30.1); Pericles’s siege of Epidaurus in 430 (Thuc. 2.56.1–4; Plut., Per. 35; cf. Diod. 12.45.3); Prasiae (Thuc. 2.56.5); Amphilochian Argos (Thuc. 2.68); Stratus (Thuc. 2.80.8–82); Mytilene in 428–427 (Thuc. 3.5–6, 3.18.3–5, 3.25, 3.27–28; Diod. 12.55); Methymna in 428 (Thuc. 3.18.1; Pyrrha and Eresus (Thuc. 3.35.1); Minoa (Thuc. 3.51.3; Plut. Nic. 6.4); Leontini (Diod. 12.53, 12.83.1; cf. also Thuc. 3.86); Mylae (Diod. 3.90.2–3; Diod. 12.54.4); Demosthenes’s storming of Potidania, Krokle, Tichium, and Aegitium, unwall villages in Aetolia (Thuc. 3.96.2; cf. also Diod. 12.60.1); Oeneon, Eupalium and Molycireum (Thuc. 3.102.1–2; Diod. 12.60.3), Naupactus (Thuc. 3.100, 3.102.3–5; Diod. 12.60.2); Inessa (Thuc. 3.103.1); the Spartan siege of the Athenian fort at Pylos in 425 (Thuc. 4.11.2–4.14.5; Diod. 12.61–62); the Athenian blockade and storming of the Spartan garrison on Sphacteria (Thuc. 4.14.5–4.16.2, 4.23, 4.26–39; Diod. 12.63); Sicilian Naxos (Thuc. 4.25.8); Messana (Thuc. 4.25.10–11); Scandeia and Cythera (Thuc. 4.53–57; Diod. 12.65.8; Plut. Nic. 6.4; cf. also Diod. 12.80.5); Thyrea (4.57.3–5; Diod. 12.65.8–9; Plut. Nic. 6.5); Nisaea in 424 (Thuc. 4.66–69; Diod. 12.66; Plut. Nic. 6.4; cf. also Diod. 12.80.5); Delium (Thuc. 4.100; Diod. 12.70.6); Mende and Scione (Thuc. 4.129–132.1, 4.133.4, 5.2.2, 5.3.2; Diod. 12.72.6–10, 12.76.3; cf. also Plut., Nic. 6.4); Brasidas’s attempt to storm
Potidaea (Thuc. 4.135.1); Torone (Thuc. 5.2–5.3; Diod. 12.73.2); Stagirus and Galepsus (Thuc. 5.6.1); Thyssus (Thuc. 5.35.1); Mecyberna (Thuc. 5.39.1; Diod. 12.77.5); the probable siege of Heracleia in Trachis (Thuc. 5.51.2; Diod. 12.77.4); the Argive attempt on Epidaurus in 419 (Thuc. 5.56.5); Orchomenus in Arcadia (Thuc. 5.61.3; Diod. 12.79.2); the probable siege of Tegea that prompted the battle of Mantinea (Thuc. 5.62, 5.64.1–3; Diod. 12.79.3); the circumvallation of Epidaurus by the Argives and their allies (Thuc. 5.64.1–3; Diod. 12.79.3); the probable siege of Heracleia in Trachis (Thuc. 5.75.4–6, 5.77.2); Hysiae (Thuc. 5.83.2; Diod. 12.80.5, 13.30.6); Orneae (Thuc. 6.7.2; Diod. 12.81.5); Hyccara and Hybla Geleatis (Thuc. 6.62.3–5; Diod. 13.6.1; Plut. Nic. 15.3–4); the attempted circumvallation of Syracuse (Thuc. 6.97–102; 7.2–6, 7.43–44; Diod. 13.7.3–13.8.2, 13.11.3–6); Amphipolis (Thuc. 7.9); Mycalessus (Thuc. 7.29); Haerae on Teos (Thuc. 8.20.2); Mytilene in 412 (Thuc. 8.23.2–3; Diod. 12.55); Polichne (Thuc. 8.23.6); Chios (Thuc. 8.24.6, 8.40.2–3, 8.55.2–56.1); Miletus, besieged twice in 412 (Thuc. 8.25.5, 8.27.6, 8.30.1); Carian Iasus in 412 (Thuc. 8.28.2–3); Pteleum (Thuc. 8.31.2); Clazomenae (Thuc. 8.31.3); Cnidus (Thuc. 8.35.3–4); Astyochus’s sack of Meropis on Cos (Thuc. 8.41.2; Diod. 13.42.3 wrongly assigns this to Alcibiades); Lampsacus and Abydus in 411 (Thuc. 8.62.2); Pydna (Diod. 13.49.1–2); Oenoe (Thuc. 8.98.2–4); Cyzicus, which changed hands three times in 411 (Athens captures easily: Thuc. 8.107.1; Diod. 13.40.6; Sparta captures by storm but loses after the battle of Cyzicus: Diod. 13.49.4–13.51.7); Eresus on Lesbos (Thuc. 8.100.4–5, 8.103.2); Elaeus in the Thracian Chersonese (Thuc. 8.103.1); Ephesus (Xen. Hell. 1.2.6–11; Diod. 13.64.1; Plut., Alc. 29.1); Pygela (Xen. Hell. 1.2.2); Abydus in 409 (Xen. Hell. 1.2.16; Plut. Alc. 29.1; cf. also Diod. 13.68.1); Chalcedon (Xen. Hell. 1.3.2–9; Diod. 13.64.3, 13.66.1–3; Plut. Alc. 31.1); Byzantium (Xen. Hell. 1.3.2, 1.3.14–22; Diod. 13.64.3, 13.66.3–67.7; Plut. Alc. 31.2–6); the Athenian fort at Pylos in 409 (Diod. 13.64.5–7); Nisaea in 409 (Diod. 13.65.1); the Chian acropolis (Diod. 13.65.3); Thasos (Xen. Hell, 1.4.9; Diod. 13.72.1; Nep., Lys. 2.2–3); Gaurium and Andros (Xen. Hell. 1.4.21–23; Diod. 13.69.4–5); Phocaea (Xen. Hell. 1.5.11); Delphinium and Eion (Xen. Hell. 1.5.15; Diod. 13.76.3); Methymna in 406 (Xen. Hell. 1.6.13; Diod. 13.76.5); Mytilene in 406 (Xen. Hell. 1.6.16–26, 1.6.35–38; Diod. 13.79.7, 13.97.2–3, 13.100.5); Cedreiae in Caria (Xen. Hell. 2.1.15); Iasus in 405, which had apparently now been taken by Athens (Diod. 13.104.7); Lampsacus in 405 (Xen. Hell. 2.1.18–19; Diod. 13.104.8–105.1; Plut. Lys. 9.4); Samos (Xen. Hell. 2.3.6–7; Diod. 13.106.8; Plut. Lys. 14.1); and, lastly, Athens (Xen. Hell. 2.2.23–23; Diod. 13.107; Plut. Lys. 14.3–6). Excluded are sieges undertaken during the course of the Peloponnesian War but which had no impact on the war, e.g., the Campanian siege of Cymae (Diod. 12.76.4); the sieges in Macedon by Sitalches, Thracian king of the Odrysians (Thuc. 2.95–101; Diod. 12.50–51); the Libyan siege of the Euesperitae (Thuc. 7.50.2); and the Carthaginian sieges in Sicily from 410 to 407: Selinus (Xen. Hell. 1.1.37; Diod. 13.54.1–59.4); Himera (Xen. Hell. 1.1.37; Diod. 13.59.4–62.6); and Acragas (Xen. Hell. 1.5.21; Diod. 13.81.1–3, 13.85.1–91.1). Also excluded are sieges of cities whose precise identity is unknown, e.g., Corinthian attacks on cities of the Acarnanian coast (Thuc. 2.33.2); a supposed raid against an Athenian fort (Thuc. 4.23.1); Byzantine sieges of various Bithynian settlements (Diod. 12.82.2); and Thrasybulus’s successful sieges along the Thracian coast (Xen. Hell. 1.4.9; Diod. 13.68.1). Excluded also are cities that, out of fear, capitulated without a fight, e.g., Cephallenia (Thuc. 2.30.2); Messana (Thuc. 3.90.4); Acanthus (Thuc. 4.67.3); Centoripa (Thuc. 6.94.3); and Abdera (Diod. 13.72.2) as well as those cities that appear to have capitulated chiefly due to the treachery of their citizens, e.g., the fall of Mende to Brasidas (Thuc. 4.7); Anactorium (Thuc. 4.49); Amphipolis (Thuc. 4.103.5–106.4; Diod. 12.68.3); Panactum (Thuc. 5.3.5); Oropus (Thuc. 8.60.1–2); and Selymbria (Xen. Hell. 1.3.10; Diod. 13.66.4; Plut. Alc. 30). Lastly, not counted are the destructions of paltry forts, for example, those at Mt. Istone (Thuc. 4.46.1–...
Bibliography


WELL did Plutarch (*Mor.* 193E) describe his homeland of Boeotia as the “dancing-floor of war.” Throughout the classical period, from 479 to 338, the area witnessed at least nine major battles. That of Leuctra in 371 proved one of the most dramatic and decisive of the period, a major confrontation in which the famous Theban general Epaminondas broke the power of the justly fabled Spartan army. Today the very significance of the battle still remains the subject of scholarly controversy that demands renewed discussion. Included among the outstanding issues are precise details of the battle, their military importance, and its proper place in the history of Greek warfare. Thus Leuctra still remains a most fertile and instructive episode among the military conflicts of Greece.

Before discussing the battle itself, a brief note on sources is imperative. Xenophon (*Hell.* 6.4.4–15) provides the earliest account of the event, and he enjoyed the luxury of discussing it with some of the Spartan survivors and other informed men like Agesilaus. Yet he mars his account with outright lies, half-truths, misleading statements, and trenchant silences. Evidence for the first comes from his statement (6.4.9) that when the Spartan Hieron had driven the market vendors, baggage handlers, and others unwilling to fight back to their camp, they made the Boeotian army greater and more massive. In fact, these non-combatants never stood in the battle line. Another lie is his claim (6.4.8) that because the Spartans had drunk a little wine before the battle they were tipsy during the fighting, as though the Spartans had never before drunk wine. He blames the weak Spartan cavalry as though its defeat could account for the inability of the Spartan hoplites to stand against Epaminondas’ massed attack. He even claims that the Spartans were victorious at first because they could drag the wounded king Cleombrotus to safety. Such magnificent exploits do not win battles. Xenophon’s most notorious failure comes from his refusal to acknowledge that Epaminondas was the architect of Theban victory, even though he knew it. He likewise refuses to give due recognition to Epaminondas’s genius in mounting his victorious attack on his left wing. Yet here he gives himself away by admitting (6.4.12) that the Theban used his deep phalanx to overwhelm the king’s position. Both Xenophon (*Lac.*13.6) and Epaminondas knew that the Spartan king traditionally stood on his own right. Therefore the Theban could destroy it only by striking on his left. These examples suffice to prove Xenophon’s prejudices and his refusal to give a complete and fair account of Leuctra.

Other sources can be treated more briefly. Diodorus (15.53–56.3) relied on Ephorus, who according to Polybius (12.25f.3–4; cf. Meister 1975: 72–74) gave a confused report of the battle. Polybius adds that the encounter was actually a simple affair. Diodorus in turn muddled Ephorus’s work. Plutarch (*Pel.* 20–23) cogently used Xenophon, whom he supplemented with Callisthenes, Ephorus, and others (Georgiadou 1997: 15–28). Yet since Plutarch concentrates on the exploits of
Pelopidas, matters not relevant to this theme are overlooked. Plutarch likewise says little in his life of Agesilaus, who did not participate in the battle. Other sources, namely Nepos (Pel. 4.2–3), Pausanias (9.13.3–10), and Polyaeus give some additional details of secondary importance. In sum, the sources combine to give an acceptable, comprehensible account of Leuctra.

**The Battle**

In summer 371 the major Greek states concluded yet another Common Peace, but one that largely reflected Spartan ideas about the nature of that treaty. Especially for Agesilaus, the Spartan king, it meant the abolition of the Boeotian Confederacy and the emasculation of Theban power. The Thebans, however, under the determined leadership of Epaminondas, rejected the peace as nothing more than a legal pretext for renewed war. The Spartans had already prepared for this contingency. Even before the peace conference had convened, they had stationed their main field army across the border of western Boeotia. After the Thebans had refused one last chance to accept the peace, King Cleombrotus obeyed his orders from Sparta to invade Boeotia. The Common Peace had succeeded in spawning yet another war (Buckler 2003: 278–86). To Cleombrotus’s army the Spartans contributed four *morai*, or divisions, some 2,048 Spartans and other Laconians, of whom some 700 *Spartiatai*, or full Spartan citizens, served in the ranks. The Spartan complement formed one-tenth of the entire levy, the rest made up of various allies. The total strength of Cleombrotus’s army was some eleven thousand infantry and cavalry. Frequent campaigning between 378 and 371 had taken such a toll on the allies that many served with little enthusiasm. The realization that the recent peace actually brought only more war did not raise their morale. Spartan cavalry, never an inspiring arm of the army, was particularly weak in 371. As a final touch Spartans and allies alike had come to respect the tenacity and bravery of their Theban enemy (Buckler 1980b: 54–5, 289 nn. 14–15; Buckler 2003: 232–3).

Opposing the Spartans stood the army of the Boeotian Confederacy led by Theban officers. In theory this army numbered ten thousand hoplites and one thousand cavalry but at the time of the battle the Thebans marshaled only about seven thousand infantry and six hundred horse. Yet this army and its officers had honed their skills in seven years of fighting against Spartan forces. The Sacred Band formed an elite unit of the hoplite levy, one that invariably held the most dangerous place in the line. It consisted of three hundred men, all pairs of lovers who preferred to fight to the death rather than abandon their lovers and their post. It served under its own commanding officer. Pelopidas, who held the position at Leuctra, was a fiery, aggressive leader accustomed to acting independently. Cavalry served as the last and quite able arm of the Theban force which combat had made the finest in Greece. The Thebans had also strengthened their horsemen with *hamippoi*, light-armed infantrymen fast enough to accompany them in action. They were also equipped with javelins to bombard the enemy phalanx. The combination of veteran hoplites and fine cavalry gave the Theban army distinct advantages over the Spartans. Finally, the Theban army was about to serve under the overall command of Epaminondas, who would make his name at Leuctra, his first major military post. As *boiotarchos* he served as one of seven generals, but he surpassed his colleagues in intellect and natural authority. A veteran himself, he had also studied strategy and tactics. In the process he formed original ideas about combining new concepts with past experiences to win a truly decisive victory in the field (Buckler 1980b: 55).

Diplomacy having run its futile course, Cleombrotus began his invasion of Boeotia by marching
past Chaeronea to Coronea, where he encountered the main Theban line of defense. Coronea sits
squarely between Mount Helicon and Lake Copais, a formidable point that could not easily be turned.
Rather than try, Cleombrotus retired as though abandoning the campaign. He then launched a brilliant
flanking attack over Mount Helicon that left the southwestern plain of Boeotia open to him. Once there
he marched up from the coast onto the small plain of Leuctra, not far from Thebes itself. Although his
bold move caught the Thebans by surprise, they responded quickly by marching through Thespiae and
onto a low line of hills bordering the northern side of the plain. The Thebans and Spartans looked out
on a level expanse, some three-quarters of a mile broad. Open and virtually treeless, the land offered
ideal ground for cavalry and maneuver.¹

The two armies rested while their leaders were locked in dispute. Among the Thebans three of the
boiotarchoi urged a retreat to Thebes, preferring to suffer siege than face the Spartans in open
combat. Superstition, oracles, and baleful omens also stalked the Theban camp. Epaminondas
allegedly played upon these religious fears by producing various omens and oracles predicting
victory. One legend, however, enjoyed a historical basis. Two Spartans had once raped two virgins
who in their shame committed suicide. Their helpless father could only curse the Spartans before the
gods. Even at the time of the battle a monument to the girls stood on the field, which the Thebans
piously decorated before the battle. The real secret of Theban morale, however, lay in the confidence
of the army in its officers. When the seventh boiotarchos arrived and cast his vote with Epaminondas,
the Thebans determined to give battle. Across the field the Spartan camp likewise suffered from
disagreement and discord. His opponents accused Cleombrotus of wishing to avoid battle because he
favored the Thebans. They did so even though he had done everything possible to gain a very
favorable position for battle. Even his friends warned him that he could avoid exile only by engaging
the enemy. The next morning after breakfast Cleombrotus called his last council to order the army to
prepare for battle.²

The Thebans were at the moment making their own final preparations. The market vendors,
baggage handlers, and the entire Thespian contingent began to leave camp. Epaminondas preferred to
let these fellow Boeotians go rather than risk their desertion at the height of the fighting. Unbeknownst
to them the Spartan Hieron had led a group of mercenaries around the Theban camp. He unexpectedly
fell upon those leaving, driving them back to camp. Not only did Hieron fall in the skirmish, but his
plan also failed, for these noncombatants did not participate in the coming battle.³ Despite the repulse
of Hieron, Epaminondas allowed the Thespians to take refuge at Keressos. Cleombrotus afterward
drew up his formation on the edge of the plain, his infantry some nine to ten thousand strong and eight
hundred to a thousand cavalry in all. At first intending to conduct a typical hoplite battle, he arranged
his phalanx in two wings with the Spartans on the right and the allies on the left. The Spartan
contingent stood twelve deep in a line stretching perhaps some 2,500 feet. Cleombrotus took up his
position on the right wing between the first and second morai, surrounded by the three hundred-man
hippeis, a band of elite foot guard. The allies deployed accordingly on the left (Buckler 1980b: 290
n. 26).

As Epaminondas meanwhile massed his troops for battle, he unveiled his novel mode of attack. He
placed his cavalry, doubtless accompanied by the hamippoi, in front of his phalanx to serve as the
spearhead of attack. Pelopidas at the battle of Tegyra in 375 had already proven the ability of
experienced cavalry to strike a telling blow against good hoplites. He next drew up the Thebans on
the left wing opposite the Spartans, ranking them at least fifty shields deep and some seventy-five to
eighty wide. He aimed his main blow specifically at Cleombrotus’s position in the line. The Theban
formation, deep but narrow, thrust out from the line like the beak of a trireme. Epaminondas stationed the Sacred Band up front on his wing behind the cavalry. He kept it together as an integral unit, as Pelopidas’s charge soon demonstrated. He deployed the Boeotian troops on the right wing, probably drawn up eight or twelve deep (Buckler 1980b: 290 n. 27; see figure 29.1).

When Cleombrotus saw the novel and totally unexpected arrangement of Epaminondas’s army, he immediately realized the defects of his own dispositions. Without hesitation he began to change the deployment of his entire battle order. He moved his cavalry to the front to counter the Theban horsemen. Inadequate though they were, he hoped that they would at least distract the Thebans long enough for him to shift his infantry farther to the right. To prevent his own right wing from being outflanked he ordered his men to extend the line to the point where it stretched beyond the Theban left. Upon reaching that point, it could itself encircle Epaminondas’s striking wing. Units from the left of Cleombrotus’s own right wing faced about, stepped clear of the line, faced left, and, marching behind those still facing ahead, tried to move beyond its phalanx. Once there they were immediately to fall into line. In this way those hoplites still in line ahead protected those in motion. This movement suffered from the glaring weakness of opening a gap on the king’s left that the allied wing was supposed to close up. Furthermore, this maneuver was as complex as it was dangerous, as witnessed by the experience of the two Spartan polemarchoi at the battle of Mantinea in 418 (Thuc. 5.72.1; Plut. Pel. 23.1–4; Buckler 1980a: 79–83; Tuplin 1987: 72–107; Georgiadou 1997: 172–8).

To cover his evolutions Cleombrotus ordered his cavalry out into the plain to prevent Epaminondas from fathoming his intentions. Hoping thereby to buy time, he also began to move hoplites to his right. Although his riders closed with the Thebans, they immediately fell to the enemy. As they fled headlong, the Theban cavalry herded them back onto their own phalanx. Units of the Spartan line had already moved out of position and were even then marching behind their front. The gap thus opened was never closed. Spartan riders ploughed into and then through it, the Thebans at their hooves, preventing the allies from filling it. Nor could the Spartan hoplites in motion retrace their steps. All the while Epaminondas led his charge obliquely to the left, thus slanting across the enemy’s front. He accordingly drew Cleombrotus as far away as possible from the rest of his line. As intended, he concentrated on the king’s position to crush the head of the Laconian snake. The Boeotian right wing advanced in a somewhat refused order, while at the same time maintaining contact with the Theban lochoi on their left. The whole battle spread before Pelopidas’s eyes. He saw the open gap, Cleombrotus’s incomplete efforts to envelop Epaminondas, and the king isolated, his army in confusion. Seizing the moment, he ordered the band to charge forward to hit Cleombrotus’s position before he could restore the situation.4

Cleombrotus had run out of time. He ordered his line to advance. Even though the front ranks obeyed, the men in the rear did not even know that he was moving. Pelopidas slammed into Cleombrotus’s position, stopping all forward movement. Cleombrotus fell, mortally wounded, but the Spartans fought back heroically. They managed to drag the king off still alive, but their casualties mounted. Epaminondas now brought up his striking wing. The Thebans destroyed the king’s bodyguard, and when Epaminondas called for one more step to victory, his veterans broke all Spartan resistance. The Spartans left a thousand dead on the field, four hundred of whom were Spartiatai, first-line troops whom Sparta could not afford to lose. Epaminondas, with the redoubtable valor of Pelopidas and their veterans, had destroyed not only an army but also the myth of Spartan military invincibility.5

The enduring significance of Leuctra remains generally recognized. It ushered in the brief but
portentous period of the Theban Hegemony, which saw the virtual exhaustion of the classical Greek *polis* system. So many states had vied for ascendancy with one another for so long that they in effect committed suicide. Philip and his successors buried the corpse. Though the *polis* survived until the end of antiquity, it lost its political primacy. In military terms too more powerful and more sophisticated armies replaced the old citizen levies of the *polis*. All of that still lay in the future. In 371 Leuctra served more as the end of the old than the harbinger of the new. That would soon come from Philip of Macedonia, who had spent some of his formative years in the Thebes of Epaminondas and Pelopidas, a king who fully appreciated the lessons of Leuctra.

ITS SIGNIFICANCE

Epaminondas’s stunning victory at Leuctra was due to his combination of seven military dispositions: 1) attack on the left wing; 2) deployment of hoplites in a very deep formation; 3) cavalry also stationed in depth; 4) cavalry positioned in front of the phalanx; 5) refused right wing; 6) reliance on the right wing to protect the right flank of the striking wing; and 7) use of the oblique attack for the entire army. Although other generals had used some of these features in previous engagements, none had both deployed them all simultaneously and also intentionally as essential parts of the entire battle plan. Understandably, then, no other ancient general had also thought to coordinate them. Still other ideas belonged solely to Epaminondas’s ingenuity and creativity. Many modern scholars have either failed to grasp the full dimension of Epaminondas’s plan and thus misrepresented it, or honestly misunderstood it. Some historians rightly point out that previous Greek generals had at one point or another used some of these features in their conduct of battles. Yet they do not also realize that circumstances in these cases forced commanders to take measures only because they could do nothing else. In these instances either through enemy surprise or the demands of topography these officers had to improvise their reactions to meet the particular situation. Yet in all these cases they only responded to developments initiated by others. None of them put into effect on the battlefield a plan devised before the engagement. Owing to these factors scholars have generally failed to perceive the full import of Epaminondas’s military achievements that day on the field of Leuctra.
Taking the various features of Leuctra serially, the attack on the left wing provides a proper place to begin. No Greek general before Epaminondas had given the left wing of the phalanx the assignment before the battle to defeat decisively the entire enemy army. So never before had this concept found a place in anyone else’s plan. No one else had accordingly grounded his strategy on it to achieve total victory. The typical hoplite battle had consisted of the two generals placing their best troops on their right wing to confront the enemy’s left, the position held by his weaker troops. In the ensuing battle the right of each phalanx normally prevailed, resulting in something akin to a standoff. The side suffering the heavier losses asked for a truce to take up the fallen and that settled the matter. In a true military sense these battles were never decisive because the enemy army, while defeated, was never destroyed. Epaminondas, however, planned to throw the might of his finest troops against the Spartans themselves to kill as many of the Spatriatai as possible. Before the battle he allegedly held up a snake for his men to see (Polyaenus, Strat. 2.3.15; Hanson 1988: 193–5). He told them that by crushing its head, he could kill the entire snake. Thus, by crushing the Spartiate head of the enemy phalanx, he would kill the entire army without striking a blow against the Spartan allies. Since the Spartans traditionally held the right wing of their own armies, deploying their weaker allies to their left, Epaminondas could crush that Spartan head only by ranking his elite Theban troops on his own left. Intent, not accident, determined his choice.

Turning next to the deep phalanx, Epaminondas’s use of it constitutes nothing new. Not fully realized, however, are either its roots or its full significance. On four occasions before Leuctra generals had intentionally deployed deep phalanxes before battle. In still another three instances commanders formed deep phalanxes in unplanned responses to unforeseen contingencies. The first of the four intended uses of it comes from the battle of Delium, where the Thebans first used it. In 424 the Athenian army under Hippocrates invaded Boeotia, striking as far west as modern Dhilesi on the northern coast. Quickly rallying to meet the threat, the Boeotians under the Theban boiotarchos
Pagondas caught the Athenians in an upland valley at the site of the new settlement of Neo Sikamino. Across the valley the Athenians drew up their line eight deep, and against them Pagondas in turn ranked the Theban hoplites on his right twenty-five deep. After hard fighting, the Thebans were besting the Athenian left when panic swept through the whole Athenian army. The battle ended in Boeotian victory and heavy Athenian casualties (Thuc. 4.94–97; Andoc. 4.13; Diod. 12.70.1–5; Hanson 1988: 192, 196).

The Athenian invasion of Syracuse in 415 provides the next occasion for use of a deep phalanx. When the Athenians landed, they built a fortified camp at Daskon on the coast below Syracuse. They also established control over a level area around their camp. Against it the defenders sent their army, which took its position to the west of the camp. Completely unfamiliar with hoplite warfare, the Syracusans had never even fought a pitched battle before. To meet them the Athenians arrayed their forces in a battle line eight deep and a rear contingent also eight deep but deployed in a hollow square. The Syracusans drew up their line sixteen deep, perhaps in the hope that numbers alone would compensate for inexperience. Although the Syracusans put up a stout fight, the Athenians and their allied veterans prevailed. Once the Syracusans had gained combat experience, they never again resorted to the deep phalanx. Untrained hoplites, not the formation, had failed (Thuc. 6.66–70.1; Freeman 1892: 166–74; Hanson 1988: 193).

The end of the Peloponnesian War did not bring peace, as witnessed by the tumultuous events in Athens afterward. In 403, during the ensuing civil war, Thrasybulus, leading the men of the Piraeus, and Critias at the head of the Thirty, confronted each other in Mounychia. Thrasybulus arrayed his men ten deep to fill the street that led from the top of the hill down to the agora of Hippodamus. Limited space determined his deep formation, which in this case lent his inferior numbers a greater advantage than would more open ground. At the bottom of the hill Critias formed his superior force fifty shields deep to cover the same street. Upon Critias’ s attack, Thrasybulus’s men easily drove the enemy downhill in frontal assault. At the foot of the hill the two sides made a truce. This clash was unique first in having two deep phalanxes involved, one unusually so. Next, it was obviously not a battle in the field but rather street fighting in a narrow land and between rows of houses. The two sides formed deep lines because only so could they bring all of their troops to bear. This unusual episode had no influence on subsequent military developments. 6

The last example comes from the battle of the Nemea River in 394. There an allied army consisting of Boeotians, again under Theban leadership, Athenians, and other allies confronted the full Spartan levy of allied contingents under Aristodemus. The allies had voted before engaging to deploy their entire line sixteen deep. Defying their decision, the Thebans ranked their hoplites “altogether deep” (batheian pantelos), which probably means at least twenty-five as at Delium. The allies agreed that the Thebans should hold the right of the line, the Athenians the left, and the others the center. Against them the Spartans manned the right of the line with various allies filling in the rest of it. As the Thebans advanced, they inclined to the right, as was natural in hoplite battles (Thuc. 5.71), and easily drove their opponents from the field. The Spartans, likewise drifting to the right, overwhelmed the Athenians, and then wheeling about struck the exposed flanks of the Argives and then the Thebans as they returned from their own fighting. 7 If the deep phalanx of the Thebans carried the day here, so on its side of the field did the Spartan line standing in the traditional depth of eight. Furthermore, the Spartans defeated the much deeper allied phalanx. Nemea River proved that the deep phalanx alone could not win a decisive hoplite victory. Epaminondas needed more than that to win total victory.
In the three other battles unexpected developments in the course of the action forced Greek generals to resort to the deep phalanx. Two of them certainly made an impression on Epaminondas. At the battle of Coronea in 394 the Thebans and their allies confronted the Spartans and theirs under Agesilaus on a narrow field. Both the Thebans and the Spartans routed those posted against them. As a result, the Thebans found the Spartans in their rear. Turning to confront Agesilaus, the Thebans saw before them very little room for maneuver. They accordingly concentrated their line on a narrow front, which meant deepening it. In this situation Agesilaus should have opened his phalanx to allow the Thebans to pass through. The Spartans could then have struck them in flank as they ran the gauntlet. The king instead turned to face them. When the two armies clashed, the Thebans in their thick, dense formation cut their way through the Spartan line, felling Agesilaus as they went. At that point the Spartans themselves opened their line to let the Thebans past. Through necessity, not design, did the Thebans win through at Coronea. Nor did the depth of the Theban phalanx alone decide the outcome of the battle.

The incident at Tegyra in 375, again an unforeseen conflict, indubitably influenced Epaminondas. The boiotarchos Pelopidas, his friend, with the three hundred hoplites of the Sacred Band and two hundred cavalry, unexpectedly fell in with a Spartan army of a thousand in two morai. At Tegyra, through a short, narrow gap, a true bottleneck, winds a road so narrow that it allows passage for only a few men abreast. Hence, when a handful of troops at a time debouched from it, they could only spread slowly onto the confined area on its western side. As Pelopidas approached the spot, he encountered the unsuspecting Spartans emerging from it. With no time to form an elaborate plan and before the enemy could fully deploy, he drew up his infantry into a dense formation (eis oligon) for an immediate attack. On a short front that meant deepening the line. Terrain, time, and scant numbers prevented him from forming an extended line. The same limitations restricted Spartan movements. Upon striking the Spartan line, Pelopidas at the head of a tough knot cut his way through the enemy in fierce fighting. Here the dense phalanx combined with a determined leader, a surprised enemy, and confined space all culminated in Pelopidas’s victory. Yet Tegyra was a skirmish rather than a major battle, and the lessons drawn from it were somewhat limited.

The last example, which dates to the Peloponnesian War, had nothing to do with Thebes. In 432 the Corinthian general Aristeus at Potidaea defeated one wing of an Athenian line. Pursuing the enemy for some distance, he discovered that the rest of the Athenian army remained intact behind him. The narrow peninsula at this point allows little room for maneuver. Aristeus quickly concentrated his hoplites into the smallest space possible and next led it against the enemy. After heavy fighting, his wing broke through the Athenian line. Like Pelopidas at Tegyra, through necessity he contracted his men into a short front and deep ranks (Thuc. 1.62.5–63.1; Gomme 1:199–200). In all three of these cases the combination was forced upon the commanders by circumstances, not by choice, but victory resulted in them all.

For Epaminondas’s deployment of cavalry in depth only Tegryra provides a precedent. There, as seen, topography dictated the tactical necessities of battle. The confined ground there allows little room for broad deployment. The sudden encounter surprised both armies, but Pelopidas reacted first. Drawing his cavalry into a compact mass, he threw them against the Spartans before they could properly debouch into the open. Neither was this a premeditated attack nor was it coordinated with a simultaneous hoplite attack. Greek history affords no other example of such a massed cavalry attack in tactical conjunction with infantry.

The next two topics, cavalry stationed in front of the phalanx and its use as a striking force, can
most usefully be discussed together. Before doing so, however, a word is needed about cavalry serving as an integral part of an initial hoplite attack. Greek history provides not one example of any such thing. At Tegyra Pelopidas ordered his cavalry from the rear to assail the Spartans before they could form their line (Plut. Pel. 17.3). As seen, he did so to buy time for him to deploy the Sacred Band, not to act in concert with it in a hoplite attack. Nonetheless, Hanson (1988: 196) claims such an attack at the Paktolos River in 395 (Xen. Hell. 3.4.22–24). When Agesilaus moved on Sardis, he ordered his cavalry to confront Tissaphernes’s horsemen, who lacked all infantry support. The Spartan cavalry did so with their infantry shortly coming up behind. Since the Persian horse faced Agesilaus’s attack entirely alone, they could not hold. This episode, then, was neither a set battle nor a joint attack launched in unison. Therefore, it cannot support Hanson’s claim, which must be dismissed (Buckler 2003: 66–8).

Epaminondas’s deployment of cavalry at Leuctra throws surprising light not only on a significant aspect of the battle but also on Xenophon’s duplicitous account of the battle itself. Xenophon (6.4.10) simply states “since there being a plain between them, the Spartans posted the cavalry in front of their phalanx and the Thebans theirs against them.” This statement is all the more insidious because of its apparent innocence. Xenophon does not in fact say that Cleombrotus acted first, even though Hanson and others have drawn that conclusion. Xenophon (6.4.10–15) narrates the action from the Spartan side: deployment of cavalry and then infantry, Cleombrotus’s advance and supposed initial success, Spartan collapse under Theban attack, and losses, depicting in turn some of the Theban movements. Seen in this light, it is no more logical to conclude that the Thebans posted their cavalry in front of their lines because the Spartans did so than that they ranked their phalanx fifty deep because the Spartans ordered theirs twelve deep. Although Xenophon implies the parallel regarding cavalry, the facts actually argue against it.

To prove the point, a dispassionate look at the situation demonstrates that Cleombrotus had absolutely no reason to station his cavalry in front of his phalanx before the battle and many not to do so. Xenophon (6.4.10–11) expatiates on the pitiful state of Spartan horsemen. This cavalry, despised and useless, hardly constituted a fit instrument of offense. Deployment of it in front of his line would only have fouled the field for his main attack. He originally planned a typical hoplite battle, as proven by his initial disposition of his phalanx. That typical battle formation included cavalry on the flanks. The first sight of Epaminondas’s massive formation—infantry and cavalry—across the field changed everything. In the face of the Theban dispositions Cleombrotus began to change the formation of his phalanx to lengthen it. Plutarch (Pel. 23.2) perfectly understood the situation, and to fill Xenophon’s silence explains how the king tried to extend his line. Plutarch too omitted the Theban cavalry because his subject was the life of Pelopidas, who served on foot with the Sacred Band. As part of this general redeployment Cleombrotus now ordered his cavalry to the front to shield his movements. That urgent necessity clearly explains Spartan cavalry in front of its own phalanx. Cleombrotus moved it from the flanks to buy time to re-form his entire line. Seen in this light, all of Cleombrotus’s last-minute movements make sense as a desperate response to a totally unexpected challenge.

Epaminondas by contrast had ample reason to mass his horsemen and put them in his front. Pelopidas at Tegyra had provided him with good reasons. Although Epaminondas could not expect his riders to pierce an unbroken phalanx, he could rely on them to hold the field in front of the Spartan line. They could distract it and possibly interfere with its movements (see also Xen. Eq. mag. 8.12). All the while his own hoplites would be more closely approaching the Spartan phalanx. That much had happened at Tegyra, and Xenophon himself (An. 3.2.18–19) had once warned his men to
disregard cavalry threats. When Cleombrotus placed his horsemen in his front, he unwittingly gave the Theban cavalry an unexpected but most welcome opportunity to upset his entire redeployment. Although Epaminondas could not have predicted this turn of events, his cavalry made excellent use of their opportunity. His riders were far too experienced to allow the enemy to escape around the flanks of their line. Instead, having met the Spartans, they drove them back onto their own phalanx. Cleombrotus’s incomplete extension of his line had left a gap in it. As usual in such cases, the fleeing Spartan cavalry made straight for it with the Thebans right behind them (Xen. Hell. 6.4.13; Tarn 1930: 62–3).

Two of Epaminondas’s innovations have sparked considerable but unnecessary confusion. The first is the purpose and function of the refused right wing and next its erroneous identification as a reserve. The two must therefore be dismissed together. Diodorus (15.55.2) is largely responsible for the misinterpretation of the role of Epaminondas’s right wing. He states that Epaminondas placed his weakest hoplites on the right with orders to avoid battle by withdrawing gradually during the enemy’s attack. The two are mutually contradictory, for not even Epaminondas could order them simultaneously to advance while retiring. The veteran Xenophon (Hell. 7.5.22, 24) provides the answer when he describes Epaminondas’s line at Mantinea in 362. He states that the Theban’s left wing thrust forward like a ram (Buckler 1985: 134–43). The whole line advanced like a trireme with the left forming the ram. That means that Epaminondas’s left thrust ahead while maintaining contact with the right. Both advanced together in an unbroken line. The front of the right, however, was behind that of the left, the whole formation being in echelon. The right could also be described as refused. Even though Epaminondas committed it to battle from the outset, he did not intend for it to participate in the fighting—unless necessary—until later in its course.

Next, the purpose and function of the Boeotian right wing, both often misunderstood, merit attention. First, it played a crucial, if unappreciated, role in the battle. Nor were its men the weakest in the army, as Diodorus calls them. The right wing served primarily to protect the vulnerable right flank of Epaminondas’s striking wing. His deep formation with its narrow front was itself exposed to attack on its own right, all the more so since the Spartan line stretched well beyond it. Yet so long as the Boeotian right wing confronted the enemy, they could not wheel against Epaminondas without exposing their own left flank. If they tried, they would themselves be rolled up. Until they had dealt with the Boeotian right, the Spartans could not threaten Epaminondas’s wing. The Boeotian right thus served from the outset of the action as a safeguard and a deterrent. Though its role could perhaps be considered secondary, it could never rightly be called unimportant (so Hanson 1988: 194–5; Lendon 2005: 107).

Several scholars have erroneously called the Boeotian right a reserve, and by so doing they have only unnecessarily clouded the issue. A reserve is by definition “troops withheld from action to reinforce others or to cover retreat” and “forces to be called on in an emergency” (New Shorter Oxford English Dictionary (1993) s.v. “reserve;” Holladay 1982: 96 n. 13). As the Boeotian right wing served on the battlefield from the start of action and continued throughout, it cannot fit the definition. Yet Hanson (1988: 196) mistakenly argues that something of this sort actually happened at Delium, when he claims that Pagondas “ordered a reserve contingent of horsemen to ride out in support of his crumbling left wing.” Quite to the contrary, when the Boeotians and Athenians were already engaged, Pagondas detached two squadrons of cavalry from their original position in the line with orders to circle a hill and confront the Athenians (Thuc. 4.96.5). Having already been deployed against the enemy, Pagondas’s horsemen were not by any definition a “reserve.” Nor should the
In conclusion, Epaminondas’ achievement at Leuctra has merited this thorough reevaluation, all the more so since a great many scholars currently reduce the Theban’s thinking to the commonplace. Typical is the recent judgment of E. L. Wheeler, who opines that Hanson “ably explodes the myth of Epaminondas’s innovation” (2007: lxiv, yet see Buckler 2003: 293 n. 56). The latter does so, as seen here, only by a combination of historical errors, false analogies, and the failure to recognize Epaminondas’s ability to combine his original ideas with past military lessons of proven effectiveness. As amply demonstrated, Epaminondas actually recognized a new capacity in the striking power of cavalry, if properly used within its limitations. He readily appreciated the fundamental weakness of traditional hoplite warfare in the inability of two strong wings to win a decisive battle by defeating the enemy’s weak wing. He solved the problem by the concept of attacking on the left with his full might, a solution as brilliant as it was simple. In terms of tactics he knew that an oblique attack leftward by his strong wing would both counter the natural drift of the enemy farther to the right and threaten to separate it from the rest of its line. He understood the need for a refused right wing to defend the striking wing and to fix the attention of the unengaged enemy wing. Taken together, Epaminondas’s designs at Leuctra incorporated the traditional and the novel as never before. Thus no one can or should claim that everything he did was original. That misses the full import of his achievement. His plans worked but not always as expected. He could not have predicted Cleombrotus’s cavalry response and certainly not the fouling of its own main line. Nor could he have necessarily foreseen Cleombrotus’s last minute effort to extend his phalanx. These were unintended but welcome results of his brilliant and unorthodox thinking. He combined all of these elements, the planned and the unplanned, to make Leuctra a unique victory in Greek military history.

BIBLIOGRAPHY


anson, V. D. 1988. “Epameinondas, the battle of Leuktra (371 B.C.) and the ‘revolution’ in Greek battle tactics.” *CA* 7: 190–207.


The career of the Macedonian general Demetrius Poliorcetes, the “Besieger,” (ca. 336–ca. 282 B.C.; all dates that follow are B.C.), son of Antigonus Monophthalmos, offers much material pertinent to the discussion of the problematic idea of Hellenistic warfare. At the same time, it is also obvious that one case study is certainly far too limited to decide the question of whether there is sufficient evidence to establish Hellenistic warfare as something distinctly different from classical warfare, or the warfare of any other era in ancient history (to say nothing of the question of the potentially misleading implications of the modern periodization of ancient history, whose chronology defines the “Hellenistic age”). How best to identify what might be new or distinctive in Hellenistic warfare is certainly a major underlying issue for the studies in this volume and indeed is much discussed in scholarship in general (e.g., Bar-Kochva 1976: 203–5; Austin 1986; Sage 1996: 197–227; Hamilton 1999; Beston 2000; Baker 2003; Chaniotis 2005; Bugh 2006). For the sake of clarity, I take the conventional position that Hellenistic warfare designates warfare as conducted and conceptualized in the aftermath of the lifetime of Alexander the Great.

The particular aspects of warfare illustrated by the career of Demetrius Poliorcetes that seem to me significant for any possible definition of Hellenistic warfare line up under two general headings: the practices of war and the meanings of war. Since Demetrius’s career comes at the opening of the Hellenistic period, the practices and meanings of war revealed by his history obviously do not represent developments that slowly emerged over time during the centuries that we today ascribe to the Hellenistic era. Rather, they must either represent traditions from earlier times (whether recent or distant), or innovations. Perhaps it would be best to posit Demetrius as a transitional figure, a general-become-king who straddles the (modern) divide between the classical and Hellenistic periods. In the end, his career finished in failure and shame, but nevertheless his experiences did indicate some of the important military, political, and religious directions that other aspiring monarchs would need to pursue in the future to achieve and maintain legitimacy and power as Hellenistic rulers.

In some cases, as will become clear, it seems difficult, if not impossible, to determine whether it makes more sense to label an aspect of warfare in Demetrius’s career as traditional or innovative. A corollary question, given this volume’s goal of studying warfare as it was conducted throughout the entire Hellenistic period, is to what extent any new development in warfare from the time of Demetrius persists after his career and can therefore be considered “Hellenistic” in general, as
opposed to only “early Hellenistic” or indeed merely “Demetrian.” In the end, the value of this case study lies in the attempt to identify the most striking practices and meanings of warfare that Demetrius’s military successes and failures present, whatever one may identify as the origins or earlier history of these practices and meanings, or as their persistence or evanescence.

SOURCES

A constant refrain of scholarship on the period of Demetrius Poliorcetes bears repeating: the fragmentary state of the relevant ancient sources means that we are poorly equipped to reconstruct a precise account of the events and chronology of Demetrius’s career. The two principal extant ancient sources for this history are much later than the time of Demetrius. In the first century Diodorus Siculus wrote his annalistic Library of History as a so-called universal history. A substantial part of his narrative of the events of Demetrius’s lifetime survives in Books 18 to 20 (for Books 18 and 19, see the annotated editions of Goukowsky 1978 and Biziére 1975 respectively). The surviving text of Diodorus unfortunately breaks off after his narrative of the events of 302 (the end of Book 20), which means that we have no year-by-year narrative for the last two decades of Demetrius’s life. Only a few mentions of Demetrius appear among the surviving fragments of the rest of the Library (see the annotated edition of Goukowsky 2006). Plutarch’s Life of Demetrius (paired with the Life of Mark Antony) is our other major source for Demetrius’s career; it was written in the second century A.D. as a study of character rather than as a historical narrative observing an annalistic chronology, like all of Plutarch’s biographies of prominent Greeks and Romans (as the biographer explicitly tells his readers, e.g., at Alexander 1; see the annotated editions of Flacelière and Chambry 1977; Andrei 1989; Amantini 1995).

Both Diodorus and Plutarch compiled their accounts based on the work of earlier authors, whose histories are no longer extant (Sweet 1951; Wehrli 1968: 19–29). Originally the most important source for Demetrius’s career seems to have been the history of the Diadochs penned by Hieronymus of Cardia, a contemporary of Demetrius who first served under Eumenes of Cardia but then, following Eumenes’s death in 316, changed sides to serve under Antigonus and Demetrius (Hornblower 1981; Bosworth 2002: 169–209). It is therefore particularly unfortunate that Hieronymus’s work is among the sources that are seemingly lost forever. Diodorus, however, is thought to have followed Hieronymus closely in his account of Demetrius’s history, and it is from the surviving portion of the Library that we have the only battle descriptions from Demetrius’s career that supply any degree of detail (at least as that term applies to ancient Greek history). For information on Demetrius’s career after 302, we are largely dependent on Plutarch’s biography.

Fortunately, for the purposes of this chapter, it is not necessary to discuss the exceedingly difficult problems of source criticism and chronology that confront anyone trying to narrate the career of Demetrius in detail (Dimitrakos 1937; Elkeles 1941; Manni 1951; a historical biography of Demetrius is under preparation by Patrick Wheatley, www.otago.ac.nz/classics/staff/wheatley.html; see Braund 2003 for a recent brief narrative of the period). The assessment of the mixture of the old and the new in warfare as conducted during the concluding decades of the fourth century and the opening decades of the third century that I wish to offer here will emerge from a survey of salient events in Demetrius’s riches-to-rags history as a commander, king, and god, without the necessity of entering into the intractable obscurities of the chronology of Demetrius’s career post-302. Given the state of the sources, I think it will be more effective to present my observations in a topical rather
than a chronological arrangement. I hope that they will not lack cogency because of the absence of a precision in chronological and narrative detail that we do not have and will not have, short of the unlikely rediscovery of Hieronymus’s work, or at least the lost portions of Diodorus.

**Practices of War: Old or New?**

The practices of war after the death of Alexander, as often pointed out, do not present a clear case for regarding Hellenistic warfare as something unprecedented or even highly novel. Nevertheless, as far as quantitative measurements are relevant to the question, it does seem to me that the scale of war did increase overall in the Hellenistic period, whether the issue is the number of troops regularly deployed on the battlefield, the extent of geography covered by the warring sides, the development of technology and military engineering, or the amount of money expended in war. At the same time, I have to acknowledge that the scale of warfare in the Hellenistic period was not without precedent in earlier warfare, as Thucydides polemically argued was true of the history of the Peloponnesian War in comparison to warfare before that time. The mid-fifth-century campaigns of the Delian League (Thuc. 1.104, 109–10), the Athenian expedition to Sicily during the Peloponnesian War (Thuc. 6.31–32; Hanson 2005), and, most spectacularly, Alexander’s expedition to Asia—all these wars took place over vast distances, took years to complete, and involved enormous expenditures of resources, both human and financial. Nevertheless, if we take into consideration the frequency of major wars between Hellenistic kings and would-be kings, and then factor in the military campaigns of the Romans in Greece and the eastern Mediterranean region (which deserve to be counted as Hellenistic history), the Hellenistic period does seem to have been characterized by more large-scale wars (as well as by the continuation of frequent wars between Greek city-states) than was the case in earlier Greek history (Delbrück 1975: 235–52; Bar-Kochva 1976: 7–19; Ma 2000; Bosworth 2002: 64–98; Baker 2003). After all, wars run on money, and the major commanders in the period following Alexander’s conquests were embarked on spending the accumulated treasures of some of the ancient world’s richest empires.

In any case, even if it is true that the Hellenistic period saw a number of larger battles than before and a greater number of large-scale battles in general, this would be only a quantitative difference from earlier times and not a qualitative change, in the sense of innovative thinking about the conduct of warfare. Scale certainly matters in war, as in physics, but states or warlords striving to make their armies larger seems a natural, evolutionary process rather than a revolutionary innovation. In any case, Alexander’s siege of Tyre in 332 was monumental in its scale and duration (Bosworth 1988: 64–8), and the battle at Gaugamela in 331 probably involved a very large number of combatants (we have no precise figures; Brunt 1976: 1, 509–14; Bosworth 1988: 74–85; Sage 1996: 192).

Demetrius’s career offers several examples of the momentous scale that Hellenistic battles could reach. Demetrius’s first experience of combat, so far as we know, came in the battle of Paraetacene (between the regions of Media and Persia, today western Iran), which took place in (probably) 317 when Antigonus confronted Eumenes in yet another encounter in the ongoing conflict among Alexander’s former generals over who would control what parts of Alexander’s empire (Diod. 19.26–32; Billows 1990: 94–8; Bosworth 2002: 124–41; on Eumenes, Schäfer 2002 and Anson 2004). We have no details on Demetrius’s actions in the battle, except that he served as a cavalry commander (Diod. 19.29.4). The battle involved mercenary troops and mixed arms (light and heavy infantry, light and heavy cavalry, and war elephants), but these contingents were not new factors in
war, nor was the challenge of using them simultaneously in successful tactics on the battlefield. The scale of the confrontation was, however, noteworthy. Although the nature of our sources makes it treacherous to place trust in the precise numbers reported for troops or casualties in this, or any other, ancient battle (e.g., Krentz 1985; Rubincam 1991), Antigonus fielded probably more than forty thousand men, plus sixty-five elephants, while Eumenes had at least that number of troops and nearly twice the number of elephants. The battle of Gabiene that took place between the same opponents not long thereafter in the same region also featured opposing contingents of similar magnitude to those of the previous encounter (Diod. 19.39–44; Billows 1990: 99–104; Bosworth 2002: 141–59).

Not all Demetrius’s operations in his early career were on a large scale (Wheatley 2001b), but Antigonus’s protracted siege of Tyre in 314 and 313, which ended in the submission of the starving city, as well as Demetrius’s liberation of Athens from Cassander’s control in 307 were large-scale operations (Billows, 1990: 105–51; Bugh 2006: 283–4). When Antigonus dispatched Demetrius to Cyprus in 306 to continue their war against Ptolemy, the scale of Demetrius’s force, the size of the siege machines, and the tonnage of the warships (he commanded a “seven”) were undeniably large (Diod. 20.46.5–53, Plut. *Demetr*. 15–16; Wheatley 2001a; Bugh 2006: 275, 285). To attack the walls of Cypriot Salamis, Demetrius built a helepolis (a mobile, armored siege tower housing artillery to attack a city’s fortification walls and their defenders) whose dimensions reached forty-five cubits (nearly seventy feet) on a side and ninety cubits (roughly 135 feet) high, divided into nine stories (Diod. 20.48.2; Marsden 1969: 105). This giant weapon rolled into action on wheels eight cubits (roughly twelve feet) in diameter. The armored tower’s heavy ballistae could launch projectiles weighing as much as three talents (170 to 180 pounds) against the enemy’s parapets.

Demetrius’s most grandiose employment of military technology came in the siege of Rhodes in 305/4 (Kern, 1999: 237–48). His helepolis in this case was even larger than on Cyprus, with sides forty-eight cubits long, a height of ninety-six cubits, and so heavy that it took 3,400 men to propel it on its eight iron-plated wheels two cubits thick (Diod. 20.91.2–3, 91.7; Plut. *Demetr*. 21.1; Marsden 1969: 105–8; Marsden 1971: 84–6, with references to the other extant sources; Campbell and Delf 2003: 9–12). Nevertheless, not even this famous device represented a qualitatively new kind of military engineering. Rather, it was a quantitative augmentation of previously invented technology (Tarn 1930: 101–22; Marsden 1971: 84–6; Campbell 2005). Earlier siege towers had also been large and mobile. Dionysius of Syracuse in Sicily had conducted sieges with wheeled, missile-firing siege machines six stories in height (Diod. 14.51.1; Campbell 2005: 26–8). Philip II of Macedon reportedly constructed siege towers eighty cubits high to attack Perinthus (Diod. 16.74.3; Campbell and Delf 2003: 5–6, 2005: 30–1). Moreover, the technical writer Biton describes a large helepolis built for Alexander (Marsden 1971: 71–3; Campbell and Delf 2003: 6–9). So even if Demetrius’s siege of Rhodes was more spectacular and, it seems likely, more expensive than previous attacks of this kind (the ancient sources do not give enough details to allow a reliable calculation), and even if he designed and constructed siege machines greater in height, weight, complexity, and firepower than previously employed, this episode nevertheless reveals only a quantitative change in preexisting military technology rather than a radically different approach to warfare.

The fateful battle of Ipsus in 301, which saw the coalition of Seleucus and Lysimachus defeat Antigonus and Demetrius (and also, as later events showed, ended any dreams of a single leader resurrecting Alexander’s empire), involved huge opposing forces. According to Plutarch (Diodorus’s account is again not preserved), each side brought to the battle some eighty thousand infantry and cavalry, with more than four hundred elephants taking the field for Seleucus and Lysimachus and
seventy-five for Antigonus and Demetrius (Demetr. 28–29; Bar-Kochva 1976: 105–10; Billows, 1990: 181–5; Lund 1992: 77–9). If Plutarch took this information from Hieronymus, there is at least a chance that the numbers are not wildly wrong. Plutarch also reports that, in Demetrius’s last great attempt to take control of Asia in opposition to the coalition of Seleucus, Ptolemy, Lysimachus, and Pyrrhus, Demetrius reportedly assembled an astonishingly large army consisting of ninety-eight thousand infantry and twelve thousand cavalry, as well as starting construction on a huge fleet of five hundred warships, some as large as “fifteeners” and “sixteeners” (Demetr. 43–44; Lund 1992: 98–100). Regardless of whether Plutarch (or his source) exaggerated the numbers for Demetrius’s final campaign, it does seem that Demetrius’s career provides evidence for the propensity for large-scale battles to occur in Hellenistic warfare.

To be sure, our sources are too sketchy to allow us to say with certainty how frequently this scale of battle was maintained in the wars of the centuries following Demetrius’s career. The battle of Raphia in 217 famously involved some 140,000 men (Polyb. 5. 79–87; Bar-Kochva 1976: 128–41; Chaniotis 2005: 79), but this scale of action was clearly not an everyday occurrence. On the other hand, military technology continued to play a major role in later Hellenistic warfare, from the growing size of warships to the invention of devices such as those attributed to Archimedes in the defense of Syracuse (Marsden 1969: 108–9; Bugh 2006: 275–7, 287). In truth, the impoverished nature of the extant sources makes it impossible to resolve, on objective criteria, the question of whether the quantitative aspects of Hellenistic warfare are by themselves sufficiently distinctive or sufficiently long-lasting to mark it out as warfare significantly different from earlier warfare. Like so much else in Hellenistic history, this evaluation must necessarily remain a matter decided by each historian’s subjective judgment.

**Practices of War: Old and New**

To turn now to what I am calling qualitative aspects of the practices of war in the Hellenistic period, many of them seem a continuation of developments from the classical period and, especially, the career of Alexander. For example, the employment of mercenaries, the coordination of land and sea forces, the deployment of mixed arms in land battles—all these practices have their roots in earlier warfare.

Demetrius’s career does, however, include one practice of war that might be considered novel, although admittedly it is an evolution of earlier practice rather than a wholly new invention. That practice is the mounting of artillery on warships to attack other ships in a naval battle rather than only to fire projectiles from aboard ship against the walls and defenders of an enemy fortification on land. (Tarn 1930: 122–52 remains a useful introduction to Hellenistic naval warfare.) Demetrius in his Cypriot campaign against Ptolemy’s forces in 306 was evidently the first person to mount artillery on warships for this purpose (Diod. 20.49.4, 51.2). His new tactic was soon imitated, for example, when Ptolemy turned it against him and Antigonus during their subsequent attack on Egypt (Diod. 20.76.3). The use of ship-mounted missile-firing machines thereafter became standard in Hellenistic naval warfare (Marsden 1969: 169–73; Morrison, 1996: 369–70).

It is difficult to decide whether to regard this development as an innovation. There is a long history preceding Demetrius of the tactic of employing men to throw missiles or shoot arrows from the decks of their warships not just at enemies on land but also against men on opposing ships in a naval battle (e.g., Hdt. 8. 90.2; Thuc. 7.25.6, 62.2, 67.2; van Wees 2004: 227). During his siege of Tyre,
Alexander mounted missile-firing machines and placed archers on deck on some of his ships as part of his attack on the walls and defenders of the city (Arr. Anab. 2.21.1–2, 22.3; Casson 1971: 122 n. 88). It is not reported that Alexander intended to, or actually did, employ the machines or the archers to fire on enemy ships rather than just on the land fortifications. On the other hand, there seems to be no reason to think that he would have hesitated to use that tactic if the situation had demanded or allowed it. Given this background, perhaps we should regard Demetrius’s apparent innovation in the use of artillery in naval battle as a natural extension of earlier practice, albeit an apparently effective one that persisted in naval warfare after his time.

Moving beyond military technology in the assessment of the practices of war in Demetrius’s time, it is clear that the important role of prominent women in arranged marriages meant to cement political alliances that is evident during his career was also a continuation of earlier practice that nevertheless gained greater prominence in the Hellenistic period. Greek aristocrats had long been in the habit of making useful marriages with foreign women, and Philip of Macedon was notorious for his political marriages. Alexander’s adoption by Ada of Caria (Arr. Anab. 1.23.8; Plut. Alex. 22.7) and his marriage to Roxane (Arr. Anab. 4.19.5; Plut. Alex. 47.7; Curt. 8.4.23) belong in the same category. Moreover, even the appearance in Demetrius’s time of Macedonian royal women commanding armies (Loman, 2004: 45–6), or of Greek women such as Cratesipolis (Diod. 19.67, 20.37; Plut. Demetr. 9.5–6; Wheatley 2004) as political rulers, was not entirely new, at least not if we are willing to cite Tomyris and Artemisia as precedents, even though they were neither Greek nor Macedonian (Hdt. 1.214, 7.99, 8.87–8; Hornblower 1981: 22–6).

Politically motivated marriages defined Demetrius’s family life. Antigonus married Demetrius at “a young age” to Phila, the thirty-something widow of the Macedonian commander Craterus (Plut. Demetr. 14.2; Demetrius was probably sixteen: Flacelière and Chambry 1977: 34; Wehrli 1964; Billows 1990: 368; Carney 2000: 165–9; Heckel 2006). Phila proved herself a courageous and loyal woman ready and able to discipline ill-behaved soldiers, arrange advantageous marriages, undertake a diplomatic mission of the highest importance to her brother (an enemy of Demetrius), and commit suicide rather than endure disgrace after her husband lost his power (Diod. 19.59.3–6; Plut. Demetr. 32.4, 45.1). Antigonus missed any chance to marry Demetrius to the much-sought-after Cleopatra, Alexander’s sister, when she decided to desert to Ptolemy’s side and was killed by Antigonus’s governor in Sardis (Diod. 20.37.3–6). Demetrius did succeed in marrying the Athenian widow Eurydice, a descendant of the famous Miltiades (Plut. Demetr. 14.1), and the Epirots Deidameia and Lanassa (Plut. Demetr. 25.2, Pyrrh. 4.3, 10.7). He also agreed to marriage alliances with Seleucus and Ptolemy (with less than perfect political results, from his point of view; Plut. Demetr. 31.5–33.1, 38, 46.5). The continuing importance of queens, especially in the Seleucid and Ptolemaic kingdoms, certainly merits nomination as a characteristic of the Hellenistic period, although it would be stretching the point to connect this phenomenon too closely to warfare per se (Pomeroy 1990: 3–40; Carney 2000). Suffice it to say that the direct influence of Greco-Macedonian women on high-level politics and warfare seems more marked in the Hellenistic period than in earlier times and that Demetrius’s career illustrates this trend (Cohen 1974).

Another aspect of the practices of war that appears prominently in Demetrius’s career is the use of propaganda to justify war, which was of course completely traditional. Nevertheless, one implication is worth noting of Antigonus and Demetrius’s employment for this purpose of the hoary cause of the freedom of the Greeks as a way to try to win allies among the city-states (e.g., Diod. 19.61.3; Billows 1990: 189–236; Wheatley 2001b: 14–16). Legitimizing war by proclaiming that the fight was for the
freedom of Greeks had a long background in archaic and classical Greek history, and in the fourth century non-Greeks—Philip II, Alexander, and Polyperchon—continued to make use of it. This cause turned out to have staying power as a propaganda tool in the struggle for power between subsequent Antigonid and Ptolemaic regimes (Gabbert 1997:66; Shipley 2000: 73–4; Chaniotis 2005: 229–30).

The implication I want to note concerns the concepts of identity and loyalty. As background for discussing this point, I want to emphasize that Plutarch apparently believed that Antigonus and Demetrius were serious in their promotion of the cause of freedom for Greeks: he opines that, when in 307 Antigonus sent Demetrius to wage war “to free all of Greece from its ‘enslavement’ to Cassander and Ptolemy, none of the kings fought a finer and more just war than this one” (Demetr. 8; cf. Diod. 20.45). Furthermore, Plutarch adds, Demetrius very reluctantly obeyed his father’s order to leave Athens to attack Cyprus in 306 because “he was upset at leaving the war on behalf of Greece, which was finer and more splendid” (Demetr. 15.1). In 302, Antigonus and Demetrius founded their own Hellenic League, which made the freedom of the Greeks an official part of its charter (Schmitt 1969: no. 476; Billows 1990: 228–30). Later events, as we will see, imply that Demetrius truly believed in the efficacy of this cause to win goodwill and therefore loyalty from those whom he liberated. Demetrius had certainly learned early in life that both Greeks and non-Greeks were often willing to fight hard to preserve their freedom even when faced with powerful opponents (Diod. 18.10.2, 18.22.3, 18.51.3, 19.97.3–5). Whether Demetrius’s commitment to this cause as a justification for war was at its foundation cynical and solely self-interested we will never know, but there can be no doubt that Demetrius was seriously invested in it, at least until he learned better.

Demetrius made this investment, I suggest, because he lived in a time when warfare changed the concepts of personal identity and loyalty for leaders and soldiers who were no longer closely linked to their homeland or city-state. First of all, it is important to recognize that Demetrius did not spend his youth or receive his military education in his homeland. Instead, he came to maturity as a young man and learned to command soldiers in his father’s forces while living in a foreign land, at a busy crossroads of western Anatolia. He grew up in the military garrison at Celanae that Antigonus commanded for Alexander (Arr. Anab. 1.29.3; Plut. Demetr. 2–4; Wheatley 1999; Billows 1990: 48 n. 92). Demetrius’s early life therefore marked him as a new kind of man in the sense that he never got to know his ancestral roots as most Macedonians and Greeks before his time had done; that is, he had no extended, direct, and on-the-ground experience of identifying with a particular place or ancestral community. Admittedly he lived with his parents, both Macedonians, but nevertheless he never knew his “home” in Macedonia. His youth was spent as a largely rootless occupier of someone else’s land. This upbringing made him what I would call a “Hellenistic” man because it was later to become a characteristic of the lives of many Hellenistic Macedonians and Greeks living in the Ptolemaic and Seleucid kingdoms that they would never know their ancestors’ homelands in Macedonia and mainland Greece. This experience made people such as Demetrius “strangers in a strange land,” at least until the time when the Hellenistic kingdoms were well established and a Greek or Macedonian born in one of them could feel some kind of identification with a place and a culture. The circumstances of Demetrius’s upbringing, I believe, had a psychological effect on how he thought about his identity, namely that it was a phenomenon more fluid and open to definition than had been traditional in his world previously.

How identity is conceived has consequences for how loyalty is conceived, as Demetrius’s career illustrates. At the age of fourteen (322), he was forced from fear for his life to leave the only home he had ever really known, accompanying Antigonus in headlong flight from Asia Minor to Europe to
escape attack from a fellow Macedonian commander. This resulted from the violent turmoil among Alexander’s generals after the king’s sudden death and no plans for a peaceful succession and transfer of political power (Diod. 18.23.3–4). Strife among Macedonian nobles was certainly nothing new, but it was new that Antigonus and Demetrius, living as they did as foreign occupiers far from their ancestral homeland, were so devoid of any traditional sources of support, such as relatives, retainers, or their local community, that they had to seek safety with other foreigners. They were carried to safety aboard an Athenian ship, betting their lives on the loyalty of these Greeks (Diod. 18.23.4). Demetrius, it seems fair to conclude, learned through bitter personal experience in this episode that his Macedonian identity was no guarantee of personal security among his countrymen and that Greeks, in particular Athenians, could be life-saving sources of help to him in times of dire trouble. Both of these lessons were not entirely new, of course; anyone studying Macedonian and Athenian history could have learned them. Demetrius, however, learned them at an impressionable age under the unforgettable pressure of mortal fear. From this early life experience, he learned, I submit, that identity and loyalty were now, at least for those like himself and his father who were aiming at supranational leadership, personal and created rather than communal and inherited.

As events were to show, the concept of loyalty for the Diadochs and their troops no longer meant what it had usually meant in earlier times. That is, defections or switches of commanders and of troops from one side to another became common, whether before, during, or after battle, as did the penchant of victorious commanders to absorb enemy troops into their own forces. Demetrius learned this lesson while still a young man when his father successfully induced a cavalry commander to bring his troops over from Eumenes’s side to his own at a decisive moment in battle (Diod. 18.40.5). The lesson was repeated frequently throughout Demetrius’s career (Diod. 18.50.1, 91.11.2–3, 20.28.1, 20.53.1, 20.75.1, 20.107.3). The importance of this new development culminated in Demetrius’s career ca. 288 when his Macedonian troops deserted first to Lysimachus and then, catastrophically, to Pyrrhus (Plut. Demetr. 44.3–11, Pyrrh. 11). This wholesale change of loyalty by his army robbed Demetrius of his rule as king of Macedonia (295–287) and started his decline into political insignificance, which was sealed a few years later when his troops again changed sides at a critical moment, this time in confrontation with Seleucus (Demetr. 48.5). Demetrius had expected his Macedonian troops to prefer him as king to the immigrant and foreigner Pyrrhus. Instead, they deserted Demetrius so that Pyrrhus could be their commander and king because the Alexander-like Epirot seemed the best fighter and therefore “the most kingly” (Plut. Demetr. 44.6–8, Pyrrh. 8).

Granted, treachery and desertion had always been part of Greek warfare, but the circumstances of earlier wars had for the most part limited these acts to individuals or small groups and had not involved large numbers of soldiers simply changing sides. It would have been unthinkable in the fifth century for, say, an Athenian army to transfer its loyalty to become a Theban army, or a Corinthian one to become Argive, and so on. Now, however, with the Diadochs assembling armies from diverse sources, including multiple city-states, whose troops were no longer strongly tied to an ancestral community or region, it became possible for Greco-Macedonian armies to change sides to fight under a commander they liked better and who would, they hoped, better protect their possessions. This latter point carried special weight in these early Hellenistic campaigns because the troops, seeing war as a chance to acquire capital, tried to amass and carry with them valuables as the fruits of conquest, their so-called baggage.

This desire to safeguard baggage (or should it be “soldiers’ mobile capital”) became so strong that it could tip the balance of loyalty. For example, at the battle of Gabiene Demetrius observed his
father’s successful stratagem of diverting forces from the main battlefield to seize the enemy’s baggage train, which in this case included not just women, children, slaves, and possessions, but also the money that Eumenes’s troops had acquired on campaign. This action won the battle for Antigonus because Eumenes’s troops were willing to make a deal to betray their commander so that they could recover their property and savings (Diod. 19.42–43; Plut. *Eum. *16–17; Polyaenus 4.6.13; see further Heckel, 173–6). In 312 Demetrius lost Gaza to Ptolemy after a portion of his cavalry left the ranks to protect their precious baggage (Diod. 19.84.7–8; Bosworth 2002: 225–8). The connection of troops to treasure they were carrying around with them seems closer in these new circumstances than in the past, and this difference perhaps suggests one change in post-Alexander warfare. In any case, Demetrius could have been offered no clearer proof that now his army’s loyalty depended above all on the personal interests of the soldiers, not on traditional or ethnic ties to any person or place. This transformation of loyalty underlay the relations between Hellenistic kings and their armies and therefore reflects a new aspect of warfare in this period.

**The Meanings of War**

If we turn from the practices of war to its meanings, it seems possible to identify two new aspects, one relevant to politics and one to religion, that seem characteristic of the Hellenistic period. They arise from victory in war and grand gestures by the victor becoming sources of personal status and, ultimately, of political legitimacy for self-identified kings, as well as a spur to the divinization of living human beings. To be sure, these developments in politics and religion have some connection to earlier events, as is always pointed out on the countless occasions when they have been discussed in scholarship on the Hellenistic period. Nevertheless, it seems to me that these particular changes, which are unmistakable in the case of Demetrius, are sufficiently new to make them distinctive markers of what indeed might be characteristic of warfare in the Hellenistic period, at least in terms of its possible meanings.

It goes without saying that war had always been a duty of kings in the monarchies of the ancient Near East and Macedonia, as well as of the Spartan officials called kings (who were of course not monarchs). Alexander the Great, by replacing Darius as Persian king, had recently demonstrated the brutal truth that even a foreigner could lay claim to an existing kingship by defeating the reigning king and taking his place. Something similar may have occurred when the Persians greeted Antigonus as a king in 315 (Diod. 19.48.1). At least the Persians seemed to think that he had replaced whoever they thought had previously been king in Asia during this turbulent period.

The new political aspect of victory in war appeared early in Demetrius’s career when Ptolemy and Seleucus made the grand gesture of returning Demetrius’s captured baggage and the prisoners of war who were closest to him (Diod. 19.85.3) after the defeat of the young commander at Gaza. This ostentatiously magnanimous generosity was meant to demonstrate Demetrius’s inferiority to his victorious rivals, as he clearly understood. According to Plutarch (*Demetr.* 5–6), Demetrius burned to rebalance the equation. Therefore, as soon as he had defeated Ptolemy’s general Cilles in northern Phoenicia in 311, he sought and obtained his father’s permission to return the captured general to Ptolemy, along with other prisoners dear to the king, all of whom he fitted out with showy gifts. Demetrius’s tit-for-tat gesture shows that warfare now had as one of its purposes the establishment of the rival commanders’ personal status relative to one another. This personalizing of certain aspects of war, whether in terms of determining commanders’ status or protecting troops’ personal possessions,
should perhaps count as a novel aspect of warfare that emerged, or at least was very greatly strengthened, in the Hellenistic era.

Demetrius’s military operations in the years immediately following the (hollow) Peace of 311/10 are poorly documented (Wheatley 2001b), but we do know, as previously mentioned, that he sailed for Greece in 307 to pursue his (and his father’s) war of Hellenic liberation, directed against the interests of Cassander and Ptolemy. Demetrius took the previously invincible harbor fortifications of Athens through the adroit and relentless use of siege technology, and following his victory he made good on the promise of liberation: on behalf of his father and himself he restored their freedom and ancestral democracy to the Athenians, who had been living under a collaborationist tyranny backed by a Macedonian garrison. To make the contrast unmistakeable between Antigonid policy and Cassander’s, Demetrius stationed no troops in the city. He then did the same for Megara by expelling its Macedonian garrison, restoring freedom to its citizens, and leaving it ungarrisoned (Diod. 20.45–46.3; Plut. Demetr. 8–10). Soon thereafter Antigonus removed his garrison from Imbros and returned it to the control of the Athenians. At the same time, he made an enormous gift to the Athenians of 7,200,000 daily rations of grain and timber for building one hundred warships (Diod. 20.46.4). This extravagant gesture, like Ptolemy’s and Demetrius’s earlier returns of prisoners and possessions, was intended to demonstrate personal status and build loyalty between parties who had no intrinsic reasons to have ties to one another (cf. Bringmann and von Steuber 1995).

There was apparently no talk of freedom for the Cypriots as a gesture of magnanimity following Demetrius’s victory there in 306, but the symbolic significance that Antigonus and Demetrius ascribed to this triumph was manifested when Demetrius imitated—and topped—Alexander’s sending three hundred sets of armor to Athens after the battle of Granicus (Arrian Anab. 1.16.7) by sending four times as many (Plut. Demetr. 17.1). The significance of victory attained a striking new level when their success in the Cyprus campaign led to Antigonus and Demetrius being proclaimed—which is to say proclaiming themselves—as kings. (Plut. Demetr. 10.3 is presumably proleptic in implying that the Athenians had acclaimed Antigonus and Demetrius as kings in 307; Billows 1990: 155–60 provides full details; for the Diadochs and the royal title before 306, see Wheatley 2001a: n. 69.)

It certainly seems to be a new meaning of warfare that victory could now create a new king ex nihilo, that is, even where there was no pre-existing royal line to displace and no previously established royal territory to occupy. War now could be taken to establish a victorious commander’s claim to rule as a king based solely on his martial accomplishments, rather than on inheritance from his ancestors or control of a specific territory. As many others have said, this more personal monarchy was a political innovation; the important point to reiterate for present purposes is the link between this personal monarchy and victory in war and generous gestures. No longer did asserting kingship require the defeat of a currently established king and the conquest of his already existent kingdom. Instead, the victor could be declared a king, either on the initiative of those whom his victories had benefited, or on his own initiative, perhaps disguised as the genuine wishes of others (Bosworth 2002: 246–78).

Over time, through continuing success in war and showy generosity to his followers, a charismatic commander-become-king could establish a royal dynasty with sufficient legitimacy to pass on the title to his descendants in an institutionalized fashion. Hence arose a source of legitimation for the new Hellenistic kingdoms, to help buttress whatever legitimacy they hoped to gain by aligning themselves with the traditions of Macedonian, Persian, and Egyptian monarchy respectively. It was certainly true
that failure in war could unmake a king in earlier eras and that victorious commanders could be eager to proclaim their superior personal status, such as the Spartan Pausanias in the aftermath of the battle of Plataea with his inscription on the “Snake Column” at Delphi (Thuc. 1.132.2–3). The Spartans had rebuked Pausanias for his individualistic pretensions, however, and it seems reasonable to say that, before the Hellenistic period, success in war had not been a normal, *de jure*, route to becoming a recognized king, no matter how important *de facto* it had been for remaining a successful king who enjoyed loyalty from his subjects and a stable reign.

To move on to religion, it is also during Demetrius’s career that an even more significant (and much discussed) change seems to come to fruition: victory that leads to the restoration of freedom (whose precise content could be a contested issue) to the oppressed or tyrannized could now elevate a living man to the status of a deified savior. Alexander’s claim to divinity, whatever it may have been in detail, was not based on this justification, but that of Demetrius and his father certainly was (Habicht 1970, still the fundamental study; Chaniotis 2003 and 2005: 143–65). It was of course the Athenians who acclaimed Demetrius and his father as divine saviors following Demetrius’s defeat of Cassander’s forces at Athens in 307 (a victory repeated in 304), which resulted in the liberation of Athens from a collaborationist tyranny, the expulsion of a foreign garrison, and the restoration of the city-state’s treasured democratic government (Diod. 20.46; Plut. Demetr. 10.4; Billows 1990: 147–50, 169–70; Habicht 1997: 67–77; Lape 2004: 52–9). Since Demetrius on Antigonus’s orders had accomplished what the traditional gods had not been able to make happen over the fifteen years since Antipater had originally deprived the Athenians of their liberty and their democracy in 322 (Diod. 18.18.1–6; Plut. Phoc. 28), hailing Demetrius and Antigonus as gods was at least not illogical by the standards of ancient Greek religion. Whether this acclamation by the Athenians was sincere or hypocritical or in some way arose from a mixture of motives is an issue too complex to explore here, but I believe that Demetrius himself took his and Antigonus’s divinization very seriously as the supreme proof of the Athenians’ loyalty.

The evidence for this belief I find in Demetrius’s shocked and sorrowful reaction to the Athenians’ expulsion of his family and supporters and refusal to give him refuge following the terrible defeat at Ipsus and his father’s death there (Plut. Demetr. 30–31.1). Demetrius, who had reason to regard himself as a homeless and rootless commander fighting what amounted to a world war against a coalition of formidable enemies, had believed that he had achieved a secure tie to those whom he had benefited so dramatically; he had believed that the Athenians would maintain the loyalty to him that they had first exhibited in saving him from death as a teenager and had recently expressed in the strongest way possible by divinizing him. He was of course sadly mistaken, perhaps miscalculating Athenian opinion about the new Hellenic League (Martin 1996). In Demetrius’s future dealings with Athens, he tempered his generosity with realism by keeping a garrison in place to try (without lasting success) to prevent the city-state from rebelling against him (Plut. Demetr. 34, 46.1–3; Habicht 1997: 87–97). Whether we wish to conclude that Demetrius was pathologically naïve or foolishly deluded about the Athenians’ loyalty to him, the fact remains that the divinization of Hellenistic monarchs, at least in Egypt and Asia, did not disappear with Demetrius’s fall from grace and power. Over time, as the new monarchies became institutionalized rather than dependent on charisma for legitimacy and as royal succession became an inherited right, the original close link between victory in war and divinization was attenuated. Divine status for kings (at least some of them) became an inherited condition. Again, then, an innovation arising from war that first appears during Demetrius’s lifetime changed into a standardized Hellenistic institution and therefore was no longer a meaning of war, strictly speaking. Still, divinization of the liberating victor seems a qualitative aspect of war that
helps distinguish Hellenistic warfare from the warfare of earlier periods.

**CONCLUSION**

What, then, does a case study of Demetrius’s military career suggest about the nature of Hellenistic warfare? As far as the practices of war are concerned, the large numbers of combatants and the spectacular use of military technology in his most famous battles align with the idea that Hellenistic warfare featured on the whole a larger scale of combat than in earlier periods. Certainty concerning this quantitative aspect of war is, however, impossible, given the state of the sources for ancient Greek warfare both during and before the Hellenistic period. In any case, if the only difference between Hellenistic warfare and earlier warfare was that the former was conducted on a larger scale than the latter, this change would seem to be only natural and evolutionary, and therefore not in itself particularly significant.

Qualitatively, the practices of Hellenistic war also seem for the most part to continue earlier developments. Demetrius’s innovation in using ship-mounted artillery to fire on other ships during naval battles was an extension of the previous use of missile-firing machines on land and at sea. His numerous politically motivated marriages also continued the earlier tradition of leaders trying to forge personal alliances by wedding important women, although we cannot overlook the larger role in politics and society that queens were to play in the Hellenistic kingdoms, especially the Seleucid and Ptolemaic. Demetrius’s attempt to legitimate war against other Diadochs by proclaiming adherence to the cause of freedom for Greeks was also a continuation of long-established propaganda, but, hard as it may be to accept this suggestion, the evidence implies that he believed that his promotion of this cause would earn him genuine and lasting goodwill from his Greek allies, in particular Athens. That he would believe this was the result of the conditions of warfare having transformed traditional concepts of identity and loyalty as close ties to an ancestral community and land into fluid concepts more narrowly defined by personal interest, as far as the Diadochs and their troops were concerned.

Demetrius’s career provides striking evidence for changes in the possible political and religious meanings of war. As often pointed out, his history clearly demonstrates how victory in war and large-scale gestures of generosity to followers and allies could elevate a commander—or should it be “warlord”—to the status of an acknowledged king who had possessed no inherited claim to royalty. In time this personal monarchy could become institutionalized as a more traditional form of royal rule, with succession by right of inheritance. Most remarkably, Demetrius’s career brought to culmination the process by which a living human being could be acclaimed as a god on earth. The Athenians made Demetrius and Antigonus gods, at least for a while, in recognition of the Macedonians’ gift of freedom to them. From the perspective of hindsight, we can see that over the long term the divinization of a living human being who promised liberation was the most enduring and most consequential outcome of the changes in the meanings of war in the Hellenistic period.

**BIBLIOGRAPHY**


CHAPTER 31
THE SECOND PUNIC WAR

DEXTER HOYOS

The Second Punic War was the ancient Mediterranean’s first world war, fought on two continents from Spain and Africa to the Aegean, and distinguished by the generalship of the initially victorious Hannibal and the ultimately victorious Scipio Africanus. Begun because of lingering suspicions from the earlier war between Rome and Carthage, and shared miscalculations after Hannibal became Carthage’s de facto leader in 221, it was expected by both sides to be relatively short—more miscalculation—but endured for sixteen years, not as long as its predecessor but imposing far greater stress and damage.

After the extraordinary victory of Cannae, Hanniballic Carthage was the dominant power across the western Mediterranean for almost ten years, reducing the Roman Republic essentially to the northern half of the Italian peninsula and the province of Sicily, at war not only with the Carthaginians but their allies, the historically powerful states of Macedon and Syracuse. Yet the outcome—thanks to Roman stamina and the abilities of Scipio—was the reverse: Carthage a shrunken and disarmed North African satellite, the Romans dominant over first the western Mediterranean and before long also the eastern.

The sources for the war which effectively opened the way to the Roman Empire are strikingly varied. Polybius’s forty-book history of the Mediterranean from the outbreak of the First Punic War in 264 to his own eyewitness record of the sack of Carthage in 146, draws on firsthand accounts, including Hannibal’s own inscriptive memoir set up near Croton in southern Italy and the text of his treaty with Macedon; comments extensively (and, Hannibal’s apart, as a rule adversely) on the quality of those accounts; is written without much literary adornment, and, despite the historian’s admiration for the Romans and for Scipio, is relatively impartial, though he also assesses Hannibal highly. On the other hand, he is often selective in what he records (his near-total avoidance of place-names in Hannibal’s expedition to Italy and his march on Rome in 211 are examples), sometimes too concise or opaque (as in details of the campaign and battle of Ilipa in 206), and very little interested in the internal political and social events of either Rome or Carthage. Worst of all, and not Polybius’s fault, the History is incomplete, with only its first five books extant in full while the rest, on events from 216 to 146, survives in extracts of varying length.

The only extant large-scale source is books 21 to 30 of Livy’s history of Rome composed in Augustus’s time. In contrast to the politically active, much-traveled, and acerbic Polybius, Livy devoted most of an equally long, but deskbound, life to his history. This is distinctive for its artistically mature Latin style, vivid narrative and rhetorical power, and treatment of domestic and religious affairs as well as military and diplomatic events, but less so for its grasp of military and
other technicalities or its depth of analysis; the analyses offered are often hampered by Livy’s limited skill in assessing the varied sources he used, and by his overt admiration for the Romans of old. For Hannibal’s war he drew on Polybius and on Roman authors going back to participants in its events, Fabius Pictor and Cincius Alimentus: this allows useful comparisons between the Polybian and Livian version of episodes covered by both, such as Hannibal’s expedition and Scipio’s victory at Zama. Livy often adds valuable details to his basically Polybian account, but is also capable of misunderstanding this or of confusedly combining Polybius’s details with those from elsewhere. At times he shamelessly prefers a Roman version, as in his summary of the treaty of 215 with Philip V of Macedon.

There are other, less detailed sources, again of varied worth: notably Cornelius Nepos’s very short biography of Hannibal, Plutarch’s *Lives* of Fabius Cunctator and Claudius Marcellus, Appian’s narratives of Roman wars down the ages in different lands (including their Hannibalic War operations), and Dio’s *Roman History* or, rather, for this period, its Byzantine epitome. These even more than Livy are dependent on the sources they use—sources largely though not exclusively pro-Roman. The extra information they offer may be useful but needs careful evaluation (especially Appian’s, inclined as he is to the more romanticized or melodramatic version of an episode if he can find it). In a class by itself, and hardly useful as a source, is Silius Italicus’s epic poem *Punica*, based mainly on Livy, Vergil, and imagination. To assess the Second Punic War, Polybius and Livy remain fundamental (on sources see further Seibert 1993a: 1–57; Hoyos 2003: 212–22, both citing extensive earlier literature).

**OPPOSING RESOURCES**

The war has been seen as a conflict of Carthaginian David versus Roman Goliath. At first glance this looks undeniable. Polybius reports Roman, Latin, and allied military manpower in 225 as totaling 770,000; certainly it was a vast recruitment pool which the Romans’ war system was uniquely able to exploit. The Carthaginians meanwhile famously relied on mercenary soldiers and Libyan (North African) subject conscripts for their armies; estimates of their own male citizen population in 218 vary from 90,000 to 200,000. Yet this was not the whole story. The rest of Punic North Africa—Phoenician sister colonies and Libyan subjects—and the southern half of Spain cannot be left out of comparison. Rome’s ability to draw on three-quarters of a million, or more, fighting men implies a total Italian population of 3 to 3.5 million; Carthage and its dominions can be estimated at very roughly four million.

Third-century Rome was not the simple agricultural community that later Roman generations liked to fancy, but also a busy mercantile center with Mediterranean-wide dealings (including with Carthage). Her economic, like her demographic, resources were extensive though not inexhaustible, and the two together explain how, even after the great battle losses of 218–216, the Romans were able not just to replace the destroyed armies but to increase them to a level never seen before. After levying the usual six legions in 218—two for each consul and one for each praetor—and then thirteen in 216, by 212 they had twenty-five in service from Italy to Spain.

They also maintained powerful fleets which required several tens of thousands as crew, though details are obscure. At the height of the war effort in 212 Roman and Italian troops together totaled an estimated 160,000 in roughly equal proportions, and, with fleets included, up to 200,000. With much of southern Italy on Hannibal’s side by now and thus not supplying contingents, the stress on Rome
and her loyal allies was gigantic—conceivably one man in three. Even in 201, after hostilities had ceased, there were still fourteen legions under arms.  

Carthage’s effort was hardly less but is often undervalued, with attention commonly focusing on Hannibal’s own fighting strength, itself often underestimated. He crossed the Pyrenees with (Polybius reports) fifty-nine thousand men, notoriously reduced, by the time he got them across the Alps, to twenty-six thousand; these figures came either from Hannibal’s own inscriptive memoir, or from sources close to him like his Greek friends Silenus and Sosylus. In Italy he received only a single body of reinforcements from Carthage: four thousand troops and forty elephants in 215. But the notion of Hannibal then somehow holding out in Italy for a dozen more years with steadily dwindling, yet invincible, African and Spanish veterans alone is misplaced; likewise that of Carthage disposing of only limited manpower or showing blinkered partisan stinginess.

In 215 substantial forces were sent from Africa to Spain under Hannibal’s brother Mago, to counter the Roman invasion, and to Sardinia to support a pro-Punic rebellion: about twenty-six thousand troops in all. Further forces went to Spain later, while the Punic fleet was built up afresh—a fleet 130-strong reported off Sicily in 212 would have needed nearly forty thousand crewmen, for instance. In Italy Hannibal for some years maintained two field armies, the smaller commanded by one Hanno (perhaps his nephew), and kept numerous garrisons in allied Italian towns: Arpi in Apulia, Tarentum, and Locri, for instance. Many of the troops on the Punic side in these years are recorded as Italian: Samnites, Lucanians, and particularly Bruttians. Their proportion surely rose as attrition wore down Hannibal’s original veterans.

In the year of crisis, 207, the Romans had twenty-three legions in arms, thirteen of them in Italy: a grand total, Italian allies included, of some 130,000 men even if many units were under normal strength. Hannibal now had only one army in being, but this must have been at least thirty thousand strong (he faced six legions), while Punic garrisons still held remaining allied cities like Locri, Thurii, and Metapontum. His brother Hasdrubal, in turn, arrived in Italy with another thirty thousand troops. In Spain the Carthaginian commanders were readying a powerful army to confront the younger Scipio: at the battle of Ilipa in 206, his four legions confronted 54,500 Punic troops, according to Livy (Polybius’s figure is 74,000). Other Punic military forces should not be ignored either: Carthage and North Africa had had protective garrisons since 218. On even the most cautious reckoning, Punic military strength still matched Rome’s. It ran down once the war contracted to Africa, yet thanks to their Numidian allies and to other levies the Carthaginians continued to field large (if disaster-prone) armies there down to Zama (Hannibal’s forces in 218: Polyb. 3.35.7, 56.4; reinforcements in 215: Livy 23.41.10; Roman forces in 207: Brunt: 418).

The Romans had to draw heavily on their economic and financial resources for the war effort. At times funds ran desperately short. In 214, wealthy citizens were required to pay for the upkeep of set numbers of naval crewmen that year out of their own pockets (at the most demanding level, each Senator had to provide eight sailors); some state contracts were let on the promise of future payment; and trust-fund administrators loaned fund moneys to the aerarium. Four years later more contributions were required for the fleet—provoking much popular annoyance—and in 209 a four-thousand-pound gold hoard reserved for emergencies had to be used for the armies. In 205 Scipio won support for his plan to invade Africa partly by engaging not to make the aerarium pay for the invasion fleet (it was provided instead through voluntary allied contributions), while to assist state finances land taken from Capua was sold off. War needs presumably influenced the launch of a new coinage system around 211, based on the silver denarius which replaced the older as system as the standard.
Far less is known of Carthage’s finances, but our sources intermittently show her disposing of large sums. Hannibal, for instance, was sent not only reinforcements in 215 but also sizable funds, five hundred or even a thousand talents (Livy’s text is unfortunately corrupt). At the same time his brother Mago took another thousand talents, along with military forces, to Spain. Five years later a Roman raid on the African coast reported large numbers of troops again being levied for Spain and a great fleet being built to recover Sicily: a report perhaps exaggerated (no Sicilian expedition occurred), but any such activities called for significant funds. Carthage’s famous internal ports too—the outer commercial one and inner naval—were possibly constructed now or earlier in the war. Even later, in 205, Mago, operating in Liguria, was sent both reinforcements and large funds for recruiting and supplying extra forces, while reportedly Philip of Macedon was offered two hundred talents, without success, to keep him at war with Rome.4

How such funds were put together is not recorded, but methods matching those at Rome are likely enough: we have a glimpse of wealthy Carthaginians, after the peace of 201, complaining at having to contribute to paying the first indemnity installment. Carthage’s long-suffering Libyan subjects and, until 206, the variegated wealth of her Spanish province doubtless kept much of the war effort going. Nor is there evidence that trade was severely affected, although intermittent but brief Roman coastal raids would cause problems from time to time. The Carthaginians seem to have felt so little threatened from the sea, as a rule, that Scipio’s invasion in 204 took them by surprise.5

**War Aims**

Neither power’s war aims were openly stated, and inferences must therefore be tentative. Roman aims in 218 were, very likely, limited (figure 31.1). Their interests since the 230s had been directed more to north Italy and across the Adriatic, whereas they had paid only sporadic attention to the Carthaginians—possibly three, more likely only two diplomatic missions before 218, and indifference to their “friends,” the Saguntines, until these became a convenient tool for disciplining Hannibal. If the peace of 201 could strip Carthage of her empire and fleet but still leave her intact in North Africa, in 218 the Romans would quite likely have been satisfied with forcing her out of her Spanish province (as well as surrendering Hannibal), exacting an indemnity, and limiting her freedom to make war. That the Romans would have annexed Punic Spain for themselves is not a foregone conclusion: returning the peninsula, with which they had long had trading relations, to its pre-Punic state was a conceivable enough option.
Carthage’s war aims were of course misrepresented by Roman tradition, focusing largely on Hannibal’s childhood oath of (supposedly) lifelong hatred. Certainly his expedition to Italy implies ambitious aims. It would be futile to undertake the hazards of invading and campaigning in enemy territory simply to win a peace which (even if Sicily and Sardinia were taken back) left the Romans masters of Italy and free to expand their new dominance in north Italy and across the Adriatic. The treaty which Hannibal made in 215, thus in the aftermath of Cannae, with Philip V (its Greek version is preserved by Polybius) conceded Illyria to Macedon and promised each signatory aid from the other if a war with the Romans occurred. In other words, the signatories accepted that the Roman state would not just continue to exist but would be powerful.

Yet, as just noted, Hannibal could not envisage leaving Roman dominance over Italy intact. The only long-term outcome beneficial to the Carthaginians would be to replace it with their own. That would have demanded a permanent military presence (no doubt Hannibal’s), a sharp reduction in the territorial size of the Roman state, and the dissolution of its alliances. Whether any such system would have endured beyond Hannibal’s retirement or death may be doubted, but in the years when he held sway across the southern half of Italy and could yet hope to bring the Romans to terms, it may well have seemed worth aiming for (treaty of 215: Polyb. 7.9; cf. Livy 23.33.9–12 [highly tendentious]).

**Opening Strategies**

Roman wars had always begun with one or both consuls levying armies, while a praetor was available in case smaller extra forces were needed. The armies then proceeded to the theater of war;
in the previous Punic War, this was usually Sicily. In 218 the situation already required these arrangements to be expanded. The consuls levied their two legions each, but two more were then recruited because of the Gallic rebellion in north Italy. At first, though, the Romans plainly expected grand strategy against Carthage to be straightforward and theirs to dictate: they would invade Spain to crush Hannibal, and North Africa to crush the Carthaginians on their home soil, while their powerful war fleet would control the seas against the much inferior Punic navy.

This basically traditional plan was disrupted by the Punic invasion of Italy. There followed two fateful decisions. One consul, P. Scipio the elder, sent his army on to Spain under his brother’s command, but himself returned to northern Italy to take over the legions there against Hannibal. The Senate recalled his colleague Sempronius Longus from Sicily, canceling the projected invasion of Africa, in order to unite both consular armies in the north. This inaugurated a revised grand strategy: to confront Hannibal in Italy and simultaneously operate in Punic Spain. Of course it was expected that Hannibal’s invasion would swiftly be liquidated, with the deferred invasion of Africa as the obvious follow up. Instead, the revised grand strategy would endure for over a dozen exacting years.

Carthaginian strategy did require an immediate invasion of Italy. First, Hannibal was the only outstanding Punic commander, as he himself surely realized, and he could not be everywhere (see below). If he stayed in Spain to meet one Roman offensive, he was gambling-against sensible odds-that a commander in North Africa would manage to beat off the other. If he went to North Africa, the danger was the same in reverse. In any case, passively awaiting attack was no way to win final victory. Even if the Roman offensives were crushed, it remained essential to move into Italy itself for a final blow.

Second, despite her naval traditions, Carthage—dominated from 238 on by Hannibal’s army-minded but not navy-minded family—had a risible navy in 218: the Punic fleets in Africa and Spain together totaled only 105 capital ships (quinqueremes), some of them unfit for action, against Rome’s 220. Until this could be rectified, the Romans had full freedom of choice in where and how to strike at their foes—unless (Hannibal surely reasoned) they were forced to focus on a threat to Italy itself. Moreover, Carthage suffered the geographic (or geostrategic) disadvantage of operating on exterior lines relative to Rome. Her African and Spanish territories formed a 1,200-mile arc across the western Mediterranean, impossible to protect unassailably yet requiring widely spread protecting forces. The Romans contrastingly enjoyed a concentrated position in Italy with its outer islands Sicily, Sardinia, and Corsica, from which they could strike out at Punic territories.

Invading Italy would negate this advantage and take strategic pressure off Carthage; it did in fact reprieve her Libyan heartland for most of the war, apart from the occasional Roman seaborne raid. At the same time, any invasion of Italy by sea escorted by a flimsy war fleet risked disaster, especially as the Romans’ coastal colonies and possession of Sicily heightened the chances of interception, as raiding Punic squadrons soon discovered. Invasion via Gaul was thus dictated by Carthage’s and the Barcid family’s own recent policies.

This strategy did involve serious risks, as Hannibal no doubt recognized: not only the physical dangers along so lengthy a march—a thousand miles from New Carthage to north Italy—across such varied terrain, but the political uncertainty of how many (if any) Punic victories in Italy would transfer Italians’ loyalty from Rome to the invader and impel the Romans to seek terms. The Gauls of north Italy were ready to rebel and he encouraged them, but what encouraged him to reckon on Italian allied defections is unknown. Confident of winning impressive victories, perhaps he reckoned that these would prompt the Italians to change sides. He may also have intended to capitalize on the
victories by marching on Rome itself. A rendezvous with a Punic fleet had been planned (it seems) for summer 217 on the Etruscan coast, where the city was less than a week’s march away; the likeliest purpose will have been to proceed to Rome by land and sea. After Cannae, according to Livy’s famous story, at least one senior officer, Maharbal the cavalryman, called on him to act. Maharbal, in reality, may first have done this after Trasimene. The Romans themselves, after both battles, fully expected it. As early as 217, though, Hannibal changed his priorities.6

HANNIBAL

Not many generals have lent their names to wars. Hannibal’s reputation, like Napoleon’s, combines military mastery with personal charisma—a reputation the more impressive because virtually everything known about him comes from Greek and Roman sources, who regarded Rome as the “good” side.

His father Hamilcar Barca and then his brother-in-law Hasdrubal—officially the commanders of Carthage’s armies—through leadership in war and their political astuteness had kept the Barcid family dominant in the city’s affairs since 238. Hannibal took over this de facto leadership to direct a war of variegated theaters: Spain and Italy first, expanding soon to Sardinia, Sicily, Illyria, and later Liguria. Necessarily, day-to-day strategies and tactics were left to the commanders in each theater, but Polybius emphasizes how the overall direction of warfare was Hannibal’s throughout (Polyb. 9.22.1–6). In fact, most commanders were kinsmen (like his brothers Hasdrubal and Mago, nephew Hanno, and perhaps the admiral Bomilcar) or close allies (most notably Hasdrubal son of Gisco).

Swift and unexpected movements were a notable Hannibalic trait, though less so as the years passed. He shook off Roman contact to arrive in Italy when and where he chose; moved into Etruria in 217 through the flooded Arno marshes; marched with alarming speed on Rome in 211 and then south against Rhegium (though both thrusts failed); took Fulvius Centumalus by surprise at Herdonea in 210; and ambushed the consuls Marcellus and Crispinus in a fatal skirmish two years later. His greatest skills, however, lay in tactics.

More than any general since Alexander the Great, Hannibal successfully used all the elements of an ancient army—cavalry, infantry, the light-armed, and elephants (his least successful arm, paradoxically)—in flexible combinations, along with methods that few other commanders exploited as regularly: rapid movement (another Alexandrine technique), ruses, and ambushes. The latter pair irritated his Roman opponents into excoriating them as “Punic deceit” (Punica fraus) without noting of course that Scipio Africanus became equally a master of them. An ambush against the Roman infantry’s rear at the Trebia helped decide that battle, while at Trasimene a year later the entire engagement was an ambush through heavy mist, followed up by able cavalry exploitation under Maharbal; later in 217, another Trebia-like ambush, planned against Minucius Rufus’s legions in Apulia, was frustrated only by the timely (for Minucius) intervention of Fabius Cunctator’s nearby army.

The basic Hannibalic method was to keep the enemy’s infantry in play until one of his more mobile corps—the cavalry, an ambush force, or (against Spaniards at the river Tagus in 220) elephants and cavalry together—could clear the way to strike that infantry decisively. It obviously helped him to have adversaries single-minded or unsophisticated enough to attack him straightforwardly or let him take them by surprise. The victory at Cannae was due to masterful collaboration between the several
divisions of the Punic army: the Gallic and Spanish infantry forming the front line (which suffered badly) against the Roman infantry, the African columns behind which then struck the Romans on both flanks, and the Numidian and other cavalry on either wing whose partial return from pursuit sealed the destruction of Varro’s and Paullus’s encircled legions. A similar though simpler encirclement won the second battle of Herdonea, in Apulia in 210, when the proconsul Fulvio Flaccus and at least seven thousand Roman troops perished.

Of course this was not his sole technique. The Tagus battle uniquely involved enticing the Spanish warriors to start crossing the river, only for those who reached Hannibal’s side to be crushed by his forty elephants while those still in the water were shattered by the cavalry; complete rout of the Spaniards on the far bank followed. At Trasimene, the whole army ambushed Flaminius’s legions, and in 212 it initiated the assault on a disorganized Roman army at the first battle of Herdonea (if this fight is authentic).  

In two military arms Hannibal had deficiencies. His famed elephants played a minor part in reality: after all the effort in bringing thirty-seven to Italy via the Alps, they did contribute to the victory at the Trebia but then all perished save one. Nor did the forty brought over by Bomilcar in 215 achieve much. The largest body of elephants Hannibal ever commanded, eighty at Zama, proved worse than useless, being skilfully dispersed by Scipio’s light-armed—after causing enough disruption to the Punic cavalry to help Masinissa and Laelius rout these and thus, in the end, decide the battle. (The Punic elephants at Iliipa in Spain, four years before, had played a similar destructive role.) In sieges, too, Hannibal was generally mediocre. Capturing even small towns, starting with Saguntum in 219, took long effort or internal treachery. When in turn the Romans surrounded Capua, his chief Italian ally, with siegeworks from 212 on, he found it impossible—even using elephants—to break their lines or force them to battle. His only other expedient, the march on Rome, was a total failure (elephants at Zama: Polyb. 15.12.1–4; at Iliipa: Polyb. 11.24.1, Livy 28.15.5).

Hannibal was not simply an attractive and successful leader but a careful one. Like Marlborough, he looked after his men’s welfare. The march to Italy was conducted, contrary to legend, through territories that allowed frequent resupply; in the famous ruse of the oxen with blazing faggots tied to their horns, which he used later in 217 to elude Fabius’s blockade of the pass out of Campania, he also took care to extract safely the soldiers who carried out the feint. Although more and more of the original veterans were replaced over the years by Italian recruits, he kept the troops’ loyalty (as Polybius emphasizes) and maintained discipline: the seasoned third line of his army at Zama, the only one to hold Scipio’s men to a standstill when the rest had fled, was substantially Italian: Bruttians according to Livy.  

The Romans’ solution to Hannibal’s tactics was, for many years, to avoid battle entirely, instead shadowing his army as it marched and meanwhile molesting his Italian allies or Hanno’s secondary force. These grand tactics, first practiced by Fabius Cunctator during 217 (the proverbial “Fabian tactics”), became standard after Cannae, though not invariably so as the battles of Herdonea and then the combative Marcellus’s variant of them (below) attest. As a result, Hannibal’s operations after 216 boiled down to winning over, or capturing, as many Italian towns as possible and defending those won over—efforts decreasingly effective after 209 when Fabius recovered Tarentum.

After the fall of Capua in 211, Marcellus began a limited return to offensive tactics against Hannibal. This at any rate seems the right explanation for the repeated clashes in 210 which Livy reports between his forces and Hannibal’s. Undeterred by Fulvius’s defeat at Second Herdonea, Marcellus with his own consular army brought on a day-long, effectively drawn engagement at
Numistro in Lucania, for Hannibal, technically the victor, evacuated the area during the ensuing night, with Marcellus pursuing the next day. Thereafter, in Apulia, indecisive fights and skirmishes marked the rest of 210 as the two armies stalked each other around the countryside. Marcellus took Hannibal on again in 209 and, despite defeat in a two-day clash near Canusium, kept his army in being and in continually close harassing contact.

Despite Marcellus’s death the year after, Hannibal found no effective answer to these techniques of harassment and attrition. In 207 the consul Claudius Nero caught and mauled him at Grumentum and then, like Marcellus, dogged his departing march until Hannibal came to a baffled stop at Canusium. Nero’s attentions crucially prevented him from making any serious effort to join forces—or even make contact—with his brother Hasdrubal who was marching down from north Italy: Hannibal remained inactive even after the consul marched northward with part of his own army to help defeat the newcomer (Marcellus’s and Nero’s activities: sources in Broughton 1951: 278, 287, 290, 294).

The practical, whether or not intentional, effect of “Marcellan” tactics was a constant cost to Hannibal in men, time, and prestige, all of them increasingly hard to recover as years wore on. He had no greater successes after 207 against later and lackluster Roman commanders, who by 203 were under orders to prevent him leaving Italy (Livy 30.21.1). His relative paralysis may reflect a less flexible army now that so many of the veterans of the march to Italy must have been replaced by southern Italian recruits. It may also reflect the waning of his own original élan and inventiveness: a decline (despite his enduring qualities as leader and organizer) which became still clearer when he returned in 203 to Africa to confront Scipio.

**Scipio Africanus**

During the war the Romans produced a number of respectable generals—Fabius Cunctator, Gracchus, the elder brothers Scipio and Nero—and a very able one, Marcellus; to their good fortune, they then found in the younger Scipio a military genius (figure 31.2). In appointing him to Spain in 210, the year after his father and uncle perished there, they took a remarkable gamble, for he was just twenty-four and had held no independent command. (Another gamble, three years later, was to make two old enemies with a merely average war record—Nero and Livius Salinator—consuls against the invading Hasdrubal; this measure succeeded, too.)
Scipio ended Punic rule in Spain with three brilliant victories between 209 and 206: the lightning capture of New Carthage and the battles of Baecula and Iliipa (thus outdoing Hannibal, whose three great victories a decade before had in the end led nowhere). He admired Hannibal, whom he later tried to shield from political persecution, but how much he owed to studying the Carthaginian’s methods is unclear. Speed of movement perhaps, as in the swoop on New Carthage—but a bold leader scarcely needed to be taught the importance of that. The night destruction of the Punic and Numidian camps near Utica in 203 was an ambush barely short of outright treachery, for negotiations had been taking place: again it hardly required Hannibal (who never took so brazen a step) as a role model. At Baecula, Iliipa, and the Great Plains in Africa in 203, Scipio’s cavalry got rid of the enemy’s—an essential start—but daring infantry maneuvers then achieved victory.

Scipio took risks as extreme as Hannibal’s, and not only in Spain. As consul in 205 he crossed from Sicily to help capture Locri: this meant confronting Hannibal himself, who came on the scene with a stronger force which Scipio promptly attacked. Instead of a counterstroke (which might have annihilated Scipio and changed history), Hannibal withdrew, leaving Locri to its fate—surely one of the war’s lost opportunities. In 203 Scipio marched far inland from his coastal bridgehead near Utica to fight at the Great Plains, and again in 202 pressed still further west until he met Hannibal at “Zama” (a battle, it seems, actually fought near Sicca). This was akin to the latter’s invasion of Italy: had the Romans lost either battle, they would have been stranded far from hope of aid or rescue, with destruction or surrender their only alternatives.

Scipio was plainly an innovative general in his own right. He was a charismatic leader to his men and to allies like Masinissa of Numidia, and this helped him to train his forces to levels of skill and commitment previously unknown to Roman, and most other, armies (Hannibal’s excepted). Each victory was gained through bold strategies and different tactics, notably the thrust to New Carthage,
the complex (and not easy to understand) infantry evolutions at Ilipa, and his dangerous inland marches in 203/202. After the war, indeed, no Roman army for a century or more achieved the sophistication of his legions.

**Errors and Miscalculations**

Most wars are marred by mistakes and miscalculations, Napoleon’s “Spanish ulcer” and Hitler’s Operation Barbarossa being two modern examples. The Second Punic War suffered a notable number, even apart from the misjudgments on both sides which arguably sparked it (see further Hoyos 1998, with discussion of earlier literature; Barceló 2004: 83–95, 108–18).

On the Roman side, their revised grand strategy in 218 was surely mistaken. Had the invasion of Africa gone ahead and that to Spain been recalled, pressure would have been put on Carthage on her own ground, immediately and severely. Hannibal might still have won his great victories in 218–216, and might even have been reinforced from Spain, but nothing suggests that the Romans would have been any readier to seek terms. By contrast, the examples of other invaders of Punic Africa—Agathocles of Syracuse in 310–308, Regulus in 256/255, and Scipio later—suggest the opposite for the Carthaginians. At the very least, Hannibal would have been recalled to save his city, transferring the war of attrition and land devastation from Italy a dozen years sooner.

Hannibal’s father had fought in the previous war, and Hannibal himself admired an earlier invader of Italy, Pyrrhus of Epirus. In both wars the Romans had consistently refused to give in to defeats (admittedly, they nearly did so with Pyrrhus) and battled on to final victory. Hannibal plainly believed that he could do what Pyrrhus and Hamilcar’s generation had failed to do: force the Romans to take his terms. He plainly did not expect or plan for a fifteen-year war of attrition in which, basically, he would march to and fro around central and southern Italy, harassed by Roman forces which he could no longer decisively defeat. Nor indeed did the Romans expect this in 218–216: their strategy for Italy (save during Fabius’s six-month dictatorship in 217) was to gather powerful armies and throw them at the invader for a swift annihilation. That a war of maneuver and attrition did develop after 216 was the outcome of these varied miscalculations.

It still proved ultimately unsatisfactory for Carthage. The Italian allies were hard to prise away from Rome: despite his propaganda claims about coming to liberate them from Roman rule, none changed sides until the thunderclap of Cannae. Even then, only southern and central Italian states defected, and not all of them. Naples and Rhegium, for instance, never did, nor did the Pentri in Samnium. Many other important centers took their time (Tarentum not until 212, after foolishly high-handed Roman treatment).

The Romans, moreover, refused to negotiate, despite his offer of talks after Cannae. Hannibal’s strategy now had to be rethought but, given the circumstances, the rethinking was broadly predictable. Extra pressure on the enemy was needed. Thus as well as seeking to win over or subdue non-Roman Italy (apart from the south, he had hopes of the Etruscans), he sought to widen the war—a policy of no interest to him earlier. Macedon and Syracuse, both aggrieved against Rome and territorially ambitious, became allies of Carthage in 215/214. The Romans now had to operate in other theaters too: Illyria, Greece, and Sicily. But the rest of the calculation failed to work out. Philip of Macedon was soon reduced to a mere nuisance, Syracuse was captured by the implacable Marcellus and, ironically indeed, Roman pressure on Hannibal’s own theater did not lessen.
There were other self-imposed setbacks. As mentioned earlier, Polybius reports only twenty-six thousand men reaching north Italy with Hannibal, an astounding 56 percent loss after the Pyrenees—all the more astounding as Hasdrubal, crossing the Alps a decade later, sustained no losses worth recording. Counterfactual writers can play with scenarios of how the war might have proceeded had twice as many Punic professionals reached Italy in 218, there to be joined by thousands of Gauls (figure 31.3). But, plainly enough, losing over half his army even before fighting began seriously compromised Hannibal’s military potential from the outset; this alone conceivably lost him the war. 

![Image](https://via.placeholder.com/150)

**Figure 31.3** A Spanish infantryman of the era of the Punic Wars. Osuna, Spain. National Archaeological Museum of Spain. Photo Credit: Luis García.

Troops were available as reinforcements later, but repeatedly were sent elsewhere: for instance twenty-six thousand to Spain and Sardinia in 215, twenty-eight thousand to Sicily again in 213, and twenty-one thousand in all to Mago in Liguria in 205. These expeditions can hardly be blamed on a home government supposedly unsympathetic to the Barcids, for Mago commanded two and a kinsman (another Mago) was involved in the Sardinia venture. Polybius indeed, as noted above, asserts that Hannibal decided all such dispositions. He may well have been confident of maintaining his own forces with Italian recruits and perhaps also mercenaries. But the Sardinia expedition and, a decade later, Mago’s to Liguria, look like wasted resources. The Romans were not seriously impeded in their Italian theaters by sending troops to Sardinia; and for Mago to go to the northwestern corner of Italy, 1,100 km from his brother in the southeastern, seems mere folly; their armies, combined, could have totalled some fifty thousand troops and made a real difference to the war, whereas any victories in Liguria would barely have troubled Roman momentum.

Perhaps the most regularly debated of all Hannibalic questions is whether he was right not to
march on Rome after Cannae, or even earlier. While his decision is almost universally condoned—Rome being heavily fortified, the Punic army lacking siege equipment and exhausted after Cannae, and southern Italy supposedly showing signs at last of changing sides—yet from the standpoint of his own and Carthage’s interests it deserves to be condemned. After Trasimene, when Maharbal’s famous advice may originally have been offered, Rome lay five days’ march south; even if defended, its residents were panic-stricken and the city could have been cut off from the rest of Italy. But Hannibal, rather than linking up on the Etruscan coast with a Punic fleet (as previously arranged), instead marched east to the Adriatic and then south into Apulia. After Cannae he would again have found a panic-stricken population and could have sealed the city off—not only from relieving forces (and the scattered and demoralized Roman forces left in Italy could have brought little relief), but also from food. Nothing could have impressed the Italians, as well as Philip V and the Mediterranean world, more. Instead he put off a march until 211, in entirely changed circumstances, and by then—despite fresh popular panic within the walls—the Roman authorities had his measure and stared him down.

A critical and ultimately crippling factor in Carthage’s war making was that there were no other first-class Punic generals (not to mention admirals). Hannibal may well have been aware of this, but his hope may have been that the Romans lacked imaginative field commanders too. So they did, save Scipio Africanus and maybe Marcellus, but during the war Roman generals still regularly overbore their non-Hannibalic opponents. Hannibal’s brothers and Hasdrubal son of Gisco did score crushing victories in Spain over the elder Scipio brothers in 211, annihilating both, but achieved this with significant help from the Scipios’ own mistakes, and then incomprehensibly failed to follow up their success. Disaster therefore ensued once the younger P. Scipio came to Spain a year later. Hannibal’s brother Hasdrubal repeatedly suffered defeats before 211, then in 208 was beaten at Baecula by the younger Scipio, and finally and fatally at the Metaurus by Nero and Livius, generals of medium merit at best. Hannibal’s other brother, Mago, shared in the disaster of Ilipa with the son of Gisco, then was fatally worsted in 203 in Liguria by two even less scintillating commanders, Varus and Cethegus. Hasdrubal son of Gisco, a major figure at Carthage in his own right and father of the famous Sophoniba, was brave, tireless, and resilient, yet his one victory in 211 was outdone by repeated catastrophes at the younger Scipio’s hands. The prowess of many officers when under Hannibal’s own command—Mago, the Hanno already mentioned, the cavalry leader Maharbal, and Hasdrubal (quartermaster-general in 216)—veils a larger reality. Even able subordinates failed to shine as independent commanders: not only Mago but Hanno too, the latter beaten by both Sempronius Gracchus in 214 and Fulvius Flaccus in 212. Another general, Himilco (in Sicily during 213/212), and Bomilcar the admiral made virtually no impact on the war despite opportunities.

As for the Punic navy, for all its old renown, it performed miserably. From eighty-seven seaworthy quinqueremes in 218 it was built up to 130 by 212; to accommodate the new navy and protect commercial ships from Roman raiders, the internal ports may have been constructed in those years; yet throughout the war Punic fleets were defeated by Roman, or dispersed in storms, or simply turned tail when a smaller enemy fleet appeared (thus Bomilcar in 212). Some level of resolution and risk taking at sea could have contributed materially to Carthage’s fortunes, but these qualities now lay with Roman fleet commanders. The Carthaginians wept in 201 as Scipio had their ships burned at sea, but it was a lament the fleet scarcely deserved.

OUTCOMES
Demographically the war hit Rome hard. Even if losses at Cannae, for instance, are corrected downward (not quite convincingly) to thirty thousand killed besides the ten thousand captured, and Appian’s claim—sometimes mistaken as Hannibal’s—of four hundred Italian cities sacked and three hundred thousand enemy slain merits skepticism, still Romans and Italians of fighting age suffered heavily in fifteen years of war, as did Italy’s cities and countryside, especially the southern half of the peninsula. Roman territory itself, save Campania, was not seriously ravaged after 217, yet the census of 203, carried out with particular care, returned only 214,000 civium capita (though this did leave out some thousands of disfranchised Campanians). The impact on the loyal Italian population must have been as harsh or harsher, while those who had defected not only suffered assaults, captures, and enslavements during the war but were then severely punished, including territorial confiscations. Archaeology indicates that much of southern Italy suffered long-lasting economic damage: Tarentum, for instance, could not recover its third-century prosperity.

Even so, signs of Roman recovery did begin to appear. As early as 206, the consuls encouraged farmers to return to their homes; Livy mentions no funding assistance but his silence hardly proves that the measure failed. Sicilian farmers and taxpayers had been similarly and successfully encouraged after operations ended there in 210, according to the consul who had been in charge—a claim supported by the quantities of cheap grain sent to Rome from Sicily as well as Sardinia by 202. In 200 land grants for Scipio’s Zama veterans in Samnium and Apulia (where much rebel Italian land had been confiscated) were authorized.

The census in 193 registered 243,700 citizens (still without the disfranchised Campanians); recorded figures then rose steadily to well over 300,000 by 164, and thereafter never fell below that total. In the 190s and 180s, several new Latin colonies in peninsular and northern Italy offering generous land grants had trouble attracting all the desired recruits, not a sign of continuous land hunger among Romans and Latins.

The war brought southern and eastern Spain more territory in fact than just the old Punic province, under Roman rule. It ended forever Carthage’s capacity to be a major Mediterranean power. Equally significantly, it gave the Romans fresh confidence to intervene in affairs beyond the Adriatic, a process they had started thirty years before. The results stunned the great powers of the eastern Mediterranean, accustomed for centuries to make war, peace, alliances, and realignments with one another and with the lesser states around them: within fourteen years after Zama, the Romans had imposed an effective though not regularly exercised hegemony over them all. Forty years later they began to turn them into provinces.

The war’s impact on Carthage was not as horrific as Hannibal and his fellow-citizens might have feared. Empire and great-power status were lost, but the peace treaty did not penalize commerce or her home territories. Since Punic armies had consisted of non-Carthaginian conscripts and mercenaries, and Punic fleets had rarely fought big battles (in marked contrast to the previous war), manpower losses fell largely on Libyans, Spaniards, Gauls, and others. North Africa did suffer Roman coastal raids and then Scipio’s cross-country ravaging, yet the damage inflicted was probably less than the havoc wrought in southern Italy over thirteen years. It is noteworthy that, unlike so many Italian cities, no Libyan community is reported as defecting to the enemy despite Scipio’s harrying.

Remedial measures began early, if a story about Hannibal having his idle troops plant vineyards (after the peace?) rests on some fact. When in turn he took on one of the two chief offices of state (sufes) in 196, he carried through important reforms both of Carthage’s public finances—which peculation had crippled—and of her political structure, making this more open and competitive.
Partly thanks to such reforms, and also no doubt to the return of peace and the enforced absence of a sizable (and expensive) navy and army, renewed prosperity soon developed. There is varied evidence for this. During the Romans’ wars of the 190s against Philip V and Antiochus III, Carthage provided large quantities of grain and other supplies as gifts to their forces in Greece (vineyards: Aur. Vict. Caes. 37.2–3; Livy 31.19.2; 36.4.5). In 191 they offered to pay out the remaining forty years of the war indemnity—eight thousand talents, a massive sum—immediately (Livy 36.4.5–7, 9). Unlike the munitions, this offer was rejected, for reasons political and diplomatic. The high quality of agriculture in Punic North Africa impressed the Romans enough for them to arrange, after destroying Carthage, to have the encyclopedic works of the agronomist Mago translated (supposedly the only Punic work they cared about; see Columella, Rust. 1.1.13, Plin. HN 18.22–3.). Excavations of the city’s internal ports, commercial and naval, show no materials datable earlier than the mid-second century, but it is hardly credible that in those years, with Roman ill will already sharpening, the Carthaginians would choose to build a haven for two hundred warships and the warships to go into it. More likely both ports were refurbished to accommodate Carthage’s busy maritime trade.

Ironically, the peaceful prosperity which accrued with, it seems, Hannibal’s help, in the half-century after 201, while Carthage acted as an innocuous and obedient satellite of Rome, fueled the decision by her hegemon to end the city’s existence. In a real sense it was the Romans’ long-deferred and dismal payback for the battlefield of Cannae.

**Bibliography**


DURING late antiquity the Roman Empire faced many new military challenges. Of those challenges, one of the most serious, and certainly the most consistent, was that presented by Sasanian Persia to the east. In the mid-220s the Sasanians—an aristocratic family from the southern region of Persis—overthrew the Parthian Arsacid regime and quickly established themselves as a force to be reckoned with (Frye 1984: 291–6). They were to remain so for the next four centuries, until they in turn succumbed to the Arab invasions of the 630s which also had such grave repercussions for the Roman Empire. Warfare between the Empire and Sasanian Persia warrants special attention both because of the longevity of their relations and because this was the only context in which the post-Augustan Empire had to confront another state with a reasonable claim to be its equal in terms of military capabilities and mobilization of economic resources.¹
The significance of the advent of the Sasanian dynasty for the Roman Empire can be exemplified by a comparison of two images. The first (Figure 32.1) is the cuirass worn by the emperor Augustus on the statue from Prima Porta, whose central focus is a trousered and bearded Parthian surrendering a legionary standard to a Roman in military garb (Tiberius or Mars?: see further Galinsky 1996: 155–64, 396 n. 54, 410 n. 35). In his Res Gestae (29.2) Augustus claimed:

I compelled the Parthians to restore to me the spoils and standards of three Roman armies and to ask as suppliants for the friendship of the Roman people. (Brunt and Moore 1967: 33)

Although the legionary standard was a potentially risky reminder of past Roman humiliations at Parthian hands, most famously the defeat of Crassus in 53 B.C., Augustus was able to present the return of the standards in 20 B.C. as a major foreign policy success and the overriding message of the scene is of course one of Roman dominance, which was indeed to typify the balance of power between the two states over the next two centuries or so (i.e., the three Roman invasions in the second century which resulted in the capture of the Parthian capital at Ctesiphon: cf. Isaac 1992: 28–31, 50–3; see further Culham, 250–1). The second, contrasting image (Figure 32.2) derives from beyond the borders of the Empire, from the rock cliffs at Naqsh-i Rustam near Persepolis in southern Iran, on which a relief carved in the mid-third century depicts the Persian king Shapur I on horseback grasping the wrists of one Roman emperor standing before him, while a second emperor kneels in obeisance—a powerful commemoration of his victories over Roman forces in the 240s and 250s, culminating in his capture of the emperor Valerian in 260 (debate about the identity of the Roman figures: MacDermot 1954; Ghirshman 1962: 154–61; Göbl 1974: 7–31; Shepherd 1983: 1080–4; Herrmann and Mackenzie 1989). Although this image of Persian ascendancy and Roman subservience is not a fair guide to the balance of power between the two states across the whole of late antiquity, or even across the third century, it does vividly encapsulate how events outside the Empire in the 220s dramatically redressed the balance of power to the Empire’s disadvantage, and set the stage for a much more volatile military situation along the eastern frontier during late antiquity.2
This image of the triumphant Shapur provides a rare insight into the Persian perspective on the Empire’s eastern frontier, for the sources and evidence on which knowledge of the military history of the region during late antiquity relies are heavily skewed toward the Roman viewpoint. From the Persian side there are a number of important inscriptions, most famously the great trilingual record of the achievements of Shapur I at Naqsh-i Rustam, but otherwise contemporary Persian accounts have only survived embedded in later Arabic sources, and disentangling genuine Sasanian data from the latter is notoriously problematic. On the Roman side the most important narrative sources are the histories of Ammianus Marcellinus and Procopius and the chronicle attributed to Joshua the Stylite, supplemented by a variety of other less detailed writers. The authors of these three main sources all had direct experience of Roman warfare with Persia. Ammianus served as a junior officer in the army in the 350s and early 360s, with active involvement on the eastern frontier during the tumultuous events of Shapur II’s invasion of 359 and Julian’s Persian expedition in 363, and the surviving books of his history include detailed narrative of these events (in Latin); the unknown author of the chronicle attributed to Joshua the Stylite (conventionally referred to as “Pseudo-Joshua”) lived in northern Mesopotamia during the major Roman-Persian war in the early years of the sixth century and recorded these events (in the Aramaic dialect of Syriac); and Procopius, in his capacity as secretary to the general Belisarius, observed at close hand a number of major battles between Roman and Persian forces in the early 530s, and included an account of them in his history of the emperor Justinian’s wars (in Greek). The reliability of the histories of Ammianus and Procopius is compromised to some degree by their literary aspirations (specifically their concern to emulate the great classical historians of earlier centuries) and by their personal loyalties (to Julian and Belisarius, respectively), with the result that their descriptions cannot automatically be taken at face value. Such agenda are much less evident in the case of Pseudo-Joshua the Stylite, which enhances the value of his account accordingly.

Other textual sources with smaller contributions to make are too great in number to be easily

\[\text{Figure 32.2 Victory monument of Shapur, over Roman emperors—Naqsh-e Rostam, Iran. Photo Credit: Ali Ganjei.}\]
summarized, beyond noting their diversity in terms of genre (orations, church histories, saints’ lives, military treatises, administrative registers, inscriptions) and language (Greek, Latin, Syriac, Armenian; cf. Dodgeon and Lieu 1991 and Greatrex and Lieu 2002). To these can be added visual and material evidence, particularly the archaeological remains of forts, of which those at Dura-Europus are especially significant for this subject.

The subject of material evidence and archaeological sites raises the question of geographical context. Conflict between the two powers was played out across an extensive and varied frontier region, stretching from the mountainous terrain at the eastern end of the Black Sea in the north, to the sands of the Syrian desert in the south (in the sixth century, the Arabian peninsula and Red Sea region also became contested areas in Roman-Persian relations). However, both powers relied to a considerable extent on allies to fight on their behalf in the less hospitable environments at the northern and southern extremities of the frontier, with direct confrontation largely reserved for the central corridor of northern Mesopotamia, with its urban communities and arable farmland sustained by the waters of the Euphrates and Tigris and their tributaries, and it is on events in this region that the following discussion will concentrate. First, however, the question of why the advent of the Sasanian dynasty had such a significant impact on the Empire’s eastern frontier warrants discussion.

**Persian Military Power and the Roman Response**

The Sasanian regime was able to pose a more serious military threat to the Roman Empire compared with its predecessor partly because it proved able to harness the economic resources at its disposal more effectively. This feature of Sasanian rule is principally evident in the results of archaeological survey work in lower Mesopotamia, which show that the irrigation network was developed significantly in scale and complexity during late antiquity (including a contribution from the labor of Roman prisoners of war in the mid-third century). This enhancement of agricultural infrastructure in turn facilitated increased food production and demographic growth (see especially Adams 1965, 1981; also the overview and commentary by Howard-Johnston 1995: 198–203). Sasanian economic resources were further augmented by more active promotion of Persian trade in the Indian Ocean (Whitehouse and Williamson 1973; Howard-Johnston 1995: 203–5). Although explicit data on the size of Persian armies in late antiquity are lacking, circumstantial evidence implies forces broadly able to match the Romans numerically (Howard-Johnston 1995: 165–9), which in turn is consistent with this general picture of economic developments under the Sasanians.

As for the composition of Persian forces, the following “snapshot” from Ammianus, embellished though it may be for literary effect, provides some sense of what Roman forces confronted:

> About dawn an immense host of Persians appeared with Merena, the master of the horse, two of the king’s sons, and many other grandees. All their troops were clad in mail; their bodies were covered with plates so closely fitting that the stiff joints of the armour conformed to the articulation of the limbs beneath, and representations of human faces were so skilfully fitted to their heads that the whole man was clad in metal scale. The only spots where a weapon could lodge were the tiny holes left for the eyes and nostrils, which allowed some degree of vision and a scanty supply of air. Those of them who were to fight with pikes stood so still that they might have been fixed to the spot by metal ties. Close by, the archers, practiced from the very cradle in a skill in which that people especially excels, were bending their flexible bows. Their arms stretched so wide that while the point of the arrow touched their left hand the string brushed their right breast. By highly skilful finger-work the shafts flew with a loud hiss, dealing deadly wounds. Behind them were the gleaming elephants, whose awful aspect and gaping jaws inspired almost unbearable fear, and whose noise, smell, and strange appearance terrified our horses even more than ourselves. (Amm. Marc. 25.1.11–14 [tr. W. Hamilton])
Important features of this battle array entailed significant elements of continuity from the Parthian period, notably the use of heavy armored cavalry, referred to by the Romans as *cataphract(ari)i* and *clibanarii*, and significant reliance on the projectile power of archers. The archers, who were usually mounted, allowed the “softening up” of the enemy at a distance prior to direct engagement, which the heavy cavalry could then potentially exploit through the impact of a massed charge. Persian cavalry strength reflected the aristocratic ethos of Persian society, as did too the tradition of expertise in archery, both epitomized in the elite’s passion for hunting which can be observed in so much surviving Sasanian art (see above figure 26c.1). It may be that the Sasanians exploited these traditional strengths with greater effectiveness through more rigorous training of their forces, since Ammianus comments that “their military training and discipline, and their constant practice of maneuvers and arms drill, which I have often described, make them formidable even to large armies (Amm. Marc. 23.6.83 [tr. W. Hamilton]; these comments may find indirect corroboration in the evidence for Sasanian military treatises, on which see Inostracev 1926).

Notable by its absence from the above description is any reference to infantry, an area of military endeavor in which neither the Parthian Arsacids nor the Sasanian Persians ever developed any prowess, in contrast to the Roman tradition of the citizen soldier. The lowly status of Persian infantry is reflected in Ammianus’s observation that “their infantry are armed like gladiators, and obey orders like soldiers’ servants. These people follow behind their masters in a mass, condemned as it were to perpetual servitude and never remunerated either by pay or presents” (Amm. Marc. 23.6.83 [tr. W. Hamilton]).

As for the elephants, these do appear to be a novel feature of Sasanian military organization, compared with the Parthians, but their highlighting in the passage above in the context of battle probably has more to do with a desire to entertain audiences with the exotic than with their actual influence on the outcomes of engagements. It is likely that elephants made a more substantial contribution to the Persian war effort in the context of siege warfare, which was as important a feature of Roman-Persian conflict in late antiquity as pitched battles (see further Rance 2003 for discussion of the role of elephants in warfare on the Empire’s eastern frontier in late antiquity).

The prominence of siege warfare on the Empire’s eastern frontier in late antiquity is the most significant difference from the prevailing pattern during earlier centuries vis-à-vis the Parthians. As one might have expected of a people from a nomadic background, there is little evidence of the Parthians having the capacity to undertake effective sieges. There are references to their deploying siege machines of some sort, apparently drawing on the knowledge of subject peoples, but these cases are rare (e.g., Adiabeni, with ladders and siege machines [*machinamenta*] used unsuccessfully during the Parthian attempt on Tigranocerta in 61 [Tac. *Ann*. 15.4]). The Sasanians, on the other hand, undertook numerous sieges of Roman forts during late antiquity, developing a strong reputation in this field: “They are formidable when laying siege, but even more formidable when besieged” (Ps.-Maurice *Strategikon* 11.1 [lines 9–10] [tr. G. Dennis]. This assessment appears in a Roman military treatise of the late sixth century, but it is clear that they were proficient from a relatively early date in the mid-third century. This raises the intriguing question of why they achieved greater proficiency in sieges than the Parthians so quickly. There are no straightforward solutions to this conundrum, but one likely element in the equation is borrowing from the Romans. They are known to have done so in other areas of military organization and to have made use of captured Roman siege artillery in the mid-fourth century, and the many Roman prisoners captured in the early 250s must have included individuals with the requisite knowledge. Another likely element is superior Sasanian logistical
organization which will have facilitated their sustaining the investment of cities for longer periods of time (cf. Lee 1993: 19–20). It is worth adding that the Sasanians themselves proved adept at the construction of fortifications, creating “a defensive zone of a depth unmatched in any Roman frontier region (at least before the sixth century) to provide effective protection for the Mesopotamian alluvium, the [Sasanian] empire’s political and economic heartland, which had suffered repeatedly at Roman hands in the second and third centuries” (Howard-Johnston 1995: 196).

The Roman response to the increased threat on the eastern frontier can be seen in a number of areas. Sasanian siege capability resulted in increased Roman investment in the fortification of cities and towns on and near the frontier. The emperor Diocletian (284–305) in particular strengthened the Empire’s frontier defenses in this region. According to one chronicler, “Diocletian built fortresses on the frontier from Egypt to the Persian borders and stationed troops in them, and appointed commanders for each province to be stationed further back from the fortresses with a large force to ensure their security” (John Malalas, Chronicle: 308). This statement has prompted controversy in relation to larger arguments about the relevance of the concepts “grand strategy” and “defense in depth” to the Roman world (Isaac 1992: 162–71), but its general import is clear and has found corroboration through inscriptions and archaeological remains, particularly relating to the so-called strata Diocletiana, the military road which linked forts between Sura on the Euphrates and Damascus (Kennedy and Riley 1990: 77–8, 181–4; Isaac 1992: 163–6; Millar 1993: 180–6). Persian attacks were obviously not the sole concern here—control of nomadic movement and raids from the Syrian desert was another consideration—but combating the Persian threat was clearly an important factor in Diocletian’s thinking from the Euphrates northwards, as is apparent in Ammianus’s observations about the site of Circesium, which occupied an important point in the communications network, at the confluence of the Euphrates and the Khabour. “In earlier times it was a small and insecure place, but Diocletian, when he was organizing the inner frontiers on the actual borders of the barbarian territory, surrounded it with walls and high towers to prevent the Persians making an inroad into Syria of the kind which had occurred some years before and inflicted great damage on our provinces.”

Nisibis was central to communications across the northern Mesopotamian plain and was appreciated as such by Diocletian (Diocletian specified it as the point for Roman-Persian trade in the peace treaty imposed on the Persians in 299: Peter the Patrician fr.14). It is likely that its fortifications were strengthened at this time, even if explicit evidence for this has not been identified (cf. Millar 1993: 181, with Lightfoot 1988: 109–10 for a summary of what is known from written and archaeological evidence), while the remains of the Roman fortifications at Singara have been assessed as early fourth century (Oates 1968: 106; cf. Kennedy and Riley 1990: 125–31). Constantius II (337–361) supplemented Diocletian’s program by building a fort at Constantia (Pollard 2000: 291) and undertaking work at Amida on the Tigris: he “enclosed it with strong towers and walls to provide a safe place of refuge for the neighborhood, and established it as an arsenal of engines to repel an assault” (Amm. Marc. 18.9.1; evidence indicates that after the Persian sack of the city in 359, the walls were restored during the reign of Valens [364–378]: Matthews 1989: 66, 489 n. 32).

The Roman response can also be seen in the types of troops deployed on the eastern frontier in late antiquity. Although Sasanian use of archers and heavy cavalry was not a novelty, their more aggressive and effective deployment of these troops must account for the presence of significant numbers of Roman units of mounted archers and heavy cavalry. The administrative register known as the Notitia Dignitatum, which records troop dispositions for the eastern half of the Empire toward the end of the fourth century, includes details of six units of equites catafractarii and seven units of
equites clibanarii in the eastern half of the Empire (conveniently tabulated in Eadie 1967: 169, 171), and arsenals manufacturing cavalry armor were located in Antioch and Caesarea in Cappadocia. Although the history of Roman heavy cavalry can be traced back to the early second century in the context of Roman encounters with Sarmatian cavalry on the lower Danube, “the concentration of these units in the east [in the Notitia listings] differs markedly from the earlier pattern of distribution in the western provinces and probably reflects a policy revision in the fourth century—perhaps in response to the challenge of Persian cavalry” (Eadie 1967: 169). The Notitia also records substantial numbers of units of mounted archers in the provinces near the frontier with Persia.

**Roman-Persian Warfare: A Historical Outline**

The parameters of this chapter do not permit a detailed chronological narrative of Roman warfare with Sasanian Persia during late antiquity, but a brief overview can be presented before turning to some case studies of specific encounters which will provide greater specificity for some of the points noted above, and illustrate them in a dynamic context.

In the early decades of Sasanian rule, attempted Roman invasions by Severus Alexander in 231/232 and by Gordian III in 243/244 were turned back, and then followed by two major Persian invasions of the Roman east led by Shapur I (241–272?), the first, in 252, culminating in the sack of Antioch, and the second, in 260, in the capture of the emperor Valerian and the penetration of Persian forces into Anatolia. These were the victories celebrated in the reliefs of Shapur at Naqsh-i Rustam and elsewhere.

In the turmoil which followed the unprecedented events of 260, the initiative was wrested from Shapur, not by a new Roman emperor, but by Odenathus, ruler of the city of Palmyra, an important and wealthy trading entrepôt on the edge of the Syrian desert. Odenathus acknowledged Roman suzerainty, but after his death in 267, his widow Zenobia pursued a more independent policy which resulted in the brief establishment of a “Palmyrene empire” in the east. The restoration of central control by the emperor Aurelian in the early 270s, and the death of Shapur around the same time, permitted a gradual reassertion of Roman power in the region, culminating in the emperor Carus invading Persia and sacking Ctesiphon in 283. After a brief setback in the mid-290s, Roman forces under the emperor Galerius inflicted a major defeat on the Persian king Narses which permitted Galerius’s senior colleague Diocletian to impose a humiliating peace settlement on Persia in 299 and extend Roman territory to the Tigris. This was to be the high point of Roman power vis-à-vis Sasanian Persia until the early seventh century.

The death of the emperor Constantine in 337 signaled a new phase in Roman-Persian warfare during which another energetic Sasanian ruler, Shapur II (309–379), endeavored to reverse the settlement of 299. Much of the fighting during these decades of the mid-fourth century involved Persian attempts to capture Roman strongpoints in northern Mesopotamia, above all Nisibis, which was besieged (unsuccessfully) three times between 337 and 350. Although his careful but unexciting defensive strategy was much criticized by contemporaries, Constantine’s son, Constantius II, proved adept at preventing Shapur II from repeating the exploits of Shapur I (cf. Blockley 1989), and the wisdom of his approach was confirmed when his brash successor Julian embarked on an ill-advised invasion of Persia in 363 which failed to capture Ctesiphon. During the retreat, Julian himself was killed in skirmishing and his hastily appointed successor, Jovian, was only able to guarantee the safe passage of the surviving Roman forces out of Persia by agreeing to relinquish the territory gained in
99 and to surrender important Roman strongpoints including, notoriously, Nisibis.

Although there was further jockeying between the two powers for preeminence in Armenia between the 360s and 380s, and two brief and inconsequential wars in the fifth century, the eastern frontier was markedly less volatile between 363 and the beginning of the sixth century, at least partly because both the Roman Empire and Sasanian Persia were preoccupied with problems on their northern frontiers arising from the activities of Asiatic nomads. The Roman refusal to provide financial help to Persia toward defending the Caucasus passes against this threat became the excuse for a renewal of war on a significant scale at the start of the sixth century when the Persian king Kavad (488–531) besieged and captured Amida in 502/503. Significant Roman forces were deployed in northern Mesopotamia to recapture Amida and force the withdrawal of the Persian army, which was eventually achieved in 505. When Roman commanders complained to the emperor Anastasius that their efforts had been hampered by the lack of a fortified frontier base to compensate for the loss of Nisibis, a new fortress was constructed at Dara, although it in turn became a bone of contention between the two powers, with the Persians interpreting it as a forward base for Roman offensive operations into Persian territory. Further efforts to strengthen Roman frontier defenses in northern Mesopotamia by the emperor Justinian in the late 520s resulted in renewed Persian aggression, culminating in a famous Roman victory outside Dara in 530 and a dismal Roman defeat the following year at Callinicum on the Euphrates.

The accession of a new, young Persian king in 531, Khusro I (531–579), facilitated a peace settlement in 532 which freed Justinian to pursue his ambitions in the western Mediterranean. However, increasing Roman preoccupation in the west proved too tempting an opportunity for Khusro and in 540 he invaded Syria, sacking many cities and extorting money from others. In the following years Persian forces invaded Lazica in the western Caucasus, prompting Roman fears that the Persians might try to establish a naval presence on the Black Sea. Intermittent conflict continued until a peace settlement was finally agreed in 561/2, although only at the price of substantial annual Roman payments to the Persians. Justinian’s successor, Justin II, soon decided that these payments were an unnecessary expense, and renewed war with Persia in 572 with the immediate strategic aim of regaining Nisibis. Justin’s hopes, however, were rapidly dashed as Persian forces relieved the siege of Nisibis and then proceeded to capture Dara. Another two decades of intermittent and inconclusive warfare ensued until events within Persia offered a resolution. Another new, young Persian king, Khusro II (590–628), was driven from the throne by one of his generals and fled for sanctuary and help to the Roman Empire, where the emperor Maurice, adopting a far-sighted perspective, agreed to assist in his restoration (successfully achieved in 591, with appropriate territorial compensation for Roman efforts, including the restoration of Dara).

This should have set the stage for a lengthy period of peaceful relations between the two powers. However, in 602 Maurice himself was overthrown and killed in a military mutiny on the lower Danube led by an army officer, Phocas, and Khusro seized the opportunity to invade Roman territory. His ostensible justification was avenging the death of his mentor and friend Maurice, but it is difficult to avoid concluding that Khusro was as much concerned to demonstrate to the Persian aristocracy that he was not a Roman puppet. At any rate, because of the chaotic conditions within the Roman Empire engendered by Phocas’s usurpation, Persian forces made dramatic advances into the Empire’s eastern provinces, gradually gaining control of Syria, Palestine, Egypt, and all of Anatolia, and eventually besieging the capital at Constantinople itself in 626. In the meantime, Phocas had been overthrown in turn by the governor of North Africa, Heraclius, who proceeded to conduct a daring and risky
campaign behind Persian lines, eventually descending from the Caucasus on Ctesiphon in 628 and transforming potential disaster into emphatic victory (a poorly documented phase of Roman-Persian warfare, but analyzed in Howard-Johnston 1999, Kaegi 2003: 100–91). Once again, this should have set the stage for a lengthy period of peaceful relations between the two powers, but within less than a decade, Arab armies energized by Islam inflicted fatal defeats on the Persians and a crippling defeat on Heraclius in Syria which resulted in the loss of the Empire’s wealthiest province, Egypt, and the need for a radical reordering of the Empire’s priorities and organization.

FACE TO FACE WITH THE ENEMY: BATTLES AND SIEGES IN ROMAN-PERSIAN WARFARE

It will have become apparent by now that the two most significant and frequent contexts in which Roman and Persian forces confronted one another were pitched battles and sieges. While there is a wealth of material available for detailed study of the latter, pitched battles pose more of a problem. As the preceding survey has indicated, it was the third and seventh centuries when warfare between the Romans and the Persians was at its most dynamic, but these are also among the least well-documented phases. It is possible to reconstruct the broad outline of events, but detailed accounts of battles from these crucial periods are lacking. As already indicated, the most detailed surviving sources for Roman-Persian warfare are the narrative histories of Ammianus and Procopius, and the chronicle of Pseudo-Joshua. Ammianus’s narrative contains much detail about Roman-Persian relations between 354 and 363, but the most detailed episode he recounts from Constantius II’s reign is the siege of Amida in 359, while Julian’s invasion of Persia in 363 has more about sieges than pitched battles since Shapur II seems deliberately to have avoided risking a major pitched battle and to have relied instead on a strategy of wearing the enemy down through a combination of burning crops, flooding land (by destroying irrigation dykes), and hit-and-run attacks. Since Pseudo-Joshua’s account also focuses on sieges, it is Procopius who provides the most detailed accounts of major pitched battles between Roman and Persian forces.

The first of these took place before the walls of Dara in June 530, with Belisarius in command of about twenty-five thousand troops, facing Persian forces of about twice that number under the command of a Persian noble, Peroz (Procop. Pers. 1.13–14, with discussion in Greatrex 1998: 169–85, Haldon 2000: 28–35). The deployment of Roman forces in front of the walls of the fortress meant that the Persians could not easily outflank the Romans and attack them in the rear, and Belisarius aimed to offset his numerical disadvantage further by digging trenches behind which he stationed his infantry. As a result the outcome of the engagement was largely determined by cavalry. Interestingly, in the preliminaries to the battle there were two Persian challenges to single combat, both won by the Roman respondent, with positive consequences for Roman morale (for details see Greatrex 1998: 177). The battle proper commenced with exchanges of archery fire before Persian cavalry engaged the Roman cavalry stationed on the wings of the infantry (Procopius’s reference to the arrows as “a vast cloud” [Pers. 1.14.35] is symptomatic of the influence of classicizing stylistic influences on his narrative). The favorable outcome for the Romans seems largely to have hinged on the timely intervention of units of Hunnic cavalry stationed at the pivotal points between the infantry and the other cavalry units on the wings. When the Roman left wing began to fall back under the pressure of the Persian advance, these Hunnic units were able to redress the balance by attacking the flanks of the advancing Persians, and then at a later point they moved across the front of the trench to reinforce the Roman right wing at a critical juncture.
The battle at Callinicum in April 531 involved a significantly smaller Persian force of about twenty thousand, confronting a comparable number of Roman troops, once again under Belisarius’s command (Procop. Pers 1.18; John Malalas, Chronicle: 462–5, with discussion in Greatrex 1998: 200–7). Procopius portrays Belisarius as reluctant to engage the Persians who were by this stage in the process of withdrawing from Roman territory down the course of the Euphrates, but there remains a suspicion that this may be part of Procopius’s strategy for exculpating Belisarius from the subsequent defeat. Just as the walls of Dara had created an immovable object along one side of the battlefield the previous year, so this time the Euphrates lay along the left flank of the Roman forces. In contrast to Dara, however, Belisarius seems this time to have placed his cavalry in the center with infantry on the wings. This deployment did not work, since, after an initial, protracted exchange of arrow fire, the Persians strengthened their left wing and were able to overpower the infantry forces on the Roman right. The Hunnic cavalry which had played such a crucial role at Dara tried to prevent this Persian advance but when their commander Ascan was slain in the fighting, they began to give ground, and the remaining Roman forces found themselves turned and pinned against the Euphrates. The surviving cavalry dismounted and continued to offer stout resistance alongside the infantry, until nightfall offered the opportunity for withdrawal upstream. Procopius’s account places the blame for the defeat on the desertion of allied Arab forces on the right wing and the poor quality of the infantry units stationed next to them. Intriguingly and unusually, another detailed account of the battle appears in the Chronicle of John Malalas, also a contemporary, and an inhabitant of nearby Antioch. His version places the blame for the defeat on Belisarius who is presented as running for safety as soon as Persian pressure began to tell, and since Malalas appears to have based his account on the official report into the defeat it has been thought by some to be more credible. Certainly Belisarius was dismissed from his post in the aftermath—even Procopius reports this, albeit at later points in his narrative where its significance was less apparent (Procop. Pers. 1.21.2, 3.9.25)—but it has also been pointed out that its basis in an official inquiry does not necessarily guarantee the reliability of Malalas’s version, which could reflect the need to identify a scapegoat, as well as resentment against Belisarius on the part of some of his officers (cf. Greatrex 1998: 194–5). From a tactical point of view, however, although archery and cavalry once again played important roles, the ability of the remaining Roman infantry and dismounted cavalry to stand firm against Persian attacks in the latter stages of the battle shows that infantry still had an important role to play: “cavalry have seldom defeated steady infantry by frontal attack.”

The other major set-piece occasions were sieges, which may well have been a more frequent occurrence in Roman-Persian warfare than pitched battles. Nisibis stands out as an important Roman stronghold which successfully resisted Persian sieges on three occasions in relatively close succession in the mid-fourth century, but little detail survives concerning the first two, while the sources for the third are problematic in a variety of ways, not least inconsistencies between them (Lightfoot 1988). The best documented sieges are those of another important Roman fortress, Amida on the upper Tigris, in 359 and in 502/503, as recounted by Ammianus and Pseudo-Joshua respectively—both contemporaries, with the former a direct participant (see Amm. Marc. 19.1–8, with Matthews 1989: 57–66; Pseudo-Joshua Chronicle 50–3, with Greatrex 1998: 83–94; Trombley and Watt 2000: 53–63). The sieges lasted seventy-three days and about three months respectively—testimony to Sasanian ability to sustain lengthy sieges—and ended with the taking and sack of the city by the Persians. The Persians used various methods in their efforts to effect the city’s capture. In 359 Shapur’s first tactic was apparently to try to overawe the inhabitants into surrender by displaying the size of his forces and having them surround the city walls, motionless and silent. He then tried frontal
assaults, before finally resorting to the slower but more methodical approach of deploying siege towers with catapults and the construction of a siege ramp. In 502 Kavad had a siege ramp built at an early stage, up which a battering ram was brought to weaken the walls. It was also in the context of sieges that the Persians found the most useful application of elephant power, as mobile siege towers (Rance 2003: 368–9; they feature in this capacity at Amida in 359: Amm. Marc. 19.2.3). In addition to the obvious use of catapults against the besiegers, the responses of Roman forces within the city included (in 359) the construction of a counter ramp and the making of sallies to try to disrupt the besiegers’ progress, and (in 502) counter-tunneling (with some success) to undermine the enemy ramp.

Amida was eventually captured in 359 because Roman attempts to counter the Persian siege ramp eventually failed. By contrast, the city’s capture in January 503 was more anticlimactic: after three months of siege and with the onset of winter, the Amidenes apparently grew lax in their monitoring of enemy activities and failed to anticipate a simple Persian nighttime foray with ladders which allowed them to seize control of a section of the city walls. There were suspicions that treachery had played a part in 503, and a deserter in 359 who helped Persian archers gain temporary control of a tower one night almost succeeded in bringing that siege to an earlier end. Of course as the length of time the city was invested dragged on, so growing food shortages took an increasing toll on the physical stamina of soldiers and civilians, with disease also breaking out in 359—a reminder that sieges were the occasions in which warfare impinged most directly on the lives of noncombatants (Lee 2007: 133–8). That impact was of course felt even more keenly when the city was finally captured: the length of both sieges meant that on neither occasion was the Persian king inclined to restrain his soldiers from random slaughter. Civilians who survived were carried off for resettlement in Persia (cf. Lieu 1986, Kettenhofen 1994).

In addition to the literary accounts of Ammianus and Pseudo-Joshua, archaeological evidence also has an invaluable contribution to make to an understanding of siege warfare on the eastern frontier in late antiquity. This evidence derives from the fort of Dura-Europos, originally a Parthian outpost on the Euphrates which was then taken over by the Romans during the second century (Millar 1993: 467–71 provides a brief overview of the site’s history). The fort was eventually captured by Persian forces in 256/7 and promptly abandoned, so that when French and American archaeologists undertook excavations in the 1920s, they unearthed a wealth of material illuminating the history of the site in Roman times—not just the structures of buildings, but also wall paintings, inscriptions, and even papyrus documents (see Hopkins 1979 for a history of the excavations). Excavations also revealed the remains of Persian tunneling activities during their siege of the fort in the mid-250s, and the attempts of the defenders to counter those efforts with their own tunnels. What has given these tunnels particular interest is that they were found to contain human skeletons wearing armor and bearing weapons.

In the part of the gallery extending in front of the mud brick embankment to the east the bodies of sixteen or eighteen soldiers were found with the remains of their armour and clothing... In the easternmost part ... the skeletons lay in contracted positions as if the men had tried to save themselves from a cave-in or had been crushed in positions of defense. One man appears to have been seated, his spinal column being markedly curved. Another lay, thrown backward, with his legs spread wide apart and folded under him as if he had made an attempt to rise. (du Buisson 1936: 194–5)

The original excavator suggested a macabre scenario in which Persian soldiers had broken into the Roman counter tunnel and in their haste to prevent Persian entry to the fortress, defenders had sealed up the counter tunnel while some of their own men were still inside, the tunnel subsequently
collapsing on top of them. A recent reexamination of the evidence has prompted a revised interpretation involving Persian tunnelers deliberately collapsing their tunnel on top of Roman pursuers after a grisly underground fight in the dark. Whichever version is correct, however, there can be no doubting the overall conclusion: “These gruesome deposits bring us as close as archaeology ever has to the immediacy, and the real horror, of ancient combat” (James 2005: 204).

The eastern frontier of the empire during late antiquity offers some of the most intriguing insights into warfare in the Roman world, not least because of the diverse and detailed character of the surviving evidence and because it presents a rare opportunity to observe Roman military power confronting an opponent with a comparable level of capabilities and resources. Since the particular episodes highlighted above have (not by deliberate design) mostly shown Roman forces on the back foot, it is worth concluding by emphasizing that both sides experienced their fair share of successes and setbacks and that, apart from the significant but short-lived Persian inroads in the mid-third and early seventh centuries, the frontier between them was characterized by a remarkable degree of stability across such a substantial period of time. That stability can be attributed to a range of factors, including developments in military technology and tactics on both sides which cancelled out the other’s advantages, but also to the steady evolution of diplomatic mechanisms for the defusing and resolution of disagreements—a valuable reminder of the wider context within which warfare needs to be considered.14

BIBLIOGRAPHY


EPILOGUE
THE LEGACY OF WAR IN THE CLASSICAL WORLD
THOMAS PALAIMA AND
LAWRENCE A. TRITLE

Roman legionaries advancing against a hillside of Germans chanting their famous baritus war cry (cf. Tac. Germ. 3) captivated audiences around the world in the opening scene of Ridley Scott’s Hollywood blockbuster Gladiator (2000). Zack Snyder’s animated (and cartoonish) 300 drew equally huge crowds that watched the heroic deaths of the Spartans at Thermopylae, inspiring too young American leathersnecks, that is, Marines, to tattoo themselves with images of ancient Greek warriors (2006). Such is the continuing attraction of battle in the classical world. In this short discussion Tom Palaima explores the literary impact of classical war, warriors, and authors into the modern world, while L. Tritle traces more historical traditions.

THE NEW LITERATURE OF WAR

It is difficult
to get the news from poems
yet men die miserably every day
for lack
of what is found there.

—William Carlos Williams, “Asphodel, That Greeny Flower”

The sad truth is that human beings in Western culture have been telling stories about war for over three thousand five hundred years in oral and written traditions coming down from the Homeric epics. Yet men, fully aware of the news these stories relate, have been dying miserably nonetheless.

Williams’s poem, written in the 1950s when he was in his 70s, is an example of the grip that classical literature about war still has on modern writers when their thoughts turn to war, even, as here, within a beautifully complex love poem. Williams writes: “Always/when I think of the sea/there comes to mind/the Iliad/and Helen’s public fault/that bred it./Were it not for that/there would have been/no poem but the world/if we had remembered, those crimson petals/spilled among the stones,/would have called it simply/murder./The sexual orchid that bloomed then/sending so many/disinterested/men to their graves/has left its memory/to a race of fools/or heroes/if silence is a virtue.”

Williams plays with the asphodel as the “flower of hell,” alluding to the asphodel meadow of the underworld in the Odyssey, and with the figure of Helen, without whom, in his view, the mayhem that
took place during the ten years of fighting at Troy and that was looming over mankind in the form of
the atomic bomb during the first years of the Cold War would simply be murder. Thus do writers
confronting warfare in any period seek comfort in finding some causation, however senseless, for the
organized and state-sponsored killing of large numbers of human beings, whether fools or heroes. The
very first song of war by Homer offers as unconvincing a reason as any.

Aeschylus, too, in his great play the *Agamemnon*, partakes of the banquet of Homer. Positing
Helen as the cause of the war made no sense to the grandest of Greek tragedians, himself a war
veteran from the “greatest generation” of Classical Athens, the Marathon fighters who defeated the
Persians. Instead, he tends to focus specifically on Helen’s role in destroying the Greek soldiers who
got to Troy. He uses a Greek infinitive form *helein* “to take hold of” that puns on her name and her
power to take men off to death. In Richmond Lattimore’s translation, itself a product of World War II
culture, the chorus (lines 681 and ff.) wonders whether “some mind unseen/in divination of your
[Helen’s] destiny/shap[ed] to the lips that name/for the bride of spears and blood,/Helen, which is
death? Appropriately/death of ships, death of men and cities…."

War can also be seductive and exhilarating, especially for those who have never fought in it or
who are lucky enough to survive it reasonably intact in their bodies and their souls (see Broyles
1984: 55–65). The *Iliad*, which psychiatrist and veterans’ counselor Jonathan Shay correctly praises
for its realistic presentation of how soldiers may be psychologically broken by a “betrayal of what is
right” (Shay 1994), was read by British poet Rupert Brooke at the outset of World War I, in keeping
with the romantic spirit of his age, as an invitation to ennobling glory.

As Brooke was departing to fight in the Dardanelles, he wrote to poet Herbert Asquith’s sister
what we might call patriotic gush, had such ideas not been so prevalent at the time: “Do you think
perhaps the fort on the Asiatic corner will want *quelling*, and we’ll land and come at it from behind
and they’ll make a sortie and meet us on the plains of Troy?…I’ve never been quite so happy in my
entire life, I think” (see Keynes 1968: 662–3; also Stallworthy 1984: xxvii). This is an extreme
version of what Paul Fussell, arguably the greatest critic of the literary experience of war in the
twentieth century, describes as the use of the canon based on the classics by a highly literate British
soldiery whose “intercourse with literature…was instinctive and unapologetic—indeed, shameful”
(Fussell 1975: 161).

Fussell cites a letter home of Alexander Gillespie still early in the war (May, 1915) in which he
conveys his thoughts at night on the battlefield: “[A]fter Tom was killed I found myself thinking
perpetually of all the men who had been killed in battle—Hector and Achilles and all the men of long
ago, who were once so strong and active, and are now so quiet” (Fussell, ibid., with Chapman
1937/1968: 160). Here we see the seeds of the introspection caused by personal loss that, combined
with the relentless slaughter produced by mechanized warfare, will eventually lead thinking writers
to deconstruct widely held and promoted romantic notions of classical warfare and even reject the
classics altogether.

Prime examples are Wilfred Owen writing during the war (August 1917) and Ezra Pound writing
not long after (1920). Owen’s “Dulce et decorum est,” confronts imagined home-front readers, who,
in their ignorance of the conditions of trench warfare, are susceptible to believing the Horatian tag
line that gives the poem its title: “it is sweet (*dulce*) and becoming (*decorum*) to die for one’s country (*pro patria mori*).”

The sentiments frozen in this line have a long history. They are Homeric and adjusted by the
seventh-century B.C. poet Callinus to the new form of nonheroic combat known as hoplite warfare.
Callinus writes that even in hoplite ranks, “it is a thing of public honor (timēen) and attractively resplendent (aglaon) for a man, fighting against the enemies, to die for his country, children and wife.” Those who died in battle as hoplites (Callinus) or Roman legionaries (Horace) might end up looking okay, not grotesque or gruesome (see Tritle 2010: 101–04, for a graphic description of the gore and chaos at the battle of Delium). But the odds of looking noble after death in World War I were very long indeed.

Owen proves this with a graphic image of the horror of soldiers attacked by gas. He intends for it to waken complacent readers to “western-front” reality:

If in some smothering dreams you too could pace
Behind the wagon that we flung him in,
And watch the white eyes writhing in his face,
His hanging face, like a devil’s sick of sin;
If you could hear, at every jolt, the blood
Come gargling from the froth corrupted lungs,
Obscene as cancer, bitter as the cud
Of vile, incurable sores on innocent tongues,—
My friend, you would not tell with such high zest
To children ardent for some desperate glory,
The old Lie: dulce et decorum est
Pro patria mori.

In modern mechanized warfare, the individual soldier has far less chance than his Greco-Roman counterparts to fight or die nobly. Worse still, in Pound’s post-war view, is the effect this kind of combat has on the moral behavior of soldiers and on what kinds of society can be reshaped after the war. Pound, too, riffs on Horace and Homer.

In the opening poem of his lengthy eighteen-poem collection “H.S. Mauberley (Life and Contacts),” Pound claims for his poet character an inspiration from the Sirens whose song Odysseus made sure to hear. Many first-time readers of the Odyssey are dumbfounded when they find out what the Siren song is. Their claim, in Pound’s phrase, “[c]aught in the unstopped ear” of Odysseus is to know all about the Trojan War. The classically educated Pound gives it in Homeric Greek (we here transliterate): “Idmen gar toi panth’, hos’ eni Troiēi”: “For we know all things so many as at Troy.” The original Greek audiences, living in a culture where war was the norm and peace the short-term exception, would have thought this an important mystery to learn. And what did the modern Trojan War that saw 65,038,810 soldiers mobilized, 8,538,315 killed and died, and 21,219,452 wounded accomplish in the Siren-inspired poet’s opinion?

These fought, in any case,
and some believing, pro domo, in any case…
Some quick to arm,
some for adventure,
some from fear of weakness,
some from fear of censure,
some for love of slaughter, in imagination,
learning later…
some in fear, learning love of slaughter;
Died some “pro patria, non dulce non et decor”…
waked eye-deep in hell
believing in old men’s lies, then unbelieving
came home, home to a lie,
home to many deceits,
home to old lies and new infamy;…
There died a myriad,
And of the best, among them,
For an old bitch gone in the teeth,
For a botched civilization.

Still, after the “war to end all wars,” the classical tradition maintained its hold on those who went
to or thought about the next war, the so-called “good war.” This was because education was still
based on the classics. The eminent classical epigrapher and historian Arthur Geoffrey Woodhead
(April 2, 1922–November 6, 2008) sums up what the classics taught about war to those who were
growing up after the Great War (Woodhead 1990: 1–3). He recounts that after the basics of Latin, a
student read Julius Caesar, learning

how he and his Roman legions slaughtered large numbers of Gauls, or, alternatively, how he and his legions slaughtered large
numbers of fellow Romans. With this as his springboard, the student then proceeds to tackle Livy, where he reads how the
Romans killed off large numbers of Carthaginians or vice versa—if not how they killed off more Gauls, or Samnites, or Aequi,
or Volsci.

Woodhead follows the stream of his youthful education past war leaders like Caesar and Scipio
and the battles of Pharsalus and Cannae to Homer’s accounts of quarreling commanders at Troy and
Odysseus’s slaughter of the suitors. He then continues to Herodotus’s grand story of the Homeric
valor displayed by the warring Persians and Greeks, to Vergil’s crystallization of all that war entails
in the new Roman world, to the war motifs that invade the love poems of Ovid, and finally to what
Thucydides offers those who want to understand the relations of states before and during wars.

Even with such a thorough vicarious knowledge of the ways of war, the educated men who went
off to fight in World War II were still unprepared; and they were less inclined amid its even greater
machine-generated destructive force, culminating in the atomic bombs, to use the classics as a
reference point.

A notable exception that proves the rule is Keith Douglas. His “Aristocrats,” written in Tunisia
during the North African campaign in 1943, uses as an ironic epigraph, “I think I am becoming a
God,” the dying words of the emperor Vespasian, as reported by Cassius Dio. The poem describes
the truly macabre translation of the mores of classically trained British gentlemen, their cricket, their
hunting, their pipes, and their sangfroid, to shell blasts and maimings in the African sand:

Peter was unfortunately killed by an 88:
it took his leg away, he died in the ambulance.
I saw him crawling on the sand; he said
it’s most unfair, they’ve shot my foot off.
How can I live among this gentle
obsolescent breed of heroes, and not weep?
Unicorns, almost,
for they are falling into two legends
in which their stupidity and chivalry are celebrated. Each, fool and hero, will be an immortal.

Douglass’s words make real Vespasian’s words. These men are an un-Homeric “gentle obsolescent breed of heroes.” They are also fools and heroes, just like the men for whose deaths Williams sought a classical answer in “Asphodel.” They behave impeccably, as is required of gentlemen, no matter what the circumstances. They achieve an un-ironic apotheosis because Douglass is there to be their Homer and place their peculiar claims to kleos (Homeric praise of warriors) in a suitable classical context.

The classics still have some force. This is seen in anthologies compiled during the war. It was only natural that a war that really did encompass the world and even take it to the edge of extinction would produce collections that tried to distill a kind of universal wisdom by surveying all that Western human beings had ever written on the subject.

One such example is Eberhart and Rodman’s War and the poet: An anthology of poetry expressing man’s attitudes to war from ancient times to the present (1945). Eberhart explains in his introduction, “I have said elsewhere that the best war poetry achieves a universality of utterance transcending the particular: the best war poems are about Man. They express the poet’s attitude to something beyond the immediacy of war….” Rodman adds what he takes to be clearly defined feelings about the human condition, a kind of philosophical pathos that marks out classical war literature and explains why he has chosen the classical passages that appear in the volume: the epics of Homer, the martial lyrics of Tyrtaeus, Callinus, Alcaeus, and Simonides, Aeschylus’s Agamemnon, passages from Sophocles and Euripides, from Aristophanes’s Lysistrata, from Vergil, Horace, and Propertius.

The focus in the Aeschylus selections, translated by G. M. Cookson, Richmond Lattimore and Louis MacNiece, is upon the suffering of men in battle. The messenger speech from Aeschylus’s play The Persians is representative: “Many of ours capsized,/Until the very sea was hid from sight/Choked up with drifting wreckage and drowning men./The beaches and low rocks were stacked with corpses….”

This concern for what common soldiers are going through, often because of the failings of civilian leaders and of their own commanders, is conveyed with frank honesty in the introduction to an anthology of war literature made by Ernest Hemingway for an American audience in 1942, when the United States had just gone to war. Men at War, a massive work of 1,072 pages, closes with a three-page account of a downed navy pilot’s “fish eye view” of the battle of Midway. The first passage of its opening section, “War is part of the intercourse of the human race,” is “The invasion of Britain” (3–9) by Julius Caesar. The second section groups selections demonstrating that “War is the province of danger, and therefore courage above all things is the first quality of a warrior.” It includes a two-page version of Livy’s account of “Horatius at the Bridge” (221–222) and Charlotte Yonge’s “The Pass of Thermopylae 430 [sic for 480] B.C.” excerpted from The book of golden deeds. Men at war also includes twenty-three pages taken from Xenophon’s Anabasis, five pages giving Vergil’s account of the Trojan Horse and six pages from Livy on the battle of Cannae.

Hemingway’s emphasis in compiling these selections, including the classical passages just surveyed, is to get across the realities of war (xi):

This book will not tell you how to die. This book will tell you, though, how all men from the earliest times we know have fought and died. So when you read it you will know that there are no worse things to be gone through than men have gone through
Hemingway discusses many of the eighty-two selections, but none of the six classical excerpts, thus signaling in a small way his own tastes for a modernist directness.

The Second World War was something of a watershed in the relevance of the classical tradition to contemporary war literature. What Samuel Hynes writes in *The soldiers’ tale*, his study of war memoirs from the two world wars and the war in Vietnam, becomes truer and truer as the scale of mechanized war progresses and individual soldiers have less and less grasp of what is going on and believe less and less that their own actions and sacrifices will make an iota’s difference: “In most war narratives there is nothing to suggest that the author is aware of any previous example: no quotations or allusions or imitations of earlier models, and no evident knowledge of previous wars” (1997: 4).

Another factor was the demise of the classics as the core of secondary and college-level education. This means that writers about war who refer to the classics in the 1960s and afterward are doing so without the deep familiarity that study of the works in their original languages brings.

One notable exception to these trends deserves highlighting. Joseph Heller in his *Catch-22* (published in November 1961) had Homer’s *Iliad* firmly in mind for elements of plot and for parallels between his main character Yossarian and Homer’s Achilles. This is so spectacular an anomaly that Heller’s own explanation in a 1998 interview with Charlie Reilly is worth quoting in full (Reilly 1998: 507; cf. Golden 1995: 131–8):

> *Catch-22* doesn’t end that way, and neither does Homer’s *Iliad*. You’ve said there are connections. Conscious ones. *Catch-22* was not an imitation of the *Iliad*—for example, there is so much fantasy and humor in my novel. But I was very conscious of Homer’s epic when writing the novel, and at one point, late in the book, I directly compare Yossarian to Achilles. At the same time, I’d be the first to agree that, as a hero, Yossarian is different from most heroes of antiquity. From most heroes, period.

My ending had the same problem the Trojans had, that damned horse. Most people think the *Iliad* ends with the Trojan horse, but Homer’s work, and mine, stop long before. Just as the *Iliad* is ending, there’s that magnificent scene when Achilles meets with Priam and his sympathy and emotions finally come pouring out. The ending of *Catch-22* shows Yossarian going through a similar experience.

> Were you thinking of Homer’s ending when you wrote the conclusion to *Catch-22*?

> Very much so. The *Iliad* was one of the first books I read and enjoyed as a child. The first version I read was a children’s version, and it came “complete” with the horse and the fall of Troy. I recall that the first time I read the real *Iliad* I was shocked; I thought I had stumbled upon a corrupt edition. But the more I thought about “Homer’s ending,” the more I admired it.

The opening lines of an epic are so important. The *Iliad*’s very first line talks about “the dreadful anger of Achilles”—not about the fall of Troy or the Trojan horse or anything else. And the final scene with Priam shows Achilles’ nobler side overcoming that wrath. *Catch-22* went beyond that, of course; it was very much concerned with attitudes toward war, attitudes toward bureaucracy. It occurred to me at one point that I could draw an analogy between Yossarian and Colonel Cathcart, on one hand, and Achilles and Agamemnon on the other. But
it wouldn’t have worked. Agamemnon and Cathcart are completely different people.

There is another echo of the *Iliad* insofar as the hierarchy of power is concerned. At the beginning Homer makes it clear Achilles isn’t interested in acquiring another concubine; he wants Agamemnon to return the priest’s daughter. When Agamemnon returns the girl and then steals Briseis, Achilles finds himself powerless. He broods in his tent until Patroclus is killed and then he finally takes action. Yossarian is faced with a similar problem. He is powerless until, after Nately’s death, he is driven to break the chain.

For the Vietnam War, Tim O’Brien’s work is both a similar anomaly and confirmation of the trend we have been discussing. Only in his first work, *If I die in a combat zone, box me up and ship me home* (1973, with a second edition with author’s revisions in 1979; hereafter *Combat zone [1973]* and *Combat zone [1979]*) does O’Brien use the thoughts and perspectives of classical authors to help him come to terms with his own disturbing experiences in Vietnam. In all his later writing, he focuses squarely on the actions, thoughts, and feelings of his characters in a way that conforms to Hynes’s view of memoirs, or, in this case, fiction based on remembered experiences (Palaima 2000: 1–22).

In *Combat zone*, his main character, Tim O’Brien the soldier, quotes Plato’s *Laches* on courage. He refers to Socrates’s decision in the *Crito* to face certain death rather than renege on his agreement with the laws of his country (O’Brien talks about this while recounting his own decision about whether to evade the draft). He traces the tradition of guard duty back to “Thucydides and Polybius and Julius Caesar.” After describing many cases of ghastly and pointless human suffering, O’Brien denies as forcefully as Wifred Owen and Ezra Pound any truth in the Horatian tag-line: “Horace’s old do-or-die aphorism—’Dulce et decorum est pro patria mori’—was just an epitaph for the insane” (*Combat zone [1979]*: 168); chapter two is entitled “Pro Patria”; chapter twelve “Mori”; chapter nineteen “Dulce et Decorum.”

Classical texts and themes help O’Brien understand his own experience in Vietnam. They provide the intellectual basis for the value system that guided him into and through Vietnam and shaped his first book. Despite his bitter assessment of Horace’s *dulce et decorum est*, O’Brien believes that some kinds of virtue operate even in Vietnam. He focuses on the courage that is defined as “wise endurance” in the *Laches* of Plato. But he is fully aware that “most soldiers in Alpha Company did not think about human courage” (*Combat zone [1979]*: 141). Nor did they aspire toward Homeric or Platonic forms of heroic behavior. Many had never even heard of Homer or Plato. After *Combat zone*, O’Brien is done with the classics.

As we come to writing about the most recent uses of armed forces by the United States in the Middle East, the Balkans and Africa in the 1990s and the first decade of the twenty-first century, the impact of the classics on war literature is even more attenuated. Soldier-writers and writers about what soldiers now do are given to using certain themes, ideas, and figures in classical literature as touchstones, but they leave the impression of having no serious familiarity with the works they cite or use.

A strange use of a phantom citation proves this point. On May 12, 1962, General Douglas MacArthur gave a speech to cadets at the U.S. Military Academy at West Point on the occasion of accepting the Sylvanus Thayer Award. His remarks included the following classical allusion:

This does not mean that you are warmongers. On the contrary, the soldier above all other people prays for peace, for he must suffer and bear the deepest wounds and scars of war. But always in our ears ring the ominous words of Plato, that wisest of all philosophers: “Only the dead have seen the end of war.”
MacArthur had made the reference once before in his equally famous, in military circles, Rainbow Division veterans’ speech in 1935. The quotation attributed to Plato, again without mention of any specific work, also shows up as an epigraph at the opening of Ridley Scott’s movie Blackhawk Down (2001) and in the book of the same name by Mark Bowden on which it is based. Both tell the story of a savage firefight in Somalia in October 1993. It is the epigraph of chapter 25 of Lt. Gen. H. G. Moore and J. L. Galloway’s 1992 book on the Vietnam War, We were soldiers once... and young (reference noted by Professor David Lupher of the Classics Department of the University of Puget Sound).

The quotation, again attributed to Plato, is also inscribed on a wall of the Imperial War Museum (IWM) in London. In 2003, I investigated the matter with the director of the MacArthur Library and Dr. Neil Young, the historian of the Research and Information Department of the IWM. The problem is that the statement can be found nowhere in Plato’s works, and the lack of an attribution to a particular work makes it even more suspect.

In fact, the quotation derives from philosopher George Santayana. In a 1922 collection of essays, Santayana recalls being in Oxford near the end of World War I and looking with full human sympathy upon British soldiers celebrating their escape from trench warfare. He wrote (1922: 102 [= Soliloquy # 25, “Tipperary”]), “Yet the poor fellows think they are safe! They think that the war is over! Only the dead have seen the end of war.”

The quotation appears attributed to Plato in R. D. Heinl’s Dictionary of military and naval quotations. But, of course, that attribution must go directly to MacArthur. James Zobel, the archivist of the MacArthur library in Norfolk, Virginia, has himself been trying to track the source. Unfortunately MacArthur took his extensive library to the Philippines during the war and lost it when he had to withdraw ahead of the Japanese advance. Zobel reports that the works of Plato in MacArthur’s prewar library were Dialogues of Plato, vols. 1–5, and Grote’s Plato, vols. 1–3 (email, October 21, 2003).

The point here is that all of these war writers feel the need to use a classical author as a touchstone. They are seeking a universal truth, a clue to human behavior, an insight into the very nature of human beings and our predilection for organized state violence; they turn to the classics in the same way that the anthologists during World War II and the World War I poets did, only without any comparable depth of knowledge.

We should note here the fascination in the last dozen years with the severe Spartan form of military regimen reflected in the popularity of Steven Pressfield’s 1998 novel, Gates of fire, about Thermopylae and its aftermath, or Frank Miller’s graphic novel 300 (made into a film by Zack Snyder, 2006) on the same subject. Given the clear and strong identification during the Cold War of the United States with the freedoms and democratic values of Classical Athens and the demonizing of the Soviet Union as a Spartan culture, (Halle 1955: 261–77 [“Appendix: A Message from Thucydides”]) the popularity of Sparta in the new millennium certainly reflects somehow the changes in the views that Americans have about their government, their country, and the abandonment of universal military service in favor of at least a notionally elite and well-trained small army.

Literature connected with Operation Desert Storm and with the presidential uses of armed force in Iraq and Afghanistan follows the same pattern. The socioeconomic and educational profile of the all-volunteer army is one factor in reducing the use of classical literature by soldier writers. Anthony Swofford in Jarhead, his account of Desert Storm released in 2003 just ahead of the Iraq invasion, refers to his reading of Homer’s Iliad and Xenophon’s Anabasis, but he writes at much greater length…
about movies that he and his fellow soldiers watch and respond to communally. War is already moving into an electronic age of text messaging, emailing, blogging, and posting images on YouTube.

Nathaniel Fick, an undergraduate classics major at Dartmouth, served as a Marine officer in Afghanistan and Iraq. He was drawn into the Marines searching for a way to be “trained in the severest school,” a line taken from Thucydides, and to measure up as a “hard” man. He begins sections of his book with epigraphs from Plutarch and Saint Augustine. But there is little use in his narrative of any deep thinking he might have done in reading the classical authors from whom he borrows phrases. He writes that in the process of becoming an infantry officer he underwent “a subtle change in my worldview. Instead of classes in philosophy and classical languages, I gravitated toward national security and current events.” He views the “grunt life” of an infantryman as “untainted,” sensing “a continuity with other infantrymen stretching back to Thermopylae.” The Spartans and their motto, “When you return from battle, you will either bear your shield or be borne upon it” become his ideals (Fick 2005: 33, 54).

Fick cannot even be categorized as an exception. He uses the classics superficially to create a mirage that will satisfy a brooding interest in self-fulfillment that falls in with the advertising slogan “Be All You Can Be” of a competing branch of the armed services, the United States Army. Yet his self-absorption in satisfying his own emotional needs surrounding self-identity just might give us real insight into the inner psychology of the individual ancient Spartans who lived their entire lives trying to live up to nearly impossible standards of what we still call Spartan personality.

In this, Fick is not so different from the gushing Rupert Brooke who in a dreamier, but no less self-indulgent way wanted to be not a Leonidas at Thermopylae, but a Hector or Achilles on the plains of Troy. Such is the power that classical stories of war still have on the young and undeveloped minds of men who bear arms and write about it.

**Classical Warfare’s Modern Legacy**

No two responses to war are the same. After several early post–World War II short stories, a shaken J. D. Salinger, who had seen much in 1944–1945, never returned to the subject, believing that the best way forward was silence (cf. Slawenski 2010: 135–9). A generation later Tim O’Brien (1990: 68–9) would cynically condemn the telling of war stories, arguing that any glow of an “uplifting” war story was evidence only of its power as a lie: compare Wilfred Owen, “Dulce et decorum est pro patria mori” and his view on the “pity of war.” These modern responses to war find echoes in the “war” plays of Euripides (e.g., Helen, Heracles) and in Pindar’s oft-quoted reminder that “To those untried, war is sweet” (fr. 110; and above Millett, 51–2; also Croally 1994).

But if numbers matter, the view of the many is against Salinger and O’Brien, Euripides and Pindar. What long dominates are stories of great men, great commanders, and nowhere is this clearer than in the work of Plutarch, whose lives and moral tales of noble Greeks and Romans gave lessons of who (and who not) to emulate. These lessons and moral tales continued to influence young Europeans and Americans into the early twentieth century. Poems of the First World War celebrate the Spartan mother’s admonition, “with this or on this,” and the notion that a son belongs not to the mother who bore him but to the state (see further Plut. Mor. 242A, 240C and Vandiver 2010: 179, 182). Plutarch preserves an even earlier example of this in his account of Julius Caesar. While governing in far-off Spain, Caesar once found a moment of leisure to read about the great Alexander, which evoked a tearful outburst as he had as yet accomplished nothing comparable (Plut. Caes. 11.5–6). Alexander’s
accomplishments inspired other Romans: Pompey, styled “the Great,” and even young Octavian, who paid homage to the Macedonian conqueror in Alexandria after defeating Antony and Cleopatra (Cass. Dio 51.16.5).

However stirring Alexander’s victories were, their glamour and impact was not lasting. On the other hand, those of the Romans, and especially the Romans of the Republic, were durable and offered genuine lessons (as noted by Adcock 1957: 97, in the conclusion to his study of Greek and Macedonian warfare), which should call into question the notion of a Greek-inspired “western way of war,” as advanced by Hanson 1989/1994. This too was recognized by none other than the Florentine humanist (and failed diplomat) Niccolò Machiavelli. Study of Livy and reading of other classical historians, including Polybius, taught him that the citizen soldier was superior to the mercenary, that a Prince, versed in the art of war and who led his own men into battle, could control his own fate and the destiny of his state (Prince 12–14). While Machiavelli’s princely advice may have fallen on deaf ears, his arguments for a citizen militia were more influential. These provided the seventeenth-century English political theorist James Harrington (and his work Oceana and other writings) with a rationale for the formation of a citizen militia, an argument that finally, and famously, found substance in the Second Amendment of the U.S. Constitution, though often confused as “the right to bear arms” (see further Pocock 1989: 80–147, especially 128–31, 97–103).

Machiavelli believed that the study of the past offered lessons for the present, a seductive view more at home in the Renaissance and early modern times than today. Yet famous commanders—Maurice of Saxe, Frederick the Great, Napoleon—studied the campaigns and leadership style of Alexander and Caesar, looking for, as Paul Millett puts it, “winning ways of war” (note the collection of their maxims and instructions in Phillips, Roots of Strategy, first appearing 1940 and still in print). Saxe’s Reveries appeared posthumously and were perhaps written in retirement; Frederick composed his Instructions in 1747, and after the Austrian capture of a Prussian general, copies in German and English quickly appeared (1760); Napoleon never wrote on war, but his maxims were collected and published in 1827, and appeared quickly in other European languages: Stonewall Jackson carried these on campaign.

Soldiers looking for models and exempla in older and successful soldiers characterize one dimension of the classical legacy of warfare. Maurice of Saxe, one of the more celebrated commanders of the seventeenth century, cites both Caesar and Polybius (the latter at length) as well as Vegetius, and took from his reading not only inspiration but essential soldierly practices: the conduct of drill, that of the march; his regiments, subdivided into centuries, carry unit standards similar to those used by the Romans (e.g., Phillips 1940: 242, 273–4 [= reference to Caesar], 276–83 [= citation of Polybius]). Napoleon further elaborated this, giving his regiments Roman legionary eagles and dressing his cavalry in classically inspired helmets (Goldsworthy 2000: 206). Frederick, an admirer of Saxe, does not refer to particular classical authors in his Instructions, while Napoleon, in Maxim 78 (Phillips 1940: 432) urges reading of the campaigns of Alexander, Caesar, and Hannibal (in addition to modern commanders including Eugene and Frederick). The press of war, diplomacy, and governing may explain the more succinct writings of these two warrior rulers.

The continued interest of soldiers in the writings and achievements of other soldiers appears late in the nineteenth century with the Great Captain surveys of the American colonel T. A. Dodge. Two volumes, dedicated “To the American Soldier,” focus on Alexander (1890) and Hannibal (1891) and continue the use and reliance on the same sources—for example, Arrian and Plutarch, Livy and Polybius—that lie at the heart of Machiavelli’s analysis of war and statecraft. Unlike Machiavelli,
Dodge is plainly and clearly disinterested in politics; he cares only to investigate the conduct of campaigns in the belief that there are lessons to be learned: Alexander’s crossing of the Hydaspes in the face of the enemy provides an exemplary lesson (Dodge 1890: ix). Such soldierly interest continued in the work of J. F. C. Fuller, who as a staff officer on the Western Front in 1917, read Dodge’s Alexander and later wrote his own account, *The generalship of Alexander the Great* (1960). Unlike Dodge, Fuller (a general at the time of publication) was interested in politics, and his concluding discussion (“Epilogue: The Value of History”) reveals once more the idea that there are political lessons, no less than military, to be learned from Alexander’s campaigns.

Fuller’s younger, and perhaps better-known contemporary, B. H. Liddell Hart, like Fuller and Dodge a wartime soldier, also took up writing about war. Perhaps in response to Dodge’s study of Hannibal, and seeing in the wake of 1918 that war was not only about fighting but also politics and economics, Liddell Hart examined the military and political life of Hannibal’s nemesis, Scipio Africanus, in a work subtitled “greater than Napoleon” (Liddell Hart 1926/1992: x).

Between a 1918 wartime essay on infantry training and a 1970 account of the Second World War, Liddell Hart studied many facets of war ranging from tactics and training to the great commanders, not only Scipio but also Sherman, Foch, and T. E. Lawrence (see Bond 1977: 277–8). This body of work, a soldier studying soldiers and the soldier’s life, itself represents a classical legacy no less than part of the human response to war and violence. Soldiers see violent and frequently horrific things, occasionally committing them as well. Surviving soldiers, as others exposed to manifold forms of violence and abuse, often become consumed by war: thinking about it, preparing for it, trying to understand it. This is true whether one suppresses it, or lives it every day; one is the same as the other.

In this Liddell Hart seems little different from his predecessors and merits comparison with Xenophon, who also wrote a historical study of his time, the *Hellenica*; an account (among the best ever written) of men in war, the *Anabasis*; a biographical appraisal of a great commander (and friend), *Agesilaus*; and military-political-economic technical discussions, *Cavalry Commander, Ways and Means*. It could be argued no less that Thucydides and his Peloponnesian War account similarly represent a soldier appraising the realities of war (e.g., stasis in Corcyra: “war is a violent teacher”), its conduct (e.g., the Peloponnesian siege of Plataea and its defense), and the men who fought it (sketches: commanders, including Brasidas and Demosthenes; adversaries like Cleon; opportunists such as Alcibiades). Writers of the Roman era invite comparison: Ammianus Marcellinus and his contemporary account of siege warfare against the Persians, battle with Germanic Franks and Alamanni; Arrian detailing tactics against the Alans as well as providing the basic account of Alexander’s life and conquests (and from accounts provided by eyewitnesses and in at least some instances, soldiers); Julius Caesar fighting the Gauls as well as other Romans; Frontinus, whose *Stratagems* reflect his experiences subduing the Welsh and the psychology of military command. These all represent soldiers writing about war and men in battle.

Wartime service is no precondition to writing about war and among both Greek and Roman writers such civilian authors may be found. The consequences vary. Ephorus of Cyme wrote an account of the classical Greek world that survives, in part at least, in that of Diodorus of Sicily. Hidden as it is in Diodorus, Ephorus’s work provides a rich source of information for the modern historian, though its surviving military accounts are not well regarded. On the other hand, the account of the Roman Republic provided by Livy made extensive use of the Greek writer and one-time soldier and political figure, Polybius. As such Livy’s account assumes an important place in the
Historiography of ancient Rome, not only for its Polybian narrative of Roman politics and history, but also for the role it plays in mediating the Greek and Roman worlds.

Soldiers, princes, and political thinkers dominated the post-Renaissance writing of war. The classical legacy of battle became a resource that offered instruction in the art of leadership and command as well as tried-and-tested techniques that might assist in the development of current military practices. While writers like Fuller and Liddell Hart continued this pragmatic dimension to the study and writing of war into the twentieth century, the classical study of war and warriors increasingly became the domain of academic and professional study in universities, especially in Germany and Britain. Handbooks such as that of J. Kromayer (Antike Schlachfelder, beginning in 1903) appeared alongside specialized studies by G. B. Grundy (The Great Persian War and its Preliminaries, 1901) and these offered detached and objective studies not only of war but of their sources. Studies such as these prepared the foundations for further academic treatments: C. Hignett’s study of the Persian Wars (1963, but originating in 1919), appearing shortly after A. R. Burn’s the previous year; H. H. Scullard offered an academic portrait of Scipio Africanus (1970) to put alongside Liddell Hart’s and J. F. Lazenby followed this up with a study of the Hannibalic War (1978).

Increasingly in the twentieth century, the soldierly study of classical war and warriors encountered the academic and noncombatant, though among the latter there were those who saw wartime service, including Burn and N. G. L. Hammond, one of the pioneers of modern Alexander studies. In many cases, however, the academic persona trumped the soldierly and in the process valuable insights have been lost.

Those not so experienced sometimes have difficulty accepting the warrior’s experience in understanding the realities of battle (cf. Dover 1987: 1, 195, on the power of imagination). Two examples may clarify. It is sometimes argued that classical Greek battle consisted of the clash of opposing phalanxes: armed men pushing, shoving, and fighting each other in close formation. However, in so picturing this style of warfare, insufficient attention has been paid to casualties and what happens when fighters go down, something that is reported by authors as far apart in time as Homer and Thucydides. Yet wounded men are removed from the fighting and carried off, which by necessity requires other men both to help carry the fallen and protect those carrying. What are the consequences of this battlefield reality to the idea of the close order phalanx? The answer would seem clear enough. No less important is the movement of the phalanx itself. Often it has been imagined as little more than a forward-moving juggernaut. Yet in his account of the battle of Mantinea (418), Thucydides suggests (5.71.1) that what the Spartans intended and achieved was essentially a flanking maneuver, an interpretation first advanced by former lieutenant A. W. Gomme (1937: 135). Two arguments suggest that Gomme is at least mostly right: the evolving nature of classical Greek battle from its Homeric origins and the readily made observation that soldiers facing forward are at a disadvantage from those coming at them from the flank.

Historian (and one-time soldier) Michael Howard argues that “at the centre of the history of war there must lie the study of military history—that is, the study of the central activity of the armed forces, that is fighting” (Howard 2006: 20). The classical world witnessed a lot of fighting, but it is hoped that this volume has also shown the importance of life beyond the battlefields, in the preparations for war, its aftermath, and the cost for society and the individuals who did the fighting.


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Eight thousand *perioikoi*: an estimate based on the roughly equal numbers, five thousand each, sent to Plataea (Hdt. 9.11, 28). This consisted of a two-thirds muster of Spartiates; it is unlikely to have been every available *perioikos*. In the later fifth century, Spartiates constituted 30–40 percent of Lacedaemonian troops, van Wees 2004: 275 n. 29. The number of Spartiates declined throughout the fifth and fourth centuries so that they were capable of only sending 700 hoplites to Leuctra in 371, Xen. *Hell.* 6.4.15; see further van Wees 2004: 84, 248–49.
Although even at Plataea each Spartan had seven lightly armed Helots who were to “stand around him”: Hdt. 9.28, 29, cf. 10, 61; van Wees 1995: 163–64.
Naturally, one must beware of facile generalizations, but even Greek cities in Italy seem on the whole to exhibit less segregation and stratification along cultural boundaries than those in mainland Greece: see Lomas 2000: 79–90.
Thousands of tons of grain were taken in tribute from these islands to support the troops in the first and second Punic wars. The contribution was regularized thereafter. The importance of taxation in coin has perhaps been exaggerated; see Duncan-Jones 1974, 1990, and 1994 for the best work on Roman taxation models.
Attempts to see a coherent policy of grooming professional and trustworthy military commanders runs contrary to evidence: Campbell 1975, Isaac 1992; there are numerous questions concerning the chain of command within the legion structure. Goldsworthy 1996 emphasizes the hierarchy of centurions as the likely commanders at the cohort level.
The trouble begins with Tac. *Ann.* 1.11.4: Augustus’s will advised “the restriction of the Empire within its present frontiers.” Grand strategy: cf. Luttwak 1976 with Isaac 1992; Cornell 1993: 139–70; Kennedy 1996. For the view that imperial policies were dictated more by demands of prestige than reason, and carried out as much with psychology as with arms, see Mattern 1999.
Cf. Diocletian’s efforts to separate the command of legions from the ability to pay and supply them (an old problem that had re-emerged; see Rees 2004).
Theodosius’s accommodation with the Goths was roundly condemned in the ancient world. Some modern scholars (see e.g., Cameron 1993: 137–8) see this as unjust and credit his policies as an improvement over those of his predecessors.
The Theodosian Code records a whole series of laws (section 7) making this clear. The legions were withdrawn from Britain in 407 and Spain shortly thereafter.
Lendon 2005 sees the legion’s battle as a sort of tension between the focused discipline of the commander and the unfocused energy of the soldier. Lendon has less faith than Goldsworthy in the importance of legionary cohesion, suggesting instead that intra-legionary competition was a critical element for success.
The contrast drawn a decade ago by Tritle 2000: 13, between the Athenians “committing themselves, their sons and families, to war” and the distant decision-making of current governments, has only been strengthened by the experience of the Iraq and Afghan Wars. The Athenian citizen as *homo militaris*? From 490 to 338, Athens was at war two years from three (Garlan 1975: 15); van Wees (2004: 241–43) estimates that in 480 and 431 ca. 40 percent of citizens were hoplites.
The Plataea fragments are conveniently transcribed and translated in Flower and Marincola 2002: 315–19; Vannicelli 2007 discusses Simonides and Herodotus.
Garlan 1989: 22–23, addresses this silence, citing Momigliano’s distinction between Greek interest in specific wars and relative unconcern with war itself (1966: 112–16). Dunn 2007: 181–295 sees the Athenians of the later fifth century responding to the stress of warfare and stasis by investing in the authority of the present, exemplified by the content of the Thucydidean Funeral Speech.
Roman military studies (in the broadest sense) is a substantial and well-developed field of research, on a scale and elaboration hardly matched by study of the classical Greek or Hellenistic worlds. It has spawned subfields. Alongside ancient military history, which approaches the subject primarily through the surviving classical texts, “Roman Army studies” looks especially at the structure of Roman armies, units, and military careers, primarily through epigraphic evidence. This in turn is closely integrated with Limesforschung (Roman frontier studies, focusing on forts and frontier systems using archaeological evidence and texts, especially epigraphy, together). Since the 1970s, Roman military equipment studies has also appeared as a distinct sub-discipline, drawing primarily on archaeological data, but also relevant texts and, not least, visual representations from Trajan’s Column to figural tombstones.
A modern compound name. The Macedonian colony established there was called Europos, while Dura was its local Semitic name, meaning “stronghold,” perhaps used of the site before this, and certainly in Roman times.
Even Greco-Roman ethnographies of such societies were inevitably created in terms of classical understandings of the world, while texts such as histories often had more overt ideological axes to grind in their representations of “barbarians” or “wily, effeminate orientals.”
A few years after escaping the sack of Amida, Ammianus actually saw the ruins of Dura, as a member of Julian’s ill-fated expedition advancing into Persia down the Euphrates in 363 (Amm. Marc. 24.1.5). Perhaps he examined the great Sasanian siege ramp standing against the ruined walls as it still does today, and guessed that the defenders of Dura had faced an ordeal similar to that he survived at Amida.
Otherwise unattested wars are sometimes inferred from coin legends, while to understand the military strategy of Vettius Bolanus as governor of Britain (69–71), scholars have been reduced to speculating on poetry addressed to his son Crispinus, seemingly alluding to Bolanus’s campaigns (Stat. Silv. 5.2.53–56, 142–49).
 Cf. Roman republican aggression without sufficient reference to the nature of Rome’s Italian enemies or even that of the Hellenistic world, which is known from texts (contrast Harris 1985 with Eckstein 2006). Similarly, for the later Roman empire, contrast Nicasie 1998 with Elton 1996, who considers Rome’s barbarian enemies as a factor.
Although of course Romans had few grounds for claiming moral superiority, since in the arena and on *latifundia*, human lives were snuffed out for fun and profit.
An analogy is provided by the eighteenth-century Royal Naval officer’s coat, which conversely signified his ranking as a gentleman through its civilian cut, but his military status primarily through its distinctive coloration: navy blue with white facings (Rodger 2004: 324–25, 392).
Argives: Thuc. 5.72.4, Xen. *Hell.* 7.2.4; Boeotians: Thuc. 4.91.1, Xen. *Hell.* 6.4.13; Corinthians: Thuc. 4.43; Megarians: Thuc. 4.74.3. On mercenary *lochoi* see Lee 2007: 95–96.
The term is not found in the main Alexander histories, but Plut. *Eum.* 1.3, says that Neoptolemus had been *archihypaspistes*, which must mean that he was Nicanor’s successor. The title of the commander of the Royal Hypaspists is unknown, but this office was held by Seleucus son of Antiochus (Arr. *Anab.* 5.13.1, 4).
As we have seen, Theopompus used the verb *edoryphoroun* of the *pezhetairoi* of Philip; Plut. *Mor.* 1703-f calls Pausanias of Orestis (one of the royal hypaspists) *doryphoros*; and the reference to “one of the *doryphoroi*” in Plut. *Alex.* 51.9 must be to one of the hypaspists.
One should not read too much into the qualification of numbers. At Triparadeisus Arrian speaks of “about three thousand” (malista), whereas Diodorus mentions “more than three thousand” (Diod. 19.28.1: pleious trischilion; the same number is given for the hypaspists who were stationed next to them). Three chiliarchies of Macedonian troops would have amounted to 3072 men, since one pentakosiarchy comprised 512 and one chiliarchy 1024.
Here and elsewhere, I use the translation of J. C. Yardley in the Penguin edition.
It is possible, however, that *exercitus suus* means, in this case, Alexander’s footguard, i.e., the hypaspists (Heckel 1992: 308 n. 1); elsewhere members of the Pages or Royal Hypaspists are referred to as *ex sua cohorte*. 
For a possible distribution of command see the table in Heckel and Jones 2006: 44. The decline of Atarrhias and the predominance of Antigenes are difficult to explain. If Atarrhias’s decline began before 324 (when he disgraced himself at the time of the demobilization of the veterans), and this seems likely, then perhaps he was made a scapegoat for the hypaspists’ role in the Cleitus affair. At this time, Atarrhias served in a role that (if it is not pushing the evidence too far) resembled that of chief of police. Certainly, by 326, Antigenes has come to the fore, and it is he who (along with a junior partner, Teutamus) commands the Argyraspids.
In Illyria, the troops in question are probably the young noblemen who fought as Royal Hypaspists, but the functions and armament of the two sets of hypaspists must have been identical. See Arr. Anab. 1.6.5 for these troops; Curtius 5.13.8 speaks of three hundred *dimachae*, and it is highly likely that these were hypaspists. Atkinson 1994: 159 recognizes that they were not regular troops but an *ad hoc* formation.
Less likely is the view of Bennett and Roberts 2008: 68 that “the Silver Shields, *waiting with pikes leveled*, would be a difficult nut to crack …” [my emphasis]. Diod. 19.43.1, in his description of the battle of Gabiene, speaks of the Silver Shields as killing their opponents “in hand to hand fighting.”
Progress was slow on account of Craterus’s physical condition (Arr. *Anab.* 7.12.4), to say nothing of the health of many of the discharged veterans, but the road to Cilicia was relatively short. The departure from Opis occurred in summer, and it is hard to imagine that the veterans made the trip to Cilicia in fewer than 120 days.
Bosworth 2002: 33 seeks to explain Antigones’s presence in Perdiccas’s army with “a hypothetical reconstruction,” arguing that “Antigones acted as an emissary of Craterus, but was tempted to remain in Babylon, assuming the command of the most prestigious infantry group in the Macedonian army.” For such activity on Antigones’s part this is no evidence whatsoever, and it causes us to ask why the Argyrapids were still in Babylon when they had every reason to be demobilized in 324.
Thus Heckel 1982a: 61; cf. now Hammond 1989a: 65 n. 49, against Brunt 1983: 489. Cf. Schachermeyr 1970: 169 n. 147. Hammond, however, thinks the four thousand veterans left in Cilicia served with Neoptolemus and then Eumenes (Hammond 1984: 56–7; reiterated in Hammond 1989a: 65); this is highly improbable (Heckel 1985b: 109–10); certainly those with Neoptolemus were not the Argyraspids.
“At daybreak, he moved the force across, with the elephants in the lead, and the hypaspists, the ladder bearers (klimakophoroi), and the others, through whose efforts he intended to attack the walls, following them” (18.33.6). “Immediately, the hypaspists placed the ladders in position and began to scale them” (18.34.2). I do not believe (pace Bosworth 2002: 83) that the term hypaspistai can denote ordinary infantryman advancing under their shields. For such activity, the verb hyperaspizo is used, and it denoted the holding of the shield over one’s head or, in the case of protecting the wounded, above the man who is in need of shelter (see, e.g., Arr. 6.28.4). Otherwise, there is the term hypaspidios (see LSJ 1854, s.v.).
Arr. Succ. 1.38. It should be noted, however, that the Greek does not mean that only three thousand were mutinous. Rather we should translate the passage as “…and he gave to him [sc. Antigones] about three thousand of the rebellious Macedonians.” Diod. 18.39.4 speaks of “great turmoil within the army”; cf. Arr. Succ. 1.33; Polyaenus, Strat. 4.6.4. That these three thousand were the Argyraspids becomes clear from other sources, but one should not assume, as Lock 1977: 377 does, that this passage refers to the creation of the unit.
Both argyraspids and hypaspists were under the joint leadership of Antigenes and Teutamus (Diod. 19.28.1); Billows (1990: 96) supposes that the hypaspists were directly under the command of the latter. Diodorus’s phrase *hoi ek ton hypaspiston* (“those from the hypaspists”) suggests to me that they were a composite force drawn from the hypaspist forces of the various generals and satraps. By the same token, Peucetas, Antigenes and Eumenes all have their own *agema* of cavalry (Diod. 19.28.3). Hammond’s suggestion that they were “those descended from the *hypaspistai*” (Hammond 1978: 133, with n. 21) is both grammatically unnecessary and historically implausible.
Diod. 19.48.3–4. Anson 2004: 189. Hieronymus regarded this as just punishment for their betrayal of Eumenes, but it is more likely that Antigonus, who had seen them in action at Triparadeisus, regarded them as unruly troops whom he wished to see neither in his own army or those of his enemies. Polyaeus, in *Strat.* 4.6.15, is more specific: he says that one thousand were given to Sibyrtius and the remainder were divided up as garrison troops in other regions. The number is interesting, since Justin 14.3.6 remarks that the captives amounted to two thousand women and a few children, implying that a thousand did not have families to consider. We cannot be sure, however, about the accuracy or the source of Justin’s figures. Nor can we be certain that all two thousand women belonged to the Silver Shields.
Thureophoroi: Diod. 22.9.1; Plut. Phil. 9.1. Contra: Ma 2000: 354; Santosuosso 1997: 149, who argue that the thureophoroi are copies of Galatian infantrymen from the invasions of 281. For visual depictions cf. Fraser and Rönne 1957: plates 1.1, 2.4; Bothmer 1961: n. 109; see also Sekunda and de Souza 2007: 339–41.
The *tribunus celerum* was involved in the mounted portion of the ceremonies that marked the beginning and ending of the campaigning season and like the *tribuni militum* who often commanded infantry units it may be that they originally commanded the cavalry. For the *decuriones* as officers in the early cavalry see Varro *Ling.* 5.91.
The Fabii: Livy 2.48.5–10 and Dion. Hal, *Ant Rom.* 9.15.1–2. The historicity of the episode is contested. War bands are attested elsewhere in Italy and in the Greek world in this period. Further support for the historicity of the episode is provided by the *Lapis Satricanus,* on which see Versnel 1980: 97–150.
For chariot remains at Rome see Stary 1981: 153; for those at Castel di Decima and Acqua Acetosa see Holloway 1994: 114–22.
The ancient tradition on the growth of Roman cavalry forces in the regal period is confused. Modern scholars differ widely on its
development with some arguing that true cavalry, that is cavalry fighting from horseback, developed as late as the last half of the fourth
century. However, true cavalry appears in Etruria around 600 as a result of Greek influence and there is no reason not to date its
appearance at Rome to the same period. Numbers are also a problem. The tradition is unanimous that there were 1800 by the end of the
regal period but contradicts itself on how that number was reached.
So Fraccaro 1957: 287–92. The major objection to this thesis has been the argument that only the first class of forty centuries constituted the phalanx. But this view, as noted above, has a far too rigid view of how the early phalanx functioned.
For cavalry fighting dismounted see, e.g., Livy 4.20.10 (battle of Lake Regillus, 499 or 496) and Dion. Hal. *Ant. Rom.* 6.33 at Aricia (495); Dion. Hal. *Ant. Rom.* 20.2.1–3 contrasts the Roman style of cavalry fighting with the Greek in his account of the battle of Asculum in 279 and notes the Roman tactic of fighting dismounted. The tactic reappears in second century battles and Caesar notes its effectiveness (*B Gall.* 4.12).
Polyb. 6.22 (and for discussions of weapons see above James, 122–3). Much of our knowledge about this equipment depends on the representations of Roman soldiers on the Aemilius Paullus monument and the altar of Domitius Ahenobarbus. The remains of *pila* from the third and second centuries have been found in Italy and in the Roman camps near Numantia. The earliest sword find is from the island of Delos and is to be dated c.70. Given the perishable material from which shields were constructed no finds have as yet been unearthed, though there is an early imperial example from the Fayum in Egypt.
Sall. Jug. 105.2. The unit also appears at 95.2. The sources also mention a *legio Campana* (Livy Epit. 2; Polyb. 2.24.14, Frontin. *Str.* 4.1.38), probably a temporary unit.
Joseph. BJ 3.124. Polyb. 6.40.10 says that in dangerous situations the legion marches in three separate lines in which it forms up for battle. If the maniples were six men deep this would then be a column eighteen men wide. Allowing three feet per man this would total approximately fifty feet and to this total must be added the gaps between the lines. Increasing the depth of the maniple would have made it extremely difficult to deploy such a formation in any but the most open country. For various marching formations see Kromayer and Veith 1928: 349–56.
Sall. *Iug.* 49.4–6. Sallust later mentions Metellus’s use of cohorts (51.3). Some scholars have taken these references as indicating a transitional phase which may well be the case. However, it is important to note that it is unclear as to whether the cohorts are part of the battle line or only simply a section of the legion used as it had been by Scipio as a unit of movement.
Brunt: 449 calculates that from 79–50 there were never fewer than fifteen legions in service. This would yield an average of 90,000 men in active service each year with a peak in some years of 150,000. This strongly contrasts with an average of 8.7 legions of service in the period 201–168 (424).
Roman cavalry in Spain in 140, Cass. Dio fr. 78; Allied and Latin cavalry during the war against Jugurtha, Sall. *Iug.* 95.1; against the Cimbri, Plut. *Mar.* 25.4.
This was an early moment in the integration of riverine warfare with legions, and the great armies of the Roman east subsequently advanced more successfully in this way (see Asymmetrical and Cold War); standing Rhine and Danube fleets were vital.
Other commanders were quite ready to face fearsome numbers, since they at least knew where the enemy was and could use deployed legions; Paulinus may be one of the few generals whose personal style can still be discerned, cf. discussion of the First Battle of Cremona below.
Since Tacitus is our primary source for both the campaigns of Germanicus and Agricola, a reader might be tempted to ascribe similarities not to events but to Tacitus’ style and vocabulary choices, but these accounts of Roman armies in campaigns greatly resemble those by Josephus, a reporter from another culture, writing in another language.
Tac. *Hist.* 3.17 describes Antonius’ attention to his men’s morale as a duty of a general. Duties as listed by Tacitus include hastening to the fearful, holding back flight, and in general being conspicuous before his men.
Tacitus attributes to the Batavian prince Julius Civilis a rhetoric aimed at the friendship and union of German peoples and a call for liberty against domination (Tac. *Hist.* 14.64). On Batavians’ military excellence and arrogance (clearly related): Tac. *Hist.* 1.64, 2.27, 69, *ILS* 2558.
The Roman unit who deserted the body of their commander was subjected to an extremely rare decimation (Tac. *Ann.* 3.21). Romans did aspire to distinguish military combatants from robbers, as in *Dig.* 50.16.118, although brigands were not categorized clearly as criminals either (Shaw 1984: 23).
Romans actually had to defeat a sally and engage in mound building to take Legerda. The campaign ended with the installation of Nero’s candidate for King of Armenia, also named Tiridates, and the appointment of Corbulo to the plum assignment of governor of Syria, the hot sector in the Cold War (Tac. Ann. 14.23–26).
Trajan possibly aspired to build a canal connecting the Euphrates and Tigris to move his boats to the Tigris, making them available for bridge building. He was put off by the discrepancy in elevation and the fear that he might leave the Euphrates unnavigable (Dio 68.28.1–3).
Vespasian might have had experience with a similar campaign when he served in Claudius’s “conquest” of Britain. Suet. *Vesp.* credits him with taking twenty *oppida*, presumably hill forts into which populations had flooded. Maiden Castle in Dorset, at nearly forty-seven acres, is often assumed to have been one of these, given subsequent Roman occupation of the site. It presented complexities of ditching and berming, population, and elevation, which might have been useful preparation even for Jerusalem.
On the other hand, sufferers may also develop hypervigilance (Garbutt 2006: 7). Roman sources ascribe drunkenness to "barbarians" in combat environments, and presumably wine also allowed Romans some seeming respite from the contents of their minds. Heavy drinking is highly predictable as self-medication, now that the role of PTSD in changing the brain chemistry of the hypothalamus is well understood (Garbutt 2006).
Much of the primary evidence discussed in this chapter is conveniently collected and translated in Campbell 1994 and is here cited according to text number. Campbell 2002 is an excellent discussion of themes central to this chapter; see also Adams 2007c. If there is a leaning toward documentary evidence in this chapter, and mainly from Egypt, this is because it offers the most insight into everyday life in the Roman empire. Papyri, ostraka and other documents are referred to according to the conventions listed in Oates 2001. This is regularly updated and available on the World Wide Web at http://scriptorium.lib.duke.edu/papyrus/texts/clist.html.
They were collected in Hellenistic Alexandria under the name of the most famous physician of antiquity, but it remains impossible to prove whether any of the fifth-century texts are by the famous Hippocrates himself, or even whether he ever wrote anything.
The scanty skeletal evidence for battle trauma in classical antiquity has recently been supplemented by the find of a gladiators’ cemetery at Ephesus, where many bones show traces of wounds. Cf. Kanz and Grossschmidt 2006.
For a detailed discussion of this topic, cf. Tritle 2003. Given that at least some of the case-histories in the Hippocratic *Epidemics* were probably written shortly after the end of the Peloponnesian War, one might even suggest that Nicanor (*Epid.* 5.81/5.250 L. = 7.86/5.444 L.) could have acquired his fear of flute-players by facing the Spartans—who supposedly marched to flute music—in battle.
Probes are by far the most frequently found surgical instruments, but they were used for many other purposes, such as cosmetics, painting, etc., so that only the presence of other instruments defines a find as medical.
For a chemical analysis of several substances used in wound treatment, cf. Majno 1975: 185–8; 369.
This would also have been the case for the Punic Wars, but in the sources there is no indication of efforts to create one.
Throughout antiquity one encounters the belief that certain ethnic groups, e.g., the North African Psylli, were particularly, or even exclusively, adept at dealing with the bites of poisonous snakes, usually by sucking out the wound. According to Plutarch (*Cat. Mín.* 56.6), Cato Uticensis took some Psylli with him on campaign in North Africa—where snakes and other venomous animals apparently were a particular threat—for this purpose.
In an area that was sufficiently quiet, according to Hyginus, *De munitionibus castrorum* 4/128a.
The idea that the location, prevailing winds, etc., of a place determined the health of its inhabitants and the diseases likely to occur, has its origin in Greek medicine. It is first explained in the Hippocratic *Airs Waters Places* and taken up in the *Epidemics.*
E.g., Alexander having Porus’s wounds attended to (Curt. 8.14.45), or the Persians treating the wounds of a Greek warrior (Hdt. 7.181.1). The aforementioned Philo spells out (5.94.12–24) that mercenaries hired by the city must receive treatment and nursing so as to make them fight more willingly. If humanitarian considerations were not relevant for soldiers paid to fight for the city, they can hardly be expected when dealing with the enemy.
For previous discussions of discipline in ancient armies see: Donlan 1999; Pritchett 1974; Carney 1996; Goldsworthy 1996; Brand 1968; Watson 1969.
Scholars working on maritime aspects of warfare in antiquity have mostly focused on combat between warships, often underestimating the extent to which warships were used to convey military forces in order to fight on land. Recent studies that have challenged the accepted orthodoxy include van Wees 2004: 62–4, 222–4; Krentz 2007: 172; de Souza 2010: 84–90. For a detailed reappraisal of ancient naval warfare see de Souza, forthcoming.
Common Homeric epithets for such ships are *polyzugos*, meaning “many-benched” and *euzugos*, meaning “well-benched,” emphasizing the large number of oarsmen seated on the benches; Mark 2005: 118–20. Standard types were the penteconter (*Greek* *pentekontoros naus*) and the triacontor (Greek *triakontoros naus*), rowed respectively by about fifty and thirty men; both were used throughout Antiquity.
The earliest clear example is the famous Aristonothos crater painted in Magna Graecia circa 675–650 B.C.; Pugliese Carratelli, 1996: 133; Morrison, Coates, and Rankov 2000: 28 and 39. The artist was not especially skilled and the rendering of the two ships is crude, so the details should not be interpreted as showing specific types of ship; contra Turfa and Steinmayer 2001.
Casson 1986: 42, 49; Morrison and Williams 1968: 7, 12–14, 37, 76, 81–2. This viewpoint has an obvious weakness, which is that such careful avoidance of anachronisms is not the norm in the Homeric poems.
This assumption receives some indirect support from the statement made by Herodotus that the Egyptian pharaoh Necho (610–595 B.C.) built a fleet of triremes (Hdt. 2.159), although he may be using a familiar Greek word for an unfamiliar Egyptian ship type; Wallinga 1993: 104–5.
The bulk were built in the Periclean era (c. 460–430 B.C.), but many were destroyed after the Peloponnesian War, along with sections of the Long Walls. By c. 375 B.C., as Athens strove to reassert her maritime hegemony, there were enough shipsheds for 100 triremes and by the mid-fourth century B.C. 196 warships could be housed at Zea, 84 at Mounychia and 94 at Kantharos. Only a few shipsheds and the fourth-century B.C. storehouse known as the “Arsenal of Philon” have been excavated. Recent research suggests that some were long enough to accommodate two trireme-sized warships end to end, perhaps as the result of extensions in the mid-fifth century B.C., or reconstruction in the fourth century B.C. In the later fourth century Athens also possessed warships wider than triremes, which will have needed even larger shipsheds. See Blackman 1968, 2008: 654–60; Blackman and Rankov forthcoming; Gabrielsen 1994.
If all 120 ships were quinqueremes then their crews would have totaled at least 45,000 men, mostly equipped as light-armed troops, with perhaps 8,000 to 9,000 heavy infantry; Morrison 1996: 296–303, 345. For similar episodes from the Second Punic War see Livy 21.49–51; 22.20.4–9; 23.40; 25.31.12–15; 28.46.7–16; 29.3.4.
According to a speech Livy attributes to an Achaean politician, this fleet comprised 100 decked warships (Livy 32.21.27). The crews of these would, conservatively, amount to more than 37,000 men; for estimates of crew numbers see Morrison 1996: 279–321, 345.
See de Souza 2007b. The preponderance of non-Romans among fleet personnel would account for Livy’s use of the phrase “naval allies” (Latin socii navales) for them, even those who are clearly Roman citizens or freedmen (e.g. Livy 28.45.15; 35.20.12; 36.2.15).
Modern scholars (e.g., Casson 1986: 312–14; Saddlington 2007: 212–13), assuming that ancient oarsmen did not fight, have argued that *miles* is not to be taken literally, but rather to be seen as a conventional designation deriving from the incorporation of the fleets within an overall military structure based on land armies; for a more cautious approach see Reddé 1986: 522–5; Rankov 1995: 80.
Oxford: Rumpf 1943: 10 fig. 6; Vickers 1981: 559–60 no. 21, fig. 22. Athens: Dintsis 1986: 2, plate 1, 2; Waurick 1988: 151–9, fig. 1–21; Museum für Kunst und Gewerbe Hamburg 1980: 21, no. 23.
E.g., Chalcidian amphora in St. Petersburg (Boardman 1998: fig. 481); on the Sosias cup in Berlin (Boardman 1975: fig. 50.1) Patroklos appears to have been wounded in his left arm by an arrow shot through his shield. Corinthian art: *CVA* Leipzig 1, plate 43, 3; Blyth 1977: 193–4.
Babylon: Hdt. 1.189–191; Plataea: Thuc. 2.75–78 and 3.20–24; Sphacteria: Thuc. 4.4–14 and 4.26–38; Melos: Thuc. 5.84–116; Syracuse: Thuc. 6.96–103; 7.1–8, 10–17, 21–25, 32–33.2, 36–87; Tyre: Arr. Anab. 2.20.9–24.5; Diod. 17.40.3–46; Sogdian Rock: Arr. Anab. 4.17.4–19.4 and Curt. 7.11.6–1; Rhodes: Diod. 20.81.4–20.88.9 and 20.91.1–20.100.2; Abydos: Polyb. 16.30–34.
Childs 1978: plates 7.1, 10.2. Images of besieged or attacked cities in classical art: Childs 1978: 13–14 (Trysa); Borchhardt 2002: 103 (Nereid monument), 104 (Tlos), 112–13 (Phleious), 124 (Rome), 127–8 (Carthage).
Sieges during the Peloponnesian War: see further Seaman, Chapter 28, this volume; in the fourth century: Garlan 1974: 160f.; in the Hellenistic period: e.g., Chaniotis 2005.
Fear: 1.7; 3.1; 9.3; 10.3; 16.3; 27; 28.6; 38.2. Courage: 9.3, 16.3; Hope: 1.6; Anger: 38.4; Trust 3.3, 10.11; Mistrust: 3.3; 10.21; cf. 10.23–24; Loss of heart: 26.7
Storms: 20.86.1; 96.1; Rhodian stratagems: 20.85.4; 86.3; 87.2; 88.3–6; 93.1; 94.2; 97.4; battle scenes: 20.87.3; 88.8; 96.4–7; 98.4–9.
The donor may well be the same Sempronius Pudens, the *frumentarius*, who commissioned *CIL* 6.3357 (dated post A.D. 61; cf. Tomlin 1992: 155–8), in which he is mentioned as belonging to the legion *XX Valeria Victrix*. It is uncertain whether Valerius Paternus was assigned to the same unit.
Bremenium: *RIB* 1262; Habitancum: *RIB* 1235 and 1243; see also Watkin 1884: 259 and [www.roman-britain.org](http://www.roman-britain.org). Other *numeri exploratorum* in Britain are attested in the *Notitia Dignitatum* (40.25 and 28.21) at ancient Lavatris (modern Bowes) and Portus Arbaoni (Portchester) in the late fourth to early fifth century A.D.; note also a *castra exploratorum* (identified as Netherby) mentioned in the *Antonine Itinerary* (*iter II*). Cf. Southern 1989 and Speidel 1983 on the *exploratores* in Germany, which include the *numerus exploratorum Batavorum* at Leiden (*CIL* 13.8825) and the *numerus exploratorum Germanicorum Divitiensium* at Niederbieber (Southern 1989: 124).
There was also a peculiar type of army boot—the *caliga speculatoria*—(Suet. *Calig.* 52), implying that the *speculatores* had a specific identity. Some commentators have thought that these were light boots for swift and silent movement, but Tertullian (*on the crown* 1.3) describes them as rather heavy. Granted he could be speaking metaphorically, but one wonders if the boots were a style derived from the apparel of the Praetorian Guard rather than designed for stealth. Certainly the idea of trademark apparel would be ridiculous for a spy.
Breed evolution to fixed type takes about two hundred years, while equid evolution is counted in millennia.
See McCabe 2007: 9, 122, who also discusses the late Roman texts on the care and treatment of horses transmitted in the Byzantine veterinary handbook, the *Hippiatrica*. 
Xenophon: see his works *The Art of Horsemanship* and *The Cavalry Commander*, with Anderson 1961.
Hallock 1969: numbers dealing with equestrian matters are 1635–1704; rations 1757–78; travel rations 1780 and 1785; letters 1791, and many others ranging through 1834–2062. The *bar* grain measure equaled 10 quarts, 15 lbs. in English Imperial measures, 11 lbs. 4 ozs in American measures probably used by Hallock.
Arr. *Anab*. 3.20–21; Engels 1978: 153. Modern one-hundred-mile endurance races are ridden at twice the speed, often over similar rough terrain and in extreme heat (i.e., Dubai) but with shoes and excellent veterinary care.
For full analysis of the Dura-Europos bards see Hyland 1990: 149ff. Leather expert Dr. Carol van Driel-Murray of Amsterdam University was able to reconstruct “an extremely curious item which appeared to be to do with horses.” I was asked to help determine if it could be a leather bard. Investigation proved that it was indeed leather armour. This is backed by the 10:1 scale drawings showing the actual artifact fitted exactly to my stallion Nizzolan’s 14.3–15hh body.
Thessalian chargers carrying the Bucephalas brand of Pharsalus were common in Macedonian cavalry (Arr. Anab. 3.12). The death of “Bucephalas” at thirty links its foaling to Alexander’s birth year. Arist. Hist. na VI 575b noted the normal limit of a horse’s age was thirty, but with great care some lived to fifty. No dealer kept a vicious sixteen-year-old horse in his yard, and no horse subjected to the rigors and hazards of war—long marches, short commons, frequent thirst to the point of dangerous dehydration and severe climatic changes—would have survived to thirty. More likely “Bucephalas” was at least a decade younger and named for its brand.
This measurement was taken using Nizzolan, my 15hh Arab stallion who had a long stride, but not excessively so. He was at a very extended canter and as the near forehoof touched down on one stride the distance was measured to where it touched down on the next stride, 11’ 6” being the actual measurement (the extra 6” being allowed for a slightly larger horse).
In a full-gallop stride the measurement per stride would have been increased by 3 to 4 feet according to the length of each horse’s stride.
Epps 1933: 12–29 argues that Spartan character is prone to panic and surprisingly ready to give in or give up on a task. His argument is not particularly subtle or generous, but he assembles a very useful array of quotations and sources.
The “panic” element in _phobeomai_, “I fear,” is clear, for instance, in Thuc. 2.101.3, 3.101.2, 4.27.2, 5.9.7, 7.77.3, 6.15.4. More difficult is 1.95.7, where Sparta “fears” to send out more commanders after Pausanias.
Finley 1965: 17. Markey 2000 provides a good review of current thinking on “prestige” as a motive for state decisions, with examples from modern China as well as ancient Greece.
Rüpke 1990 is a comprehensive study of Roman war ritual. Overviews of Roman religion: Beard-North-Price 1998; Scheid 2003; Rüpke (ed.) 2007, Wissowa 1912 and Latte 1960 remain fundamental resources. All dates B.C. unless indicated otherwise.
The outstanding study of the triumph is now Beard 2007, subtle, evocative and robustly sceptical (and sometimes over-sceptical about the possibility of reconstructing customary practice). Other recent treatments include Itgenhorst 2005; Bastien 2007; Krasser et al. 2008; Pittenger 2008; Östenberg 2009.
Fasti Triumphales: Degrassi 1947: 64–87, 338–45, 534–71. For the arch as their location see especially Nedergaard 2001. Usually held to have been erected in celebration of the Parthian settlement of 20, the arch is in my view more likely to have been erected after Actium and remodeled in honor of the Parthian settlement (Rich 1998: 97–115).
Imperial acclamations: Combès 1966: 9–120 (Scipio in 209 is the first attested recipient: Polyb. 10.40.5; Livy 27.19.4).
*Supplicationes*: Halkin 1953. “Laurelled letters”: despite Beard’s doubts (2007: 203, 370 n. 44), available evidence demonstrates that sending such a dispatch was customary practice in the second and first centuries.
Triumphal gate and route: Coarelli 1988: 363–414; Beard 2007: 92–105; Scott 2000; Wiseman 2007, 2008; Östenberg 2010. The fact that Augustus’s funeral left the city by the Porta Triumphalis (Dio 56.42.1) shows that it was an actual gate, not a shifting location, as suggested by Wiseman 2008.
Balbus’s name completes the fourth and final pilaster of the “Capitoline” *Fasti Triumphales*, and so the inscription, probably erected on the Arch of Augustus in or soon after 19, appears to have been designed to end at that point, with no room for further additions (so e.g., Beard 2007: 68–9, 350; *contra*, Spannagel 1999: 245–52). It was perhaps intended that future triumphs would be recorded instead in the new Forum Augustum.
The feral pig ceremony is also attested by Serv. *Aen.* 1.62, 8.641; cf. Fest. 266L. Elsewhere we hear of treaties being sworn with a sceptre and a flintstone, both kept in the temple of Jupiter Feretrius: Paul. Fest. 81L; cf. Serv. *Aen.* 12.206 (sceptre).
For example, when the Thessalians, who had been part of the coalition planning resistance to the Persians, realized that the Greek line of defense was going to leave them vulnerable to the Persian advance they joined the Persians. As a result their neighbors and long time enemies the Phocians remained steadfast foes of the Persians. Herodotus says their motive was solely their hatred of Thessaly (8.30).
Cartledge (1993/2002: 95) notes that the Spartans are the only Greeks to whom Herodotus devotes an ethnographic study of the kind he gives to most barbarian peoples. The Spartans themselves seemed at least in some ways fundamentally Other. Cartledge also argues (p. 62) that the Spartans regarded all non-Spartans, Greek and barbarian alike, as strangers (xenoi), citing Hdt. 9.11.55.
Isoc. 4.146 characterizes the Greeks in Cyrus’s service as brigands. Xenophon (An. 6.4.8), in fact, explicitly denies that financial gain was the prime or at any rate the sole motive for most Greeks in joining Cyrus. See Azoulay 2004: 289–304 and Roy, 2004: 264–88.
See J. Hall (2007: 103) on aristocratic ties across political and ethnic boundaries. Baldry (1965: 32) summarizes the factors that determined a fifth-century Greek’s sense of identity. Browning (2002: 258) argues that citizenship defined identity and that therefore a Greek from another city was in a fundamental sense The Other.
J. Hall 2007: 255–60, 269–72; Waterfield 2006: 20. Hall questions whether the various dialects of Greek were as mutually intelligible as is usually assumed.
In Homer’s *Odyssey* wild, savage peoples and monsters such as the Laistrygonians, the Sirens, Polyphemus and the Cyclopes provide the most dramatically contrasting Other to humans. See Mitchell 2007: 54; E. Hall 1989: 51–4; Baldry 1965: 11–12.
See E. Hall (1989: 21–6) for analysis. She notes some minor and relatively rarely occurring differences between Trojans and Greeks; for example, twice Trojans break an oath (Greeks do not); only Trojans beg for mercy on the battlefield. On the other hand, no Trojan approaches the level of violence Achilles displays.
See van Wees (2004: 160–2) on the nature of Homeric warfare—he argues that almost anything was allowed and that the heroic code did not exist. See also E. Hall (1989: 21–7) on Greek atrocities, for example, Achilles sacrificing twelve Trojan youths (23.175–56), which surpass anything committed by the Trojans.
Harrison 2000: 100. See also van Wees (2004: 55–7) on who made up the hoplite class at Athens. He argues that it was more restricted to the well-to-do than has generally been assumed.
For example, engineers beheaded at the Hellespont after a storm destroys the first bridge (7.35); troops whipped into battle at Thermopylae (7.223); Phoenicians beheaded at Salamis (9.89–90).
Surveys of the Sasanian rock-cut reliefs: Herrmann 2000; Vanden Berghe and Smekens 1983. Several of these sculptures have been published individually in the series *Iransche Denkmäler*. General surveys of Sasanian history and institutions: Dignas and Winter 2007; Rubin 2000; Morony 1997; Wiesehöfer 1996; Frye 1984a, 1984b; Christensen 1944. For Sasanian warfare: Shahbazi 1987, Greatrex 1998; see also the important source collections (with commentary): Dodgeon and Lieu 1994; Greatrex and Lieu 2002.
Poursharati 2008 quite aptly defines this decentralized social and political edifice as a “Sasanian-Parthian confederation.”
Note especially the deaths of Ardashir II (379–383), Shapur III (383–388) and Bahram IV (388–399) as described in al-Tabari, *Taʾrikh* 1.846–47. See also Shabazi 2003, on the death of Yazdgard I “The Sinner” (399–420).
Morony 1984 remains the best survey of the peoples and confessional groups of the later Sasanian empire, in spite of his focus on Iraq. Contra the general demilitarization of the Aramaean population, Walker 2006 examines the case of a military saint (Mar Qardagh) celebrated by the Aramaean population of Sasanian Mesopotamia.
Shahbazi 1987 and Greatrex 1998: 52–9 provide the best surveys of the structure of the Sasanian military. For the late Sasanian period, these may be effectively supplemented with Zakeri 1995: 13–94.
Seen most dramatically in Shapur I’s capture of the Roman Emperor Valerian. This celebrated moment was illustrated in rock-cut relief and portable art, probably including the famous cameo (Babelon 360) found at the Bibliothèque Nationale, Paris.
Surveys of the archaeology of these sites: Pigulevskaia 1963: 49–59 (Nisibis); Kalantarian 1996 (Dvin); Kettenhofen 1996a (Darband); Herrmann 1999 (Merv); Huff 1977 (Takht-i Suleiman).
For examples of Sasanian fortresses see: Siroux 1965 (Isfahan); Boucharlat 1977 (Turang-Tepe); Whitehouse 1972 (Siraf); Finster and Schmidt 1976: 40ff, 2005 (multiple sites in Iraq). Of these, the former two are fortresses commanding high points, the latter three articles describe square forts similar to Roman types. It should be noted that, in the absence of epigraphy, it is unclear which fortifications were constructed by royal initiative. Indeed, it is quite likely that the many fortifications built on high points during the Sasanian era were a product of local aristocratic concerns, rather than royal ones.
Fragments of the military literature of this era are preserved, the most important of which are an abstract of the *Arteshtarestan* [“warrior code”] (*Denkard* 8.26) and sections of the *A’in-nama* [“book of manners”] preserved in Ibn Qutayba’s *‘Uyun al-Akhbar*. The latter of these has been translated: Inostrantsev 1926. For a more detailed discussion of the late Sasanian military, see Zakeri 1995.
All citations in this discussion not otherwise identified are from Thucydides’s text. Sources for the Athenian Sicilian expedition are limited in quantity and quality, chiefly the historian Thucydides and later authors including Diodorus and Plutarch.
Diodorus provides contrary numbers in his two versions of the expedition force. In one chapter (12.84.2–3) he lists 130 triremes, one hundred of which were Athenian, and 5000 hoplites, while later (13.2.5) he supplies 140 triremes and over 7000 allies. Kagan (1981: 210, 2003: 267–8) incorrectly calls this the largest hoplite force employed by Athens; contra Thuc. 4.93–94.1 and Lazenby 2004: 136 n. 15.
On the religious incidents see Thuc. 6.27–29 and 53–61; Diod. 13.5.1–2; Plut. *Alc.* 18.3–19; and *Nic.* 13 and 14.4; for discussion see Hornblower 3: 367–81.
We should not take Thucydides’s choice of *kuklos* to mean the fort was circular. See Gomme-Andrewes-Dover 4: 473–4 and Hornblower 3: 527.
The location of these outworks (proteichismata) is a problem that cannot be solved easily from Thucydides’s account. Dover in Gomme-Andrewes-Dover (4: 478) places these outworks arrayed east to west along the Syracusan counter wall, but Hornblower (3: 625) provides an alternative view that the outworks must have been north of the counter wall, close to the Syracusan winter wall (Thuc. 6.75). Given the size of Gylippus’s relieving force and Thucydides’s description of events—Gylippus and the allies arrived from the outerworks at the same time, but after some other action (Thuc. 7.43.4–6)—it seems unlikely the outerworks would have been along the Syracusan counter wall. Had they been arranged along the counter wall as Dover suggested, Demosthenes should have attacked each in turn, which he did not do, and the relieving force would have arrived separately from each outwork since they each had different distances to run in the dark. For defense against the “Circle” and the distances involved they must have been closer to the intersection of the Athenian and Syracusan walls and further from Labdalon. I agree with Hornblower’s argument in rejecting Dover’s traditional placement. Since there is insufficient evidence to be certain where these three outworks sat, the map (figure 27.1) notes suggested locations.
Ancient authors used several verbs to describe the siege and capture of towns: *poliorkeo* (“to besiege”), *prosballo* (“to launch assaults against”), and *periteichizo* (“to wall around”). When a city is overpowered and taken quickly by force, a writer simply employs the verbs *lambano*, *katalambano*, or *haireo* (“to seize by violence”), oftentimes accompanied by the prepositional phrase *kata kratos* (“to seize by force” or, better, “to capture by storm”).
Of the war’s one hundred attempted sieges, fifty-eight were successful. While the overall success rate in sieges remains relatively constant throughout the war (68 percent success in the Archidamian War, 53 percent during the Peace of Nicias, 61 percent in the Ionian War), the Athenians experienced a dramatic drop in ability to bring sieges to a successful conclusion, from 79 percent in the Archidamian War to 43 percent in the Ionian War. The Spartans enjoyed almost the exact reversal in fortune, rising from a success rate of 44 percent in the first decade to 77 percent in the last.
Cf. the Chaonian advance against Stratus in Acarnania in 429 (Thuc. 2.81.4); the Athenian reconquests of Mytilene in 412 (Thuc. 8.23.2) and Lampsacus in 411 (Thuc. 8.62.2). Thucydides may not imply that the city was taken “without a blow,” as 2.30.2 expresses this more explicitly: “they brought it over to their side without a battle.”
Though successful sieges were certainly made against unwalled cities and villages, as at, e.g., Limnaea (Thuc. 2.80.7), Potidania, Krokyle, Tichium, Aegitium (Thuc. 3.96.2), Molycrium (Thuc. 3.102.2), and Cos Meropis (Thuc. 8.41.2), we should not conclude that, just because a town is unwalled, it could not be defended, a fact appreciated by the Spartan Astyochus who attempted in vain to seize unwalled Clazomenae in 412 (Thuc. 8.31.3). Unwalled villages or towns that felt threatened found safety in joining their more powerful neighbors, as did many Boeotian towns at the beginning of the Peloponnesian War: “For when the Athenians began to move against Boeotia, those who lived in Erythrae, Scaphae, Scolus, Aulis, Schoenus, Potniae and many other such places which had no walls, were gathered into Thebes and doubled its size” (Hell. Oxy. 17.3).
Two years earlier the Spartans and their allies had unsuccessfully besieged the walled fortress-town of Oenoe, near Plataea on the Attic-Boeotian frontier (Thuc. 2.18.1–19.1). The Spartan failure allowed the Athenians time to evacuate their exposed borderlands (Thuc. 2.18), resulting in a reprimand of Archidamus who had commanded.
Thuc. 3.82.1, 3.84.1 (trans. C. F. Smith) observes that “to such excesses of savagery did the revolution go … because it was the first that occurred; for afterward practically the whole Hellenic world was convulsed…. It was in Corcyra, then, that most of these atrocities were first committed.” We might infer a similar statement from Thucydides’s digression on Plataea: “It was in Plataea, then, that the Hellenic world first experienced the horrors and atrocities of sieges that so many poleis experienced throughout the Peloponnesian War” (emphasis added). Given Thucydides’s judgment (at 1.23.1–2, on which see p. 643, above), that “never had so many cities been taken and left desolate” nor “human blood been shed, whether in the course of the war itself or as the result of civil dissensions,” it is only natural that he would want, early in his history, to cite detailed examples of both kinds of warfare.
Although the Spartan commander assured the beleaguered Plataeans that if they would deliver their city over to the Spartans and submit to their decisions, “they would punish the guilty but none contrary to justice” (Thuc. 3.52.2), afterward all were summarily executed (Thuc. 3.68.2, with 3.52.4, 3.58.2). The Melians fared little differently (Thuc. 5.89–90).
The Athenians would go on to spend over two thousand talents on the siege of Potidaea (Thuc. 2.70.2). We recall that in the months following the outbreak of the war, Pericles “would not call a meeting of the assembly of people or any gathering whatsoever, fearing quite correctly that if the people got together there would be an outbreak of passion without judgment that would end in some serious mistake” (Thuc. 2.22.1). Nicias too feared the Athenian *demos* for he refused to raise the siege of Syracuse thinking that if he did he would surely be put to death by them (Thuc. 7.48.4).
Xen. *Hell.* 6.4.3; Diod. 15.52.1–2; Paus. 9.13.3; Burn 1949: 321–2; Beister 1970: 35–51; Sergent 1991: 137–43; Buckler 1996: 127–39.
Xen. *Hell.* 5.4.33; 6.4.13–14; Diod. 15.39.2; 55.3–56.3; Nep. *Pel.* 4.2; Polyb. 12.25f.3–4; Plut. *Pel.* 23.3–5; *Ages.* 28.8; Paus. 9.13.9–10; Polyaenus, *Strat.* 2.3.2, 4.
Modern scholarship on Hellenistic history is far too vast for more than highly selective citation for the limited scale and purpose of this chapter; I have tried to include the references that seem most pertinent to my points, and I realize that different or fuller choices are more than possible.
Loman’s statement (2004: 45 with n. 68) that “The Macedonian royal houses had traditionally allowed women of royal rank to appear on battlefields,” which appears to mean in the classical period, lacks a secure foundation; his reference for this assertion, Macurdy 1932: 105, in fact concerns only women of the Hellenistic period (e.g., Cyanne).
David vs. Goliath: e.g., recently Barceló 2004: 51, 113–14, 213. Manpower of Rome and allies in 225: Polyb. 2.24; Brunt: 44–50, 54, Table V, recalculating a total of 875,000, with 300,000 of them Roman citizens. Lo Cascio 1999 estimates a much higher Roman total of 514,000, and 485,000 Latins and allies (166–71). On estimates of Carthage’s citizen and subject population in 218, see Hoyos 2003: 225–6.
Legionary forces in the war: tables in de Sanctis 1968: 632–3; Brunt: 418 estimates 80,000 citizens under arms in 212, and a rough ratio of 1:1 for Romans and allies during the war (677–80); cf. Hopkins 1978: 32–5. Fleets: Brunt: 421–2, 666–9, estimating 36,000 in 212 and 53,000–68,000 fours years later.
Roman raids (yearly in 217–215, 211–210, 208–207 and 205) caused damage and alarm, but were not protracted. Punic surprise in 204: Hoyos 2003: 159–60, citing sources. Complaints in 201 (with Hannibal’s rebuke): Livy 30.44.4-11.
Hannibal’s march to Italy: Hoyos 2006: 408–65; Hannibal’s changed plans after Trasimene: Polyb. 3.86.8; Punic fleet: Polyb. 3.96.8–10, Seibert 1993b: 156; Hoyos 2003: 115–16; Maharbal’s advice: Livy 22.51.2–3, Hoyos 2000: 610–14.
Reciprocal concession of equality is implied by such features as the language of brotherhood which came to be used in Roman-Persian diplomatic exchanges (e.g., Amm. Marc. 17.5.3, 10, Constantine Porphyrogenitus *De Caerimoniiis* 1.89 [406–7]), as well as other substantive aspects of diplomatic practice (Lee 1991). Note also the emperor Julian’s dismissal of a campaign against the Goths in favor of one against “a better enemy” (Amm. Marc. 22.7.8), where the “better enemy” he had in mind was clearly Persia. For detailed comparison of the two powers in terms of material resources, see Howard-Johnston 1995; for cultural interaction see Canepa 2009.
This is not to suggest that these developments were completely exogenous: successive Roman invasions of Parthian territory during the second century (cf. pp. 602–03) helped to weaken the legitimacy of the Arsacid regime and so facilitate its overthrow by the Sasanians—and encourage the latter to adopt a more proactive stance toward their western neighbor.
The sources are most conveniently accessed through Dodgeon and Lieu 1992 (covering 226 to 363) and its sequel Greatrex and Lieu 2002 (363 to 628); the latter has a more user-friendly format (reflected in the change of subtitle). Understandably, the volumes are more selective in what they include from the major narrative sources, which are readily available in other translations.
Cataphractarii is a transliteration of the Greek *kataphraktoi*, meaning literally “defended on all sides”; it is tempting to derive *clibanarii* from the Greek *klibanos*, “cooking pot” or “baking oven,” since “the *clibanarius*, completely encased in scale or chain armor and riding to battle on the hot plains of Persia, might well be termed a mounted oven” (Eadie 1967: 169), but an alternative derivation from the Persian *griwbanwar*, “neck guard wearer,” has also been proposed.
Shapur I’s inscription at Naqsh-i Rustam includes lists of the large number of Roman cities he claims to have captured in the early and late 250s, but the brevity of detail leaves it unclear how many were taken after being besieged. It is the archaeological remains at the fort of Dura Europos (captured in 256 or 257) which provide the earliest incontrovertible evidence of Persian facility in siege technology (on which see further below, pp. 722–3).
See Veg. *Mil.* 3.10 for Persian copying of Roman camp design, Amm. Marc. 19.2.8 for Persian use of captured Roman siege hardware in 359, and Hdn. 3.4.7–9 for Roman deserters in the early third century supplying details of Roman military technology to the enemy. For Sasanian deportation of prisoners, many with technical skills, see Lieu 1986, Kettenhofen 1994.
As becomes clear from the next section in Ammianus’s account, with its reference to the Persian sack of Antioch, the “Persian inroad” is a reference to that of Shapur I in 252 (cf. Potter 1990: 271–2); his inscription at Naqsh-i Rustam also mentions Circesium in the list of Roman centers conquered during that campaign.
Notitia Dignitatum, Or. 11.22, 26. There was a third located less conveniently for the eastern frontier at Nicomedia (28), as well as one in the west at Autun (Occ. 9.33).
Notitia Dignitatum, Or. 7.33 (magister militum per Orientem), 32.24–6 (dux Foenicis), 33.18, 20–22 (dux Syriae), 35.20–23 (dux Osrhoenae), 36.25, 27–8 (dux Mesopotamiae), 38.11–12 (dux Armeniae).
Coulston 1986: 68, with further, more general discussion of the continued importance of infantry vis-à-vis cavalry in sixth-century warfare in Rance 2005: 427–43, at 435, who notes that “it is beyond dispute that cavalry enjoys a higher profile in late Roman narrative sources, but this perspective is in some measure subjective—cavalry charges, even when unsuccessful, are intrinsically more noteworthy and impressive spectacles than infantry engagements, and invited the dramatic prose sequences expected by a civilian readership relatively uninterested in technical detail.”
The earliest lines in Homer were written in the sixteenth century B.C., as we can tell by converting particular “problem” lines linguistically to their original forms: Ruijgh 2004: 527–42. There is ample evidence of musical instruments in the archaeological record and of musical performance in the iconographical record from the Greek Bronze Age: Younger 1998.
Aeschylus’s self-written epitaph says nothing about his work as a tragedian, focusing entirely on the prowess that he displayed as an Athenian soldier against the Persians on the plain of Marathon.
Lattimore 1953: 56. The translation was completed and copyrighted in 1947; sections had already appeared in Eberhart and Rodman’s 1945 anthology of war poems.
See Fussell 1975: 17–29, on how innocent and steeped in chivalric notions the generation that fought in the trenches of World War I was at its start.
See further Palaima 2007: 18–22, on the prevalence of ancient warfare and the impossibility that ancient Greek non-combatants would not understand better what their soldiers were going through when fighting wars.
For discussion cf. Sidebottom 2004: preface, citing Lynn 2003 who challenges the concept, and Keegan 1993 who accepts it. The armies (i.e., the “terracotta warriors”) of the first Qin emperor of China and the Zulu army that won at Isandhlwana give additional pause, as also the dictum of Confederate cavalry commander Nathan Bedford Forrest that the essence of battle is to hit hardest with the most (a tactic still embraced by the US Army). This is what the Greek phalanx was about, what any armed force seeks as well.