

In The Realm of the Witz': Animate Rivers and Rulership among the Classic Maya

JEREMY D. COLTMAN

California State University, Los Angeles

The Earth constitutes a major point of reverence for Amerindian peoples, many of whom refer to “Mother Earth” as a clear term of respect and endearment (Gill 1987; Guiteras Holmes 1961:288-289). In Mesoamerican studies, however, the general importance and significance of ‘Earth’ is often missed due to the application of western models of religion and western assumptions regarding structures of cosmology (Brady and Prufer 2005:366; Monaghan 2000:26-27). As Brady and Prufer (2005:370) note, “Maya cosmology differs radically from our own, particularly in beliefs related to Earth.” Among contemporary Nuyootecos, corporeal images are used when speaking about the Earth, which is consistent with the idea that the Earth is in fact “alive” (Monaghan 1995:98). The animate Earth—including hills, mountains, caves, springs, and other bodies of water that form features of the sacred landscape—is therefore full of supernaturals who are the controllers and personifications of natural phenomena that can in part be “explained by their resemblance, in varying degree, to the phenomena they represent, as well as by the fact that they are always present in such phenomena” (Wisdom 1952:126). A specific pantheon such as Greco-Roman models from ancient antiquity need not always apply, for ancient Mesoamericans “categorized and worshipped vital, impersonal forces of nature. These forces embodied essences that animated all (or most) things in nature...” (Houston and Stuart 1996:291). Many of these “impersonal forces of nature” are personified within the landscape itself. One such force was a watery riverine serpent whose body mimicked the undulating movement of active water. In his 1950 publication on Maya hieroglyphic writing, J. Eric S. Thompson described this creature as an aspect of the personified tun, or 360-day period:

There is another personified form of the tun, the head of a long-nosed being, of either ophidian or saurian origin, which lacks a lower jaw, indicating a connection with the earth. Often this creature wears the tun headdress, although in early texts the headdress is of the voluted form much favored in the first half of Cycle 9. In two full-figure representations of the tun, this head, with tun headdress, is attached to the body of a snake, and the same is true of the example on the Leiden plaque. This snake is also the deity of number 13... (Thompson 1950:145; original figure references omitted)

Thus began the inquiry into a major yet poorly understood ancient Maya deity. This deity would come to be known by several names, most common among them the ‘Waterlily Monster’ (Schele and Miller 1986:46), ‘Lily Pad Headdress Monster’ (Hellmuth 1987a, 1987b), ‘Celestial God of the Number 13’ (Robertson 1990), ‘Waterlily Serpent’ (Taube 1992:59), and ‘Water Serpent’ (Stuart 2007b). Perhaps the most ambitious study of this creature to date is the dissertation of Nicholas Hellmuth (1987a, 1987b), which provides a particularly detailed treatment of watery creatures in general. One can reasonably state that Hellmuth’s work on the subject has provided the point of departure for most subsequent studies relating to water symbolism among the ancient Maya. Hellmuth also looked at a number of other important creatures including the closely related ‘Tubular Headdress Monster,’ ‘Shell Wing Dragon,’ and several other piscine creatures that have yet to be identified but apparently constitute part of the same ‘underwater-world’ complex.¹

The Water Serpent has also featured in several recent discussions relating to ancient Maya conceptions of water and the sea (Bonnafoux 2008; Houston and Finamore 2010; Houston and Taube 2011), although scholars still seem at odds as to how one should refer to this deity. In *The Fiery Pool: The Maya and the Mythic Sea* (Houston and Finamore 2010), for instance, there are entries for both Waterlily Serpent and Water Serpent: two different names for the same being. Whatever one decides to call this important watery creature, the ancient Maya

¹ Several scenes on Late Classic Maya vases depict individuals in the act of spearing supernatural fish (Quenon and Le Fort 1997; Stone and Zender 2011). While it is still difficult to ascertain the meaning of this mythic act, a number of Mixtec codices provide intriguing examples for comparison. Page 4 of the Selden Roll depicts the spearing and decapitation of a ‘rain serpent’ while the Codex Baranda depicts a large water serpent being doused with water as an axe-wielding individual menacingly approaches (Caso 1958; Hermann Lejarazu 2010). These scenes known from Oaxaca may be Mixtec versions of a wider Mesoamerican creation myth where the universe is created by such violent acts set on an aquatic stage. For the Aztec of Late Postclassic Central Mexico, this discord is portrayed in the sacrifice of the earth deity, Tlaltecuhli, while the Classic Maya equivalent involves the decapitation of the ‘Starry Deer Crocodile’ (Stuart 2005; Taube 2010a:204-205).



Figure 1. *Witz'* as the spirit of active water and the personified tun: (a) the animate face of water; detail of K6642 (from Bonnafoux 2008:Fig. 5.14d); (b) Water Serpent within an active water band (from Hellmuth 1987a:2:Fig. 48a); (c) tun period; Leiden plaque (from Hellmuth 1987a:2:Fig. 80f); (d) Caracol Stela 20 (from Ishihara et al. 2006:Fig.5); (e) personified tun sign; Yaxchilan Lintel 48 (from Hellmuth 1987a:2:Fig. 80d); (f) Chochola style vase depicting Water Serpent (from Robertson 1990:Fig. 6)

themselves seem to have known it as *witz'* (see Stuart 2007b), a word that in many Mayan languages emphasizes animate and splashing water, perhaps indicative of the spray or splash of a waterfall and the coursing movement of rivers and streams.²

Like the imagery of other Maya gods, Water Serpent symbolism is complex and encompasses multifarious functions and characteristics, perhaps the most important of which is the embodiment of animate and active terrestrial waters, including springs, pools, cenotes, lakes, and rivers (Figures 1a-b). In Classic Maya epigraphy, it is the personified form of the 360-day tun period and the head variant of the numeral 13 (Ishihara et al. 2006; Robertson 1990; Taube 1992:56-59; Thompson 1950:145) (Figures 1c-e). Early examples of the Water Serpent as the tun period appear on Caracol Stela 20, the Leiden plaque, Yaxchilan Lintel 48, and Copan Stela 63 (Figures 1c-e). In Classic Maya iconography, the Water Serpent can also appear as a plumed being, its sinuous body representing an undulating stream of animate water (Figure 2).³ The face is typically composed of a downward-curving bird beak and a bound headdress that frequently depicts a fish nibbling on a waterlily flower (Hellmuth 1987a:142-143) (Figure 1f). Some depictions of the serpent's body emphasize illustrious green quetzal plumage and sectioned conch or spondylus shells (Figure 2), denoting it as a being of wind and breath, similar to the plumed serpents known from Classic and Postclassic Central Mexico (Taube 2001).

This study builds on recent observations by David Stuart and Karl Taube in assessing the attributes and characteristics of the ancient Maya Water Serpent, but

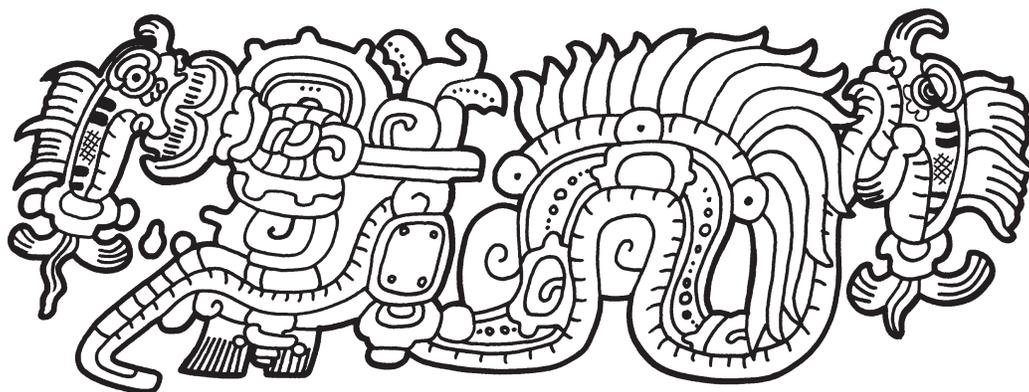
it will also explore the impersonation of this being by rulers, as well as their subordinates who frequently appeared as wind beings, sky bearers, and year bearers, and whose actions provided a political metaphor mirroring cosmic structures of authority. Better insight regarding the function and nature of this watery creature may also be gained from a comparative standpoint. Similar beings from Mesoamerica and the American Southwest are part of rich oral traditions that tell of ambiguous watery serpents that inhabit the terrestrial waters of the earth. However, before examining these political and cosmic structures of authority, a necessary first step is to examine the role of the Water Serpent in

² The full name of the Water Serpent may tentatively be read as **YAX-CHIT-ti/ta HUUN/HU'N-WITZ'?** **NAAH-CHAN**, "new/first lizard(?), one/headband active-water, first snake" (Houston and Taube 2011:31, n. 4). Part of the confusion regarding the various generic names of this being rests on the being's headdress. Hellmuth (1987b:358-359) and Taube (1992:58-59), for instance, see the waterlily pad as a main diagnostic attribute. However, the headdress with waterlily and fish can often be substituted for a large water volute (Ishihara et al. 2006). Such examples can be seen on the West Wall at San Bartolo and the Leiden Plaque (Figures 1c, 3a; see also Hellmuth 1987a:2:Fig. 25c). Furthermore, other Maya supernaturals appear with waterlily iconography designating them as inhabitants of the same aquatic locale of which the Water Serpent was clearly not the only inhabitant, although he may perhaps have been the primary one.

³ As Karl Taube has noted, the depiction of ground-level water on the West Wall at San Bartolo indicates an undulating movement such as that of a large snake (Taube et al. 2010:Figs. 7, 45a, 46). While some of these portions are lost, this may represent the sinuous body of the Water Serpent as a fast moving current.



a



b

Figure 2. The Water Serpent: (a) rollout and detail of vessel K1162 (photograph K1162 © Justin Kerr); (b) Water Serpent from K1162 (drawing by Marc Zender, from Stone and Zender 2011:140).

the natural environment.

A logical place to start is the relationship between the Water Serpent and the Maize God, arguably the most important deity in the Maya pantheon. The earliest example of this interaction comes from the Preclassic West Wall mural of the Pinturas building at San Bartolo,

Guatemala (Figure 3a), where the Water Serpent accompanies both Chahk and the Maize God in a quatrefoil cave set within the turtle earth (Taube et al. 2010:71-80). Similarly, the Late Classic 'Resurrection Plate' from the Boston Museum of Fine Arts depicts the Maize God emerging from the V-cleft cave of the turtle earth,



a



b

Figure 3. The Water Serpent and Maize God theme: (a) Maize God flanked by Chaak and Water Serpent within the turtle earth; detail of San Bartolo Pinturas Mural, West Wall (drawing by Heather Hurst); (b) Late Classic 'Resurrection Plate,' K1892; note Water Serpent emerging from rear of turtle earth; Boston Museum of Fine Arts (photograph K1892 © Justin Kerr).

accompanied by an anthropomorphic form of the Water Serpent emerging from the rear of the turtle (Figures 3b). As has elsewhere been noted, a strikingly similar scene appears on an altar at the base of Copan's Hieroglyphic stairway, again with the Water Serpent emerging from the end of the turtle (Friedel et al. 1993:326, Fig. 8.13). Karl Taube has ventured to explain these scenes as the Water Serpent providing the nourishing waters for the growth of maize (Taube et al. 2010:75-76).

Windy and Watery Subordinates

On Yaxchilan Hieroglyphic Stairway 2, Step X, the head sajal Chak Tok Wayib, a subordinate of King Bird Jaguar IV, plays the ballgame in the guise of a duck-billed personage (Figure 4a). David Stuart has read the accompanying deity impersonation phrase as naming Ik' K'uh or "wind god" (Stuart et al. 1999:151; see also Zender 2004), an important discovery which provides evidence that the Classic Maya had a version, and perhaps even a prototype, for the duck-billed wind gods that are so well-known in Late Postclassic Central Mexico, such as the Aztec deity Ehecatl and the Mixtec god 9 Wind. The reading Ik' K'uh "Wind God" also appears on a Late Classic Maya vase (K1485), this time naming one of two duck-billed wind gods whose body is labeled with IK' "wind" signs (Figure 4b).⁴ Elsewhere, the reading appears once more in the lengthy text on the Late Classic 'Vase of the 88 Glyphs' (K1440), this time serving as potential epithets for the depictions of two old men wearing large wind jewels on their chests and the headdresses of the Water Serpent (see Lopes 2004; Taube 1992:59). To return to the vessel with the two duck-billed wind gods (Figure 4b), it has been pointed out that the second being is instead termed Polaw K'uh "Ocean/Sea God," and his body is marked with the sign POLAW "ocean/sea" instead of wind as such (Luis Lopes 2004; Stone and Zender 2011:56, 141) (Figure

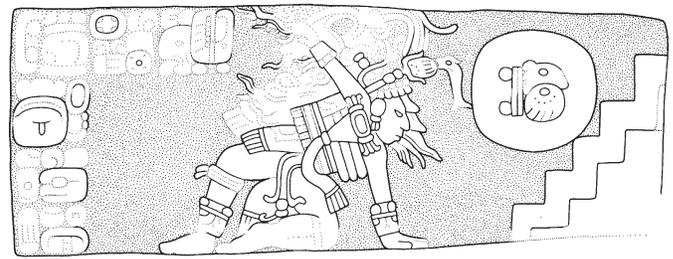
⁴These body markings also appear on a full-figure glyph from Palenque's Palace Tablet which, although not duck-billed, is nonetheless labeled as a wind god through these body markings (Houston et al. 2006:Fig. 4.13c). This particular variant of wind god is closely identified with music, sweet smelling aroma, and the ethereal breath soul (Taube 2004b:73-73). Furthermore, this wind god serves as the head variant of the numeral three and patron of the month Mac and is the Classic-period counterpart to the codical God H (see Taube 1992:56-60). There appears to be a notable distinction between this youthful and delicate embodiment of the breath soul and the duck-billed Ik' K'uh (Henderson 2013:396). Ik' K'uh "Wind Gods" appear to be naturalistic manifestations of wind. This would seem to draw a close parallel with the Central Mexican Ehecatl, who was described as the "road sweeper of the rain gods" (Sahagún 1950-1982:Book 1:3). While the "god of the personified breath soul" and the Ik' K'uh remained distinct during the Classic period, attributes may have begun to overlap during the Postclassic. For instance, in the Dresden Codex, p. 35b, Chahk is shown with the body and headdress of the Water Serpent but appears with the name glyph of God H (Taube 1992:56).

4d). The alternating **IK'** "wind" and **POLAW** "ocean/sea" glyphs are intriguing, suggesting that a wet wind, such as that from the sea or some other body of water, may have been intended in these contexts (Lopes 2004; Stone and Zender 2011:141). On Cancuen Panel 3, the ruler Tajal Chan Ahk is depicted in his quatrefoil cavity of water wearing a waterlily and fish headdress (Carter and Houston 2010:87) (Figure 4e). Two simply dressed subordinates who bear courtly titles wear the simple water lily headdress commonly found with subordinates. Indeed, their arm-gripping posture is a clear sign of their subordination (Carter and Houston 2010:87). Their markings are particularly interesting as they bear the selfsame signs for "wind" and "ocean/sea" carried by the duck-billed wind gods on K1485 (Figures 4f-g).

The duck-billed **IK'** K'uh are frequently found as a pair. Uxmal Stela 14 depicts a remarkable pair of dwarfish duck-billed wind gods who wear waterlily headdresses and are subservient to the glyphically-named Lord Chahk (Figure 5c). In Late Postclassic Central Mexico, the attendants of Tlaloc (known as *tlaloque*) were often conceived of as dwarves and included wind gods among them, known as the *ehecatontin*. Particularly noteworthy is that these two duck-billed wind dwarves on Uxmal Stela 14 stand over a cenote with two dead and bloated captives within its depths. In contemporary Yucatec thought, cenotes were terrestrial sources of the winds, which were thought to come from the sea:

The cenotes are particularly the sources of the winds. As the water makes its cycle, carried by the rain-gods from the cenotes up into the sky to fall as fertilizing rain upon the milpa, so the winds have their sources in the sea and pass up through the cenotes. Therefore, in certain ceremonies offerings are thrown into the cenotes to propitiate the winds. (Redfield 1940:118-119)

In the Bonampak Room 1 murals, a Water Serpent impersonator appears among other individuals costumed as sea creatures (Figure 5b), including two duck-billed wind gods directly behind him, one of which actually has an **IK'** "wind" sign in place of his eye (Taube 2004a:173). While several scholars (Freidel et al. 1993:239; Miller 1986:87) have identified the Water Serpent impersonator as the Maize God, there is little to support this identification, and they have not taken into account the contexts of the Water Serpent headdress



a



b



c



d



e



f



g

Figure 4. Subservient beings of wind and water: (a) duck-billed impersonator and subordinate of King Bird Jaguar IV, named in the text as **IK'** K'uh "wind god"; Yaxchilan, Hieroglyphic Stairway 2, Step X (drawing by Marc Zender, after Zender 2004:Fig. 2); (b) pair of duck-billed wind gods named in the associated text as **IK'** K'uh and **POLAW** K'uh; note Water Serpent headdresses; detail of K1485 (from Stone and Zender 2011:174, Fig. 5); (c) **IK'** "wind" glyph (drawing by Marc Zender, from Stone and Zender 2011:175); (d) **POLAW** "ocean, sea" glyph (from Lopes 2004); (e) Cancuen Panel 3 (photo by Harri Kettunen); (f) detail of **IK'** sign on arm of subordinate; Cancuen Panel 3; (g) detail of **POLAW** sign on arm of subordinate; Cancuen Panel 3.

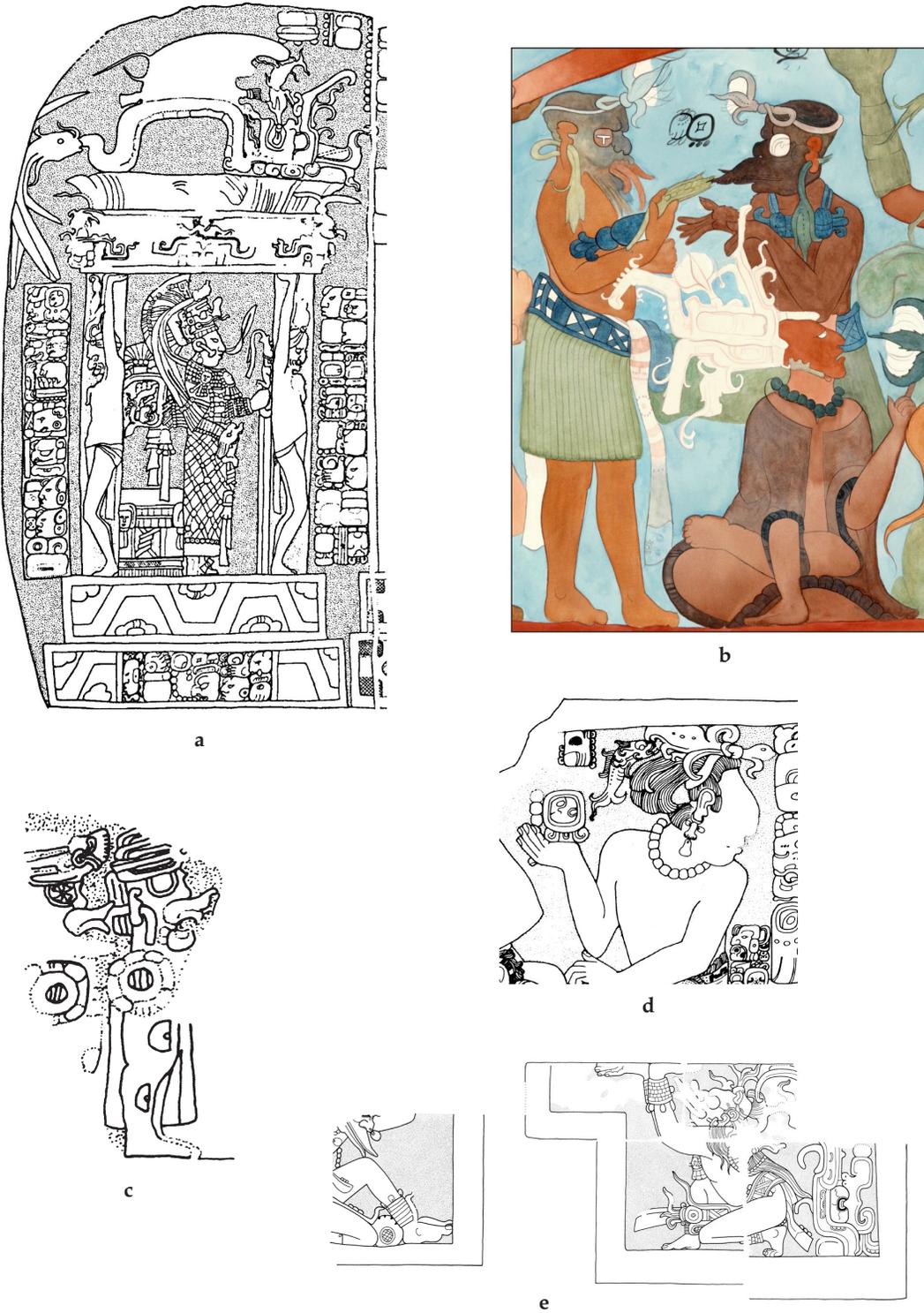


Figure 5. Ik' K'uh and Itzam bearers: (a) two aged Itzam bearers as column supports hold the Water Serpent aloft; detail of La Corona Panel 6 (drawing by Linda Schele); (b) two duck-billed Ik' K'uh flank an impersonator of the Water Serpent; Bonampak, Room 1, detail (reconstruction painting by Heather Hurst and Leonard Ashby, courtesy of Bonampak Documentation Project, Yale University); (c) two duck-billed Ik' K'uh with waterlilies bound in their headdresses; they stand upon a cenote and are subservient to the ruler, Lord Chahk; detail of Uxmal Stela 14 (drawing by the author); (d) one of four Classic-period year bearers holding the dayname Caban; detail of Pomona Panel 1 (after Schele and Miller 1986:Fig. III.12); (e) Ik' K'uh as atlantean throne bearers for K'inich Ajaw; north figure at left, south at right; south figure emerges from a centipede maw and wears a belt that is frequently diagnostic of Water Serpent headdress symbolism (drawing by Oswaldo Chinchilla).

(Looper 2009:67-68). The attire of the two wind gods suggests ballgame paraphernalia (Miller 1986:86-87). A stone vase from Copan depicts the ruler Yax Pasaj Chan Yopaat wearing a mosaic collar decorated with wind signs and a headdress identifying him as the Water Serpent (see Looper 2009:70)—an iconographic assemblage that recalls the pair of elderly men on K1440.

As we have seen, the ballgame is apparently linked to Water Serpent imagery on the Yaxchilan hieroglyphic stairway, the Bonampak Room 1 murals, and the Copan vase. According to Karl Taube, ballcourts were widely considered to be fertile entrances to the watery Underworld, "which probably explains why they are frequently sunken, much as if they were cave-like fissures, pools, or cisterns" (Taube 2010:271). The ballcourt itself is composed of two partial quatrefoils which, when put together, form the I-shaped courts (Guernsey 2010:88). Similarly, a half quatrefoil forms the T-shaped **IK'** sign, which can also serve as a cave sign, perhaps in reference to the close relationship between wind and caves (Coltman 2014). Conceivably, the ancient Maya saw no major change in meaning when the wind sign was turned, inverted, or otherwise manipulated (Houston et al. 2006:145-146). Therefore, both ballcourts and quatrefoils are related to watery realms, a fitting place for impersonators of windy and watery entities.⁵

Two similar iconographic programs exist at the sites of Yaxchilan and Pomona. On Yaxchilan Hieroglyphic Stairway 2, the duck-billed wind god impersonators on Steps IV, V, X, and XII are all subservient lords of Bird Jaguar IV, who is depicted on Step VII as an impersonator of the Water Serpent and plays the ballgame in full ballplayer apparel. A similar program appears on Pomona Panel 1 where the text says that the local ruler, whose portrait is missing, was himself an impersonator of the Water Serpent (David Stuart, personal communication 2009). On Pomona Panel 1, the subordinates are depicted not as Ik' K'uh but as Classic-period year bearers (Figure 5d), the closest correspondence to the year bearers of the Postclassic (see Stuart 2004). The visual program on the two monuments is therefore strikingly similar: a ruler as the Water Serpent surrounded by four secondary, supporting nobles who are subservient wind gods and year bearers. These two examples indicate a striking representation of the quadripartite system with the ruler representing the axis mundi in a political microcosm.

As Diego de Landa (Tozzer 1941:135-136) has noted, the Bakabs were placed in the four quarters of the world where they supported the sky with a year

bearer associated with each Bakab. These atlantean figures, known as Itzam, can appear with both aged and youthful aspects that often merge with the identities of subordinate lords. On the Late Classic La Corona Panel 6 (Figure 5a), two aged atlantean Itzam bearers serve as support columns sustaining a structure which is topped by the Water Serpent (Stuart 2013; Taube 1994: 215). The Ik' K'uh constitute another set of distinct atlanteans that also sustain the heavenly vault. Fray Diego López Cogolludo writes that the closely related Bakabs not only supported the sky, but were also wind gods (Cogolludo 1954:1:352). Classic evidence to support this comes from a pair of leg supports for a throne at Dos Pilas depicting K'inich Ajaw, the Maya Sun God (Chinchilla 1990; Houston 2010 ; Stuart 2009). Excavated by Oswaldo Chinchilla (1990), these supports depict the duck-billed Ik' K'uh as supporters of the throne (Figure 5e). This is both conceptually identical and strikingly visually parallel to the behavior of the Central Mexican duck-billed wind god, Ehecatl, who also had a role as a sky bearer in the Borgia and Vaticanus B codices, and appears as an atlantean bearer in Aztec stone sculpture. As Houston (2010:99) notes, these blocks from Dos Pilas carry both cosmic and political connotations. The cosmic connotation of this depiction of wind beings supporting the sun recalls an account in the Florentine Codex, where it was the breath of Ehecatl that first put the sun in motion (Sahagún 1950-82:Book 7:7-8).

The atlantean Itzam and Ik' K'uh may therefore be referred to as "world bearers" whose duty of securing the sky could metaphorically extend to include the roof of a house or flat slab of a throne, roles that were mirrored by vassals in terms of political support (Houston 1998:354-355). Presumably of a watery locale, young able-bodied Itzam characters—such as those found on panels from Pomona and Laxtunich—do not appear with typical Old God N characteristics such as turtle shells or nets (Stuart 2007a). However, the watery plants and fish in their hairdos clearly associate them with the duck-billed Ik' K'uh found at both Dos Pilas and Yaxchilan.

Impersonation, Rulership, and Power

The Water Serpent is frequently impersonated by Maya kings and, on occasion, even by female members of the royal court (Houston and Stuart 1996:299). In a sample of impersonation statements, the Water Serpent appears as the second-most impersonated being within the common ritual impersonation expression (Nehammer Knub et al. 2010:190). An example of such a statement comes from a rim text on the Cuychen vase (Helmke et al. 2012:83). According to Houston and Stuart (1996:300), reasons for such impersonation of either the Maize God or Water Serpent may have to do with long-lost narratives where impersonators portrayed deities that participated in repetitious ritual cycles. In a study of

⁵ Both the north and south central panels of the South Ballcourt at El Tajín depict a figure wearing a duck-billed mask (Koontz 2009: Figs. 3.13-3.15). Furthermore, these figures wear a headband with a floral element on the brow that is suggestive of Taube's God H and his Classic-period predecessor.

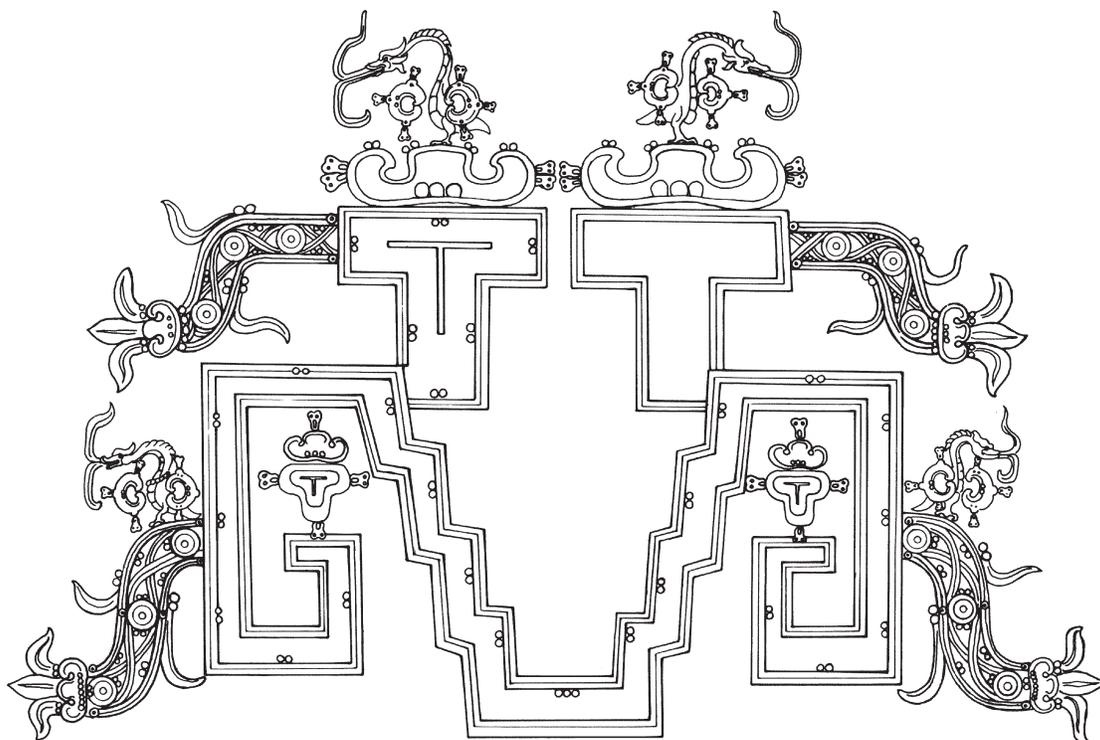


Figure 6. Stucco relief from House B, Palenque, depicting “breathing cave” phenomenon with Water Serpent symbolism (from Robertson 1985:Fig. 177).

deity impersonation, Andrea Stone noted that a

clear signal is sent that the act of impersonating the god was esoterically as meaningful as the god’s holy presence in supernatural affairs. Thus, impersonation provided a powerful interface with the sacred. (Stone 1986:194)

Water Serpent impersonators are frequently depicted within the context of caves and bodies of water. A stucco relief from Palenque House B (Figure 6) provides a striking representation of the phenomena of ‘breathing caves’ infused with symbolism of the Water Serpent (Stone and Zender 2011; Taube 1992:59). Two large wind signs are placed directly above the niche of a step-fretted mountain recalling the cave-like fissure of personified mountain imagery. It serves as an ideal representation of a watery cavernous breathing abode: the symbolic home of the terrestrial Water Serpent. The site of Dos Pilas is one of the best documented cases of site architecture being related to caves and springs (Brady 1997). In the royal palace complex just below the palace platform lies the Cueva de Murciélagos which was the outlet for the entire drainage system. After heavy rainfall, the charging, gushing sound of water from this cave could be heard a half a kilometer away (Brady and Ashmore 1997:129). Dos Pilas Stela 15 depicts the ruler Itzamnaaj K’awiil impersonating the Water Serpent. This impersonation may be related to the appearance of the K’inalha’ toponym on the basal register, which most likely refers to

the subterranean spring beneath the El Duende pyramid (Looper 2009:26). A number of temples at other sites are emblazoned with symbolism of the Water Serpent and aligned to bodies of water, most notably Dzibilchaltun Structure 1-sub in the Northern Lowlands of Yucatan, and contemporaneous façades of the Water Serpent on structure B5-sub and B-16-sub at Caracol, Belize (Ishihara et al. 2006; see also Taube 2010b).

Perhaps the most extravagant display of impersonation of the Water Serpent can be found on several stelae from Late Classic Machaquila. Rulers stand over watery quatrefoil caves while dancing as the impersonator of the Water Serpent. While most of the stelae depict the HA’ “water” glyph within the quatrefoil, Machaquila Stela 10 depicts the upward facing head of Chahk (Figure 7a). Interesting features in the main plaza of the site include a turtle altar and a sunken quatrefoil court, the latter a likely feature indicated by the quatrefoils the rulers dance upon (Stuart and Houston 1994:33). Rulers impersonating the Water Serpent may thus have engaged in dance within this quatrefoil court (Taube et al. 2010:78). La Mar Stela 2 also depicts dancing Water Serpent impersonators recalling those of Machaquila (Ishihara et al. 2006). These dances are interesting to note in the context of nourishing waters from the earth. In Mesoamerica and the American Southwest, masking and dance are frequently related to rain ritual (Schaafsma 1999; Schaafsma and Taube 2006).

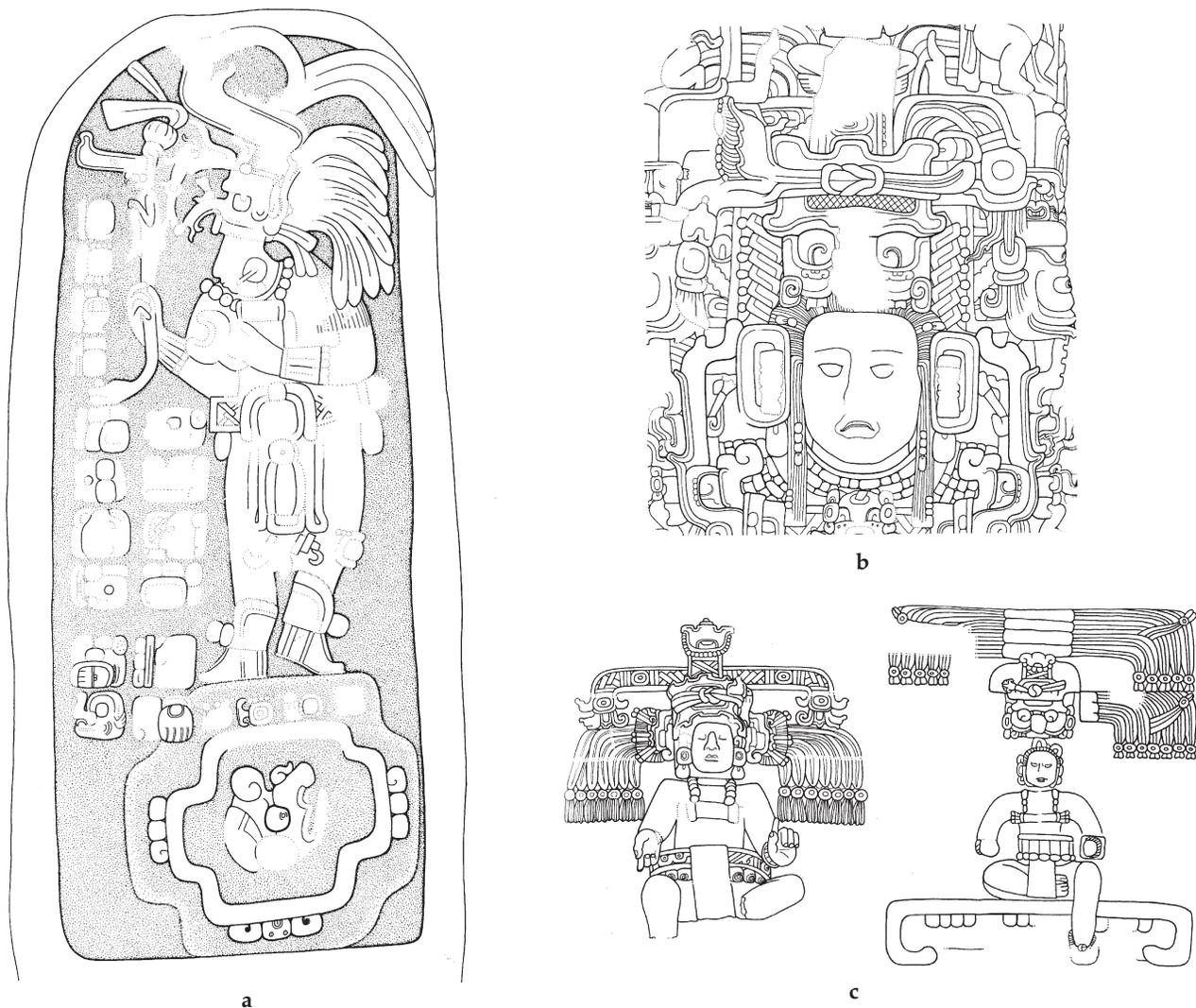


Figure 7. Impersonating the Water Serpent: (a) ruler dances as the Water Serpent over quatrefoil cave that features the upward face of Chaak, Machaquila, Stela 10 (from Graham 1967:Fig. 61); (b) Ruler 15 from Copan as impersonator of the Water Serpent; detail of Stela N (drawing by Barbara Fash); (c) figures wearing the headdress of the Water Serpent, Group 10L-2, Structure 10L-32, and Group 9N-8, Structure 9N-82, Copan (drawings by Barbara Fash).

The site of Copan shows a notable preoccupation with the Water Serpent. On Copan Stela N, Ruler 15 wears an elaborate form of the Water Serpent headdress (Figure 7b). Stuart (2007b) has noted that the word *witz'* appears prominently in the royal name of Ruler 12. At Copan's large residential sectors, impersonators of the Water Serpent appear on sculptured facades from Group 9N-8, Las Sepulturas, and Group 10L-2, El Cementario (Figure 7c). Structure 9N-82 is particularly interesting in that the central figure wears the headdress of the Water Serpent while the two individuals flanking him wear headdresses of maize. This pairing of maize and the Water Serpent has been noted since Preclassic San Bartolo. Structure 10L-32 from Group 10L-2 depicts all the figures wearing the headdress of the Water Serpent.

During the Classic period, kingship may have been linked to the control of water, the most precious of resources. Thus, a recent trend in Mesoamerican studies has focused on water management as a politically and ritually based system (see Lucero and Fash 2006; Scarborough 1998). The elite could have easily manipulated water. As the resource that sustains life, power could become easily controlled and centralized (Scarborough 1998:136). According to Barbara Fash (2005, 2010), the headdress of the Water Serpent worn by rulers and nobles at Copan may have been related to their titles as regional water masters, where they would have overseen engineering at the site's precinct. Fash presents an interesting idea with which I am in agreement. However, I would emphasize that ultimate control and

power over these resources would have been most likely exclusively assumed under the ruler. As the 'houses' of natural phenomena including wind, clouds, rain, and lightning, it is no wonder that rulers frequently situated themselves within the terrestrial sphere. Indeed, there are many representations of rulers situated within the animate earth as early as La Venta Altar 4 (Grove 1973). At Preclassic Izapa and Kaminaljuyu, rulers stand over basal registers depicting the subterranean earth maw, an inward-curving groundline fully equipped with teeth (Taube 2004a:40). As Guernsey (2006:78-79) notes, "the basal motif appears to signify the terrestrial realm, firmly anchoring the performance of the individual standing upon it to the earth." The Late Classic Quirigua Zoomorph P depicts a particularly graphic portrayal of the terrestrial rain-making process with the ruler sitting within the open maw of the saurian earth (Schaafsma and Taube 2006:249).

In Late Postclassic Central Mexico, the rulers of Tenochtitlan, Tlacopan, Xochimilco, and Tetzaco ascended to Mt. Tlaloc by way of an aqueduct (Townsend 1992:173). After the sacrifices and offerings were made, the four rulers descended to the celebration and sanctification of the waters in lakes, streams, and springs (Durán 1971:160). Tetzcotzingo functioned as an administrative center where both water and land rights were confirmed by the *tlatoani*. The sixteenth-century legal document known as the Titles of Tetzcotzingo describes one such ceremony where Netzahualcoyotl allocated water sources and aqueducts to towns, appointees, allies, and their children (McAfee and Barlow 1946). In this respect, Netzahualcoyotl was the quintessential regional master of water. Furthermore, as Schaafsma and Taube (2006:242) note, "[a]s in the case of the four rulers traveling to Mount Tlaloc, while atop Cerro Tetzcotzingo the ruler was the living embodiment of Tlaloc and traveled along his road of water." In the Sierra de Texcoco, Netzahualcoyotl is still invoked as the "rey del mar" and is equated with Tlaloc, a conflation of ruler and regional master of water merging identities with the pre-eminent rain deity (Lorente Fernández 2012).

Agricultural societies like the Maya may have had similar views of rulership, which seem to have been widely shared with agricultural societies of the Old World. The Bashu of Africa, for instance, viewed rulership as an office clearly tied to the natural environment (see Moyes 2006:67-72, 542-585). In Africa, kings are considered to be "the ritual mediators between society and the forces of nature" (Packard 1981:6). In Bashu society, rainmaking was an important component of the development of chiefly authority, the king holding the society together by ensuring rain (Packard 1981:67-71).

Impersonation of the Water Serpent, a being that embodied animate water, would have been a powerful role to assume. This linked the ruler to not only the physical act of control over water sources but also the

supernatural control over these tangible elements. The very act of impersonators dancing as the Water Serpent over water-filled caves sends a powerful terrestrial message: ruler as conjurer, controller, or both. As Brady and Ashmore (1997:129-130) note with regard to Dos Pilas:

Because the king was responsible for crop productivity and quality, identifying his palace with this dramatic water source seems hardly coincidental and in fact, a conscious political strategy, re-expressed every year. The landscape itself thus loudly proclaimed the king's control over water, and presumably over rain-making and fertility.

Water Serpent Lore in Mesoamerica and the American Southwest

The Water Serpent is a likely ancestor of the *chijchan* of contemporary Ch'orti' Maya belief (Stuart 2007b). According to Wisdom (1940:394), the *chijchan* inhabit every body of water as its spirit or essence, their coursing movements causing landslides, floods, and hurricanes. The *chijchan* are subterranean dwellers inhabiting springs, rivers, and lakes, essentially inhabiting every body of water and are also responsible for releasing or withholding rain and wind (Wisdom 1940:395). Indeed, there are some apparent roles of structured authority in contemporary Ch'orti' belief. It is the *chijchan* that churn the water from streams, lakes, and the sea causing it to ascend to the sky in the form of clouds, whereas the working men beat the water out of the clouds so rain can fall. Next, the wind gods swoop in and carry the rain over the world so maize can be planted (Wisdom 1940:396-397). Each direction has a wind god, working man, and *chijchan*, with a single *chijchan* in the north who is superior to all (Wisdom 1940:397). This superior cosmic water serpent, Noj Chijchan, controls the rains and wind and is the chief of all the *chijchans* (Girard 1995:115-116). The contemporary Ch'orti' view of rain-making would seem to confirm Brady and Ashmore's assertion, for the king would be assuming a role in which "the Serpent is master of the water, and is the one who either releases or doesn't release the water" (Girard 1995: 116).⁶

Among the Aztec of Late Postclassic Central Mexico,

⁶ Girard's book *People of the Chan* (1995) was an English translation of the first part of his book *Los mayas eternos* (1962), which focused on the ethnography of the Ch'orti'. In a demonstration of accurate foresight, Girard (1995:117) describes the Noj Chijchan as a dispenser of rain and food that has a human head and reptile body and equates this description with an image in the Codex Dresden, p. 35b, which shows the head of Chahk affixed to the body of a serpent wading in a pool of water. Interestingly, the anthropomorphic serpent on Dresden p. 35b wears the typical headdress of the Water Serpent (Taube 1992:Fig. 26a). Another image of Chahk on Dresden p. 13 appears with an even more elaborate form of the headdress that is even closer to the Classic period version (Hellmuth 1987a:Fig. 193b).

the duck-billed Ehecatl was the “road sweeper of the rain gods” (Sahagún 1950-69:Book 1:3). Thus the attendants to Tlaloc were referred to as the *ahuaque* “masters of water” or *tlaloque* and the *ehecatototin* “little winds” who all inhabited hollow mountains from which the rivers, clouds, and winds emerged (López Austin 1988:1:335). Thus the *ehecatototin* gathered the rain-filled clouds around the mountain homes of the *tlaloque* and rushed them in to water the milpas. In a major study of religion in Prehispanic Central Mexico, Ehecatl is correctly placed in a category based on rain, moisture, and agricultural fertility (Nicholson 1971:414-416). Not always with the best intentions, the *tlaloque* and *ehecatototin* could bring in devastating storms accompanied by lightning bolts, hail, and destructive winds (Lopez Austin 1988:1:340). Indeed, the Florentine Codex (Sahagún 1950-1982:Book 1:3) describes another aspect of Quetzalcoatl when ushering in the rain:

...when the wind rose, when the dust rumbled and it crackled and there was a great din, and it became dark and the wind blew in many directions, and it thundered; then it was said [“Quetzalcoatl”] is wrathful.

In San Francisco Tecospa, Mexico, rain dwarfs and water spirits are subordinate to a water serpent known as *culebra de agua* (Figure 8). This chief of the rain dwarfs tells them what barrel to open from their mountain cave homes, be it rain, hail, lightning, clouds, drizzle, thunder, or frost (Madsen 1960:131). These rain dwarfs are analogous to the *tlaloque* who were described as

having control of the “clouds, rain, hail, snow, mist, sheet lightning, thunder, and lightning bolts” (Sahagún 1950-1982:Book 7:18). According to contemporary Huastecan Nahua oral traditions, the water serpent is an amalgam of wind and water that collects rainwater from the sea (Hooft 2006:185-186). However, the snake’s fall to land is particularly devastating as the water moves from beneficial to harmful:

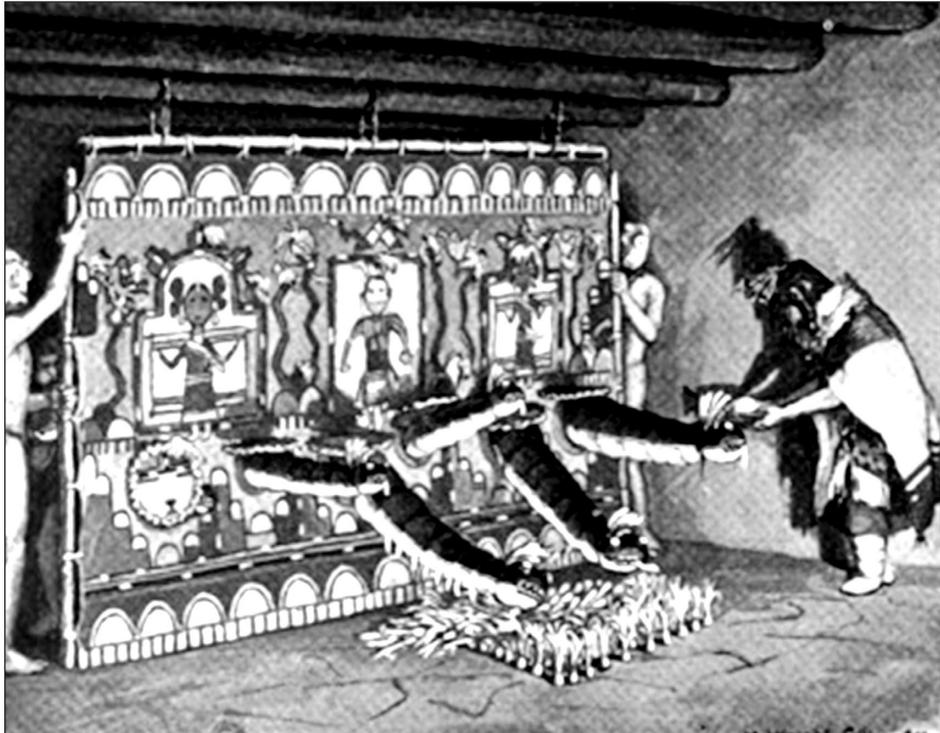
Splashing about in the pool, the snake moved the water with its tail, tossing it out of the pool and making it flow over. The water, now threatening, acquires a distinct value and becomes a turbid, invading stream (Hooft 2006:186).

In northeastern Jalisco, the contemporary Tepehua refer to the horned wind serpents as *chenes* or “winds of the waters,” malevolent water-serpents that inhabit springs and streams (Mason 1918:126). The Huichol have an intricate system of belief concerning water serpents, all of which seem to be female. One important water serpent known as Na’aliwaemi rises from her spring as a green cloud and then takes the form of a “large snake of pure water” (Zingg 1938:338-339). Among the contemporary Mixtec, the feathered serpent known as *koo savi* is a rain bringer that typically brings destructive and powerful storms (Monaghan 1989).

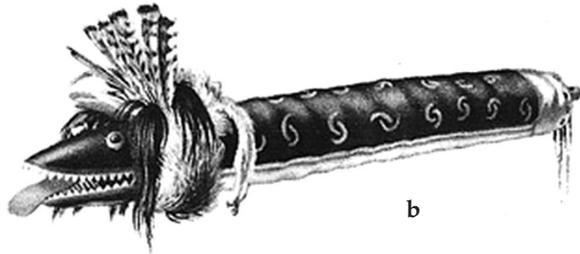
Among the western Pueblos of the American Southwest, the water serpent is similar to Quetzalcoatl in his role as a plumed serpent, sharing such characteristics as a rain bringer with clear associations to maize



Figure 8. *Culebra de agua*, and attendant rain dwarfs initiating natural phenomena; San Francisco Tecospa, Mexico (adapted from Madsen 1960:129).



a



b

Figure 9. Paalölöqangw and Kolowisi in the American Southwest: (a) a performance featuring the Hopi Paalölöqangw; note symbolic maize field (from Fewkes 1920:Pl. 3); (b) effigy of the Zuni water serpent, Kolowisi (from Stevenson 1904:Pl. 13).

(Schaafsma 2001).⁷ In Zuni tradition, maize is brought up from the underworld every four years by the great plumed water serpent, Kolowisi, a master of oceans with his own rain chieftaincy (Parsons 1939:1:184; Stevenson 1915:99) (Figure 9a). According to Parsons (1939:1:184), the water serpent figures prominently among all Puebloan groups except for the Tiwa and “is a collective being living in springs, sometimes associated with the color directions...” He is also referred to as “a single personage, a god of terrestrial waters.” In the Southwest, the water serpent controls calamitous floods, earthquakes, and landslides (Parsons 1939:1:185), not unlike the *chijchan* of the contemporary Ch’orti’.

Among the Hopi, the water serpent is patron of the Water-Corn clan and known as Paalölöqangw.⁸ During the Hopi *pälülüikoñti* ceremonies performed at Walpi and Oraibi, young maize is grown inside the kiva and

placed before a water serpent screen (Titiev 1944:184) (Figure 9b). For the Hopi, Paalölöqangw inhabit terrestrial bodies of water and can create violent storms,

⁷ In Puebloan rain and water ritual, the duck is featured prominently as a rain god or as a head Katsina. Among the Zuni, the one who sends and controls the Katsina rain spirits is the duck being, Pautiwa, who is notably similar to Ehecatl-Quetzalcoatl (Taube 2001:118).

⁸ In Hopi thought, the water serpent resides in springs and is a source of clouds. According to Geertz and Lamatuway’ma (1987:178-179), the water serpent is a guardian of springs and their effigies are frequently carried to nearby springs during rituals. Much like the sacred cave water held in such high regard by the ancient Maya, for the Hopi, water from springs occupies a similar source of pure water to be aspersed in ritual. Many Hopi rites involve carrying effigies of the water serpent to sacred springs with the water being taken back to the mesa (Stephen 1936:1:319-322).

characteristics notably similar to the Central Mexican *culebra de agua*, Mixtec *koo savi*, and Ch'orti' *chijchan*. During the month of February, Paalölöqangw appears in performances held in kivas and is engaged in epic struggles with Kooyemsi and Sa'lakwakatsinam before ultimately destroying symbolic fields of corn, a testament to the raw power and devastating capability of the serpent (Fewkes 1897:308; Geertz and Lomatuway'ma 1987:217-252; see also Mills and Ferguson 2008:341-342). While the Paalölöqangw is capable of causing a multitude of natural disasters including landslides, floods, and earthquakes, it also represents "one of the most powerful embodiments of fertility and fecundity in Hopi religious imagery" (Malotki 1993:3).⁹

Final Thoughts

On the Hieroglyphic Stairway at Yaxchilan, Bird Jaguar IV as well as his father and grandfather dispatch their captives during the ballgame, an act that may speak to vanquishing ancient enemies of civilization while the lower-ranking Ik' K'uh play with "twelve handspan" balls instead of dispatching captives (Zender 2004:8). After all, this act was reserved for the ruler. Uxmal Stela 14 depicts the conquering Lord Chahk standing over a cenote with two bound dispatched captives floating within its depths. His two servile wind god assistants accompany him. The practical import of these events is not just in the role of dispatching captives, but as Zender (2004) points out for Yaxchilan, it serves to useful remind the lesser nobility of their divinely-ordained roles as servants and helpmeets of the king. These secondary nobles carried multiple burdens, be it supporting thrones, skies, or even time itself. Often taking the form of duck-billed Ik' K'uh, aged, toothless, and chapfallen grandfathers, or young and able-bodied men, these individuals provided both a cosmic and political service.

A clear metaphor existed in which ancient Maya political authority replicated the cosmic realms of authority where wind gods, sky-bearing atlanteans, and year bearers were subservient to sustaining the order of the cosmos just as they sustained the ruler. Maya rulers, lords, and even royal women often impersonated the Water Serpent, and just as the Principal Bird Deity was associated with the accession to rulership and the celestial realm of the sky, the Water Serpent was associated with rulership and the cavernous abodes of terrestrial wind and water.

⁹ Malotki (1993:7) notes that the Hopi Paalölöqangw is notoriously associated with human sacrifice, a characteristic that makes him a "plausible candidate for an offspring of a Maya type Water Serpent." Contemporary Nahua also have oral traditions that relate how human sacrifices were made in pools and lagoons in order to appease the water serpent lest the creature emerge from its watery realm and devour the inhabitants of the village (see Hooft 2006:187).

Closely linked to the life-giving qualities of water, wind, and maize, the Water Serpent, as the embodiment of animate and active water, serves as a logical choice for impersonation by rulers. Clearly, a ruler's impersonation of this being would have signified their control of the weather. Rain, wind, and thunderous storms would have been conjured from caves both real and symbolic. Impersonation of the Water Serpent would have invoked a being of both benevolent and malevolent capability. Of course, beneficial waters would have been favored, even required, but flooding, landslides, and earthquakes would have always been a dreaded possibility. Contemporary accounts of water serpents seem almost universal in describing this ambiguous nature, one that fits well with general Mesoamerican cosmology. While one could certainly look for divergent cosmologies regarding water serpents, the core underlying cosmological and weather-related affiliations cannot be ignored (Mathiowetz 2011:222-223). I would strongly suspect that the Water Serpent or *witz'* of Maya antiquity would have held at least some of these characteristics, and perhaps even all of them.

Acknowledgments

I would like to thank those that have generously granted permission to use illustrations and photographs, answer inquiries, and listen to me ramble about this fascinating subject for the past several years. In no particular order, these people are James Brady, Marcello Canuto, Oswaldo Chinchilla, Michael Coe, Barbara Fash, Lucia Henderson, Heather Hurst, Harri Kettunen, Simon Martin, Mary Miller, John Pohl, David Stuart, Karl Taube, and Marc Zender. I thank Justin Kerr for his permission to use images from his remarkable archive. Finally, an earlier version of this study was presented at the 7th Annual Maya at the Playa Conference in Palm Coast, Florida, which honored Justin Kerr. I also thank Mat Saunders for the invitation to present these ideas in that forum and for his warm hospitality during my visit. During the conference dinner, I had the good fortune to be seated with George Stuart and Justin Kerr. They regaled everyone with hysterical tales and wise anecdotes. Sadly, George is no longer with us, but in the active spirit of the playa and the Witz': this one's for you, George!

References

- Bonnafoux, Patrice
2008 Etude iconographique des céramiques du Classique ancien dans les basses terres mayas. Ph.D. dissertation, Université Paris 1 Panthéon-Sorbonne, Paris.
- Brady, James E.
1997 Settlement Configuration and Cosmology: The Role of Caves at Dos Pilas. *American Anthropologist* 99(3):602-618.

- Brady, James E., and Wendy Ashmore
1999 Mountains, Caves, Water: Ideational Landscapes of the Ancient Maya. In *Archaeologies of Landscape: Contemporary Perspectives*, edited by Wendy Ashmore and A. Bernard Knapp, pp. 124-145. Blackwell Publishers, Oxford.
- Brady, James E., and Keith M. Prufer
2005 Maya Cave Archaeology: A New Look at Religion and Cosmology. In *Stone Houses and Earth Lords: Maya Religion in the Cave Context*, edited by Keith M. Prufer and James E. Brady, pp. 365-379. University Press of Colorado, Boulder.
- Bunzel, Ruth
1932 Zuni Origin Myths. In *47th Annual Report of the Bureau of American Ethnology for the Years 1929-1930*, pp. 545-609. Washington, D.C.
- Carter, Nicholas, and Stephen D. Houston
2010 Panel with a Seated Ruler in a Watery Cave [Cancuen Panel 3]. In *Fiery Pool: The Maya and the Mythic Sea*, edited by Daniel Finamore and Stephen D. Houston, pp. 86-87. Yale University Press, New Haven.
- Caso, Alfonso
1958 Comentario al Códice Baranda. In *Miscellanea Paul Rivet. Octogenario dicata*, v. 1, pp. 373-394. Universidad Nacional Autónoma de México, Mexico.
- Chinchilla Mazariegos, Oswaldo
1990 Operación DP14: Investigaciones en el Grupo N5-6. In Proyecto Arqueológico Regional Petexbatun, informe preliminar no. 2, segunda temporada, 1990, edited by Arthur A. Demarest and Stephen D. Houston. Report presented to the Instituto de Antropología e Historia, Guatemala.
- Cogolludo, Diego López
1954 *Historia de Yucatán*. 4th ed. Talleres Gráficos del Gobierno, Campeche.
- Coltman, Jeremy D.
2014 A Study of Classic Maya Cave Iconography. M.A. Thesis, Department of Anthropology, California State University, Los Angeles.
- Fash, Barbara
2005 Iconographic Evidence for Water Management and Social Organization at Copán. In *Copán: The History of an Ancient Maya Kingdom*, edited by E. Wyllys Andrews and William L. Fash, pp. 103-138. School of American Research Press, Santa Fe.
- Fewkes, Jesse Walter
1897 Tusayan Katchinas. In *Annual Report of the Smithsonian Institution for 1893-1894*, pp. 245-313. Smithsonian Institution, Washington D.C.
1920 Sun Worship of the Hopi Indians. In *Annual Report of the Smithsonian Institution for 1918*, pp. 493-526. Smithsonian Institution, Washington D.C.
- Finamore, Daniel and Stephen D. Houston
2011 *The Fiery Pool: The Maya and the Mythic Sea*, edited by Daniel Finamore and Stephen Houston. Yale University Press, New Haven.
- Friedel, David, Linda Schele, and Joy Parker
1993 *Maya Cosmos: Three Thousand Years on the Shaman's Path*. William Morrow, New York.
- Geertz, Armin W., and Michael Lomatuway'ma
1987 *Children of Cottonwood: Piety and Ceremonialism in Hopi Indian Puppetry*. University of Nebraska Press, Lincoln.
- Gill, Sam D.
1987 *Mother Earth: An American Story*. University of Chicago Press, Chicago.
- Girard, Rafael
1962 *Los mayas eternos*. Antigua Librería Robredo, Mexico.
1995 *The People of the Chan*. Continuum Foundation, Chino Valley AZ.
- Grove, David
1973 Olmec Altars and Myths. *Archaeology* 26:128-135.
- Guernsey, Julia
2006 *Ritual and Power in Stone: The Performance of Rulership in Mesoamerican Izapan Style Art*. University of Texas Press, Austin.
2011 A Consideration of the Quatrefoil Motif in Preclassic Mesoamerica. *Res: Anthropology and Aesthetics* 57/58:75-96.
- Guiteras-Holmes, Calixta
1961 *Perils of the Soul: The World View of a Tzotzil Indian*. Free Press, New York.
- Hellmuth, Nicholas
1987a *The Surface of the Underwaterworld: Iconography of the Gods of Early Classic Maya Art in Peten, Guatemala*. 2 vols. Foundation for Latin American Anthropological Research, Culver City, CA.
1987b *Monster und Menschen in der Maya-Kunst: Eine Ikonographie der alten Religionen Mexikos und Guatemalas*. Akademische Druck- u. Verlagsanstalt, Graz.
- Helmke, Christophe, Jaime J. Awe, Shawn G. Morton, and Gyles Iannone
2012 The Archaeological and Epigraphic Significance of Cuychen, Macal Valley, Belize. *Research Reports in Belizean Archaeology*, Volume 9:75-89. Institute of Archaeology, Belmopan.
- Henderson, Lucia
2013 Bodies Politic, Bodies in Stone: Imagery of the Human and the Divine in the Sculpture of Late Preclassic Kaminaljuyú, Guatemala. Ph.D. dissertation, Department of Art History, University of Texas, Austin.
- Hermann Lejarazu, Manuel A.
2010 La serpiente de lluvia en los mitos de origen de Códice Baranda. *Itinerarios* 12:179-196.
- Hooft, Anuschka van 't
2006 *A Reconstruction of Huastecan Nahua Society Through Its Oral Tradition*. Leiden University Press, Leiden.
- Houston, Stephen D.
1998 Classic Maya Depictions of the Built Environment. In *Form and Function in Classic Maya Architecture*, edited by Stephen D. Houston, pp. 333-372. Dumbarton Oaks, Washington, D.C.
2010 Throne Blocks with Atlantean Figures and the Sun God. In *Fiery Pool: The Maya and the Mythic Sea*, edited by Daniel Finamore and Stephen D. Houston, pp. 98-99. Yale University Press, New Haven.

- Houston, Stephen D. and David S. Stuart
1996 Of Gods, Glyphs and Kings: Divinity and Rulership among the Classic Maya. *Antiquity* 70:289-312.
- Houston, Stephen D., David S. Stuart, and Karl A. Taube
2006 *The Memory of Bones: Body, Being, and Experience among the Classic Maya*. University Press of Texas, Austin.
- Houston, Stephen D., and Karl A. Taube
2011 The Fiery Pool: Fluid Concepts of Water and Sea among the Classic Maya. In *Ecology, Power and Religion in Maya Landscapes*, edited by C. Isendahl and B. Liljefors Persson, pp. 11-37. Verlag Anton Saurwein, Markt Schwaben.
- Ishihara, Reiko, Jaime Awe, and Karl Taube
2006 The Water Lily Stucco Masks at Caracol, Belize. *Research Reports in Belizean Archaeology*, Volume 3, edited by John Morris, Sherliyne Jones, Jaime Awe and Christopher Helmke, pp. 213-23. Institute of Archaeology, Belmopan.
- Koontz, Rex
2009 *Lightning Gods and Feathered Serpents: The Public Sculpture of El Tajín*. University of Texas Press, Austin.
- Looper, Matthew
2009 *To Be Like Gods: Dance in Ancient Maya Civilization*. University of Texas Press, Austin.
- Lopes, Luis
2004 The Water-Band Glyph. *Mesoweb*: www.mesoweb.com/features/lopes/Waterband.pdf.
- López Austin, Alfredo
1988 *The Human Body and Ideology: Concepts of the Ancient Nahuas, Vol. 1*. University of Utah Press, Salt Lake City.
- Lorente Fernández, David
2012 Nezahualcōyotl es Tláloc en la Sierra de Texcoco: historia nahua, recreación simbólica. *Revista Española de Antropología Americana* 42(1):63-90, Universidad Complutense de Madrid.
- Lucero, Lisa J. and Barbara W. Fash, eds.
2006 *Precolumbian Water Management: Ideology, Ritual, and Power*. The University of Arizona Press, Tucson.
- Madsen, William
1960 *The Virgin's Children: Life in an Aztec Village Today*. University of Texas Press, Austin.
- Malotki, Ekkehart, ed.
1993 *Hopi Ruin Legends: Kiqōtutuwutsi*. Narrated by Michael Lomatuway'ma, Lorena Lomatuway'ma, and Sidney Namingha, Jr. University of Nebraska Press, Lincoln.
- Mason, J. Alden
1918 Tepecano Prayers. *International Journal of American Linguistics* 1(2):91-153.
- Mathiowetz, Michael
2011 The Diurnal Path of the Sun: Ideology and Interregional Interaction in Ancient Northwest Mesoamerica and the American Southwest. Ph.D. dissertation, Department of Anthropology, University of California, Riverside.
- Miller, Mary Ellen
1986 *The Murals of Bonampak*. Princeton University Press, Princeton.
- Mills, Barbara J. and T.J. Ferguson
2008 Animate Objects: Shell Trumpets and Ritual Networks in the Greater Southwest. *Journal of Archaeological Method and Theory* 15: 338-361.
- Monaghan, John
1989 The Feathered Serpent in Oaxaca. *Expedition* 31(1):12-18.
1995 *The Covenants with Earth and Rain: Exchange, Sacrifice, and Revelation in Mixtec Society*. University of Oklahoma Press, Norman.
2000 Theology and History in the Study of Mesoamerican Religions. In *Supplement to the Handbook of Middle American Indians Volume 6: Ethnology*, edited by John Monaghan, pp. 29-49. University of Texas Press, Austin.
- Moyes, Holly
2006 The Sacred Landscape as a Political Resource: A Case Study of Ancient Maya Cave Use at Chechem Ha Cave, Belize, Central America. Ph.D. dissertation, Department of Anthropology, State University of New York at Buffalo, Buffalo.
- Nehammer Knub, Julie, Simone Thun, and Christophe Helmke
2009 The Divine Rite of Kings: An Analysis of Classic Maya Impersonation Statements. In *The Maya and their Sacred Narratives: Text and Context in Maya Mythologies*, edited by Geneviève Le Fort, Raphaël Gardiol, Sebastian Matteo, and Christophe Helmke, pp. 177-195. Verlag Anton Saurwein, Markt Schwaben.
- Nicholson, Henry B.
1971 Religion in Pre-Hispanic Central Mexico. In *Archaeology of Northern Mesoamerica*, edited by Gordon F. Ekholm and Ignacio Bernal, pp. 395-445. Handbook of Middle American Indians, vol. 10, Robert Wauchope, general editor. University Press of Texas, Austin.
- Packard, Randall
1981 *Chieftship and Cosmology: An Historical Study of Political Competition*. University of Indiana Press, Bloomington.
- Parsons, Elsie C.
1939 *Pueblo Indian Religion*. 2 vols. University of Chicago Press, Chicago.
- Quenon, Michel, and Genevieve Le Fort
1997 Rebirth and Resurrection in Maize God Iconography. In *The Maya Vase Book: A Corpus of Rollout Photographs of Maya Vases by Justin Kerr, Volume 5*, edited by Barbara Kerr and Justin Kerr, pp. 884-902. Kerr Associates, New York.
- Robertson, Merle Greene
1985 *The Sculpture of Palenque, Volume II: The Early Buildings of the Palace and the Wall Paintings*. Princeton University Press, Princeton.
1990 Celestial God of the Number 13. *Triptych* (Sept/Oct 1990), pp. 26-31. The Museum Society, San Francisco.
- Sahagún, Fray Bernardino
1950-1982 *Florentine Codex: General History of the Things of New Spain. Translated from the Aztec into English, with Notes and Illustrations by Arthur J. O. Anderson and Charles E. Dibble*. 12 vols. School of American Research Press; University of Utah, Santa Fe.

- Scarborough, Vernon L.
1998 Ecology and Ritual: Water Management and the Maya. *Latin American Antiquity* 9(2):135-159.
- Schaafsma, Polly
1999 Tlalocs, Kachinas, Sacred Bundles, and Related Symbolism in the Southwest and Mesoamerica. In *The Casas Grandes World*, edited by Curtis F. Schaafsma and Carroll L. Riley, pp. 164-192. The University of Utah Press, Salt Lake City.
2001 Quetzalcoatl and the Horned and Feathered Serpent of the Southwest. In *The Road to Aztlan: Art from the Mythic Homeland*, edited by Virginia M. Fields and Victor Zamudio-Taylor, pp. 138-149. Los Angeles County Museum of Art, Los Angeles.
- Schaafsma, Polly and Karl Taube
2006 Bringing the Rain: An Ideology of Rain Making in the Pueblo Southwest and Mesoamerica. In *A Pre-Columbian World*, edited by Jeffrey Quilter and Mary Miller, pp. 231-285. Dumbarton Oaks, Washington, D.C.
- Schele, Linda and Mary Miller
1986 *The Blood of Kings. Dynasty and Ritual in Maya Art*. Kimbell Art Museum, Fort Worth, Texas.
- Stevenson, Matilda C.
1904 The Zuni Indians: Their Mythology, Esoteric Fraternities, and Ceremonies. *Twenty-Third Annual Report, Bureau of American Ethnology, 1901-1902*. Smithsonian Institution, Washington, D.C.
1915 Ethnobotany of the Zuni Indians. *30th Annual Report of the Bureau of American Ethnology for the Years 1908-1909*, Smithsonian Institution, Washington, D.C.
- Stone, Andrea
1991 Aspects of Impersonation in Classic Maya Art. In *Sixth Palenque Round Table, 1986*, edited by Virginia M. Fields, pp. 194-202. University of Oklahoma Press, Norman.
- Stone, Andrea, and Marc Zender
2011 *Reading Maya Art: A Hieroglyphic Guide to Ancient Maya Painting and Sculpture*. Thames and Hudson, London.
- Stuart, David S.
2004 New Year Records in Classic Maya Inscriptions. *The PARI Journal* 5(2):1-6.
2005 *The Inscriptions from Temple XIX at Palenque*. Pre-Columbian Art Research Institute, San Francisco.
2007a Old Notes on the Possible ITZAM sign. *Maya Decipherment: decipherment.wordpress.com/2007/09/29/old-notes-on-the-possible-itzam-sign/*.
2007b Reading the Water Serpent as WITZ'. *Maya Decipherment: decipherment.wordpress.com/2007/04/13/reading-the-water-serpent/*.
2009 A Sun God Image from Dos Pilas, Guatemala. *Maya Decipherment: decipherment.wordpress.com/2009/04/10/a-sun-god-image-from-dos-pilas-guatemala/*.
2013 New Drawing of a La Corona Panel. *Maya Decipherment: decipherment.wordpress.com/2013/01/23/new-drawing-of-a-la-corona-panel/*.
- Stuart, David, Stephen D. Houston and John Robertson
1999 Recovering the Past: Classic Mayan Language and Classic Maya Gods. In *Notebook for the XXIIIrd Maya Hieroglyphic Forum at Texas, March, 1999*, pt. 2. Department of Art and Art History; College of Fine Arts; Institute of Latin American Studies, University of Texas, Austin.
- Taube, Karl A.
1992 *The Major Gods of Ancient Yucatan*. Studies in Pre-Columbian Art and Archaeology 32. Dumbarton Oaks, Washington, D.C.
1994 The Iconography of Toltec Period Chichen Itza. In *Hidden in the Hills: Maya Archaeology of the Northwestern Yucatan Peninsula*, edited by Hanns J. Prem, pp. 212-246. Acta Mesoamericana 7. Verlag von Flemming, Möckmühl.
2004a *Olmec Art at Dumbarton Oaks*. Dumbarton Oaks, Washington, D.C.
2004b Flower Mountain: Concepts of Life, Beauty and Paradise Among the Classic Maya. *RES: Anthropology and Aesthetics* 45:69-98.
2010a Where Earth and Sky Meet: the Sea in Ancient and Contemporary Maya Cosmology. In *Fiery Pool: the Maya and the Mythic Sea*, edited by Daniel Finamore and Stephen D. Houston, pp. 202-219. Yale University Press, New Haven.
2010b Cast of a Temple Façade with the Water Lily Serpent. In *Fiery Pool: The Maya and the Mythic Sea*, edited by Daniel Finamore and Stephen D. Houston, pp. 44-45. Yale University Press, New Haven.
2010c Stone Ballgame Belt with the Maize God and Swimmers in the Aquatic Underworld. In *Fiery Pool: The Maya and the Mythic Sea*, edited by Daniel Finamore and Stephen D. Houston, pp. 270-271. Yale University Press, New Haven.
- Taube, Karl A., William Saturno, David Stuart, and Heather Hurst
2010 *The Murals of San Bartolo, El Peten, Guatemala, Part 2: The West Wall*. Ancient America 10. Center for Ancient American Studies, Barnardsville.
- Thompson, J. Eric S.
1950 *Maya Hieroglyphic Writing: Introduction*. Publication 589. Carnegie Institution of Washington, Washington, D.C.
- Titiev, Mischa
1944 *Old Oraibi: A Study of the Hopi Indians of Third Mesa*. Papers of the Peabody Museum of Archaeology and Ethnology 22. Harvard University, Cambridge, MA.
- Tozzer, Alfred M.
1941 *Landa's Relación de las cosas de Yucatan*. Papers of the Peabody Museum of Archaeology and Ethnology 18. Harvard University, Cambridge, MA.
- Wisdom, Charles
1940 *The Chorti Indians of Guatemala*. University of Chicago Press, Chicago.
1952 The Supernatural and Curing. In *Heritage of Conquest: The Ethnology of Middle America*, edited by Sol Tax, pp. 119-141. Free Press, Glencoe, IL.
- Zender, Marc
2004 Glyphs for "Handspan" and "Strike" in Classic Maya Ballgame Texts. *The PARI Journal* 4(4):1-9.
- Zingg, Robert M.
1938 *The Huichols: Primitive Artists*. G. E. Stechert, New York.