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A first glance at research on the prehispanic and post-conquest consumption of octli, better known by its Spanish name, pulque, may lead one to think not only that its use was limited to central Mexico, but that it was reviled there as a sinful thing by friars and natives alike. “What is called octli is the origin, the root of the evil, of the bad, of perdition” (Sahagún 1950-82:Book 6:68-69; see also 2:106, 148; Durán 1971:289). A closer look at the iconography associated with pulque, however, indicates that it played a pivotal role in central Mexican religion. It was also far more widespread than generally believed and played an integral role in Maya ritual long before the Aztecs came to power. Pulque is an alcoholic beverage produced by fermenting the sap of the maguey, a plant belonging to the genus Agave. Although it is often misidentified as a cactus, the agave is more closely related to the lily family. All agaves share certain features: thick, often thorn-edged leaves clustered close to the ground around a single base, each tipped by a long, extremely sharp spine (Figure 1a). When a maguey plant has reached maturity, which generally takes seven to twenty-five years, a central stalk begins to form inside the heart of the plant. Within five to six weeks, this stalk, fueled by an enormous amount of sap, will reach a height of four to eight meters (Figure 1b). After this stalk flowers, the plant dies. In pulque production, the nascent stalk (i.e. the maguey “heart”) is cut out of the plant before it begins to grow, a process referred to as “castration.” After being left for up to a year, the cavity left by the removal of the stalk is widened and deepened in a process called “picking,” creating a reservoir in which the sweet liquid sap called “aguamiel” (honey water) collects. The aguamiel is then harvested over a period of two to six months and placed in large wooden barrels, where a natural process of fermentation turns it into alcoholic pulque within a few days.¹ Before continuing, it must be made clear that some flexibility does exist in pulque-related terminology. As cited in Parsons and Parsons (1990:1), the word “maguey” has been used in the highlands of Mexico and Guatemala since the sixteenth century to refer to a wide variety of plants in the agave genus. Colonial references to pulque appear to have been similarly elastic. In other words, colonial descriptions of pulque
and pulque production appear to refer to a suite of different agave-based beverages, including, but not limited to, fermented maguey sap. In this article, I am correspondingly flexible in my use of the terms maguey and pulque, due to the fact that in both colonial accounts and iconography, the precise agave species referred to and the particular ingredients and production processes involved are, for the most part, unspecified. Therefore, the term “pulque” here serves as a general reference term for intoxicating beverages produced both by the maguey and by other members of the genus *Agave*.

The purpose of this article is twofold. First, through the use of glyphic, iconographic, and ethnographic evidence from the Maya area, I argue that pulque, far from being limited to the cultures of central Mexico, was familiar to the inhabitants of the Maya area. The Classic Maya called pulque *chih*, spelling it phonetically *chi-hi*, with a cupped hand and *hi* syllable, or with a logographic CHIH variant, which sometimes bears agave leaves on the back of its head (Figure 2).²

In texts, these glyphs most often follow constructions based on *uk’* (to drink) (Stuart 2005). On Altar U at Copan (Figure 3a), for instance, the ruler Yax Pahsaj Chan Yopaat is identified as “drinking pulque” (*ti uk’ chih*) proving that the beverage was consumed, at times, by Maya rulers (Stuart, personal communication 2006). In addition, the narrow-necked jars that form such a predominant part of drinking scenes on Maya ceramic vessels are often marked with the cupped-hand variant of the *chih* or *chi* glyph (Figure 3b-c), specifying their contents as pulque. A stucco lid from Tikal (Figure 3d), which identifies the vessel contents as *chih*, proves that vessel contents were not only specified in iconography, but were labeled in reality as well (Stuart 2005).

In Mayan languages, *chih* cognates are almost universally associated with the agave family, drunkenness, and sweet-flavored beverages (see Miller and Taube 1993:85; de Smet and Hellmuth 1986:221-
For instance, *chij* means “maguey” in Chol (Aulie and Aulie 1978) and “aguardiente, mezcal, liquor, alcohol” in Chontal (Keller and Luciano G. 1997). Likewise, *cii* in colonial Yucatec is defined as “maguey” while *cii unic* and *ah cii* are both glossed as “drunkard.” In Wisdom’s Chorti vocabulary (1940), *chih* is defined as “maguey, fiber, woody interior of fibrous plants.” In Cholan and Tzeltalan, cognates of the phonetic reading *ki* bear the meanings “maguey,” “sweet; delicious,” “alcoholic beverage,” and “inebriated,” while Yucatecan cognates include “maguey,” “sweet, delicious alcoholic beverage; inebriated,” and “drunkard” (de Smet 1985:62, citing personal communication with Fox and Justeson). That pulque was considered a sweet substance in prehispanic times is supported by Maya ceramic vessels, in which the contents of pulque cups or jugs are often denoted by sweet-smelling flowers (see Boglár and Kovácsc 1983: Figure 4).

Iconography on both Classic period vessels and Late Postclassic codices also demonstrate that agave plants, if not maguey in particular, were well-known and familiar to the Maya. One drinking vessel, for example, shows a skeletal figure crouching in the heart of a maguey plant (Figure 4a). Other vessels show drinking scenes in which pointed leaves emerge from jugs or vases labeled with the *chih* hand glyph (Figure 4b). “Justeson [pers. commun. 1985] feels that the form of the rod-like objects is roughly consistent with maguey leaves, but admits that the execution is not distinctive enough to make a specific botanical identification” (de Smet 1985:58). An image from page 28 of the Madrid Codex is even more explicit, as it shows not only the spiked leaves of the plant, but a maguey worm burrowed within them as well (Figure 5a). Although this creature is identified as a snake in Villacorta and Villacorta (1976:281), the blunt nose, speckled markings, and short, fat body distinguish it from the slender, long-snouted, variably-marked serpents found in the rest of the Madrid Codex. Interestingly, the device that frames the plant on page 28 of the Madrid Codex is nearly identical to the crescent-shaped moon sign worn as a *yacametzli* (nose ornament) by central Mexican pulque gods (Figure 5b). This *yacametzli* form is also frequently found in Mexican codices filled with fluid and a rabbit, likening the moon to a jug of pulque (Figure 5c).

If the *chih* glyph is translated as “pulque,” then what is to be made of the *caban* curl which is also seen decorating vessels in drinking scenes (Figure 6a)? Both Reents-Budet (1994:82, 102n.35) and Barrera Rubio and Taube (1987:13) argue that the sign refers to *cab* (honey) in Yucatec. Although this is known to be a primary ingredient and fermentation aid in *balché*—an alcoholic drink more often associated with the Maya that is made from a mixture of honey, water, and the bark of the *balché* tree—honey is also a common ingredient in pulque (see Gonçalves de Lima 1956:33). Roys (cited in de Smet 1985:66), for instance, discusses an alcoholic beverage consumed by the Maya that combined honey with the root of the agave plant.

Figure 2: *Chih* glyphs. (a) *Chih* spelled yuk’i chi-hi; (b) *Chih* head variant; (c) *Chih* head variant with agave leaves on the back of the head. Drawings by David Stuart.

Figure 3: Pulque drinking glyphs. (a) Text from Altar U at Copán, reading “ti uk’ chih” (drawing by David Stuart); (b-c) Vessels marked “chih” from a painted Maya vase. Note that the leaves emerging from the vessel in 3b terminate in spines, just as agave leaves do (drawings by author after Rollout © Justin Kerr, K1092); (d) Painted stucco vessel from Tikal, stating that the contents are “chih” (drawing by David Stuart).
Barrera Vasquez (1980-81) suggests that balché was considered a substitute for pulque in regions that could not produce the beverage for themselves. “Balché was invented by necessity, to supplement the lack of pulque. They continued calling it ci [ki’] as a generic name and used balché as a specific name” (1980-81:75). This statement is supported by the fact that the production of balché and certain types of pulque may have been viewed by the Maya as analogous—both included honey as a key ingredient, and both required the addition of bark or roots to ensure potency. As one sixteenth-century chronicler records: “There is another type of tree that the indians call qui and the spanish maguey…from the root of this tree the indians make a wine that is mixed with honey and other tree roots, but the root of this tree is the principal one” (Martín D. Palomar, quoted in Barrera Vasquez 1980-81:75). Motolinía provides a similar description:

The sap is fermented in a large earthen jar, as is done with wine, and they put into it certain roots, called by the Indians ocpatlī, which means ‘medicine or sauce of wine.’ In this way they produce so strong a wine that it heavily intoxicates those who drink it freely [Speck 1951, cited by Parsons and Parsons 1990:273].

One must not forget that many agave species thrive in the Mesoamerican area, so it is quite possible that different Maya regions created their own versions of pulque, the ingredients and production methods of which were dependent on what specific agave species were available in the area. Therefore, while some may have had access to the maguey and the boring and scraping process that led to the production of aguamiel, others may have utilized the roots or hearts of other agave varieties instead, thus creating beverages more analogous to balché. The caban curl therefore cannot be linked unequivocally to balché, as pulque production utilized honey as well. Interestingly, an image of a caban-marked jug on page 35 of the Dresden Codex (Figure 6a) shows a rounded froth emerging from the vessel’s opening, very similar to Aztec representations of pulque, which show foam rising out of the tops of vessels (Figure 6b). The connection between pulque and honey, however, is not limited to the use of honey in pulque production. Guerrero (1980) provides a metaphoric association by referring to pulque as the “honey” of...
rates and across greater distances than pulque, which has an extremely short shelf life and thus travels poorly (Parsons and Parsons 1990:347-348). The authors note the presence of “maguey honey” on Aztec tribute lists (Figure 6c; Parsons and Parson 1990:353, citing Barlow 1949:47, 50). Motolinía emphasizes this direct association of aguamiel with honey, stating “from this sap they also make good syrup and honey, although the honey has not so good a flavor as that obtained from bees” (Speck 1951, cited in Parsons and Parsons 1990:273). This honey association is also referenced in Sahagún:

He who sells maguey honey has maguey plants, and sells wine made of maguey honey...and in order not to ever be without honey he plants the offshoots of the maguey plants; and after the plants are mature, he opens them up, or bores into them, or digs out the central leaves, and in this state they are scraped so that the honey from which they make pulque drips out...[translated by Parsons and Parsons 1990:281].

Imagery of the supernatural Mok Chih (Figure 6d), a manifestation of the Maya pulque deity Akan, also known as God A’ (read “God A Prime”), illustrates that the ancient Maya similarly associated pulque and honey. Mok Chih, explicitly connected to pulque through the *chih* in his name, is often shown either dressed as a bee or carrying bees in a jar (Grube 2004a:68). In two cases (K2284 and K3924), the jar has the same narrow-necked form as pulque jars (Figure 6d). In addition, on page 110 of the Madrid Codex (Figure 6e), a bee can be seen hovering over a maguey plant, further indicating that bees, honey, maguey, and pulque were connected in the minds of the ancient Maya.

Therefore, though the *caban* curl can easily be read as signifying honey, it may be wise to use caution when considering it a straightforward and specific reference to *balché*. Not only was honey equally important in the making of pulque, but *balché* may have been viewed as a substitute for pulque when pulque was unavailable. The production of maguey honey and the metaphorical link between the liquid of the maguey and honey further emphasize that vessels marked with the *caban* curl are as likely to contain pulque or maguey syrup as they are to contain *balché*. 

In Cuextlan, the land of the Huaxtecs, the pulque gods had their home. For the Mexicans, the Cuaxteca were the prototypes of excess, of the drunkard.” Such Aztec stereotypes, which brand the Huastecs as drunks prone to debaucherous behavior, show how closely the Huastecs were associated with pulque in the minds of the Aztecs. This association is also evidenced by Aztec stories, the most famous of which recalls the embarrassing escapades of the Huastec ruler who, invited to a feast celebrating the discovery of pulque, drinks too much, throws off his loincloth, and flees in shame (see Sahagún 1950-82: Book 10:193). The Huastecs were therefore connected to the origins of pulque in the minds of their Aztec contemporaries, and they provide a temporal and cultural link between earlier Classic Maya pulque iconography and the later adoption of pulque imagery by the Aztecs.

Linguistic evidence verifies that the Aztecs associated pulque with the Huastecs and Maya. The Aztecs called the origin place of pulque “Tamoanchan” (see Sahagún 1950-82:Book 10:193; Anawalt 1993:26). As shown by Seler (1990-93:3:265), this term is linguistically Mayan, comprised of ta, a locative prefix meaning “at” or “in;” moan or muan, meaning “covering with mist, the cloud covering;” and chan, meaning “sky.” As such, Tamoanchan not only references the plentiful rains of the verdant Huastec area, but may allude to the fertile landscape of the eastern Maya as well. As David Stuart (personal communication 2003) has noted, the similarity in speech patterns between the Huastecs and their Maya counterparts may have set them apart from their Nahua neighbors, so it is possible that pulque was not only considered by the Aztecs as Huastec in origin, but, by extension, associated with their more distant Maya kin. Even at Teotihuacan, a well-known pulque production center (see Sheehy 2001), drinking seems to have been associated with the Maya. This is evidenced by a mural which depicts several drunken Maya figures, one of which is seated in a Maya cross-legged pose, vomiting up beans (Figure 7; Taube 2003:281-283).

The close association of the Huasteca with pulque ritual is further evidenced by Late Classic iconography at the site of El Tajín (Figure 8). In scenes that apparently trace ballgame ritual from start to finish (Wilkerson 1984, 1991), vats of liquid, jars, and flowering maguey plants are combined with imagery of the ballgame, decapitation, and disembowelment. The specifics for interpretations of these panels vary. While Wilkerson (1984, 1991) identifies the liquid shown in...
the corners of the south ballcourt panels (Panels 1-4) as vats of pulque, Koontz (1994:37) describes them as the “waters of the Itzompan,” connecting them to water storage, irrigation, and drainage systems. All authors, however, agree that Panels 5 and 6 (Figure 8a) emphasize maguey plants and very likely the beverage they produced (Piña Chan and Castillo Peña 1999:75). These two panels show maguey plants in a large scale, framed by the scrolling sides of a mountain, an element Koontz (1994:37, 75) identifies as “flowering mountain” and Wilkerson (1984:126, 1991:65) identifies as the Tajin version of “Poçonaltepul,” the “Mountain of Foam” where pulque was first made (Sahagún 1950-82:Book 10:193). Maguey plants are also seen on Sculptures 5 and 1 (Figure 8b-c) from the Mound of the Building Columns (Kampen 1972:f.32a, 33c). The prevalence of this plant in the carvings of El Tajín demonstrates that maguey and pulque played an important role in the rituals, ballgame and otherwise, of this Gulf Coast site.

There is still disagreement over whether El Tajín was populated by Totonac or Huastec people (see Castillo Peña and Piña Chan 1999; Wilkerson 1990). Regardless of which cultural group populated El Tajín, the location of the site in the Huasteca region and its iconographic emphasis on maguey and pulque establish that pulque played an important role for the inhabitants of the Late Classic Gulf Coast. Wilkerson (1984:127) states, “pulque…became a major ritual drink among the cultures of the Veracruz coast. While primarily associated in the early literature with the Huastecs of the north Gulf area in Postclassic times…its origins are earlier.” Notably, several El Tajín sculptures, especially Sculpture 1 from the Pyramid of the Niches and the pair of sculpted feet that likely represent its match (Kampen 1972:f.17a,b), are fashioned in an obviously Maya style. El Tajín was therefore, at some point in time, directly tied to the Maya—linguistically, iconographically, and culturally.
Another indication that pulque ritual in the Maya area should be seen as an original, perhaps even originating, phenomenon is the widespread use of enemas in Maya and Huastec drinking ceremonies, a practice never seen in central Mexican iconography and often condemned by Aztec informants in post-conquest documents. In Maya art, enema syringes are surprisingly prevalent: they are shown in simple scenes of self-application or more complex scenes with richly-attired female attendants, and are even depicted on page 52 of the Madrid Codex in an offering scene with two deities (Figure 9a-c). That enemas at times employed pulque is clearly established by a relief sculpture and two Maya vessels, all of which depict enema syringes sitting atop vessels marked with the \textit{chih} glyph (Figure 10a-c).

That the Huastecs were similarly well-known for enema use is made clear in two conquest-era accounts. The first, by Bernal Diaz de Castillo, states:

\begin{quote}
About drunkards I do not know what to say, so many obscenities take place among them; I wish to note only one here which we found in the province of Panuco; they make an injection by the anus with some (hollow) canes and distend the intestines with wine, and this is done among them in the same way as among us an enema is applied [quoted in de Smet and Hellmuth 1986:215].
\end{quote}

A second even more condemning record states, “The men are great sodomites, cowards, and, bored with drinking wine with their mouths, lie down and extending

Figure 10: Enemas and pulque. (a) Detail of a doorjamb on which a figure carries a \textit{chih} vessel topped by an enema syringe on his back (Barrera Rubio and Taube 1987:f.2); (b) Vessel marked \textit{chih} with an enema syringe on top (drawing by author after de Smet and Hellmuth 1986:f.3b); (c) Vessel marked \textit{chih} with an enema syringe on top (drawing by author of a ceramic vessel in a private collection).

That the Huastecs were similarly well-known for

Figure 11: Pulque vessels. (a) Tied pulque vessels shown in transport on a carved Maya vessel (Rollout © Justin Kerr, K1550); (b) Tied pulque vessel from page 89 of the Codex Vaticanus B (drawing by author).
	heir legs, have the wine poured into their anus through a tube until the body is full” (Anonymous Conqueror, quoted in Anawalt 1993:27). The characteristics of alcoholic enema use thus appear to have continued uninterrupted from the Classic period Maya through to the conquest-era Huastecs, though such rituals were never adopted by the Aztecs.

“The Pulque Ran Like Water”

Having established that pulque was consumed in the Maya area, one can now explore the many parallels between its iconographic expression in Maya art and that found in Aztec imagery. For both the Aztecs and the Maya, pulque was multifaceted, embracing themes of generation, purification, and sacrifice through complex connections to water, vomit, and blood. In both regions, pulque was considered equivalent to
water, in both practical and ritual use. Especially in the more arid zones of Mesoamerica, where water was often unavailable or contaminated, pulque or its weaker cousin aguamiel were oftentimes used as nutritious substitutes for water, containing not only protein and calcium, but also phosphorus, thiamin, riboflavin, niacin, ascorbic acid, and iron (Bye and Linares 2001:39; see also Evans 1990:118; Gonçalves de Lima 1956:28-30). Even Motolinía refers to this aspect of pulque: “actually, however, if taken with moderation, it is wholesome and very nutritious” (Speck 1951, cited in Parsons and Parsons 1990:273). Even Motolinía refers to this aspect of pulque: “actually, however, if taken with moderation, it is wholesome and very nutritious” (Speck 1951, cited in Parsons and Parsons 1990:273).

In archaeological contexts as well as in Maya iconography, water jars and pulque jars are indistinguishable. Unless labeled otherwise, these round-bodied and narrow-necked jars traditionally have been called water jars, though they could just as easily be pulque vessels (see Parsons and Parsons 1990:294-296). Images of contemporary three-handled pulque jugs show the iconographic similarity between this modern form, tied and ready for transport, and that seen in Maya and Aztec imagery (Figure 11; Parsons and Parsons 1990:124-125, pl. 44-45). If indeed some of these vessels, when found in archaeological contexts, were shown to hold pulque rather than water, it would indicate more general consumption of the beverage by the Maya than has hitherto been assumed. Eber (2000:18) provides an interesting aquatic parallel for balché: “they…purified it by offering it to the Gods, calling it ha (water), water of the Gods.”

In central Mexico, the deities of pulque and water were inextricably connected and at times were substituted for each other. Tlaloc, the Mexican rain god, for instance, was connected to pulque and often
Figure 13: Conflation of pulque and water deities. (a) Chahk sits atop a maguey plant (drawing by author after page 32 of the Dresden Codex); (b) Chahk sits atop a water place, possibly a cenote (drawing by author after page 39 of the Dresden Codex); (c-d) Maguey plants with Chahk faces (drawings by author after Kerr K1384 and K1882).

Figure 14: Aztec images of maguey, pulque, and water. (a) Codex Vaticano B scene of a fish swimming in the roots of a maguey plant (drawing by author); (b) Mayahuel suckles a fish (drawing by author after page 16 of the Borgia Codex); (c) Bilimek pulque vessel showing a decapitated earth goddess with pulque flowing from her breasts into a pulque vessel below (Taube 1993:f.7).
wore the headdress of pulque deities (Seler 1900-01:68). Similarly, Nicholson discusses the overlap in the names of pulque gods mentioned in Sahagún “…that obviously merge the octli gods with the rain/mountain deities, the Tepictoton and the Tlaloque” (1991:169, citing Sahagún 1950-82:Book 1:194). The site of El Tajín may also blend rain and pulque gods. According to Wilkerson (1984:126), Panel 5, which shows an individual with a fish headdress as the recipient of a penis bloodletting ritual,

…illustrates the reason for the entire ritual and sacrifice. The supplicant is requesting the ritual drink, pulque, from the gods, and the rain god in particular. The pulque gods at El Tajín appear to be alternative forms of the rain god and/or are controlled by him.

Just as the central Mexican Tlaloc overlaps with octli deities, the four Chahks, rain gods of the Maya, are seen in close connection to God N, a deity often associated with drinking rituals and enema scenes. A grizzled, lecherous man prone to fondling young women, God N wears a characteristic net headdress which when worn around the neck is called a “vomit bib” due to its presence in scenes of inebriation and vomiting (Figure 12a). His name is read “Pahuahutun” (Coe 1978:82) and he most certainly is the quadripartite god who supported the four corners of the world and sky. Taube (1989; 1992:96) concurs that in the minds of the Maya, God N was inexorably linked with Chahk, a similarly quadripartite deity of rain and thunderstorms.

This close relationship is clearly seen in a Maya vessel depicting four God Ns, three of whom face enema syringes that have been placed on vessels before them (Figure 12b). Behind them, three Chahks play drums, rattles, and rasps, an analogy to the sounds of an oncoming rainstorm (see Coe 1978:76-78). De Smet and Hellmuth (1986:220, Figure 2) describe these drinkers and musicians as confronting a “monstrous deity seated in a hut composed of a stack of monster faces,” suggesting that this figure may be God GI. However, as evidenced by his spondylus ear ornament, shell chest pendant, jaguar skirt, belt, and headdress, this last figure is none other than the fourth Chahk, dressed in a manner identical to his three fellow Chahks and seated within a personified mountain that marks the event as an underworld scene. That the Maya, like their central Mexican counterparts, conflated pulque and water deities is made even more clear on page 32 of the Dresden Codex, where a Chahk carrying his characteristic axe sits atop a maguey plant, just as he is so often shown sitting over watery places (Figure 13a-b). This conflation of water and maguey is even more explicit on several ceramic vessels where a maguey plant is shown as a Chahk head crowned with thorny agave leaves (Figure 13c-d; see Grube 2004b).
The Aztec goddesses associated with water and pulque are treated in a similar manner. In Late Postclassic imagery, Mayahuel, goddess of maguey, is often substituted for or shown with the features of Chalchiuhtlique, goddess of terrestrial waters (Gonçalves de Lima 1956:111; Miller and Taube 1993:111). Tlazolteotl, a goddess of filth and purification who overlaps in many ways with Chalchiuhtlique, was also often shown in the guise of the pulque gods. The watery nature of the maguey is explicitly referenced in Codex Vaticano B 40, where a fish swims in the roots of a maguey plant (Figure 14a). Page 16 of the Borgia Codex even shows Mayahuel suckling a fish (Figure 14b), while an analogous scene depicts an earth goddess with pulque flowing from her breasts into a jar below (Figure 14c; Seler 1990-93[3]:199-223 and Taube 1993:4). In the first case, the breast milk of Mayahuel is equivalent to water. In the second, the breast milk is pulque itself.

In the Aztec codices, the cleansing properties of pulque and water are referenced through the interchanges among Chalchiuhtlique, Mayahuel, and Tlazolteotl, all goddesses associated with pulque and water who at times are shown with water pouring from their wombs in a purifying flood (Figure 15a). Although the case is more vague in the Maya area, there are certainly parallels. For instance, in the Madrid Codex, the ci root is often found in compounds referencing baptism (Justeson, personal communication cited by de Smet 1985:63), a context strikingly similar to the Aztec invocation of Chalchiuhtlique during the bathing of infants after birth.

That many Maya vases show vomiting as a result of drinking as well as the emetic (and sometimes amusing) results of enema use (Figure 15b-d), may be a similar reference to the purifying role played by pulque in the minds of Mesoamerican peoples. Alfred Tozzer (1907:136) described this result of inebriation as fully acceptable, even encouraged: “everyone, with the exception of a few of the women, seems to think it is his duty to become intoxicated… Many are naturally sick, but this seems only to be a reason for drinking more.” McGee (1990:71) describes a similar occurrence in contemporary Lacandon balché drinking ceremonies: “Lacandon men drink bowl after bowl [of balché] until they throw up, then begin drinking again.” Like pulque, balché does not preserve or travel well, which means in ceremonies the attending men must drink until the trough is dry (McGee 1990). It seems, however, that the emphasis on vomiting in balché ceremonies revolves around purification and cleansing. As one colonial Spanish source describes, after they were drunk they vomited and were purged, which left them cleansed and hungry…Some of the old men say that this was very good for them, that it was a medicine for them and cured them; because it was like a good purge [quoted in Roys 1976(1931):216].
This cleansed state was considered necessary for men to communicate with the gods: “Contrary to drunkenness in our own society, intoxication on balché is thought to confer a special level of ritual purity that is necessary to interact with the deities” (McGee 1990:8). That the ancient Maya may also have viewed vomiting, at least at times, as a necessary part of drinking ceremonies may be referred to on an extraordinary ceramic vessel, which among other interesting scenes associated with a drinking pot and cups, depicts a figure thrusting his hand into his mouth in what appears to be a clear example of self-induced vomiting (Figure 15e).

Enema scenes on Maya vessels are also often associated with vomit imagery. Two scenes, for instance, show figures vomiting over the enema syringes that they are holding (Figures 16a-b), while a third vessel depicts a monkey holding an enema syringe toward a vomiting figure (Figure 16c). Although the contents of the syringes in these scenes are unspecified, they may very well be pulque. As de Smet and Hellmuth (1986) argue, enemas—commonly viewed as a method of avoiding nausea and allowing quicker absorption of intoxicants into the bloodstream than oral use often permits (de Smet 1985)—may have been used to induce rather than prevent vomiting.

Vomit, like pulque, can also be seen as an equivalent of water. Classic Maya imagery of the Waterlily Jaguar vomiting into the hands of the earth goddess, for instance, is conceptually identical to both page 74 of the Dresden Codex, in which a crocodile spews forth water over the earth, and iconography at Teotihuacan, which depicts serpents vomiting water.
Pulque and Blood: Decapitation, Strangulation, and Rebirth

In both the Maya area and central Mexico, pulque also appears to have been equated with blood. In Mexican codices, for instance, the pulque jug is often depicted as a sacrificial victim, wearing paper ear ornaments and paper flags and pierced through the heart with an arrow, an item symbolically linked to the sucking reed used in the consumption of pulque (Figure 18a; Seler 1900-01:69). This pulque-as-blood analogy was explicitly referenced in the Aztec capital during rites of gladiatorial sacrifice. Before the gladiatorial battle and inevitable sacrifice, the captive (some say captor) drank pulque through a straw. Once the sacrifice was over and the heart had been excised, an attendant placed a straw into the victim’s blood-filled chest cavity, thereby likening it to a vessel filled with pulque. As Sahagún (1950-82:Book 2:52-53) states, “Thus he giveth [the sun] to drink.” Interestingly, the contemporary harvesting of pulque sap is accomplished over agricultural fields (Figure 17a-c). An even more explicit scene shows a dancing Chahk wielding his axe and vomiting (Figure 17d).

A Navajo ceremony discussed by Vogt (1994:43-45), in which participants take a purifying emetic and vomit into piles of sand, shows interesting parallels. One of the photographs, which shows a man vomiting into his hand and a pile of sand below, is remarkably similar to the image of the Waterlily Jaguar vomiting into the hands of the earth goddess (Figure 17a), especially if one thinks of the sand piles as representing the earth itself. Drinking rituals that included rites of vomiting might therefore be seen as rites meant to ensure the fertilization of the earth with fluid. Here, regurgitated fluid (namely pulque) becomes equivalent to the purifying, fertilizing aspect of water when spewed forth from the bodies of water deities.
by sucking the liquid out of the maguey’s scraped out reservoir with reed tubes (Parsons and Parsons 1990:291), offering a close analogy to this ritual. Images in several Mexican codices of sucking reeds that pierce hearts (Figure 18b) further reflect this close association between heart sacrifice and the imbibing of pulque.

The metaphor of heart excision as pulque production extends to (or perhaps from) the harvesting of pulque, which requires an incision into the meyolotl, the “heart of the maguey.” The collection of maguey sap relies heavily upon the timely removal of its nascent stalk. The sap collects for the single purpose of ensuring the growth of this stalk, and so all of the stalk, including its leaf bases, must be cut out from within the maguey plant. The cavity left behind is later scraped, acting as a reservoir for the plant sap. The removal of the stalk and the subsequent scraping process is very similar to heart excision, in which the removal of the heart leaves behind a blood-filled cavity. The maguey plants seen on Codex Vindobonensis page 25 (Figure 19a) show the iconographic similarity between the plant, hollowed out for the drawing off of pulque, and victims of sacrifice by heart excision, shown so often in both Maya and Aztec imagery with identical openings in their chests (Figure 19b-c).

The maguey plant itself, then, was viewed as a bloody sacrificial body. Not only does the terminology associated with the cultivation and harvesting of the plant and its sap resound with sacrificial imagery, but the word for “maguey” in several Mayan languages likens the internal, fibrous structure of the plant to the internal structure of the human body. For instance, in Chontal, chij is defined not only as “aguardiente, mezcal, liquor, alcohol,” but as “vein, tendon, ligament” (Keller and Luciano G. 1997). As Keller and Luciano G. (1997) explain, “There are two things that are called ‘chij’ in Chontal; one is the veins through which blood passes and the other is tendons.” In other words, the maguey’s fibers were seen as equivalent to blood-filled veins. The plant body, therefore, was comprised of nerves and tendons that were severed, scraped, and cut out in order to provide mankind with pulque. This theme of the maguey plant as offering itself as a sacrifice for mankind finds its way into myth, where pulque-related deities are often deities of self-sacrifice. This theme is discussed in further detail below.

Pulque may have been further linked to blood in Maya belief by the use of maguey thorns for blood sacrifice. That the Maya may have used these thorns for bloodletting, as the Aztecs so often did, is suggested in several codex scenes, in which what appear to be spiky maguey leaves are placed alongside obsidian blades in shallow sacrificial bowls (Figure 20a). In a more explicit bloodletting scene in the Paris Codex, a figure thrusts a spiked maguey leaf through his penis (Figure 20b). These objects are often identified as stingray spines, but their iconographic similarity to maguey imagery in other codex scenes, particularly their close resemblance to the plant shown sheltering the maguey worm on page 28 of the Madrid Codex (see Figure 5a), support a maguey reading instead.

Several drinking scenes on Maya vessels depict vomit as a series of small red dots, likening the regurgitated liquid to blood. One vase, for instance, shows God A´ vomiting blood over an enema syringe (Figure 16a; Coe 1982:108), while another shows a Waterlily Jaguar vomiting blood into the hands of Goddess O, the earth goddess (Figure 17a). The same imagery is observed in scenes of decapitation and bloodletting, where blood is shown as a row of red dots spraying out or dripping from flesh (Figure 21a). This extends the connections to water discussed earlier by further equating vomiting with bloodletting and the regurgitated liquid with blood. On one vessel discussed above, self-induced vomiting is combined with a curious scene in which two figures with bloody noses and mouths grasp each other’s hair (Figure 21b). A similar vessel depicts a man with blood pouring from his nose and mouth administering an enema to another figure who grasps his hair (Figure 21c). Although the hair-grasping aspect of these interactions is enigmatic, the action of vomiting appears, in all cases, to be considered conceptually linked to bloodletting, with the vomit itself often shown as a blood substance.

Drinking ceremonies in both central Mexico and...
the Maya area also appear to have been replete with decapitation imagery, perhaps a metaphorical allusion to the severing of the central stalk of the maguey to begin the flow of aguamiel. The Bilimek pulque vessel of the Aztecs (Figure 14c) is carved with the image of an earth goddess, probably Coatlique or Chihuacoatl (see Taube 1993), who holds two anthropomorphic sacrificial blades in her jaguar-paw hands, her severed head lying upside-down on her chest. The liquid seen pouring from her breasts into a pulque vessel below indicates that she is a pulque goddess as well (Seler 1990-93[3]:199-223; Taube 1993). The Mixtecs portray the goddess of maguey, “11 Serpent,” in a similar way: with a severed head that falls from a bleeding throat (Figure 22a; Miller and Taube 1993:108).

Likewise, God A’ or Akan, the Maya deity most closely associated with pulque, is also a deity of death by decapitation. The name of one of his manifestations, Ch’ak B’aah Akan, even reads “head-cutting Akan,” and he is often shown cutting off his own head with an axe or knife (Figure 22b; see also K8936; see Grube 2004a). At times, Akan’s hair is shown as a long, twisted cord with a looped end (Figure 16b), probably in order for the head to be suspended after decapitation (see Coe 1982:108). Akan’s close link to pulque is evidenced by Altar U at Copán, whose text describes ruler Yax Pahsaj Chan Yopaat as “the impersonator of Akan, god of drink, in the act of drinking pulque” (David Stuart personal communication 2003; see also Grube 2004a:63). “Acan” is listed as the god of wine and linked to Bacchus in the Motul dictionary, though his more morbid aspects are apparently overlooked (cited in Grube 2004a:61). This close connection between pulque and decapitation is demonstrated by several painted scenes on ceramic vessels which show decapitated heads situated on or above pulque jars (Figure 22c-e).

Though far less widespread than imagery of decapitation, references to strangulation also accompany pulque iconography in both central Mexico and the Maya region and appear to be conceptually related. Rancho San Diego, a site south of Mérida, contains two relief sculptures as well as to associate practices of strangulation with intoxication (Barrera Rubio and Taube 1987). One relief depicts a man touching a second figure with a bowed head while simultaneously practicing self-strangulation (Figure 23a; Barrera Rubio and Taube 1987:9). A second relief depicts what the authors describe as a figure holding a ritual cloth (Barrera Rubio and Taube 1987:7), though it appears instead to be an individual in the process of strangling him- or herself (Figure 23b). A third relief at the site depicts a man signing chih with his hand, possibly indicating that the substance responsible for the depicted behavior was pulque (Figure 23c; see also Figure 4a). This imagery of strangulation in the Maya region is paralleled in Sahagún’s description (1950-82:Book 1:51) of the Aztec pulque god: “…he hurled people off crags, he strangled people, he drowned people, he killed them.” Interestingly, with the exception of being hurled off of rocks, these are all references that have already been discussed: strangulation, water imagery, and sacrifice, both by decapitation and heart extraction.

Concepts of bloodletting and sacrifice inevitably lead to themes of rebirth and renewal, for, throughout Mesoamerica, the birth of humankind was believed to have come about as a result of self-sacrifice on the part of the gods. In Aztec myth, Nanahuitzin and Tecuciztecatl throw themselves into a great pyre to create the Fifth Sun. For the Maya, it is the Maize...
God who gave his own flesh to form the first humans. The gods associated with pulque are no different for either area. The Aztec Mayahuel is sacrificed by the tzitzimime demons, and the first maguey plant emerges in bloom from her buried bones. As Keber (1989) states,

The myth of maguey thus reinforced the supposition central to Aztec religions and political ideologies that since the gods had sacrificed themselves for the good of mankind, so men were obliged to offer a return sacrifice to them [Keber 1989:79].

God A’, the Maya pulque god, is also a god of self-sacrifice, while Ome Tochtli, the primary Aztec pulque god, has a story of self-sacrifice as well. Nicholson (1991) recounts:

[Tezcatlipoca]…killed the god of the wine, with his consent and acquiescence, saying that in this way he became eternal and that,
if he had not died, all those who drank wine would die. But that the death of Ome Tochtli was as the dream of a drunkard, which, when he returns from it, leaves him healthy and well [1991:160-161, citing Gabriel de Chávez 1986:62].

This “dream of a drunkard” clearly refers to the “passing out” of a drunk, an event shown in numerous drinking scenes on Classic Maya vessels (Figure 24a-c). Sahagún even dubs pulque “sleep-producing wine” (1950-82:Book 2:90). In the case of pulque, this interim state of semi-consciousness has scientific support, for, according to de Smet (1985:21), “…acute ingestion [of ethyl alcohol] can lead to an inebriation characterized by stupour…..” This unconscious state was seen as a metaphoric death, which is probably why so many drinking scenes on Maya vessels appear to occur either in the Underworld or in the presence of Underworld creatures, including Waterlily Jaguars, Gods A and A’, dancing bats, and skeletal animals. Drinkers were considered to have entered the underworld for a brief time, and therefore their “coming to” was seen as a rebirth from this dark realm (see Seler 1990-93[3]:206).

Discussion

The current study acts as a preliminary glimpse into pulque iconography and symbolism in the Maya and Aztec worlds. As the work presented above makes clear, many additional aspects of pulque use and symbolism remain open for further research. For instance, a more targeted analysis of not only Huastec pulque use, but of the nature of cultural interaction among the Maya, Aztecs, and Huastecs would provide invaluable information about the ways in which pulque practices and imagery were exchanged between these groups. The role played by the site of Cholula in this cultural interchange also deserves attention, especially as pulque appears to have played such an important role in the imagery of the site.10

Another potential path of research is the correlation of the iconographic arguments provided above with archaeological evidence from the Maya area. If the tools known from the Basin of Mexico to have been used for maguey cultivation and harvesting are present in the Maya area, then differences in their design can aid us not only in determining what kinds of agaves were once used, but to what purposes these plants were utilized. Although addressed above in its sacred and ritual context, maguey was also a very practical agricultural commodity that provided food, water, rope, cloth, paper, fuel, and other products for trade and exchange (see Evans 1990). It is important to understand the ways in which the identity and value of maguey as a practical resource overlapped, interacted with, and informed its identity as a ritual and sacred substance.

One of the most important questions that remains to be answered is: why pulque? How and why did this particular beverage become so deeply entrenched in Mesoamerican belief systems? First, I would argue that pulque is derived from a plant that is completely unique in the Mesoamerican world—the agave is unparalleled in terms of variety and breadth of uses to which it can be put. Aguamiel was seen as a practical and nutritious substitute for water, and the plant’s heart, when not removed for pulque production, can be roasted and eaten. Agave spines were used for bloodletting, and the plant’s fibrous leaves could be used to create paper, thread, cloth, rope, and building materials. In treeless areas, the dried agave could also be used for fuel. As Evans (1990:117) states, maguey allows life in the
most marginal of areas by providing food, water, and trade materials. No other plant in Mesoamerica can boast such a vast variety of uses. It is not surprising, then, that it would play such an important role in the ritual life and cosmology of Mesoamerica as a whole.

Second, though the widespread consumption of pulque may lead one to believe that the production of the beverage is rather simple, the process involved in converting a single maguey plant into vats of foaming pulque is extraordinarily complex and time-consuming. As Parsons and Parsons (1990) describe, the entire process, from the cultivation of the maguey plant to its castration, picking, and the harvesting of aguamiel, is dependent almost entirely on proper timing and a profound understanding of (and correct response to) the varying, often competing effects of the environment. In addition, pulque is extraordinarily perishable and travels extremely poorly. This evanescent quality of pulque, combined with the difficulty of production, may have further added to its value as a sacred substance.

Finally, and perhaps most importantly, pulque was envisioned as the product of self-sacrifice on the part of the maguey plant. In other words, pulque was the lifeblood that once ran through the maguey’s fibrous veins. The consumption of maguey blood, for both practical and ritual use, would have been just as sacred and symbolic an event as the consumption of maize, the flesh of the corn god. In both Maya and Aztec myth, gods and goddesses associated with maguey and pulque embody that fundamental Mesoamerican belief in sacrifice and restoration, in the reciprocal blood debt between mankind and their gods. It is not surprising, then, that pulque would have been conceived of as
analogous to water and vomit in addition to blood, for each of these, in its own way, is also a kind of ch’ulel, or sacred body substance. Pulque, blood, vomit, and water are all internal, precious, animating fluids—of plants, humans, gods, and even (particularly in the case of water) the celestial and terrestrial realms.

Conclusion

Though pulque has often been considered an exclusive characteristic of central Mexico, iconographic and glyphic evidence indicate that not only was it consumed in the Maya area long before the Aztecs rose to power, but it played a pivotal role in Maya religious belief. Aztec myths that associate the origin of pulque with the Huastecs, an isolated group of Maya speakers located on the Gulf Coast, indicate that the Maya may have had much more to do with the origins and development of pulque ritual and imagery in the Aztec world than has previously been imagined. As such, further study of the role played by pulque in Maya thought and ritual may serve to illuminate details not only about Maya religious practice itself, but also the nature of pulque and its associated imagery in the rest of Mesoamerica.

The overlap of rain gods with pulque gods, contexts of sacrifice by decapitation, strangulation, or heart extraction, and metaphors of the fertilizing and purifying powers of pulque, water, blood, and vomit, demonstrate the profound way in which this intoxicating drink was inextricably and universally woven into Mesoamerican cosmology. The Aztecs, for their part, were extremely careful in regulating the consumption of pulque—punishments for illicit consumption included whipping, slavery, and even death (Sahagún 1950-82:Book 6:69; Book 2:106, 148; Durán 1971:289)—but it should be made clear that such controls were established because of the ritual potency and importance of pulque, not because its use was considered immoral or sinful, as colonial accounts imply. Imagery from the Maya area, though perhaps revealing a much freer use of the beverage, nevertheless indicates a close relationship between pulque and underworld imagery, further evidence of pulque’s close association in Mesoamerican thought with death, transformation, and the otherworld.

Having outlined the visual system employed in the depiction of pulque in both the Maya and Aztec worlds, the consistency with which this alcoholic beverage was treated across time and space can be better appreciated. Pulque not only was considered integral to ritual practice, but maintained specific and detailed associations from the Classic Maya period through to the conquest period Aztecs. Pulque, for both the Maya and the Aztecs, embodied the fructifying and purifying aspects of water, blood, and vomit as well as the sacrifice and restoration of men and gods. This interconnected symbology of fertilizing fluids, sacrifice, purification, death, and renewal continued, for the most part unaltered, from the Maya to the Aztecs, across great spans of time and geography. The role pulque has played in Mesoamerican ritual thus deserves further thought and investigation and promises to reveal a great deal about a rich, complex, and significant aspect of Precolumbian belief systems.

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Notes

1. For more in-depth descriptions of this process, see Bye and Linares (2001) and Parsons and Parsons (1990).
2. The chih reading has been known and accepted by Maya epigraphers for some time. First proposed in an unpublished study by John Justeson, the term has been both confirmed and elaborated on in subsequent work by numerous scholars.
3. Though the contention that “Tlaloc” is a fusion of the words tlalli (earth) and octli (pulque) (Guerrero 1980:38 citing Seler) would further enhance this argument, a strict application of Nahuatl grammar indicates that such a fusion would have produced the name “Tlalloctli.” Instead “Tlacol” should be understood as a reduction of an original word tlahloqui, meaning “full of earth” (Sullivan 1972).
4. The prevalence of this headdress in palace scenes has been noted as a possible indication that it was considered general courtly dress rather than a specific attribute of God N. If this is the case, rather than people of the court wearing the headress to emulate God N, the deity may instead be depicted with the headdress as a perversion of reality, a gesture of ritual clowning in which an emaciated, bald, lecherous drunk can assume the dress of courtly men (See Taube 1989).

5. This maguey plant, seated on a throne with kawak markings, is frequently found in early inscriptions and appears to refer to either a mythical or historical site associated with early dynastic founding (See Grube 2004b). It would, indeed, be interesting to discover the identity of this site and why it is so closely associated with maguey.

6. Although beyond the scope of the current article, it would be interesting to examine the ways in which both breast milk and semen, as sacred and powerful bodily fluids, interacted with the complex of pulque imagery currently discussed (see, for instance, Monaghan 1990:567).

7. The Maya also considered balché, made from tree bark, to be identical to blood, since tree sap was considered “the blood of the tree” (Schele and Miller 1986:43; Gonçalves de Lima 1956:34). In modern day Communion, the Maya substitute tortillas and balché for the flesh and blood of Christ (Tozzer 1907:161).

8. Gonçalves de Lima (1956:166; see also Villacorta and Villacorta 1976) argues for the presence of maguey plants in the hands of God A (the death god) and God B (Chahk) on Dresden page 13. The items identified as maguey plants are also seen on Dresden page 12, carried by the Maize God. Thompson (1972:36-37) argues instead that these represent cacao pods. However, he also mentions that such items are often found splattered with blood and associated with bloodletting rituals, a point that might support a maguey reading instead. Unfortunately, in this instance, no glyphs are available which aid in identifying the plants.

9. Grube (2004a) associates these darker aspects, including connections to disease and death (Mok Chih, for instance, translates as “nausea pulque” [Grube 2004a:69]) to the central Mexican ahuiateteo, similarly linked to drinking, excess, disease, and death, a parallel that bears further investigation.

10. For general studies on the Cholula drinking scenes, see Ashwell (2004), Müller (1972), and Rodríguez Cabrera (2003).

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