



The Recipe for Rebirth:

Cacao as Fish in the Mythology and Symbolism of the Ancient Maya

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Abstract:

In the K'iche' *Popol Vuh*, the head of Hun Hunahpu is likened to a calabash gourd, and in Classic Period iconography, to a cacao pod. This association with cacao continues in Hun Hunahpu's offspring, the Hero Twins. Their self-sacrifice in the underworld parallels the stages of cacao processing: entrance into the underworld (burial, fermentation), burning (roasting), grinding of their bones on a metate, and pouring them into water. Subsequently, the twins are reborn as two fish. The first syllables of *kakaw* are homophonous with the first consonant and vowel in the proto-Mayan words for 'two', **ka*, and 'fish', **kar*. A visual representation of this wordplay occurs in glyphic spellings of *kakaw*, in which a fish, or a fish fin, is read as the syllable **ka**. The association between cacao and fish can subsequently be traced through mythology and iconographic representations, providing insight into the metaphorical value of cacao as a potent symbol of rebirth.

Introduction

Cacao (*Theobroma cacao*) played a significant role in Classic period Maya civilization (CE 250-900), both as a highly valued beverage, and as a major form of currency. Curiously, interpretations of the *Popol Vuh*, the K'iche' Maya creation story, have thus far seemed to indicate no special significance of cacao that would reflect its earlier prominence. Infrequently mentioned in the narrative, cacao is named as one of many food items, including maize, which emerge from the "Mountain of Sustenance" prior to the creation of humankind (Coe and Coe 1996:40–41).

Iconographic images from Classic period ceramics and stoneware reveal a significant and continuing connection between cacao and maize. Karl Taube has proposed that the Maize God is equivalent to Hun Hunahpu in the *Popol Vuh*, whose death and rebirth represent the agrarian cycle of planting and harvesting maize (Taube 1985). Mary Miller and Simon Martin have subsequently suggested that the intimate iconographic relationship between cacao and maize reflects their importance within Maya cultures, and that cacao may be associated with the transformation and rebirth of the Maize God (Miller and Martin 2004:63, 78; Martin 2006).

While there is no overt reference to Hun Hunahpu as either a deity of maize or cacao in the *Popol Vuh*, a closer examination of symbolic and linguistic elements in the text reveals several possible references to cacao that relate directly to the Hero Twins, the children of Hun Hunahpu, and their own journey of death and resurrection. The self-sacrifice and rebirth of the Hero Twins as fish-men appears to serve as both a metaphor for the multiple stages of cacao processing, and as a potential visual and verbal pun associating fish and cacao both through the spoken word *kakaw*, and the written form of this word that uses a fish glyph. Imagery from the Classic period demonstrates the presence of earlier versions of the story of fish transformation, as well as a relationship between cacao and fish. Combined with the rebirth of their father, the transformation of the Hero Twins suggests that cacao holds an essential symbolic position in the culture of the Maya as representative of death and rebirth, a meaning confirmed in the ethnographic record.



Figure 1: Cacao tree with the head of Hun Hunahpu as a pod. K5615 © Kerr June 4, 2000.

The Cacao Tree and the Maize Deity

Though not immediately apparent in the *Popol Vuh*, several references to cacao have been found within ancestral versions of the Maya creation story. First noticed by Taube (1985:6–7), K5615¹, a Classic period Maya vase from Nebaj (**Figure 1**), appears to depict an image related to an important passage of the *Popol Vuh*. Here, a parallel of the tree of *Puk'b'al cha'j*², which Allen Christenson translates as ‘Crushing Ballcourt’, is represented as a possible cacao tree, with fruit emerging directly from the trunk. In this highly stylized tree hangs the tonsured head of the Maize God, the equivalent of the father of the Hero Twins, Hun Hunahpu, who had been decapitated by

¹ Codes for Maya vessels are given as K numbers from Kerr (2006).

² Dennis Tedlock believes the word is misspelled as *pucbal*, while the intended name is *pusb'al cha'j* as ‘Place of Ballgame Sacrifice’ (Tedlock 1996:352). Allen Christenson notes that the word given may be *puk'b'al* ‘crushing’ or *pukb'al* ‘to fall from overripeness or decay’, while *pusb'al* may be an intentional pun (Christenson 2003:125).

the Lords of Death in the Underworld of Xibalbá after he and his brother were defeated there (Tedlock 1996: 95-97). There are two nearly identical cacao trees on vase K5615, each with a human head on the trunk, though a fruit hanging in the upper branch of the tree on the left appears with a human face (**Figure 2**). This may be a representation of the transformation of the head of the Maize God into a cacao pod (Miller and Taube 1993:135).

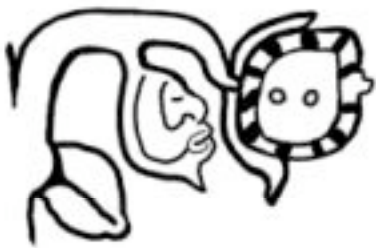


Figure 2: Detail of K5615. Head of Hun Hunahpu transforming into a cacao pod.
Illustration by author.

Among fruit, cacao appears to have a particular relationship with maize. As Miller and Martin (2004:63) have noted, the seeds inside a cacao pod are arranged much like the kernels of an ear of maize in both form and color, though they are somewhat larger. An early Nahuatl citation in Sahagun refers to cacao seeds “like corn kernels” (Dakin and Wichmann, 2000:58). This visual observation may have been connected to the symbolism of the decapitated head of the Maize God as an ear of maize inside a cacao pod.

Miller and Martin have proposed that the Maize God may also be a deity of cacao, as is evident in an image from a carved, gourd shaped stone vessel (K4331) that depicts the Maize God as an anthropomorphic tree covered in cacao pods (**Figure 3**). This vessel appears to name the figure depicted as *iximte* ‘maize tree’ (Miller and Martin 2004:63, 78). Martin additionally proposes that the arboreal Maize God as the *iximte* is related to the inverted caiman *imix yaxche* ceiba world tree, with which the Maize God is often conflated and named. Furthermore, inverted human or caiman forms are similarly depicted with vegetation and fruit emerging from their bodies, including cacao fruit (Martin 2006:166–67). The ceiba has ovoid seedpods that closely resemble

cacao fruit, and the Maya compare the shape of cacao pods with human breasts on several ceramic vessels found in the Popol Vuh museum in Guatemala City (Christenson 2003:139). Additionally, young girls in the Yucatec village of Chan Kom are told that playing with the fruits of the ceiba will make their breasts grow too large (Redfield and Villa 1934:207).

With green bark and spines reminiscent of a crocodile, the ceiba (*Ceiba pentandra*) is likened to an inverted caiman throughout Mesoamerica, while the caiman itself is a common symbol for the fertile, mountainous surface of the earth floating upon the ocean (Miller and Taube 1993:48). Therefore, it would follow that the *iximte'* as the caiman tree emerges as the offspring of the caiman-like earth. Martin suggests that the head of the arboreal Maize God may symbolically represent all fruit from the *iximte'* world tree (Martin 2006:164). However, among all fruit, it is cacao that is repeatedly associated with the Maize God and given pride of place. Martin therefore proposes that the cacao tree is representative of the tree into which the Maize God first transforms in the underworld, prior to his rebirth on earth as the *iximte'* (ibid:169).



Figure 3: Detail from K4331. Maize deity as anthropomorphic cacao tree. After Coe and Coe (1996).

The Cacao Tree and the Calabash

As Taube notes, the apparent cacao tree depicted in K5615 is a likely parallel of the tree of *Puk'b'al cha'j* in the *Popol Vuh*, in which Hunahpu's head is placed. However, in the *Popol Vuh*,

this tree is said to be a calabash, or gourd tree (*Crescentia cujete*), and the skull of Hun Hunahpu, a calabash gourd (Tedlock, 1996:97; 259). Both calabash and cacao trees share the quality of producing large fruit from flowers directly on the trunk, a characteristic known as cauliflory (Young 1994:83–84). Such fruits can be seen to resemble heads hung in a tree, but the fruits of the cacao and the calabash share additional, unique similarities. The calabash itself is associated with the traditional K'iche' and pan-Mesoamerican practice of drinking chocolate, and the thin-walled, hard-shelled and watertight calabash gourd is still used for the chocolate drink. These gourd-cups are referred to in the *Popol Vuh* as the skull of Hun Hunahpu (Tedlock 1996:97, 260, 356).

Furthermore, the calabash gourds used for the celebratory chocolate drink resemble some forms of ceramic vessels depicting Classic period *Popol Vuh* imagery. The Primary Standard Sequence (PSS) on the rims of many of these vessels identify them as containers for various cacao drinks (Stuart 1988; Reents-Budet 1994:75; Coe and Coe 1996:47). Their thin walls imitate the thin shell of the calabash gourd-skull (Tedlock, 1996: 260), and some glyphic texts refer to this quality: *hay y-uch'ab* 'thin-walled drinking vessel' and *u-tsimal hay*, 'his thin gourd' (Reents-Budet 1994:114–27).

At the beginning of Part Three of the *Popol Vuh*, the authors introduce Hun Hunahpu, and his brother Vucub Hunahpu, asking us to drink to the Father of the Hero Twins. Tedlock interprets this as raising a calabash gourd of chocolate, the traditional drink of K'iche' "Masters of Ceremony" *nim chokoj* (possibly from K'iche' *chokola'j*, connoting the gathering of food and drink, specifically cacao, for a banquet). This symbolic drinking from the skull of Hun Hunahpu precedes the story of the origin of the calabash, and the story of Hun Hunahpu, which then unfolds (Tedlock 1996:249; 322).

While the calabash and the cacao tree may be regional or temporal variations in the creation story, the two may have been simultaneously used and not mutually exclusive, as is often the case with richly metaphorical and overlapping Maya imagery. The ethnographic evidence from the lowland Ch'orti' supports this notion. Raphael Girard describes the rites performed to bring rain and fertility to crops among the Ch'orti' in the mid twentieth century. In this ritual, calabash gourds

containing chilate, a drink of maize and cacao, are used by the elders to represent the cranium of the Ahpú, the Ch'orti' equivalent of Hun Hunahpu (Girard 1995:271–73, 375). Here, the intimate association between cacao and maize as the contents of the calabash is particularly notable.

In the *Popol Vuh*, the tree of *Puk'b'al cha'j* in which Hun Hunahpu's head is placed was previously barren. When his head is put in the fork of the branches, many fruit begin to appear, indistinguishable from his head. This unusual tree is then marked as forbidden by the Lords of Death, though rumors spread in Xibalbá of the sweetness of its fruit. As Tedlock notes, the calabash fruit itself is relatively inedible, let alone sweet. K'iche' collaborator and day keeper Andrés Xiloj concludes that the rumor in Xibalbá was based on misinformation (Tedlock 1996:260–61). However, the fruit pulp of the cacao tree is very sweet, and the flesh surrounding the raw beans is highly sought after, consumed fresh as fruit, as juice or fermented as a wine (Young 1994:15; Coe and Coe 1996:66; Bruman 2000:97). If the fruit in question is cacao, it would explain the rumors circulating in Xibalbá; however, if it is a calabash gourd, perhaps the sweetness refers to the cacao beverage contained within it.

In the myth, the citizens of Xibalbá are forbidden to go near the tree, but the maiden Xkik', or Lady Blood (Christenson 2003:128), approaches the tree in secret. Xkik' is the daughter of Kuchuma kik', an underworld lord who has been associated with God L of the Classic period, the patron of merchants and cacao (Schellhas 1904; Tedlock 1996:97–98, 251; Coe and Coe 1996:57). Martin discusses the role of God L as the principal foe of the Maize God, and the Classic period parallel of one of the Lords of Death. The merchant God L thus becomes the wealthy owner of the underworld cacao tree into which the Maize God initially transforms (Martin 2006:169–70).

The maiden Xkik' encounters the skull in the tree (Tedlock 1996:98–99):

“What’s the fruit of this tree? Shouldn’t this tree bear something sweet? They shouldn’t die, they shouldn’t be wasted. Should I pick one?” said the maiden.

And then the bone spoke; it was here in the fork of the tree:

“Why do you want a mere bone, a round thing in the branches of the tree?” said the head of One Hunahpu when it spoke to the Maiden.

“You don’t want it,” she was told.

“I do want it,” said the maiden...

Xkik’ reaches up to touch the fruit, the skull of Hun Hunahpu, and he spits into her hand. He tells her that she would then become the mother of his twins, and that she must leave the underworld. With the help of owl messengers, Xkik’ escapes her impending sacrifice after her father and the Lords of Death discover her pregnancy. The owls return her safely to the surface of the earth, where her children, the Hero Twins, Hunahpu and Xbalanque, are born (Tedlock 1996:99–102).

Fertility and Humanity: Cacao and the Resurrection of Maize

The association between cacao and fertility can be found in historical and folkloric accounts of the uses of cacao in both Mesoamerica and Europe. Throughout Mesoamerica, cacao is used to symbolize fertility in marriage ceremonies (Coe and Coe 1996:63; 94–96). Among the Ch’orti’, Girard describes how the ritual beverage of chilate is used in an important agricultural ritual to fertilize the earth. Representing the dual aspects of the cosmos, a dark cacao chilate, and a white maize chilate are used. The cacao chilate is offered to the deities and consumed in gourd cups, while the white chilate is poured along the vertical axis of a foliated cross and into the earth from a calabash gourd. This parallels the above passage of the *Popol Vuh*, and the impregnation of Xkik’ by the gourd skull (Girard 1995:234, 238, 271–74). At the base of the foliated cross sits a statue of personified maize in a shrine “that represents the double mystery of the seed in the bosom of the earth or of the child in the maternal womb” (Girard 1995:274), a symbolic equivalent of both the forthcoming birth of the Hero Twins, and the rebirth of Hun Hunahpu as the deity of maize and agricultural sustenance.

As the children of Hun Hunahpu and Xkik', the Hero Twins themselves are later represented by maize plants that are planted in the center of the house of their grandmother, Xmucane. As we shall see, these twins again travel to the underworld to face their own death and resurrection. When these twins die, their maize plants likewise wither and die on the surface of the earth. But with their resurrection, the maize plants once again grow green. Xmucane then grinds white and yellow maize from the Mountain of Sustenance to form the bodies of the first human beings at the beginning of the current creation (Tedlock 1996:139–40; 146). This parallels the rebirth of the Maize God emerging from the crack in the back of the Earth turtle, as seen in several images from Classic period ceramics. In this scene from the Resurrection Plate (K1892), the Hero Twins preside over the rebirth of their father, with their names appearing above their heads as Hun Ajaw and Yax Bahlām (**Figure 4**). The Maize God is here named as the caiman maize tree, apparently reading 'One Maize Caiman' as Hun Ixim Ahin (Martin 2006:166).



Figure 4:
Resurrection Plate.
K1892
© Kerr June 6, 1998.

Girard similarly describes the Ch'orti' preparation of boronté (nine-drink) during a ceremonial banquet. This chilate is composed of maize, cacao and pure water from a sacred spring. Prepared only by the oldest female elder, the drink is designated for both divine and select human consumption. Girard sees this as a direct parallel with the *Popol Vuh* story of Xmucane who makes “nine drinks” from the foods found in the Mountain of Sustenance, here represented by maize and cacao. These drinks are seen to be the source of “life, strength, and vigor” for the newly created humanity (Girard 1995:139; 1979:247). Alan Christenson alternately translates this passage as describing maize that is ground fine “with nine grindings by Xmucane,” nonetheless noting the unique creative power of Xmucane as the elder female who acts alone to create human flesh, with nine being the number of months of human gestation (Christenson 2003:195).

The mythical and symbolic association of cacao with maize is clear. As Mary Miller and Simon Martin note, they are the two most important crops in the Maya economy (Miller and Martin 2004:62). It is not surprising to see this important relationship reflected in mythology. While the *Popol Vuh* describes maize itself as the symbolic and literal raw material out of which the original people are made, cacao may have been another key ingredient which brings humanity to life.

Cacao and the Hero Twins

While the Hero Twins are compared with terrestrial maize in the *Popol Vuh*, their simultaneous death and rebirth in the underworld strongly suggests an association with cacao. This pattern follows Martin's observation that cacao is associated with the underworld, while maize appears as its analogue on the surface of the earth (Martin 2006:170). With their father likened to a cacao tree, the Hero Twins may metaphorically represent cacao seeds, and their fate in the underworld implicitly illustrates this comparison.

When the Hero Twins come of age, they discover the ball game equipment of their father and uncle. Like their father and uncle before them, the twins soon anger the Lords of Death by playing loudly, and they are then invited to play another deadly game of ball in Xibalbá, but this

time something is different. These twins are smarter and more fearless, as they are endowed with magical powers (Tedlock 1996:111–19).

The twins endure many tests, including the ball game, but they are not defeated. They pass through the houses of cold, knives, fire, jaguars, and bats, and they persist, despite even the decapitation of Hunahpu (Tedlock 1996:119–29). Eventually, after a final ball game, the Lords of Death tire of their adversaries' ability to outsmart them, and they plot to kill the twins by inviting them to a drinking celebration. Here, the Lords of Death plan to burn the twins in a pit oven disguised as a vat used to prepare an intoxicating sweet drink.

The precise word for the drink in the *Popol Vuh* is *ki'*, or 'sweet drink'—commonly known as a boiled, fermented, maguey and honey mixture (Tedlock 1996:131, 245). The term *ki'* confers the meaning of sweet, delicious, and rich throughout the Maya area, within both K'iche' and Yucatec (Campbell 1971: 205; Bricker 1999: 127). Though often associated with maguey, *ki'* also refers to *chicha*, a fermented drink made from a variety of fruits, berries or maize (Christenson 2003: 103). Henry Bruman characterizes the Maya lowlands as a region in which these kinds of fruit and honey drinks are the preferred alcoholic preparations, whereas maguey agaves are less prevalent in these wetter areas (Bruman 2000: 3; 91-97). The drink mentioned in the *Popol Vuh* may well have been fermented cacao wine made from the boiled pulp of the fresh cacao pod, known to have been made by the Maya and elsewhere in Mesoamerica (McNeil 2006:346; Henderson and Joyce 2006:143–45). Considering the following passage, this remains a strong possibility.

The Lords of Death invite the twins to jump over the drink, with the intention of pushing them into the fire. Instead, the twins decide to willingly jump directly into the flames. Here, like cacao bean children of their cacao pod father, the twins are burned and their bones are ground into powder on a metate, "just like hard corn is refined into flour" (Tedlock 1996:130, 131). This reference to corn would at first seem to suggest that the twins represent the preparation of maize. However, a closer analysis of this passage reveals that it parallels the complex, multi-stage process of refining cacao as described in Young (1996:74–79):

- (1) the burial of the seeds and pulp (entering the underworld)
- (2) fermentation (fermented sweet drink)
- (3) roasting (jumping into the fire)
- (4) grinding (bones ground on metate)
- (5) mixing with water (poured into a river)

This passage may metaphorically describe the origin of cacao use and the processing of the ritual drink. Girard (1979:252) interprets descriptions of previous worlds in the *Popol Vuh* as stages of social development, including the discovery of various agricultural and cultural technologies:

We have in fact followed the process of formation of maize, fabrication of cigars, the origin of the calabash and the place where it was first known, incense, the ball game, the beginning of the potter's art, the use of the grinding stone, the evolution of the calendar, etc. As for cacao, we learn that two varieties existed....we have additional information in the Quiché manuscript of Francisco Garcia Calel Tzunpán, which mentions that a king, Hunahpú, was the discoverer of cacao and of cotton.

The story of the death of the Hero Twins expands upon Girard's thesis, providing the possible missing elements in the story of the origin of cacao, and a rationale for Hunahpu as its discoverer. The two varieties of cacao mentioned in the *Popol Vuh* include both cacao and *pek*, or *pataxte* (*Theobroma bicolor*), a species related to *Theobroma cacao*, but of inferior quality and taste (Tedlock 1996:111, 146, 352).

Not all contemporary preparations of cacao are roasted, as some beans are ground after having dried in the sun (McNeil 2006:344–45). Likewise, there are other known Mesoamerican drinks made from fermented maize seeds, such as maize chicha and tesgüino, made from

germinated maize seeds, yet none of these are roasted or ground following fermentation (Bruman 2000:37; 95-97). Similar to the Ch'orti' chilate, a common Maya concoction combines toasted maize with fermented and roasted cacao and red achiote to form a ritual drink known as *q'atuj* among the Tz'utujil (Stanzione 2000:189). The intimate connection between cacao and maize may indicate that the Hero Twins represent this sacred combination, but it becomes clear in the following passage that their self-sacrifice in the underworld specifically seems to emphasize cacao.

The fresh pulp of the cacao pod surrounding each seed is used in the fermenting process and in the creation of cacao wine. Cacao seeds, unpalatable and bitter in their raw state, were probably initially discarded until it was discovered that the fermented and roasted seeds produce the novel flavor of chocolate. However the complex technology of cacao processing was discovered, the mythical retelling of this process in the K'iche' narrative of the Hero Twins may reveal underlying spiritual and symbolic meanings associated with cacao. This metaphor of cacao processing in the *Popol Vuh* continues as the powdered bones of the twins are spilled into a river. When mixed with the water of the river, much like the last stage of making the cacao drink, the twins are soon resurrected as two fish-men, which then transform back into masked human forms of Hunahpu and Xbalanque:

They were seen in the water by the people. The two of them looked like catfish [*winaq kar*, literally 'person fish'] when their faces were seen by Xibalba. And having germinated in the waters, they appeared the day after that as two vagabonds... (Tedlock 1996:132, 280).

Cacao and Fish

Particularly in their sacred literature, the Maya are renowned for their usage of elliptical references and puns as highly valued literary devices. In some cases, these puns may have served as riddles using the figurative language of Zuyua to test the legitimacy and scholarship of aspiring

lords required to possess religious knowledge (Roys 1933:88–98; Christenson 2003:174,178, 210).

Riddles about food constitute the primary form of questioning in the *Chilam B'alam of Chumayel*, in which village officials are asked to procure specific items during a ritualized inauguration of the twenty -year k'atun cycle. These foods are disguised by puns and metaphors that are difficult to understand outside of Yucatec, in part due to incomplete or widely varying translations and lack of contextual and cultural information. One of the cacao food riddles refers to cacao foam colored with the red seeds of achiote (*Bixa orellana*) as the rising crest of a red cardinal (Barrera Vasquez 1985:139). These riddles figuratively refer to *muxb'il kakaw* 'ground cacao' as *yax pak'ab' chi*, which Roys (1933:94) translates as 'the first thing which glues together my mouth'. This seems to be a pun for *yax pak'ab' che'*, perhaps as 'first planted/profitable tree', and one example in the *Chilam B'alam* actually uses this spelling. The root *pak'* connotes 'to stick', to plant' and 'to profit', with *pak'ab'* attested as 'to plant stone-fruit trees' and *ah pak'ab' te* as 'planter of cacao' (Barrera Vasquez et al. 1980:624–25). If the *yax pak'ab' che'* is the 'first planted tree', the reference may recall a mythological tree in the underworld comparable to that in which Hun Hunahpu's head was hung. Such a reference could thus demonstrate a familiarity with sacred knowledge.

The use of metaphors and puns within the *Popol Vuh* has been widely documented³, and Frauke Sachse and Alan Christensen (2005:1) have recently explored the antiquity of some of the figurative themes found within Maya texts:

Metaphorical language is to date one of the lesser-studied fields in Maya studies and Mayan linguistics, notwithstanding the incredible potential insight into precolonial Maya culture that is encoded in metaphorical speech...

³ Edmonson (1971); Tedlock (1996); Christenson (2003).

Puns associate otherwise arbitrary, unrelated words and categories, and such associations frequently appear in mythological texts. Furthermore, hieroglyphic texts provide an additional possible basis for visual punning through the use of recognizable images that represent a range of homophonous words. In an example from Sumerian script, the words for ‘life’, ‘rib’, and ‘arrow’ are all homophonous, represented by the glyph of an arrow, pronounced *ti*. Asko Parpola (1988) notes that such homophonous words are often the source of etiological myths. In this instance, Samuel Noah Kramer (1961:102–03) first noticed that the words for ‘to make live’ and ‘rib’ gave rise to the Sumerian myth in which the goddess Nin-ti heals the god Enki’s rib:

The goddess created for the healing of Enki’s rib therefore was called in Sumerian Nin-ti, “the lady of the rib.” But the very same Sumerian word *ti* also means “to make live.” The name Nin-ti may thus mean “the lady who makes live,” as well as “the lady of the rib.” In Sumerian literature, therefore, “the lady of the rib” came to be identified with “the lady who makes live” through what may be termed a play of words. It was this, one of the most ancient of literary puns, which was carried over and perpetuated in the Biblical paradise story, although here, of course, it loses its validity, since the Hebrew word for “rib” and that for “who makes live” have nothing in common.

Kramer notes that the Hebrew name Eve also means ‘she who makes live’, and she is fashioned from Adam’s rib. Parpola (1988) adds:

Puns are language specific, but etiological myths based on them can travel from one folk to another. If the Sumerian myth just mentioned was not known, it would be difficult to understand why Eve was created from Adam's rib. The Hebrew name of Eve, *Hawwa*, means ‘life’ (cf. Genesis 3:20, “And Adam called his wife's name Eve; because she was the mother of all living”), but it has no resemblance to the Hebrew word for ‘rib’, *sela*. On the other hand, we know from the Bible that the Virgin Mary did not become pregnant from a

berry eaten in the forest. Undoubtedly, this peculiar version of the Biblical story in the ancient Finnish folklore owes its origin to the homonym *marja* 'berry' that the Finnish language has for the proper name Maria.

Following their metaphorical transformation as processed cacao, the resurrection of the Hero Twins as two fish is particularly interesting in that there is a known association between cacao and fish in the Maya script. The word *kakaw* frequently occurs as a common element within the Primary Standard Sequence, indicating the contents of the labeled container on which it is written. In Classic Maya hieroglyphs, *kakaw* is spelled phonetically using the glyph of a fish scale or fin (T25)⁴, and a fish (T738), both connoting the syllable **ka**. This is followed by the syllabic glyph **wa** (T130). These glyphs are commonly shown in succession, as on the Río Azul cacao pot (**Figure 5**). This is one of the earliest known examples of a written form of cacao, dating from the fifth century CE (Stuart 1988). The syllabic value of both T25 and T738 as **ka** arises from a Mayan word for fish as *kar* or *kay*. This demonstrates the principle of acrophony in which the syllabic value of a sign is derived from the first consonant and vowel of the word it depicts. Note that these glyphs would not have arisen in a Greater Tzeltalan language, all of which pronounce 'fish' with an initial *cha*-. This includes Ch'oltian, the proposed language of the Classic period script (Houston et. al 2000).



Figure 5: Cacao glyph from Río Azul cacao pot. After Coe and Coe (1996).

⁴ Individual glyphs are identified by their assigned T-numbers from Thompson (1962).

The written form of *kakaw* visually suggests a pun on fish. There are no other syllabic glyphs known to represent the syllable **ka**, therefore, it is unlikely that scribes would have intentionally chosen to represent a visual pun for this particular word. It is more likely that the metaphor of cacao processing and fish transformation derived from either the written form of the word *kakaw*, or from a verbal pun.

When writing *kakaw*, the scribe often used only the fish glyph without a phonetic **ka** prefix (Reents-Budet 1994: 77), and sometimes without even a **-wa** suffix (K1183, *ibid.* 119), demonstrating a stylistic preference for the fish image as an under-spelled form. This fish glyph is sometimes preceded by a two-dot symbol signaling repetition of the following glyph, in this case *ka* (Stuart and Houston 1994:46). In Mayan languages, the root of the number ‘two’ is also curiously homophonous with *ka*, perhaps also serving to verbally (and with the duplication sign, visually) reinforce the *two fish* imagery in the *Popol Vuh* pun. Note that the cacao glyph in Figure 5 includes both the fish and fish fin glyphs as well as the duplication symbol.

Morphologically, the word *kakaw* does not appear to be of Mayan origin, and the pan-Mesoamerican and pan-Mayan presence of this word suggests an ancient origin and distribution (Campbell and Kaufman 1976). Several authors have proposed that related terms for *kakaw* originated in either Mixe-Zoquean (Campbell and Kaufman 1976; Justeson and Campbell 1984) or Uto-Aztecan language families (Dakin and Wichmann 2000:59). Most likely, *kakaw* did not originate as a term for *two fish* in any Mayan language, and if this association was recognized, it would have derived from either the spoken Mayan interpretation of the loan word, or the written Mayan form of the word with the use of the acrophonic *ka* fish glyphs. While *kakaw* is a borrowed word, the visual and verbal puns for *two fish* appear to be possible only in Mayan languages, and the metaphor for cacao processing depicted in the mythological episode of fish transformation would have arisen from a Maya source.

There is a potential association between words for ‘fish’, ‘two’, and ‘cacao’ within most Mayan languages. The similarity of *kakaw* and such forms as *ka’ kar*, ‘two fish’, could have been a verbal source of the fish transformation episode in the *Popol Vuh*. In all Mayan languages, except

in the Greater Tzeltalan forms (including Ch'olan), all three of these words begin with *ka* (**Table 1**). In Yukatekan, K'ichean, or any but the Tzeltalan languages, the word *kakaw* is very similar to a phrase for 'two fish', though without the presence of a numeral classifier.

A play on words between cacao and *two fish* could function in the Yucatecan family. In contemporary Yucatec the grammatically proper way to say 'two fish' is *ka'ah p'éel kay*, with the obligatory numeral classifier *p'éel* (Bricker et al. 1998:228; 367). However, evidence suggests that contractions exist in commonly used terms such as *k'atun*, a period of twenty years from *k'áal* 'twenty' (Bricker et al. 1998:144) and *tun*, a period of 360-days. In addition, imprecision often contributes to the humor of a pun, which sounds like a mistaken usage of words. For a pun to function, it is only necessary that the words involved closely resemble one another, and the relationship between usually ambiguous categories appears as a surprise.

In all likelihood, the verbal pun between *kakaw* and 'two fish' would not have arisen in the Greater Tzeltalan languages, including the Ch'olan family. In Ch'olan languages *kakaw* does not exhibit the sound change of **k* to *ch* that occurs in the words for 'two' and 'fish'. If Ch'olan speakers recognized the cacao/fish symbolism, it might have had more to do with the visual pun in the script. Otherwise, the verbal pun may have originated elsewhere, or at a much earlier time. Given the presence of the *k* in Ch'olan *kakaw*, it appears that the word was not affected by this sound change, perhaps having been adopted after the shift took place, or having retained the common pronunciation as a widely traded item. Once again, it is worth mentioning that if the scribal language of the Classic period was a Ch'olan tongue, they apparently retained the use of the **ka** fish glyph as derived from *kay* or *kar*, even though they pronounced 'fish' with an initial *ch*-.

Table 1: Comparison of Two, Fish, and Cacao**Language Family**

<u>Language</u>	two	fish	cacao
<u>Yucatecan</u>			
Yucatec^a	ká'a	kay	kakaw
	ká'ah		
Itza^b	ka'	kiy	kakaw
		käy	
<u>Greater Tzeltalan</u>			
<u>Cholan</u>			
Proto-Cholan^c	*cha'	*chäy	*kākāw
<u>Eastern Mayan</u>			
<u>K'ichean</u>			
K'iche'^d	ka'ib'	kar	kakaw
<u>Proto-Mayan^e</u>	*ka'-ib'	*kar	*pee ^q

Sources: a. Bricker et al. 1998, Fisher 1973; b. Hofling & Tesucún 1997, Fisher 1973;

c. Kaufman & Norman 1984; d. Campbell 1977, Kaufman 1976; e. Kaufman & Norman 1984.

Within the script itself, the visual pun would still appear to work given the uniform spelling of cacao with a fish glyph. However, it is also possible that the verbal pun may have been recognized in the scribal language found at various sites in the Classic period. In Palenque, the word 'fisherman' is spelled *kayom* (Stuart 2006:51), indicating that they pronounced 'fish' *kay* at this site. Similar examples from Palenque demonstrate that there was a significant degree of Yucatecan influence here and in the northwest lowlands during the Classic period (Stuart 2002:3–4).

In K'iche', the language of the *Popol Vuh*, the verbal pun could function well. The number 'two' is *ka'(ib')*; 'fish' is *kar* (Campbell 1977). The play on words between 'two fish' and *kakaw* could have been an oral embellishment of the K'iche' authors of the *Popol Vuh*, though if the fish transformation of the Hero Twins was represented in earlier iconography, the possibility then remains that this episode derives from a much earlier account, and perhaps from the use of the Maya script itself.

Iconographic Representations of Fish Transformation

The Hero Twins' transformation into fish suggests both a visual and a verbal pun on *kakaw*. This interpretation is supported by the metaphorical parallel between cacao processing and the transformation of the twins, in addition to their relationship to their father who appears as a cacao tree in the Classic period. However, several questions remain. If we accept that the K'iche' authors recognized the transformation of the Hero Twins as a metaphor for processing cacao, are the visual and verbal puns on *kakaw* and fish a mere coincidence? If one or both of these puns were recognized by the K'iche', were they also recognized by Lowland Maya cultures in the Classic period? Was there a similar story of fish transformation in the Classic period? If so, did this have anything to do with cacao? These questions are difficult to answer definitively, but an exploration of earlier iconographic representations of fish transformation may provide some clarification.

Evidence from Izapa

Iconographically, the earliest evidence of imagery related to the *Popol Vuh* comes from the Preclassic site of Izapa, dated at about 300 BC. Located on the rich, cacao-growing Soconusco Coast close to the Maya highlands, the area surrounding Izapa is inhabited by Mixe-Zoquean speakers, and Kappelman (1997) suggests that the ethnicity of ancient Izapa was likely Mixe-Zoquean. Apart from possible eroded day signs, there is no hieroglyphic writing evident at this site, yet the narrative scenes depicted on many stelae bear similarity to Classic Maya iconography and to specific passages from the *Popol Vuh* pertaining to the Hero Twins (Barba 1988; Lowe et al. 1982; Norman 1976). In particular, several images in Izapa depict the episode of the Hero Twins

confronting the Principal Bird Deity, apparently related to Seven Macaw (Taube 1980; Lowe et al. 1982).

An image from Stela 5 (**Figure 6**) appears to relate to the fish transformation in the *Popol Vuh*, amidst a large fruiting world tree in the center of the image. V. Garth Norman describes the scene on this stela as a “supernarrative” that may represent events from multiple world ages in an unfolding creation story (Norman 1976:165–239). The largest figures on Stela 5 are anthropomorphic birds on either side of the tree that have long, protruding beaks. In the unlikely location of the sky, a pair of fish appears in association with a water lily, a familiar theme found throughout Classic period iconography. A similar pair of fish nibbles on fruit or seeds hanging from the arm of the bird figure to the left of the tree. These two fish rise directly from a river that emerges from a smoking incense burner sitting between two figures at the bottom of the scene (Norman 1973:pl. 10). Recognizing a possible parallel, Norman first suggested that this image recalls the fish transformation of the twins in the *Popol Vuh* (1973: 234). The incense burner may therefore represent the fire in which the twins were burned.

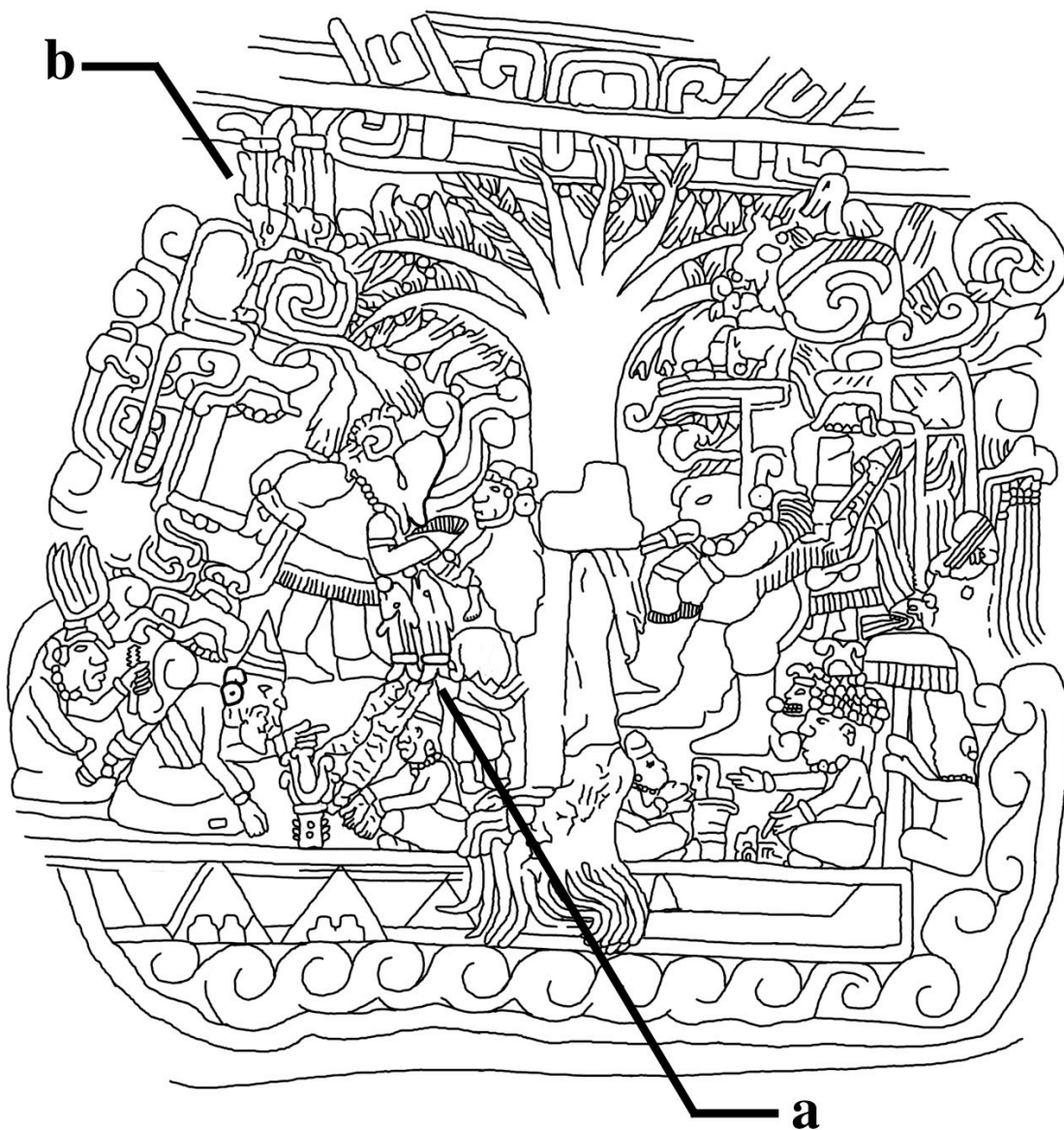


Figure 6: Stela 5 from Izapa, showing images of two fish (a) rising from the smoke of an incense vessel in what appears to be a larger narrative. Note similar fish pair above (b).

Illustration by author after Norman 1973: pl. 10.

It is tempting to suggest that the pair of fish depicted on Stela 5 represent the transformation of the Hero Twins who are depicted elsewhere in Izapa, but it is difficult to determine if this is the case. Similar pairs of fish are evident in Stelae 1, 22 and 67 from Izapa, but there is no direct

indication that these fish represent the transformation of the twins. In fact, Stela 1 (**Figure 7**) appears to relate to the hydrological cycle, with an early representation of the rain deity Chaak in the act of fishing. Chaak himself has visible human-fish attributes, but the fish themselves seem to represent water transforming into cloud scrolls and falling rain (Norman 1976: 86–91). Similarly, the pair of fish rising from the incense burner in Stela 5 may simply evoke rain clouds, which both resemble and are sympathetically invoked by clouds of incense in contemporary Maya communities. However, rain symbolism would not sufficiently explain the fruit or seeds in the mouths of the fish rising from the incense burner, resembling those found on the central tree.



Figure 7: Izapa Stela 1. Note fish in net, fish on back basket, and two fish beneath.

Illustration by author after Norman 1973: plate 2.

Norman (1976:196) concludes that the mythical tree in Stela 5 is a ramon, or breadnut, possibly used as a primary food source in the region before the arrival of maize, but a certain identification is not possible. While the large leaves of this tree also resemble cacao leaves, the

unusual size of the trunk and the comparatively small size of its fruit high in the branches indicate that this tree is most likely not cacao. Considering Martin's (2006) proposal, the centralized depiction of this tree indicates its role as a world tree akin to the *iximte'* and the *Imix* caiman tree. As we have seen, cacao and maize both appear to have a particular relationship with this original tree, but there are no overt references to either maize or cacao on Stela 5.

Certainly, the ubiquitous presence of cacao in this region, and specifically at the site of Izapa (Lowe et al. 1982: 43-52), would lend itself to a depiction of an origin story of cacao in Stela 5, but this assumes that the fish transformation is being depicted, that the fish/cacao wordplay was observed prior to the existence of any writing system, and that the people of Izapa spoke a Mayan language. We can therefore only cautiously conclude that it remains uncertain whether Stela 5 depicts the fish transformation from the *Popol Vuh*.

Evidence from the Classic period

While there is rarely a direct correspondence between imagery from the Classic period and the K'iche' *Popol Vuh*, transcribed over six-hundred years later, the Hero Twins are widely represented on Classic period vessels, along with the Maize God who appears to be their reborn father. Significant variations are apparent in the Classic period that reflect episodes not found in the K'iche' narrative. Likewise, some events in the *Popol Vuh* are not represented in the Classic period.

Regarding the death and transformation of the twins, very few explicit references from the Classic period are evident. However, one vase (K1256) appears to show a scene related to the self-immolation and aquatic rebirth of the twins as two fish (**Figure 8a, b**). This vase falls in the tradition of depicting various *way* spirits that are named in association with real or mythological toponyms, lineages, or lords. Often, *way* spirits are identifiable as mythological characters, and in some cases they may indicate a ritualized performance or parallel in which human actors or polities relate to mythological events. Though the writing on K1256 is difficult to read, the *way* characters are each named, along with the toponyms or names with which they are associated.



Figure 8a: Group of four way characters in a pictorial counterclockwise cycle of death and rebirth that mimics the self-immolation of the Hero Twins, and their rebirth as two fish. K1256 © Kerr March 6, 1998.



Figure 8b: Inset tracing by author of two fish in K1256.

Nikolai Grube and Werner Nahm (1994) have organized all known *way* characters by name, and some of the figures on K1256 occur elsewhere. The primary *way* character on this vase is a standing skeletal god of death holding a severed human head. His *way* name is ‘fire center death’ (ibid:706). The spatial relationship of various *way* characters may simply be arbitrary. However, in front of this skeletal figure to the left, four characters are portrayed in a circular composition suggesting a counter-clockwise cyclical movement.

Beginning with the lower left, the first of these four characters, is vertically inverted and in flames, evoking the self-immolating twin Hun Ajaw, here wearing a characteristic ajaw headband. Grube and Nahm note that his *way* name contains either *k’ak* ‘fire’ or *butz’* ‘smoke’, and fully upright versions of this *way* appear on several other vases (ibid:710). Comparisons with another example of this *way* in K5112 (**Figure 9a**) show the glyphs preceding **K’AK’** (T122) as **pu** (T854) and possibly **li** (T24), giving *puliy k’ak* ‘fire burned’.

The only other inverted burning figure found elsewhere is an image of the Waterlily Jaguar from K2942, apparently diving within a similar cartouche of flames (**Figure 9b**). Elsewhere this jaguar *way* is named *k’ak’ hix* ‘fire jaguar’ (ibid:687). Another Waterlily Jaguar is depicted to the left of the burning twin on K1256, entwined with a rattlesnake and named with an **EK’** (T2) star sign. This *way* jaguar appears elsewhere with star signs affixed to the bodies of both the jaguar and rattlesnake, indicating a celestial identity (ibid:688). All of these jaguar figures invite a comparison with the jaguar twin Yax B’ahlam. In fact, one of the other upright versions of the burning human *way* in K3831 appears to be the jaguar twin himself, with jaguar markings around his mouth and on his arms and legs (**Figure 9c**).

The shoulders and head of the inverted burning figure on K1256 are on the ground, pointing to the right. Emerging to the right of his head is a water-band containing two round fish recalling the duality of the twins: one black, one white (**Figure 8b**). The fish appear to jump over and face another severed head held by a reclining human figure, again resembling a twin with a bird headdress like those worn by the twins in the Resurrection Plate (K1892). Here, the *way* name reads *hal winik* ‘water man’ and this is the only known occurrence of this figure (ibid:710). In

association with the burning twin, these two fish suggest the death and rebirth of the twins, while the severed head may relate to the head of either Hun Hunahpu or Hunahpu, who also loses and regains his head prior to his self-immolation.

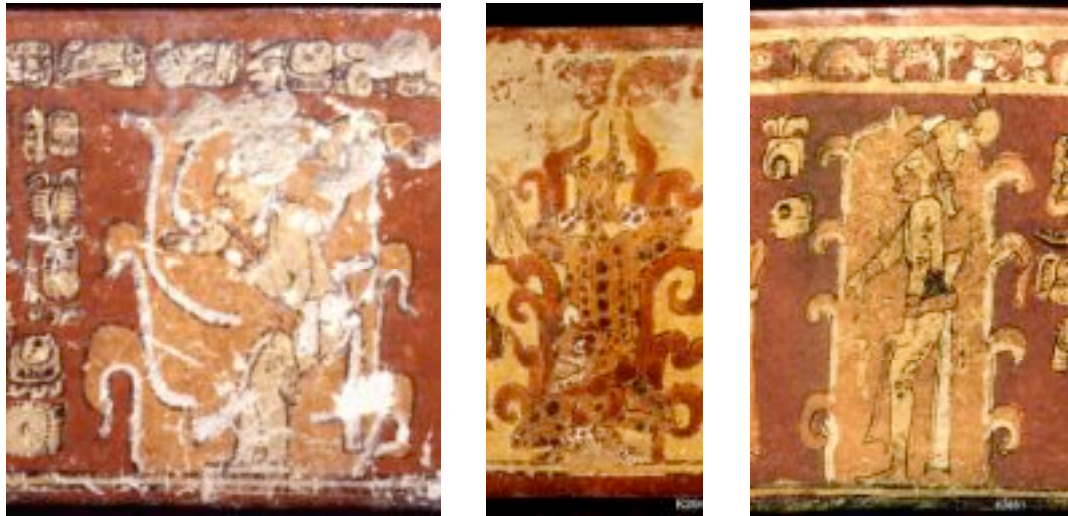


Figure 9: a) K5112 © Kerr 1-19-1998; b) K2942 © Kerr 8-28-1998; c) K3831 © Kerr1-25-1995

Above the two fish rises a vertical, floating human figure wrapped in a bicephalic skeletal serpent-centipede, the recognizable *sak b'ak' nah chapat* (ibid:702). Spatially, this character complements the inverted burning figure in the opposite corner, with one rising and the other falling. Following their resurrection in the *Popol Vuh*, the Hero Twins were said to have done the 'dance of the Centipede', among their other magical feats (Christenson 2003:180). Perhaps this is an image related to that episode.

To the left of the serpent-centipede figure, above the flames of the first character, floats the fully fleshed *chihil chan*, the deer-serpent, out of whose mouth emerges a human face (Grube and Nahm 1994:693). In several images, it is the Maize God himself who emerges from the mouth of this serpent (Quenon and LeFort 1997). Usually affixed to the tail of the *chihil chan* is the flaming ajaw sign T535 known to represent 'child of father' (Justeson 1984:341). This affixed glyph may refer to the function of this serpent as a vehicle for the birth or rebirth of male children, or it may serve to label the serpent itself as a male child. Indeed, a flaming ajaw itself suggests the burning

death and rebirth of Hunahpu. Together, the skeletal serpent-centipede and the *chihil chan* complement one another as clear symbols of death and life. Taken as a whole, these four way characters seem to convey two complete cycles of death and rebirth, including the self-immolation of the twins, their rebirth as fish, and the rebirth of the Maize God from the *chihil chan*.

Maize and Fish

While in the *Popol Vuh* it is the Hero Twins who are resurrected as fish, the Maya of the Classic period seem to have equated the Maize God himself with fish and the watery underworld. Another cyclical scene from the cacao pot K3033 (**Figure 10a**) shows three episodes involving the rebirth of the Maize God (Friedel et al. 1993:92). Two paddlers escort him in a canoe as he carries a full sack, presumably of maize. Beneath the canoe, an aquatic version of the *chihil chan* deer serpent is depicted with small fins in an underwater scene. The full, reclining body of the reborn Maize God emerges, unclothed, from the mouth of this fish-serpent. In their review of rebirth iconography, Michel Quenon and Genevieve LeFort (1997) have compared this image to several others depicting the emergence of the Maize God from the body of a fish. Sachse and Christenson (2005) revisit this theme of aquatic rebirth and otherworldly travel as an enduring metaphor within Maya narratives for the growth of maize and the emergence of humanity.

Beneath the water in K3033, another stylized, round fish seems to nibble the face of the Maize God. What is particularly interesting about this unusual fish is that it is nearly identical to the fish glyph used to spell the word *kakaw* in the Primary Standard Sequence directly above on the rim of the vessel (**Figure 10b**). In addition, the word is under-spelled with this fish glyph alone representing *kakaw*. It appears that the artist is visually equating this iconic cacao glyph with the very same stylized image of the fish in the scene below involving the rebirth of the Maize God. In fact, even the size and proportions of the fish in the underwater scene are the same as in the fish glyph in the text above. Perhaps the artist simply modeled one of the fish after the other where a fish image was required, but the iconic relationship between the *kakaw* fish and an actual fish is clearly possible and certainly notable.



Figure 10a: The watery rebirth of the Maize God. K3033 © Kerr May 28,1998.



Figure 10b: Inset of *kakaw* fish glyph and the same fish in the pictorial scene from K3033.

Quenon and Le Fort (1997) have suggested that another image from K595 may relate to the rebirth of the Maize God from the mouth of a fish (**Figure 11a**). Here again is an important reference to cacao. In this image, the *chihil chan* is depicted with the obvious body of a fish, emerging from a ring of brown water or foam. Out of the mouth of this fish-serpent emerges a red deity.⁵ His long black hair is pulled by a spear-fishing deity, identifiable as GI from the Palenque

⁵ Sachse and Christenson (2005:10) refer to the debate regarding the identity of this figure in Taube (2004:74–78), while they contend that this is the Maize God given the repeating context of rebirth from fish.

Triad, a humanoid fish-man who holds a large, round fish between his legs. Another deity with a jaguar ear is face to face with a larger fish, and these two deities invite a comparison with the transformed Hero Twins. Additionally, both deities are labeled with the flaming ajaw ‘child of father’ glyph (T535), as is a third, smaller figure who resembles Unen K’awil, GII from the Palenque Triad. Taken together, these three may represent the Palenque Triad.

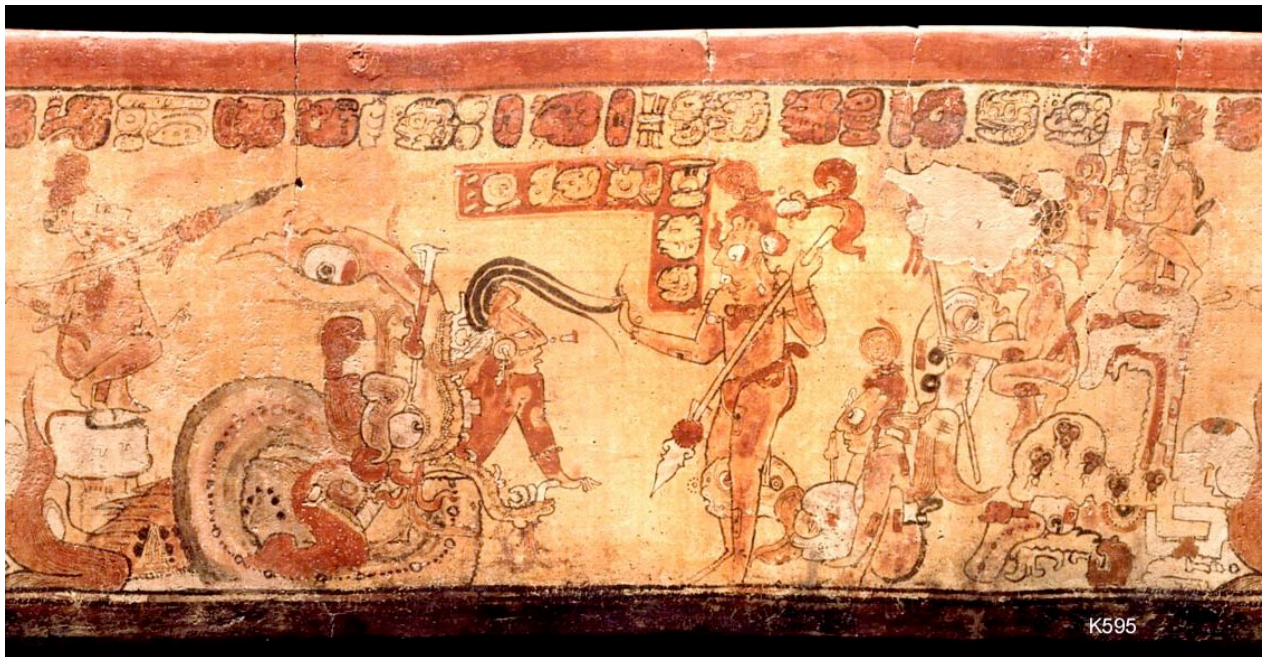
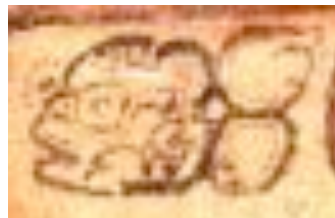
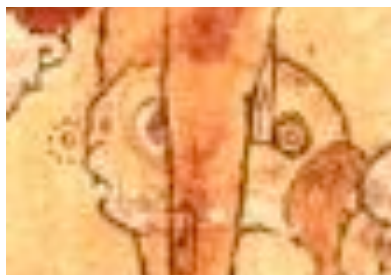


Figure 11: a) K595 © Kerr June 4,1998; b) Below left and center. Inset of fish in the pictorial image and fish in kakaw glyph from K595.; c) Below right. Cacao glyph with *om* prefix from K5362 © Kerr January 18,1999.



Yet another deity with an infixed maize ear sits on his haunches in K595. Michael Coe (1978:84) first suggested that this is an image of the Maize God, despite his mask, ‘god-eye’ and Chaak topknot. Not previously noticed, this deity wraps his hands around what appears be a soft bag of seeds, as in K3033. Thus, he closely corresponds with both the Maize God and the first paddler in K3033, the latter of whom shows the same maize curl on his ear and the same curled eye. Sachse and Christenson (2005:10–12) have proposed that the scene in K595 is suggestive of the repeating theme found in the Highland Maya oral tradition in which maize is retrieved from another world on ‘the other side of the sea’ after a man is swallowed by a fish or alligator. The maize seeds in the possession of this deity strongly reinforce this comparison, and the scene likely depicts a mythological metaphor for the planting of maize seeds. However, the adversarial relationship between GI and the red deity emerging from the mouth of the fish-serpent is unclear.

K595 is also labeled as a container for cacao, and the fish glyph used to spell this word shows a small dotted circle on its nose, as does the fish between the legs of GI (**Figure 11b**). This may be the recognizable glyph T582 **mo**. As a prefix to *kakaw*, this glyph has been suggested to read *om* ‘foam’ or ‘frothy’, as on K5362 (**Figure 11c**) (Reents-Budet 1994:143–44; Davoust 1995:588). Here again, there is an apparent visual relationship between the written form of cacao and a fish involved in a scene of watery rebirth. It would follow that the curious ring of brown froth surrounding the *chihil chan* fish-serpent may represent cacao foam, perhaps even as an iconic form of *om*. Incidentally, for unknown reasons, T582 is often incorporated in the snake glyph T764, also visible in the text above representing the syllabic **b’i** in *tz’ib* ‘writing/painting’. In this case T582 is a fossilized part of the glyph that identifies it as a snake and not a pronounced phonetic prefix, as it may be with *kakaw*. Similar T582 dotted circles are apparent in the glyphs of toads and turtles, and they appear to signify bubbles (foam) made by aquatic animals.

It is apparent from the above examples that the Maya of the Classic period were observing some form of association between cacao, fish and maize. In both of these examples, these fish appear to be involved in scenes of rebirth, though they do not appear to be direct representations of the Maize God himself. While the rebirth of the Maize God does not appear in the *Popol Vuh*,

Quenon and Le Fort (1997) and Sachse and Christenson (2005) have proposed that the aquatic rebirth of the Hero Twins may derive from a similar metaphor describing the emergence of maize from the watery underworld. The rebirth of both the Hero Twins and the Maize God involve fish metaphors, but there is perhaps a significant difference between these two episodes. Sachse and Christenson (2005:11–12) describe the metaphor of maize from the story of the man swallowed by a fish:

Drawing an analogy to the life cycle of the maize plant, the fact that the man enters the fish without being actively involved and without being bodily harmed, reminds one inevitably of the planting of maize: corn cannot sow itself, it has to be sown into the ground, or – if we may say so – into the “underworld.”

Thus, the metaphor of maize emerging from the mouth of a fish differs from the rebirth of the Hero Twins whose bodies are burned and pulverized like cacao seeds, transforming into fish themselves rather than emerging from them unharmed. These are subtle differences that may or may not be significant, particularly considering the numerous representations of the rebirth of the Maize God, only some of which involve the rebirth of maize from a fish. However, in the Classic period, the fish that swallows the Maize God may have been understood to be both his son, indicated by the ‘child of father’ glyph, while also symbolically giving birth to him as his parent.

Citing the fish transformation episode of the Hero Twins and repeating iconographic evidence from the archaeological record which equates fish with maize, Raphael Girard notes that the fish has long been a symbol, or nagual of the young Maize God (Girard 1995:116). In Quetzaltepeque, the contemporary Ch’orti’ associate a fish with the youthful Maize God known as the *maizito*. On the temple altar in Quetzaltepeque, a statue of St. Francis, representing the Feathered Serpent deity of the center of the earth, holds the image of a fish in his left hand. This fish is said to be his son (Girard 1995:116).

Brian Stross proposes a Mixe-Zoquean origin of fish-maize symbolism, finding similarities between words for maize and fish in Mixe-Zoquean languages. For example, Proto-Mixean **kok* ‘maize ear’ compares with Proto-Zoquean **koke* ‘fish’; while **akx* is the Proto-Mixean word for both ‘fish’ and ‘degrained maize’ (Stross 1994:1, 16). Stross uses this linguistic evidence in combination with conflated maize and shark imagery depicted in the headdress on Stela 1 of La Mojarra to support Justeson and Kaufman’s (1993) theory that the writing on this monument represents a Mixe-Zoquean language. Acknowledging that Maya imagery also equates maize and fish, Stross claims “there is little linguistic basis in Mayan languages for such visual and cognitive equations” (Stross 1994:16). However, the relationship between cacao and fish, and the close association of maize and cacao may provide such evidence.

The Aztec Sun of Water

A Central Mexican creation story found in the *Histoyre du Mechique* and the *Leyenda de los soles* parallels the fish transformation in the *Popol Vuh*. A previous age, the Sun of Water, ends in a flood in which the people of this world are transformed into fish, somewhat like the Hero Twins. After traveling to the watery underworld and tricking Mictlantecuhтли, the Lord of Death, the hero Quetzalcoatl and his companion Xolotl gather the bones of these fish-people to create humanity and they return with the bones to the upper world of Tamoanchan. As with the Hero Twins, the bones are ground like cornmeal, but here they are ground by the old goddess Cihuacoatl, the equivalent of Xmucane. This passage therefore also parallels the later creation of humanity in the *Popol Vuh*, when Xmucane creates the first human beings from ground maize. In this Aztec version only bones are mentioned, as in the earlier story of the death of the Hero Twins. However, unlike the transformation of the Hero Twins, these bones are not roasted, and the flesh of the new humans is created when the deities mix their own blood with the ground bone meal (Taube 1993:38–39; Miller and Taube 1993:70).

Earlier evidence for the Mexican creation story can be seen in a Late Classic image from El Tajin in Veracruz (Taube 1986). This image portrays Tlaloc, the Mexican equivalent of the rain

deity Chaak, letting blood from his penis onto a fish-headed human figure in a subterranean chamber (**Figure 12**). Above the chamber sits an eroded human figure in the form of a solar disk, recalling the later transformation of Hunahpu into the sun. This action apparently takes place in the context of the fermentation of the maguey plant (Coe 1994:117), recalling the fermented drink in the *Popol Vuh*. No direct reference to maize or cacao is present in this image, though elements of the story of the previous world and human-fish transformation are evident, along with bloodletting. While elements of the Central Mexican myth of fish-transformation are shared with the *Popol Vuh*, it is possible that the specific metaphorical reference to cacao is limited to Mayan speaking cultures.

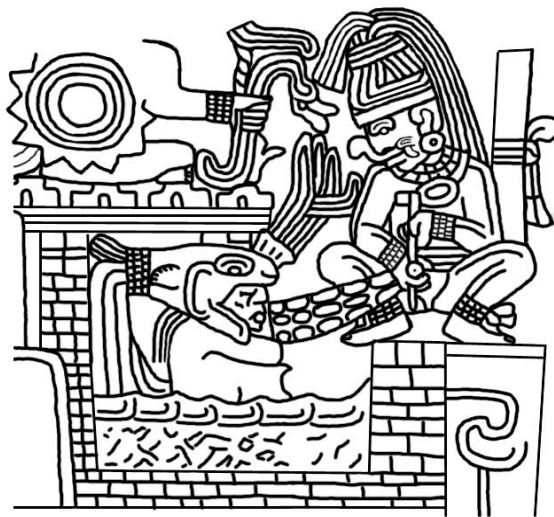


Figure 12: Deity letting blood onto fish-headed human figure in subterranean chamber. Ballcourt panel, El Tajin. Illustration after author after Kampen 1972.

Maize and blood are symbolically related throughout Mesoamerica and the Maya area (Stross 1992). Given the Postclassic Maya and Aztec association between cacao and ‘heart, blood’⁶, the Aztec creation account may partially explain the blood symbolism of cacao for the Classic period Maya. Both the Aztec and Maya are known to have added achiote to cacao, which

⁶ Thompson (1956) published an original monograph on this association between cacao and blood; Coe and Coe (1996:45, 100–101) note that the Madrid Codex depicts deities shedding blood over cacao.

imparts a blood red color (Coe 1994:101, 143). Vincent Stanzione remarks that the *q'atuj* drink prepared by the Tz'utujil Maya of Atitlán represents the ground bones (white maize) and blood (cacao/achiote) reflected in the Aztec creation story (Stanzione 2000:189). Furthermore, blood is associated with the death of the Maize God Hun Hunahpu, whose decapitated head is hung in a cacao or calabash tree and visited by Xkik', Lady Blood, in the *Popol Vuh*. This blood symbolism persists in the Ch'orti' use of sacrificial turkeys in agricultural rites, and the equivalence of divine blood and rain (Girard 1995:137, 271).

Bloodletting rites are well known throughout the Classic and Postclassic periods, and an ancient precursor of the Aztec and Maya stories of the creation of humanity can be seen in the recently discovered San Bartolo murals from the Lowland Maya Preclassic. In one image, a spotted figure resembling Hun Ajaw is depicted letting blood from his penis onto a fish that is being burned on a scaffold fire. This sacrifice appears in a series of images of similar figures bloodletting over hearth fires containing a deer, a turkey, and flowers. Each of these sacrifices is associated with a different directional tree, and each clearly represents a different level of the cosmos (Saturno et al. 2005).

The bloodletting in the San Bartolo murals recalls the Aztec creation account, as well as known bloodletting practices among Maya rulers in the Classic period. Similarly, the fish burning imagery suggests a world of water inhabited by fish akin to the Aztec story, though in this case, this watery creation appears to be the first and lowest of five worlds. As Taube has noted, this sequence also appears in the Dresden Codex New Years pages (Saturno et al. 2005). In addition, the hearthstones emerging from each animal sacrifice evoke the story of the birth of the sun in the Classic period, as well as the burning self-sacrifice of Hunahpu, who later emerges as the sun in the *Popol Vuh*. These fires may therefore represent the creation of the new sun in each world age.

While Hunahpu-like deities are depicted letting blood in San Bartolo, no depiction of cacao has yet been found here, though the recognizable Olmecoid Maize God is the main protagonist of the murals, assuming the role of the fifth and central direction where the image of a tree and the corresponding sacrifice is almost entirely eroded. A cosmos of multiple, directional, and layered

worlds is clearly present in San Bartolo, which prefigures the later stories of fish transformation that may have become associated with cacao. However, the imagery of a burning fish in San Bartolo would not directly relate to any pun on *kakaw*, given the equal treatment of all of the sacrificed animals. Additionally, the fish itself is burned, rather than being representative of rebirth after burning. The primary concern here seems to be the creation of successive, directional world ages in the form of bloodletting self-sacrifice and the offering of burning food animals and flowers representative of the levels of the cosmos that they inhabit.

Conversely, it is possible that the symbolism of retrieving and grinding the submerged bones of fish for the purposes of making the flesh of human beings in the Aztec creation story may also be related to a process of crop fertilization in nitrogen-poor tropical soil. The Mexican *chinampa* system, the “floating gardens” in which mud and vegetation are dredged up from the shallow bottom of Lake Texcoco for the purposes of creating fertile milpas, consists of an extensive canal system (Coe 1993: 163–64). The presence of abundant fish in these canals may have been used for food as well as crop fertilization.

Dennis Tedlock suggests that the burning, grinding, and fish resurrection of the Hero Twins may have something to do with a fishing ritual, where fish are “replanted” by throwing fish bones into the water. Such practices, he notes, are known from native cultures on the Northwestern coast of North America. He adds that in Lowland Maya raised-field maize agriculture, fish were harvested in the ditches that ran throughout the cornfields (Tedlock, 1996:278–79). Therefore, the use of fish fertilizers in the Maya area also remains a possibility. If this is part of the origin of Maya fish symbolism, in that the ashes and bones of the Hero Twins are symbolic of a literal fertilization of maize from which human flesh was first formed, then this story would not have arisen as a metaphor for cacao. However, the elements of the story of fish transformation imply that cacao served as a symbol for aquatic rebirth.

Fish-Man and Water bird: GI of the Palenque Triad and Quetzalcoatl-Ehecatl

Justin Kerr (2000) notes that a series of cylindrical Classic period vases from the central Petén depict images of two catfish (K3266, K4835, K5088, K5225, K5389, K5464, and K7522). This recalls the description of the transformed Hero Twins in the *Popol Vuh* as *winaq kar* ‘person-fish’, also a term for ‘catfish’ in Cakchiquel (Tedlock 1996:280). Noticing a triadic symbol both on the rim of these vases, and on the face of the twin Hun Ajaw, Kerr further suggests that these catfish represent the transformation of the Hero Twins. Likewise, while acknowledging that the images in this series of vases may simply be naturalistic representations of two fish, Reents-Budet (1994:242) also proposes that these could be depictions of the mythological transformation of the Hero Twins. It is possible that these vessels served as containers for cacao, while it remains uncertain whether these depictions of two fish made use of the visual (and verbal) pun on *kakaw*, or if this referred to the transformation of the twins. However, in another curious image of two fish (K5391), one of the fish appears with a human head, complete with catfish barbels and an infixed maize curl (**Figure 13**). Again, an association between fish transformation and maize is implied.



Figure 13: K5391 © Kerr September 27, 1999.

One of the most prominent examples of human-fish transformation from the Classic period can be seen in GI, the first-born deity from the Palenque Triad previously noted on K535 (**Figure 11a**). With his catfish whiskers and shark tooth, GI similarly recalls the transformation of

the Hero Twins as both a ‘person-fish’ and specifically a ‘catfish’. Indeed, some examples of the face of GI include the very same triadic symbol found on the face of Hun Ajaw, while others show the single, large spot characteristic of this twin.

Several authors have attempted to draw a parallel between GI and Hunahpu from the *Popol Vuh*.⁷ In multiple folkloric accounts, Hunahpu is associated with both the planet Venus and the sun (Thompson 1970:368). Similarly, GI is thought to be associated with the planet Venus⁸, and he frequently wears a solar offering plate. Other authors contend that GI and Hunahpu are distinct deities.⁹ However, GI also shares several important characteristics with another important Mesoamerican deity—Quetzalcoatl.

David Kelly first observed that both Palenque’s GI and the Central Mexican Ehecatl-Quetzalcoatl share the birthday, 9-Wind, and both are associated with the planet Venus (Kelly 1965). The text from Temple XIX in Palenque repeatedly mentions the day 9-Wind (9-Ik’) in association with GI, and David Stuart (2005:168) remarks:

As we have seen, it is difficult to draw close parallels between specific deities or supernatural characters in the Maya and Central Mexican religions, yet it seems entirely possible that GI and Ehecatl-Quetzalcoatl could both be reflections of an old idea or character from Preclassic mythology, and thereby share a common cultural origin.

⁷ See Lounsbury (1985), Tedlock (1992, 1996), and Freidel, Schele, and Parker (1993). Based on their interpretation of the Palenque texts, these authors believed there were two GI deities that were father and son and a parallel of Hunahpu and Hunahpu in the *Popol Vuh*. This proposal has since been substantially challenged by Stuart (2006). However, structural comparisons relating GI and Hunahpu to Venus remain plausible.

⁸ See Lounsbury (1985), Schele and Miller (1986:48–51), Tedlock (1992), and Aldana (2001).

⁹ See Coe (1989), Miller and Taube (1993:130), and Stuart (2005:159).

Quetzalcoatl also appears in the *Popol Vuh* as Q'ukumatz, whose name retains the same meaning as the Nahuatl 'Quetzal (Feathered)-Serpent'. As one of the original creator deities in the K'iche' narrative, Q'ukumatz is given the honorific title 'Heart of Lake, Heart of Sea', and he is associated with both the heavens and the primordial waters before the creation of solid ground (Christenson 2003:61, 68). Ehecatl, meaning 'Wind', is one of Quetzalcoatl's avatars, and he appears in the Central Mexican codices with a cut conch shell pendant representing the power of wind and the conch horn he successfully blows in the watery underworld, outsmarting Mictlantecuhli (Miller and Taube 1993:142; Taube 1993:38). Likewise, GI is usually depicted with a similar shell in his ear flare. Additionally, Ehecatl-Quetzalcoatl appears wearing a red buccal mask with the elongated beak of some kind of water bird (O'Mack 1991). In several examples of his name, GI is similarly conflated with a water bird headdress (**Figure 14a**), often with a fish appearing in its beak. An image on the platform from Temple XIX in Palenque shows the ruler Ahkal Mo' Nahb' with this same water bird in his headdress, emerging from a large 'ajaw' emblem. The caption describes the impersonation of GI by Ahkal Mo' Nahb' (Stuart 2005:120–21).



Figure 14a: Portrait glyph of GI with a bird headdress. From Palenque Creation Stone, E02. Drawing by Matthew Looper (From Macri and Looper 1993).

In several examples from Classic period ceramics, the face of GI, with his diagnostic fish barbels, emerges from the breasts of a pair of fishing water birds. Some of these vessels also include **EK'** star signs on these birds (**Figure 14b**), a known sign for Venus, the planet associated with both Quetzalcoatl and GI. On K3536, the two water birds each consume a fish, while the markings of each fish reflect to the markings of the face of GI on the breast of the corresponding

bird (**Figure 14c**). One of the fish and face pairs has dark eyes and spots, while the other pair does not, and this invites a comparison with the Hero Twins. Justin Kerr (2006) adds:

The water bird with fish in beak is a common theme on many polychrome and carved vases. A subset is the theme of this same water bird with deity head imbedded in its chest. A stone example of this theme has been excavated by Bill Fash at Copan. Based on that object as well as some other clues, we believe that the deity is a version of GI of the Palenque triad. He may represent the Hero Twin Hunahpú and the theme may be related to the events related in the Popol Vuh where the twins are catfish in the river.



Figure 14: b) Top. Fishing GI transforming into waterbird pair with **EK'** Venus signs on their wings. K6181 © Kerr November 27, 1999; c) Bottom. Similar GI pair. Note dark patches on fish and bird to the right. K3536 © Kerr December 29, 1998.

In Central Mexico, Quetzalcoatl is understood to be a conflation of a quetzal bird and a serpent, and this serpent-bird imagery is also evident in the sinuous, snake-like neck of many water birds. Indeed, this comparison also exists in English in one of the common names for the anhinga as a ‘snake bird’. Two unique images appear to demonstrate this association between the neck of water birds and a serpent. One is from a Teotihuacan style stucco vase, K2027, with four unique portrayals of the aged deity Itzamnah, whose faces each emerge from the breast of a water bird (**Figure 15a**). The neck and face of each of these water birds is clearly that of a snake, with serpent and feather markings. The other image, from an elaborately carved ceramic vessel, K6626, similarly portrays GI himself with his solar headdress and shell ear-flare ‘wings’, while characteristic serpent markings are visible on the neck of this water bird, behind which can be seen a crest of feathers (**Figure 15b**).



Figure 15: a) Teotihuacan style stuccoed vase. Inset of K2027 © Kerr March 30, 2002;
b) GI from carved ceramic vase. Inset from K6626 © Kerr January 19, 1998.

The characteristics of Quetzalcoatl as both a bird and a serpent would give him the power to travel between the earth and the heavens, though Quetzalcoatl is often also associated with water. Likewise, with their ability to travel in water, on earth, and in the air, water birds are perhaps uniquely qualified to represent a deity that navigates all three levels of the cosmos. Speaking specifically of iconographic representations of cormorants, which are often conflated with other water birds, Dorie Reents-Budet (1994:248) writes:

Given the shamanistic basis of Maya religion with its transformational beings who traverse the various realms of existence, the cormorant makes an ideal symbolic trans-formational representative from the animal kingdom.

As a parallel of Quetzalcoatl and the retrieval of the bones of the fish-people of the previous world, might GI have served this same function in the guise of a fishing water bird? Certainly the frequent iconic depiction of these water birds would seem to reflect such a role. More importantly, these birds often appear in conjunction with the rebirth of the Maize God.

That GI and the fish in the *Popol Vuh* story of the Hero Twins appear to be catfish may simply relate to the likeness between catfish and whiskered men. Most well established metaphors undoubtedly evoke multiple layers of meaning that may expand to include larger semantic categories and processes (Isbell and Fernandez 1977). This expansion can account for multiple, overlapping narratives, such as the varying imagery of rebirth from a water lily, a turtle, a skull, a bird, or a fish. The Maya undoubtedly understood the bottom-feeding behavior of catfish, and their ability to recycle detritus and waste into the living matter of their bodies, which in turn feed other animals such as water birds and humans. If we can assume a physical mechanism for the rebirth of the twins from their own roasted and powdered bones, perhaps these remains, which “straight away sank there beneath the water” (Christenson 2003:149), were swallowed by catfish, which in turn were swallowed by water birds that gave the twins new life and a vehicle for their transformation and rebirth. In turn, the same may be true for the Maize God himself. In K3536, the fish consumed by the water birds appear with identical markings as the faces of the fish-men on the breasts of each bird. This suggests that the fish are somehow transforming into the fish-men and into the birds themselves, rather than being simply consumed. This symbolism may speak to an understanding of predation, the reality of ecological relationships, and the natural re-emergence of life from death and decay. As a metaphor for the origin of maize and cacao as the ingredients and energy for humanity, the fish and water bird imagery may extend to include the transfer of energy throughout the natural world, and the transcendent power of life as it appears in multiple forms.

The cyclical imagery portraying the life of the Maize God on the cacao pot K3033 also includes the image of a water bird (**Figure 10a**). Following his aquatic emergence from the *chihil chan*, the upright Maize God is depicted in a common scene in which two nude women dress him in the water prior to his rebirth. In this example, both of the women have T590b jawbone glyphs affixed to their hair, and they are surrounded by water-bands. Flying overhead, a water bird bites the square-nosed head ornament of the upright Maize God, here equating the Maize God with a transformed fish.

Likewise, returning to the stone cacao bowl K4331, the panel preceding the image of the anthropomorphic cacao tree shows another water bird similarly biting the headdress of the cacao-covered Maize God, who appears here in a horizontal, swimming position (**Figure 16a**). With one hand, he gestures to an open book, and the other appears twisted around. The caption reads *paklaj iximte* ‘(the) maize tree is face down’ or he ‘inverts’ (Martin 2006:19; Stuart 2006:64), perhaps in reference to his twisted arm in preparation for the inverted caiman tree position. Most significantly in this image, cacao is once again associated with fish, here as the food of the water bird in the form of the swimming Cacao/Maize God.



Figure 16: a) Water bird biting the head of the cacao covered Maize God.;
b) Inscription traced by author. Details from K4331 © Kerr May 23, 1999.

An interesting lidded vessel (K6218) continues the association between fishing water birds and cacao. The lid and the upper and lower rims of this painted stucco vessel are covered with iconic images of what appear to be cacao pods, while a series of fishing water birds are depicted (Figure 17).

One of the inscriptions found between the round panels on K4331 (Figure 16b) provides additional important information regarding the image of the water bird and the Cacao/Maize God. It appears to read **b'a-ha u-CH'AB' b'a-ku ha-N'ÄL-CH'AB'-AK'**¹⁰. This includes a familiar phrase (*u)b'ah uch'ab'* 'his person is the creation of...' used to describe offspring or deities who are manifested by a creator whose name follows the phrase (Stuart 2005:81). In this case, the creator is named *b'ak* 'bone' or 'heron', or perhaps *b'ak ha*, literally 'bone water' and 'white heron' in Yucatec (Barrera Vásquez et al. 1980:26f). This likely refers to the Cacao/Maize God as the creation of the water bird depicted. Taking the Cacao/Maize God as a symbolic fish, this relationship recalls the Ch'orti' understanding of the *maizito* fish as the son of the Feathered Serpent, noted by Girard.



Figure 17: Water birds on vessel with cacao pods. K6218 © Kerr October 24, 2001.

In an example from the Palenque Temple of the Sun concerning the third mentioned deity in the Palenque Triad, GIII is similarly described as the creation of the founding deity of Palenque, dubbed Muwan Mat, using the same phrase *ub'ah uch'ab'* (Stuart 2005:81). Curiously, the name glyph for the creator deity Muwan Mat in Palenque is also depicted as some kind of a water bird, conflated with the **MUWAN** bird (Stuart 2005:182). The glyph **AK'** (T504) is occasionally conflated with **CH'AB'** (T712), which likely conveys the meaning 'offering' or 'ceremonial sacrifice' (MacLeod 1991; Wisdom 1950:447). This appears at the end of the phrase from K4331, possibly as *hanal ch'ab'ak'*, giving 'food creation offering'; or *ch'ab'ak'-näl*, perhaps 'creation offering of maize' or 'creation offering place'. From the Palenque Temple of the Cross, GI himself is also described as the 'creation offering' of Muwan Mat, with *ub'ah uch'ab'ak'*.

Like the *chihil chan* serpent, the heron on K4331 may be creating or giving birth to the Cacao/Maize God through its mouth—an inversion of predation. Indeed, emerging from the mouth of a creature is “a typical Mesoamerican visual metaphor for transformation” (Looper 2002:178–79). Having swallowed the fish in the watery underworld, the water bird may lift this fish out of the water to be transformed into the Maize God, and by extension, into humanity itself. On the Palenque Tablet of the Foliated Cross, we see this metaphorical imagery in a personified maize plant whose ears of maize are twin human heads. At the top of this plant sits the Principal Bird Deity, here depicted as a water bird. While Linda Schele sees this bird as representing the wetlands of milpa agriculture (Schele and Freidel, 1990:409, 417), it appears to have a much greater significance as yet another vehicle for the rebirth of maize and humanity.

The name of the dynastic lineage in Palenque is *B'ak* or *B'akal*. Indeed, one of the substitutions for *B'ak* in the Palenque emblem glyph is a water bird glyph (**Figure 18a**), and several scholars have previously suggested that this is a heron, reading **B'AK** (Justeson 1984:358). This water bird glyph is a component of the name of Muwan Mat, and David Stuart suggests the reading of **MAT** 'bird' or 'cormorant' for this glyph, as it clearly substitutes for this spelling in some cases (Stuart 2005:182). However, this water bird glyph may have several pronunciations.

¹⁰ The glyph codes are T757:181, 1:712, 757:528, 181:86:712:504.

Dennis Tedlock (1990) proposes that Muwan Mat, may be related to Xb'akiyalo, the deceased wife of Hun Hunahpu, and that this name derives from *b'ak ha* 'white heron', literally 'bone water'. Indeed, some unique examples of the Palenque emblem glyph from the side of the sarcophagus in the Temple of the Inscriptions give *B'ak-ha*, suggesting the white heron itself. To spell **B'AK**, these examples (**Figure 18b**) use a jawbone glyph (T590b) identical to those appearing in the hair of the nude women who dress the Maize God in K3033.¹¹ In the context of the death and resurrection of the twins, the name 'bone water' itself may have conveyed the significance of the bones of the twins, ground up and cast into the water to be reborn. Dressing the Maize God, these women may be seen to personify this 'bone water'. Here, a clear metaphor for the exclusive feminine role in the creation and growth of human flesh is apparent, as with Xmucane in the *Popol Vuh* and the Ch'orti' elder woman who prepares chilate.

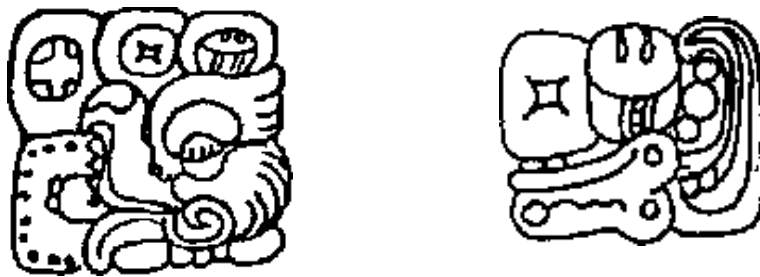


Figure 18: a) Palenque emblem glyph with water bird as **B'AK**, from Palace Tablet, H7;
b) Palenque emblem with jawbone as **B'AK-ha**, from Sarcophagus side, Temple of the Inscriptions. Both drawings after Schele.

Elsewhere, the women in the dressing scene have the characteristics of Akan (God A'), a black-masked deity of drunkenness and self-decapitation who also appears with a bone in his headdress and a 'X' death sign (Martin et al, 2002:20f.). His full name includes bone and water

¹¹ Several variations of the Palenque emblem glyph appear to be used with specific rulers, and these may represent various puns on the same word. While *b'ak* means 'bone', *b'akal* means 'maze cob' (Wisdom 1950:579; Aulie and Aulie 1977:9), while also apparently serving as an adjective in *ajaw b'akal* 'of the *b'ak* lineage'. Stuart (2006:83) sees the water bird version of the Palenque emblem glyph as Matwil. However, the *b'ak ha* variants suggest a heron.

elements, and he often carries a container labeled with the same **AK'** glyph (T504) that appears on his face, reading both *ak'ab* 'dark' and *ak'* 'ceremonial sacrifice'. This recalls the usage of *chab'ak'* and 'bone water' in K4331 as a reference to the heron and the maize/cacao deity, and it is possible that this dark, intoxicating drink was a mixture of cacao as 'bone water', the result of the self-sacrifice of the Hero Twins. In fact, Kerr (2001) has demonstrated that God A' himself may be a manifestation of Xbalanque. However, God A' also recalls Hunahpu's ability to survive decapitation.

In another example of the two dressing women (K6298), two water birds are shown below the surface of the water, one with spots and two round seeds in its mouth. In the sky above, two similar water birds are flying toward the reborn Maize God, each above one of the nude women. The Hero Twins are shown observing the scene—Hun Ajaw with his blowgun. Once more, the water birds appear to be involved in one version of the Maize God's rebirth.

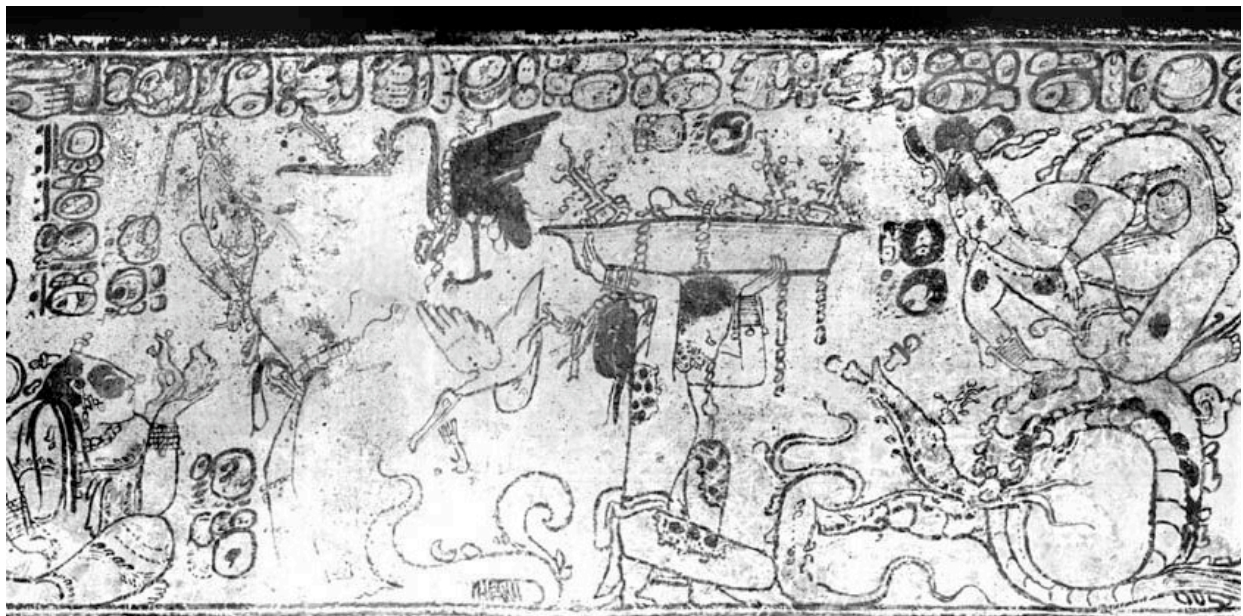


Figure 19: K1004 © Kerr January 19, 1998.

In an image from K1004, the Hero Twins are shown and named (**Figure 19**). Hun Ajaw holds a large bundle similar to the sack of seeds in K3033, and he sits atop another aquatic version of the *chihil chan*, who foams at the mouth. Yax B'ahlam lifts an offering plate carrying jewels and

an infant, perhaps fresh from the mouth of the fish-serpent.¹² To the left, two water birds fly from this offering plate—one a black cormorant and the other a white heron or egret, again reminiscent of the duality of the twins also suggested by the two fish from K1256. The black cormorant is bedecked with jewels, while the white heron appears to have a fish in his mouth, now mostly eroded except for the tailfin. They both fly towards a faded image of the standing Maize God, who twists his arm like the inverting maize/cacao tree deity in K4331. Beneath him sits a woman who hands the Maize God his shell jewels. She is seen here alone and clothed, though her banded face identifies her with the nude Akan women from other depictions of the dressing episode.

In the Resurrection Plate (**Figure 4**), the two Hero Twins are shown with bird headdresses evocative of their possible transformation into water birds. On the left, Hun Ajaw reaches up to hand something to the Maize God, and though it has eroded, the remaining lines also suggest a possible fish tail. In a parallel of this image, another plate (K3640) depicts the resurrection with the Maize God as the central figure emerging from a skull that sprouts water lilies. Again to the left, a white water bird with a fish in its bill extends his offering toward the Maize God.

The association between Hun Ajaw and a water bird may also be present in the image of the cacao tree from K5615 (**Figure 1**). In one scene, Yax Bahlam gestures before a dais on which the Maize God sits. The same scene is repeated with a water bird replacing the jaguar twin, suggesting that this water bird is a manifestation of Hun Ajaw. The water bird pushes an offering of tamales beneath the dais, while his bill touches the mouth of the Maize God. This action is reminiscent of the scenes in which the bird bites, or regurgitates, the Maize God's head.

Returning to the Preclassic imagery on Stela 5 from Izapa (**Figure 6**), we see that the two fish rising from the smoke of the incense burner hold round fruits in their mouths, resembling those in the iconic world tree. These fish in turn seem to hang from the wing of an

¹² Linda Schele suggests this baby represents the reborn maize deity (Freidel, Schele and Parker 1993:279) cited in Quenon and Le Fort (1997:892). The latter recognize the fish-serpent as comparable to those from which the maize deity reemerges.

anthropomorphic water bird, and it is tempting to conclude that this imagery indeed depicts an ancient precursor to the fish and water bird resurrection. The emergence of the fish from clouds of incense, and the additional depiction of two fish falling from the sky likewise seem to represent the creation of clouds and falling rain. Might the water bird retrieval of fish also symbolize the transport of water into the sky?

Fish and Rain

While associated with cacao and maize, fish are clearly also representative of the water and rain necessary for agriculture. Girard provides an additional description of contemporary fish symbolism among the Ch'orti', in which fish are carried from a sacred spring and placed in a symbolic gourd 'canoe' at the bottom of an altar (Girard 1995:114; 121–22). In this ceremony performed to bring rain, frogs and fish are placed in the canoe, and these sacred beings help to ask the deities for rain. Every nine days, they are fed with chilate (maize, cacao, and water) and aquatic plants (Girard 1995:136–37). This central canoe is seen as the “navel of the world,” symbolic of the underworld, the source of water and rain, and the heart of the earth. However, Girard describes the fish placed in the symbolic gourd canoe as maize planted in the soil (Girard 1995:116). In this sense, fish are seen as seeds, perhaps as embryonic vertebrate forms prior to their transformation into land dwelling animals and humans.

The metaphor of fish-human transformation also invites a comparison with the life cycle of amphibians. Frogs and toads are known to be associated with rain in contemporary Maya cosmology, and their calling heralds the rainy season (Thompson 1971:108). However, in Preclassic and early Classic imagery, humans are depicted emerging from the mouths of upturned toads, with an apparent function similar to that of the *chihil chan* (Miller and Taube 1993:168). Representations of the human fetus are apparent as early as the Olmec archaeological horizon, often in the form of human transformations in combination with tadpoles and toads (Tate and Bendersky 1999). The Ch'orti' use of frogs or toads with fish may thus also reflect the observable life history of amphibians, which transform, like the Hero Twins, from fish-like tadpoles into four limbed, land

dwelling beings with twenty digits— progenitors of the human body plan akin to the Maize God himself.

Imagery resembling the Ch’orti’ fishing ritual for bringing rain can be seen in both the Dresden Codex (D37c) and in Preclassic Izapa (Girard 1995:62–63; 114). Likewise, Norman notes that the image on Izapa Stela 1 (**Figure 7**) parallels the three fishing Chaak rain deities depicted on a Tikal Bone from Burial 116 (**Figure 20a**). One of the Chaaks stands in the water with a basket strapped to his back similar to that depicted on Izapa Stela 1. In the Tikal image there is a fish in the back basket, and another in the hand of the Chaak. One of the two other Chaaks, depicted in a canoe, similarly holds a fish in his hand (Norman 1976:89–90).



Figure 20: a) Top. Chaaks fishing from a canoe. Note basket containing fish, and fish-in-hand motif. Carved bone MT 38D, Tikal.

Illustration by author after Kelley 1976:235.;

b) Bottom. **TZÄK** fish-in-hand glyph (T714) from PNG Lintel 2, M01, after Looper in Macri and Looper (2003:131).

The image of a hand grasping a fish is also found in the hieroglyphic script as the “fish in hand” glyph, T714 (**Figure 20b**), read as **TZÄK**, ‘to take hold of’ but also ‘to conjure demons’ and ‘to conjure clouds’ (Barerra-Vasquez et al. 1980:850). It has been suggested that this fish is an embedded phonetic complement representing a final **-k(a)** (Macri and Looper 2003:131). However,

an iconographic interpretation may provide further insight, in that this glyph describes bloodletting rituals and the conjuring of deities. This association is logical in light of the fish transformation of the Hero Twins, the resurrection of maize, and the Aztec creation story of the retrieval of fish and divine bloodletting.

While a water-filled calabash gourd represents a canoe in the Ch'orti' ritual, a wooden canoe was also a known implement in the fermentation of cacao wine in the Pacific slopes of Guatemala. In this process, a small, clean dugout canoe is used in which fresh cacao pulp and seeds are piled and fermented, and the liquid funneling down is then collected, while the fermented beans are later roasted and ground (Coe and Coe 1996:66). Similarly, a canoe is used to ferment *balché* honey wine among the Lacandon (Bruman, 2000:92). The description of the Ch'orti' gourd as a canoe containing water and fish, and the repeated image of the Chaak fishing canoe may allude to the process of cacao fermentation, while primarily representing the rain bringing ritual. The use of fish imagery may therefore contain meanings inclusive of cacao, maize, and rain or sacred water—the three fertile ingredients of chilate. Symbolically, the fishing canoe transports life, rain, and sustenance from the depths of the underworld to the surface of the earth for human survival and regeneration. In this way, the hydrological cycle follows the same pattern as both maize and the sun, with which it is intimately connected.

The repeating theme of fishing Chaaks parallels the retrieval of the Maize God from a fish, as in the image of the spear-fishing Chaaks in K595. The main Chaak who grasps the hair of what may be the Maize God in K595 appears to be GI himself, with his shark tooth, shell ear, spiral eye, and fish barbels (**Figure 11a**). Indeed, images of GI and Chaak often share many of the same attributes (Taube 1992:24–27). If GI is also one of the Chaaks, he appears to have a very specific role separate from bringing rain, involving bloodletting, fish transformation and retrieval, and specific associations with both Venus and the sun.



Figure 21: GI spear-fishing with his water bird headdress at right. Maize God at left.

K1391 © Kerr June 19, 1998.

GI and Quetzalcoatl: Venus and the Sun

An interesting incised image (K1391) shows GI with his water bird headdress spear-fishing in a canoe above the *chihil chan* (**Figure 21**). In the next scene, the Maize God appears in another canoe that emerges from the mouth of the *chihil chan*. A smaller fish-serpent appears speared in front of him. This image compares to the spear-fishing GI in K595, and the theme of the retrieval of maize. Furthermore, spear-wielding deities and their victims found in the Postclassic Central Mexican and Dresden Codices (**Figure 22**) are known to be associated with numerical tables concerning the reappearance of the planet Venus as the morning star following inferior conjunction with the sun (Seler 1904; Milbrath 1999:163–87).

Astronomically, Venus periodically passes between the sun and the earth during its inferior conjunction, rapidly descending at its most brilliant point in the evening into an invisible merging with the solar fire. An average of eight days after disappearing, or about four days after inferior conjunction with the sun, Venus reappears as a morning star (Aveni 2001:186), perhaps symbolically reborn from the fire. This closely parallels the reappearance of the Hero Twins who



Figure 22: Spearing Venus deity. Dresden Codex p.28 (FAMSI 2007).

appeared as fish-men five days after their self-immolation.

Associated with Venus and fish transformation, GI is the likely predecessor of this story.

A Postclassic legend of Quetzalcoatl in the form of the historical Toltec ruler Topiltzin -Quetzalcoatl, with whom he is often conflated, tells of his being driven out of Tula by his rival Tezcatlipoca, having been persuaded to imbibe in too much pulque and perhaps a sexual transgression. In one version of the story, Quetzalcoatl then journeys to the edge of the water to the east and performs his own self-immolation. After four days, his heart rises to become the planet Venus (Anales de Cuauhtitlan 1945:16–22). Quetzalcoatl spends a total of eight days in Mictlan, and this pattern is likewise clearly recognizable as the inferior conjunction of Venus (Iwaniszewski 1995). This episode shares specific elements with the story of the Hero Twins, and the relationship between self-immolation and water entering is intriguing given Quetzalcoatl’s attested relationship with the origin of cacao.

In the *Historia general de las cosas de Nueva España*, Sahagún (Anderson and Dibble 1950:V.3, Ch. 3) tells us that from Quetzalcoatl “would derive the legend of the food of the gods, the cacao given to men for their cultivation and consumption by means of a god.” Prior to his departure to the east, Quetzalcoatl destroys or buries the former wealth of Tula and turns all of his cacao trees into mesquite, accounting for their absence in Central Mexico. However, he eventually entered the water in Quetzaltepeque on the Gulf Coast of Tabasco, a rich, cacao-growing region where the aforementioned Ch’orti continue to honor Quetzalcoatl in the form of Saint Francis.

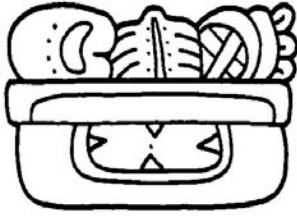


Figure 23: Quadripartite Badge (T272). From PAL Temple of the Inscriptions, middle panel, J08. After Looper in Macri and Looper (2003).

Topiltzin-Quetzalcoatl is renowned for his belief in bloodletting and auto-sacrifice, while also renouncing the human sacrifice sanctioned by his rivals. Similarly, GI is associated with several icons of auto-sacrifice. On his head, GI often appears wearing the Quadripartite Badge (**Figure 23**), a sacrificial offering plate labeled with the **K'IN** sign representing the sun (Robertson 1974). The plate contains both the same cut shell that appears in his ear, reminiscent of Ehecatl-Quetzalcoatl's pendant, as well as a stingray spine perforator conflated with phallic imagery related to bloodletting. Matthew Looper (2002:179, 194) and Miller and Martin (2004:97) suggest that the shell, often identified as the pink-lipped *spondylus*, has feminine gender associations representative of female genitalia and fertility. Together, the stingray spine and the spondylus shell likely symbolize the dual masculine and feminine creative powers. A third iconic element within this offering plate can be read **NUN** or **NUM** (T282) (Davoust 1995:573). In Ch'orti', *num* connotes 'opening, passage, conduit, lane, passage, flow' (Wisdom 1950:546). This may correspond with the ability of GI to open a passage and travel between worlds—an ability symbolized by both the stingray bloodletter and the cut shell, along with his water bird-fish and solar/Venusian characteristics. Moreover, GI is depicted wearing this offering plate as he emerges from the vagina of the earth caiman (Stuart:2005:166–67). His single shark tooth recalls the egg tooth of a bird, used to break open its shell. Thus, he may allow for the rebirth of the sun, maize and the world tree itself, beneath which the offering plate appears.

While he is associated with Venus, GI is also a recognizable solar deity. Thus, the head of GI appears as a substitution for the head of the personified sun in Quirigua Stela D, representing the numerical head variant for the number four. Both have similar profiles, a shark tooth, and often the triadic symbol on their cheek. Some examples of GI include a solar **K'IN** sign on his cheek,

while one example from an Early Classic cache vessel pairs the sun deity with GI (Stuart 2005:166–67). In Yaxchilan Hieroglyphic Stairway 5, GI equally substitutes for the head of Hun Ajaw in the personified day sign **AJAW**. As a vessel for bloodletting and solar self-sacrifice, the Quadripartite Badge similarly recalls the self-immolation of Hunahpu from the *Popol Vuh*, an act that associates him with the creation of the sun itself, and again with the metaphor of cacao processing and fish transformation.

The Death and Rebirth of the Sun: Hunahpu, Nanahuatzin and GI

Following their resurrection as fish-men in Xibalbá, the Hero Twins develop a special talent for being able to bring themselves and others back to life, and to raise buildings that have been burned down. Xbalanque sacrifices Hunahpu and then resurrects him, much to the surprise of the Xibalbáns. They travel around Xibalbá in disguise, performing their magic show for all curious onlookers (Tedlock, 1996:132). When the Lords of Death see this, they insist that the twins sacrifice them as well. The twins oblige, but this time they do not perform a resurrection, effectively killing the rulers of Xibalbá. Martin provides a description of corresponding events portrayed in the Classic period between the twins and God L, with the addition of the reborn Maize God (Martin 2006:170–71).

Having defeated the Lords of Death, the Hero Twins from the *Popol Vuh* begin to resurrect their uncle, Vucub Hunahpu, ultimately deciding to leave him in Xibalbá, perhaps as a seed is left in the ground. There is no further mention in the K'iche' story of their father, Hun Hunahpu, but it is precisely this figure who is widely believed to reemerge as the Maize God in Classic period iconography. Having accomplished their mission, the Hero Twins then ascend into the sky, “and the sun belongs to one and the moon to the other” (Tedlock, 1996:132–41).

This story of the origin of the sun and moon of the present age parallels a similar Aztec story in which the gods convene at Teotihuacan in order to create the fifth and latest sun, Nahui Ollin, by having a deity sacrifice himself in a great pyre. Two deities volunteer, but the weaker Nanahuatzin is more penitent and self-sacrificing than the boastful Tecuciztecatl. Nanahuatzin lacks

the finery of his competitor, and his body is covered with scabs and sores representing his sincere and humble suffering, perhaps akin to what Michael Coe refers to as “death spots” covering the body of Hunahpu (Coe 1993:180). Nanahuatzin jumps in first, becoming the fifth sun, while Tecuciztecatl becomes the less-brilliant moon (Sahagun 1953:3–8; Miller and Taube, 1993:70, 144–45). Tedlock remarks that this Aztec myth of the birth of the present sun is likely related to the Maya story of the Hero Twins, while the differences between the stories represent cultural variation on a core theme of solar self-sacrifice and self-immolation (Tedlock 1996:279).

With their magical ability to die and be reborn, the Hero Twins defeat the Lords of Death in Xibalbá. In so doing, the twins pave the way for the growth of maize and the creation of humanity. Having accomplished this, the “sowing and the dawning,” established at the beginning of creation, is again renewed (Tedlock 1996:31–32). This eloquent symbolism describes the life-giving energy of the sun that allows maize to grow and life to flourish. The new sun of this world was reborn in an act of self-sacrifice, allowing life to emerge from death, just as all seeds symbolically die and are sown in the underworld of the earth, later to be reborn as a new plant of the next generation. In the Classic period, the Maize God follows this cyclical pattern, as do the Maya whose bodies, according to the *Popol Vuh*, are made of maize.

The metaphor of solar self-sacrifice is similarly reflected in the bloodletting rites involved with burning hearth-fires seen in the Preclassic murals of San Bartolo. However, while the first burned offering in San Bartolo is a fish, this corresponds to the lower world of water among several other animal offerings from presumably later and higher worlds. While not evident in San Bartolo, the metaphor of fish as rebirth may have been present in Preclassic Izapa.

Here, it will be useful to summarize the shared characteristics and associations between Quetzalcoatl, Hunahpu, and GI, and their relationship to the proposed metaphor of fish transformation and cacao (**Table 2**)

Table 2: Shared Characteristics of Quetzalcoatl, Hunahpu and GI

Characteristics	Deities		
Venus/Solar association	Quetzalcoatl	Hunahpu	GI
Self-Sacrifice, auto-sacrifice	Quetzalcoatl	Hunahpu	GI
Self-immolation, solar burning	Quetzalcoatl	Hunahpu	GI
Water entry	Quetzalcoatl	Hunahpu	
Rebirth after four days (Venus)	Quetzalcoatl	Hunahpu	
Journey to Underworld	Quetzalcoatl	Hunahpu	
Association with Cacao	Quetzalcoatl	Hunahpu	
9-Wind date	Quetzalcoatl		GI
Cut shell	Quetzalcoatl		GI
Bone/fish retrieval	Quetzalcoatl		GI
Serpent-Bird, Water bird	Quetzalcoatl		GI
Water/Sky imagery	Quetzalcoatl		GI
Fish-human transformation		Hunahpu	GI
Facial features		Hunahpu	GI

In the Classic period, the figure of GI, a clear parallel of the Central Mexican Quetzalcoatl, combines the imagery of Venus and solar self-sacrifice, bloodletting, and fish-transformation as a precursor to the story of the death and rebirth of the twins in the *Popol Vuh*. It is therefore possible that during the Classic period, the metaphor of fish transformation itself symbolized the rebirth of both the Maize God and the sun. Through a fortuitous combination of a visual and verbal pun, and a parallel between cacao processing and solar death and rebirth, cacao provides the elements of a fertile symbol. With the apparent association between fish and cacao evident in the Classic period, cacao may have thus represented this ancient story of solar, agricultural, and human rebirth reflected in the fish transformation of the Hero Twins.

Many in One

The overlapping associations between Mesoamerican deities may seem at first confusing. How could Hun Ajaw also be GI? How could these deities symbolize both the sun and Venus? How could both the Hero Twins and Hun Hunahpu represent fish, maize and cacao? Despite these seeming contradictions, the symbolism of Mesoamerican deities may allow for a flexibility that transcends our desire to see them as logically discrete entities. Describing what he asserts are the core elements of a shared cosmology, Alfredo López-Austin observes that the Mesoamerican cosmos and its representative deities can be both divided and recombined in any number of ways (López Austin 1997).

The recurring name of Hunahpu within the *Popol Vuh*, in the name of Hun Hunahpu, Vucub Hunahpu, and again in the Hero Twin Hunahpu, may indicate that this name is representative of an entire range of cosmological entities, reborn as the sun, cacao, maize, and humanity itself. This understanding conforms to the interpretations of Girard, who asserts that, for the Ch'orti', there is one central deity, Ahpú, with many reflections, or hypostases. These increase in number as the Ahpú divides himself and rejoins with his multiple forms. In this case, Seven Ahpú, or Vucub Hunahpu, represents the Ahpú with seven separate aspects as he descends to Earth from the Center of Heaven, and these deities are represented in ritual by seven men (Girard 1995: 278). This singular deity had previously divided into two, three, four, and five aspects that numerologically correspond to spatial directions, creating the four cardinal directions which then unified with the center to make the quincunx of five, dividing again into above and below to create seven. Similarly, in the creation account from the *Popol Vuh*, the dual being Q'ukumatz, the Quetzal-Serpent, appears first, then the trinity of Heart of Sky who are three deities in one. Following the deaths of One and Seven Hunahpu, the rebirth of Hunahpu and Xbalanque once again invokes the transcendent powers of the creator being Q'ukumatz in a never ending cycle of birth, separation, death, rebirth, reunification and renewal. Throughout the *Popol Vuh*, the Hero Twins continuously listen and follow through with the wishes of the original creators. Is it possible that the twins themselves are

thus seen as incarnations of these original creators? Such a scenario would make sense given the multiple parallels between Hunahpu, Quetzalcoatl, and GI.

According to Girard, as a unified divinity identified with the Heart of Heaven, the Ahpú takes on these multiple and overlapping forms, becoming, at various times, the sun, the earth, rain, fire, maize, and vegetation. In addition to these, the Ahpú is the creator of humanity, ethics, the calendar, and, being born in human form as the Maize God, he serves as an example for humanity and proper behavior (Girard 1995: 278).

While many of the same deities are evident throughout the Maya area, local traditions differ, and while a triad of patron deities is common, their identities are by no means uniform. Specific traditions most likely overlapped with outside influences, thereby increasing the representations and characteristics of archetypal deities. In some cases, the similarity between different Mesoamerican mythologies may indicate a shared ancestral story, while in other instances it may represent a local, historical absorption of a foreign influence, with overlapping themes that either originally derived from a shared earlier narrative themselves, or emerged from similar observation and human experience. In agricultural societies throughout the world, for instance, it is common to equate the mythical hero with both the death and rebirth of the sun and the main agricultural source of food.

Many Maya groups continue to practice their traditions with an overlay of Christianity that has been absorbed into their flexible cosmological system. From the ethnographic work of Gary Gossen among the Tzotzil, the synthetic connection between Christ and the sun, referred to as Our Lord Sun/Christ, is evident. In one oral narrative by Tzotzil elder Mateo Méndez Tzotzek, there are many parallels with the *Popol Vuh*. When the Sun/Christ is born, he is radiant with a solar halo, which brings the attention of his persecutors. He is nursed in a cornfield, and he dies and is reborn twice (Gossen 1999: 34–43). Within this story can be seen the common syncretism between Hunahpu and Christ as both solar hero and the deity of maize. The same is true for the contemporary Ch'orti, for whom Christ plays the various roles of maize, with his corn-silk blonde hair, and the sun, with his solar halo (Girard:1979).

The awareness of this synthesis of Christianity within the continuity of a tradition that emphasizes a cosmology of rebirth is explicit in the commentary of contemporary K'iche' sculptor Nicolás Chávez Sojuel, recorded by Alan Christenson (2001:135)

'The earth has died many times. Each time the world and its gods are reborn to new life and they regain their former power and new gods are added...The saints today have Spanish names because the old earth died in the days of the Spanish conquerors. When the spirit keepers of the world appeared again they were the saints, but they do the same work that the old gods did anciently.'

The K'iche' Tradition of Cacao

From contemporary K'iche' myths recorded by Ruth Bunzel in Chichicastenango during the mid-twentieth century, we find particular reference to cacao as "the article of food which holds the first place in ritual." Bunzel finds that "the myth concerning cacao is the only myth commonly told in Chichicastenango." The myth tells of how Christ took refuge underneath a cacao tree while being pursued by his persecutors, and the tree concealed him with a blanket of flowers. In return, Christ blessed the cacao tree, known as *awas tce*, or the "taboo tree," connoting sacredness and recalling the forbidden tree of *Puk'b'al cha'j*. Thereafter its wood was never to be burned, and its seeds were to be used in all ceremonies (Bunzel 1952: 44). The tree is told that it will "ascend into the clouds and the mists of heaven, and the clouds and mists of the sky will descend upon you in this world.'" Christ continues speaking to the tree:

'And also, with the passing of time you shall always be there to remind them of my sufferings in all the holy ceremonies and also in the holy rites of the sainted *comadres* and *compadres*. And also you shall be upon the altar when I am commemorated (in the Holy Mass); and also whenever my children's children take wives and husbands they will see

you upon the table, before the table. This will be your meaning, taboo tree, taboo plant. Now you have heard your content and symbolism.’ (Bunzel 1952:240–41).

The specific K’iche’ blessing pronounced over ceremonial offerings of cacao seeds is known as the “Resuscitation of Our Lord,” which reflects the persecution, death, and resurrection of Christ (Bunzel 1952:232–33). There is a persistent reference in this blessing to the continuity of this sacred practice from their ancestors. Bunzel naïvely questions why there is so much emphasis on continuity, given that the religious sphere is “the one aspect of life in which the break with the past has been most dramatic” (Bunzel 1952:250). However, we can see that the mythology surrounding cacao as representative of the death and rebirth of Christ, and his earlier counterpart Hunahpu, has ancient antecedents that have persisted into the present, resisting the forces of colonization.

In Chichicastenango, the ceremonial function of cacao seems to serve as a reminder of Christ’s sacrifice and resurrection, and the continual presence of cacao in all ceremonies and rituals ensures that the K’iche’ will also remember their connection to their ancestors. The emphasis on cultural continuity and the tradition of using cacao in this way makes more sense in light of its probable usage as a means to commemorate the death and rebirth of Hunahpu, the Hero Twins, and their father Hun Hunahpu, as self-sacrificing ancestors of the sun, maize, and the Maya, whose bodies were first formed out of maize, and perhaps also cacao. Thus, the K’iche’ understanding of cacao appears to demonstrate the persistence and survival of a living oral and ritual tradition, rather than its demise as assumed by Bunzel.

With the evidence from the ethnographic record to substantiate the iconographic record and the mythological metaphors of the *Popol Vuh*, the symbolic significance of cacao as representing death and rebirth is clear. Based on the cacao-related imagery of the Maize God, whose head and body are first reborn as a cacao tree, Martin (2006) similarly concludes that cacao, and fruit trees in general, are symbolic of vegetal and human rebirth. However, the association between cacao and the Hero Twins invokes an additional association with solar and Venusian rebirth. Upon the forced

arrival of Christianity in the Maya area, the symbolism of cacao incorporates the death and resurrection of Christ, representative of both maize and the sun.

Most of the Classic period vases and ceramics containing cacao have been found in funerary contexts in which food and drink were provided in elite burials (Coe and Coe 1996:46). Within the PSS, these vessels are often hieroglyphically labeled as containers for cacao, and many, including the Río Azul cacao pot, are found to contain traces of theobromine, the distinctive chemical signature of cacao. In a curious archaeological find, cacao residue has been found in a bowl containing fish bones from an early Copán burial (McNeil, Hurst and Sharer 2006:234), suggesting something more than a meal for the departed, given the possible symbolic pairing of fish and cacao. The direct implication is that this bowl of cacao and fish symbolizes the death and rebirth of the individual, modeled after that of the Hero Twins and the Maize God. By extension, the prolific use of cacao in the contexts of burials implies that it is related to ancestral rebirth and communion.

Conclusion

Cacao appears to be symbolically associated with the sacrificial death and rebirth of the Hero Twins in the fires of Xibalbá. This reference can be found in a visual and verbal pun in Mayan languages between cacao and fish, into which the twins transform following their death by burning, grinding, and being poured into a river. This sequence metaphorically parallels the actual physical processing of refined cacao, and elements of the story of the fish resurrection of the Hero Twins and the Maize God are present in the Classic period, incorporating references to cacao as fish. As an apparent early loan word into Mayan languages, cacao seems to have evoked a rich symbolic world of metaphorical imagery associated with fish, the sun, rain, blood, fertility, maize agriculture, human regeneration, and the greater cycles of death and rebirth. While clearly not responsible for the creation of these archetypal metaphors, cacao as a symbol would likely have shaped the specific ways in which these metaphors combine to create a particular narrative about solar burning and fish resurrection. This is perhaps best personified in the figure of GI from the Palenque Triad, whose

associations with Venus and solar immolation combine with his fish and water bird imagery to represent solar and agricultural rebirth from the watery underworld. A clear parallel of the Central Mexican Quetzalcoatl, GI prefigures the resurrection of the Hero Twins in the *Popol Vuh*.

The iconographic association between cacao and the tree of *Puk'b'al cha'j*, in which the head of Hun Hunahpu was initially placed, further supports the relationship between cacao and the twins as the children of Hun Hunahpu. The use of gourds or ceramic drinking vessels for cacao as symbolic skulls of Hun Hunahpu can be traced to this story. Here, cacao is associated with the blood and the life-giving seed of Hun Hunahpu, and this is further exemplified by the use of cacao and fish symbolism in various Maya rites of fertility, the bringing of rains, and the agricultural cycle of the symbolic death and resurrection of maize as it parallels the cycle of human life. From the archaeological record, the presence of numerous vessels containing cacao in funerary contexts suggests the strong association between cacao and human rebirth.

Having been reborn, the Hero Twins are associated with the sun and moon of the renewed world. Thus, cacao itself may be symbolic of the birth of the sun through self-sacrifice and self-immolation, an act that brought about the current world and the resurrection of the deity of maize as an apparent human prototype for the Maya. Evidence from the ethnographic record confirms the close association between cacao and the resurrection of Christ, the contemporary counterpart of the deity of both maize and the sun among many Maya groups, and it is clear that this relationship has persisted despite colonization. As a symbol of death and rebirth, cacao represents the great achievement of 'the sowing and the dawning' in the cycles of time, the growth of maize, and the eternal power of life to transcend death.

References

Aldana, Gerardo V.

2001 *Oracular Science: Uncertainty in the History of Maya Astronomy 500–1600*. Ph.D. dissertation. Cambridge: Harvard University.

Annals of Cuauhtitlán

1975 *Chimalpopoca Codex*. Mexico: UNAM.

Anderson, Arthur J.O., and Charles E. Dibble, tr.

1950 *Florentine Codex, General history of the things of New Spain. Book 3: The Origin of the Gods*, by Bernardino de Sahagún. Santa Fe: School of American Research, Archaeological Institute of America.

Aulie, H. Wilbur, and Evelyn W. de Aulie, with Cesar Meneses Díaz, and Cristóbal López Vázquez

1978 *Diccionario Ch'ol-Espanol, Espanol-Ch'ol*. Serie de vocabularios y diccionarios indegenas, Mariano Silva y Aceves, ed., No. 21. México, D.F.: Instituto Lingüístico de Verano.

Aveni, Anthony F.

2001 *Skywatchers*. Austin: University of Texas Press.

Barba de Piña Chan, Beatriz

1988 *Buscando raices de mitos y leyendas Mayas*. Campeche, Ediciones de la Universidad Autonoma del Sudeste, Mexico.

Barrera Vásquez, Alfredo, Juan Ramón Bastarrachea Manzano, William Brito Sansores, Refugio Vermont Salas, David Dzul Góngora, Domingo Dzul Poot

1980 *Diccionario Maya Cordemex. Maya-Español. Español-Maya*. Mérida: Ediciones Cordemex.

Bricker, Victoria, Eleuterio Po'ot Yah, Ofelia Dzul de Po'ot

1998 *A Dictionary of The Maya Language As Spoken in Hocaba, Yucatan*. University of Utah Press, Salt Lake City.

Bruman, Henry J.

2000 *Alcohol in Ancient Mexico*. University of Utah Press, Salt Lake City.

Bunzel, Ruth

1952 *Chichicastenango: A Guatemalan Village*. J.J. Augustin Publisher, Locust Valley.

Campbell, Lyle

1971 *Historical linguistics and Quichean linguistic prehistory*. Ph.D. dissertation, University of California, Los Angeles.

1977 *Quichean Linguistic Prehistory*. University of California Publications in Linguistics, vol. 81. University of California, Berkeley.

Campbell, Lyle and Terence Kaufman

1976 "A Linguistic Look at the Olmecs." *American Antiquity* 41: 80–89.

Christenson, Alan

- 2001 *Art and Society in a Highland Maya Community*. Austin: University of Texas Press.
2003 *Popol Vuh: The Sacred Book of the Maya*. O Books, New York.

Coe, Michael D.

- 1978 *Lords of the underworld: Masterpieces of Classic Maya ceramics*. Princeton: Art Museum, Princeton University.
1989 "The Hero Twins: Myth and Image." In *The Maya Vase Book, Volume 1*, pp. 161–84. Justin Kerr, ed. New York: Kerr Associates.
1992 *Breaking the Maya Code*. Thames and Hudson, New York.
1993 *The Maya*, Fifth Edition. Thames and Hudson, New York.
1994 *Mexico: From the Olmecs to the Aztecs*, Fourth Edition. Thames and Hudson, New York.

Coe, Sophie D., and Michael D. Coe

- 1996 *The True History of Chocolate*. Thames and Hudson, New York.

Dakin, Karen, and Søren Wichmann

- 2000 "Cacao and Chocolate: A Uto-Aztecan perspective." *Ancient Mesoamerica*, 11:55–75.

Davoust, Michel

- 1995 *L'Ecriture Maya et son déchiffrement*. Paris: Centre National de la Recherche Scientifique.

Edmonson, Munro S.

- 1971 *The Book of Counsel: The Popol Vuh of the Quiche Maya of Guatemala*. Middle American Research Institute Publication 35. Tulane University, New Orleans.
1986 *Heaven Born Merida and its destiny: the Book of Chilam Balam of Chumayel*. Austin : University of Texas Press.

Fisher, William M.

- 1973 *Towards the reconstruction of proto-Yucatec*. Ph.D. dissertation, University of Chicago.

Freidel, David, Linda Schele, and Joy Parker

- 1993 *Maya Cosmos, Three Thousand Years on the Shaman's Path*. William Morrow and Company, New York.

Foundation for the Advancement of Mesamerican Studies, Inc.

- 2007 *The complete Förstemann version of the Dresden Codex in PDF format*.
URL: < <http://www.famsi.org/mayawriting/codices/dresden.html> >

Girard, Rafael

- 1979 *Esotericism of the Popol Vuh: The Sacred History of the Quiché Maya*. Theosophical University Press, Pasadena.
1995 *People of the Chan*. Continuum Foundation, Chino Valley.

Gossen, Gary H.

- 1998 *Telling Maya Tales: Tzotzil Identities in Modern Mexico*. Routledge, New York.

Greene Robertson, Merle

- 1974 "The Quadripartite Badge--a Badge of Rulership." In *Primera Mesa Redonda de Palenque Part 1: A Conference on the Art, Iconography, and Dynastic History of Palenque, Chiapas, Mexico*. December 14-22, 1973. Pebble Beach: Robert Louis Stevenson School.

Grube, Nikolai, and Werner Nahm

1994 "A Census of Xibalba: A Complete Inventory of "Way" Characters on Maya Ceramics." In *The Maya Vase Book: Volume 4*. Justin Kerr and Barbara Kerr, eds. New York: Kerr Associates.

Henderson, John S. and Rosemary A. Joyce

2006 "Brewing Distinction: The Development of Cacao Beverages in Formative Mesoamerica." In *Chocolate in Mesoamerica: A Cultural History of Cacao*. C.L. McNeil, ed. Gainesville: University Press of Florida. pp. 140–53.

Hofling, Charles A., with Félix Fernando Tesucún

1997 *Itzaj Maya-Spanish-English Dictionary*. University of Utah Press, Salt Lake City.

Isbell, Billie Jean, and Fredy Amilcar Roncalla Fernandez

1977 "The Ontogenesis of Metaphor: Riddle Games among Quechua Speakers Seen as Cognitive Discovery Procedures." *Journal of Latin American Lore* 3:1 (1977): 19-49.

Iwaniszewski, Stanislaw

1995 "La Interpretación Astronómica de los Mitos." In *La Ciencia para Todos*. Mexico: Fondo de Cultura Económica.

Justeson, John S.

1984 "Appendix B: Interpretations of Mayan Hieroglyphs." In Justeson and Campbell 1984.

Justeson, John S. and Lyle Campbell, eds.

1984 *Phoneticism in Maya Hieroglyphic Writing*. Institute for Mesoamerican Studies. Publication No. 9. SUNY Studies, Albany.

Justeson, John S. and Terrence Kaufman

1993 "A Decipherment of Epi-Olmec Hieroglyphic Writing." *Science* 259: 1703–11.

Kampen, Michael E.

1972 *The Sculptures of El Tajin, Veracruz, Mexico*. University of Florida Press, Gainesville.

Kappelman, Julia Guernsey

1997 *Of Macaws and Men : Late Preclassic Cosmology and Political Ideology in Izapan-style Monuments*. Ph.D. dissertation. University of Texas, Austin.

Kaufman, Terrence

1976 *Proyecto de alfabetos y ortografías para escribir las lenguas mayances*. Proyecto linguistico Francisco Marroquin, Guatemala.

Kaufman, Terrence S. and William M. Norman

1984 "An Outline of Proto-Cholan Phonology, Morphology and Vocabulary." In Justeson and Campbell 1984:77–166.

Kelley, David H

1965 The Birth of the Gods at Palenque. *Estudios de Cultura Maya* 5:93-134. México, D.F.: Seminario de Cultura Maya.

1976 *Deciphering the Maya Script*. University of Texas Press, Austin.

Kerr, Justin

- 2000 "A Fishy Story." Maya Vase Database. URL: <www.mayavase.com/fishy.html>.
- 2001 "The Transformation of Xbalanqué or the Many Faces of God Aprime. Maya Vase Database. URL: <www.mayavase.com/tran/trans.html>.
- 2005 Rollout images of vases and notes. Maya Vase Database. URL: <www.mayavase.com>.
- 2006 "Discussion of The Waterbird Theme in Maya Art." Maya Vase Database URL: <www.mayavase.com/illus3536.html>.

Kerr, Justin, ed.

- 1989 *The Maya Vase Book: A Corpus of Rollout Photographs of Maya Vases, Volume 1*. New York: Kerr Associates.
- 1997 *The Maya Vase Book: A Corpus of Rollout Photographs of Maya Vases, Volume 5*. New York: Kerr Associates.

Kerr, Justin, and Barbara Kerr, eds.

- 1994 *The Maya Vase Book: A Corpus of Rollout Photographs of Maya Vases, Volume 4*. New York: Kerr Associates.

Kramer, Samuel Noah

- 1961 "Mythology of Sumer and Akkad." in *Mythologies of the Ancient World*. Samuel Noah Kramer, ed. Garden City: Doubleday / Anchor, 1961. 93-138.

Looper, Matthew G.

- 2002 Women-Men (and Men-Women): Classic Maya Rulers and the Third Gender, in *Ancient Maya Women* ed. by Traci Arden Walnut Creek CA: Altamira Press.

López Austin, Alfredo

- 1997 *Tamoanchan, Tlalocan: Places of Mist*. University Press of Colorado, Niwot.

Lounsbury, Floyd G.

- 1985 "The Identities of the Mythological Figures in the Cross Group Inscriptions of Palenque." In *Fourth Palenque Round Table*, 1980, Palenque Round Table Series, Volume 6: pp. 45-58. Elizabeth Benson, ed. Merle Greene Robertson, gen. ed. San Francisco: Pre-Columbian Art Research Institute.

Lowe, Gareth W., Thomas A. Lee, Jr. and Eduardo Martinez Espinoza

- 1982 *Izapa: A Guide to the Ruins and Monuments*. Papers of the New World Archaeological Foundation, No. 31. Brigham Young University, Provo.

Macri, Martha J. and Matthew G. Looper

- 2003 *The New Catalog of Maya Hieroglyphs: Volume 1. The Classic Period Inscriptions*. University of Oklahoma Press, Norman.

Martin, Simon

- 2006 "Cacao in Ancient Maya Religion: First Fruit from the Maize Tree and other Tales from the Underworld." In *Chocolate in Mesoamerica: A Cultural History of Cacao*. C.L. McNeil, ed. Gainesville: University Press of Florida. pp.154-183.

Martin, Simon, Marc Zender, and Nikolai Grube

- 2002 *Palenque and Its Neighbors: Notebook for the XXVth Maya Hieroglyphic Forum at Texas*. Austin: Maya Workshop Foundation.

McNeil, Cameron L. , ed.

2006 *Chocolate in Mesoamerica: A Cultural History of Cacao*. Cameron McNeil, ed. Gainesville: University Press of Florida. pp.341–66.

McNeil, Cameron L.

2006 “Traditional Cacao Use in Modern Mesoamerica.” In *Chocolate in Mesoamerica: A Cultural History of Cacao*. C.L. McNeil, ed. Gainesville: University Press of Florida.

McNeil, Cameron L., W. Jeffrey Hurst, and Robert J. Sharer

2006 “The Use and Representation of Cacao During the Classic Period at Copan, Honduras.” In *Chocolate in Mesoamerica: A Cultural History of Cacao*. C.L. McNeil, ed. Gainesville: University Press of Florida. pp. 224–52.

Milbrath, Susan

1999 *Star Gods of the Maya: Astronomy in Art, Folklore, and Calendars*. Austin: University of Texas Press.

Miller, Mary and Simon Martin

2004 *Courtly Art of the Ancient Maya*. Thames and Hudson, New York.

Miller, Mary and Karl Taube

1993 *An Illustrated Guide of The Gods and Symbols of Ancient Mexico and the Maya*. Thames and Hudson, New York.

Norman, V. Garth

1973 *Izapa Sculpture, Part 1: Album*. Papers of the New World Archaeological Foundation, No. 30. Brigham Young University, Provo.

1976 *Izapa Sculpture, Part 2: Text*. Papers of the New World Archaeological Foundation, No. 30. Brigham Young University, Provo.

O’Mack, Scott

1991 “Yacatecutli and Ehecatl-Quetzalcoatl: Earth-Divers in Aztec Central Mexico.” *Ethnohistory* 38(1):1–33.

Parpola, Asko

1988 “Religion reflected in the iconic signs of the Indus script: penetrating into long-forgotten pictographic messages,” in *Visible Religion*, Vol 6, 1988.

Quenon, Michel and Geneviève Le Fort

1997 “Rebirth and Resurrection in Maize God Iconography.” In *The Maya Vase Book, Volume 5*; Justin Kerr, ed., pp. 884-902. New York: Kerr Associates.

Houston, Stephen D., John Robertson und David Stuart

2000 “The Language of Classic Maya Inscriptions”., in: *Current Anthropology*, 41, 3, S. 321–356.

Redfield, R. and A. Villa R.

1934 “Chan Kom, a Maya village.” *Carnegie Inst. Wash.*, Pub. 448. Washington, D.C.

Reents-Budet, Dorie

1994 *Painting the Maya Universe: Royal Ceramics of the Classic Period*. Duke University Press, Durham.

Roys, Ralph L.

- 1933 *The Book of Chilam Balam of Chumayel*. Publication 438. Washington D.C.: Carnegie Institution of Washington.
1967 *The Book of Chilam Balam of Chumayel*. Norman: University of Oklahoma Press.

Sachse, Frauke and Allen J. Christenson

- 2005 "Tulan and the Other Side of the Sea: Unraveling a Metaphorical Concept from Colonial Guatemalan Highland Sources." Mesoweb. URL:
<www.mesoweb.com/articles/tulan/Tulan.pdf>

Sahagun, Fray Bernardino de

- 1953 *The Florentine Codex: A General History of the Things of New Spain*, Trans. and ed. A.J.O. Anderson and C.E. Dibble, Santa Fe.

Seler, Eduard

- 1904 Venus period in the picture writings of the Borgian Codex group. Bureau of American Ethnology Bulletin, no. 28, pp. 355–91. Washington, D.C.: Smithsonian Institution.

Schele, Linda and David Freidel

- 1990 *A Forest of Kings: The Untold Story of the Ancient Maya*. New York: William Morrow.

Schele, Linda and Mary Ellen Miller

- 1986 *The Blood of Kings: Dynasty and Ritual in Maya Art*. Fort Worth: Kimball Art Museum.

Schellhas, Paul

- 1904 *Representation of Deities of the Maya Manuscripts*. Papers, vol. 4, no. 1. Peabody Museum of Archaeology and Ethnology, Harvard University, Cambridge.

Stanzione, Vincent J.

- 2000 *Rituals of Sacrifice: Walking the Face of the Earth on the Sacred Path of the Sun, A Journey through the Tz'utujil Maya World of Santiago Atitlán.*, Guatemala.

Stross, Brian

- 1994 "Maize and fish," *RES*, 25: 11-35.

Stuart, David

- 1988 "The Rio Azul Cacao Pot: Epigraphic Observations on the Function of a Maya Ceramic Vessel." *Antiquity*, 62, 153–57.
2005 *The Inscriptions from Temple XIX at Palenque*. San Francisco: The Pre-Columbian Art Research Institute.
2006 *Sourcebook for the 30th Maya Meetings, March 14–19, 2006*. Austin: The Mesoamerican Center, Department of Art and Art History, The University of Texas at Austin.

Stuart, David and Stephen Houston

- 1994 *Classic Maya Placenames*. Dumbarton Oaks Research Library and Collection, Washington, D.C.

Tate, Carolyn and Gordon Bendersky

- 1999 "Olmec Sculptures of the Human Fetus." *P.A.R.I. Online Newsletter* #30.

Taube, Karl A.

- 1985 "The Classic Maya Maize God: A Reappraisal," *Fifth Palenque Round Table*, 1983, San Francisco, 171–81.
1993 *Aztec and Maya Myths: The Legendary Past*. University of Texas Press, Austin.

Tedlock, Dennis

- 1992 Myth, Man and the Problem of Correlation in Mayan Books. In *The Sky in Mayan Literature*, A. F. Aveni, Ed., pp. 247-273. New York: Oxford University Press.
- 1996 *Popol Vuh. The Definitive Edition of the Mayan Book of the Dawn of Life and the Glories of Gods and Kings*. Simon and Schuster, New York.

Thompson, J. Eric S.

- 1956 Notes on the use of cacao in Middle America. *Notes on Middle American Archaeology and Ethnology* 128:95–116. Cambridge, Mass.: Carnegie Institution of Washington.
- 1962 *A Catalog of Maya Hieroglyphs*. Norman: University of Oklahoma Press.
- 1971 *Maya Hieroglyphic Writing: An Introduction*. Norman: University of Oklahoma Press.

Wisdom, Charles

- 1950 *Materials on the Chortí Language*. Microfilm Collection of Manuscripts on Cultural Anthropology, 28. Chicago: University of Chicago Library.

Young, Allen M.

- 1994 *The Chocolate Tree: A Natural History of Cacao*. Smithsonian Institution Press, Washington D.C.