The Teotihuacan cave of origin

The iconography and architecture of emergence mythology in Mesoamerica and the American Southwest

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It is now a well-known fact that the greatest structure at Teotihuacan, the Pyramid of the Sun, is carefully oriented to a specific natural feature. On the western side, at the central basal portion of the stairway, a cave leads in to almost the exact center of the pyramid. René Millon (1983: 235) notes the extreme importance of the Teotihuacan cave:

the pyramid must be where it is and nowhere else because the cave below it was the most sacred of sacred places . . . the rituals performed in the cave must have celebrated a system of myth and belief of transcendent importance.

The ideological significance of the cave has been considered in accordance with two general lines of interpretation. Whereas Millon (ibid.: 232-233, 235) suggests that it concerns the creation of the sun and moon, Doris Heyden (1973, 1975, 1981) views the cave as an early form of Chicomoztoc, the cave of origin from which people first issued. The two interpretations are not mutually exclusive; the origin of the sun and of human beings can be viewed as episodes of a single creation event. But although sixteenth-century Aztec accounts describe the creation of the sun at Teotihuacan, there are few prehispanic representations of this event. However, many detailed depictions of the emergence do exist—both for the Classic (A.D. 300-900) and Postclassic (A.D. 900-1520) periods. Occurring in a wide geographic area over a thousand-year span, the prehispanic emergence scenes contain features found also in colonial texts describing the creation of mankind. Many of these important traits appear at Teotihuacan; they are represented not only in the vivid mural paintings found throughout the city, but also in ceremonial architecture, most importantly the Temple of Quetzalcoatl and the Pyramid of the Sun.

One of the most complex cave representations known for Classic Mesoamerica is contained in Mural 3 of Patio 2 at Tepantitla, Teotihuacan. Although to Alfonso Caso (1942) the scene depicts the afterlife Paradise of Tlaloc, there are two basic problems with this interpretation. Caso identifies the large figures above Mural 3 and neighboring Mural 2 as the god Tlaloc, but in recent years others have noted that the entity is female, not male (e.g., Kubler 1962, 1967; Pasztory 1973, 1974; Furst 1974; Taube 1983). Second, the Tlalocan interpretation does not account for the other Patio 2 murals, which share many features with Mural 3 but cannot simply be considered representations of the afterlife. Viewed as the emergence of mankind out of the underworld, Mural 3 is far more consistent with the other Patio 2 murals, which appear to portray legendary or actual events and places (Taube 1983). In the present discussion, the Mural 3 cave will also be considered as a place of emergence—in other words, an idealized counterpart of the actual cave underlying the Pyramid of the Sun.

The concept of the temple cave is by no means limited to Teotihuacan. During the Postclassic period, one structure in particular—the circular wind temple of Ehecatl-Quetzalcoatl—was identified with the place of origin. Certain features of actual wind temples, such as the serpent doorway and frequent axially placed floor fossa, suggest that such structures were considered symbolic entrances to the underworld. However, representations in prehispanic art provide the clearest evidence that the wind temple is an emergence structure. Viewed in this new light, the wind temple is comparable to the kiva of the American Southwest, known for its commonly circular form and frequent floor pit, or *sipapu*, symbolic of the emergence cave. The Pueblo kiva is the pivotal architectural feature of a vast ceremonial complex based on the emergence devoted to the issuance of natural forces and foods necessary for the well-being of mankind. It will be seen that much of the emergence symbolism shared between the various cultures of ancient Mesoamerica is also present among peoples of the neighboring Southwest.

Classic emergence mythology: fish-men, lightning, and maize

The cave pool within Tepantitla Mural 3 lies at the base of a cleft mountain (cf. Taube 1983: fig. 40). Much as the mountain constitutes the central pivotal feature of Mural 3, Cerro Gordo dominates the plain of Teotihuacan. Stephen Tobriner (1972) suggests that the Street of the Dead, and in consequence the entire city, was oriented toward the mountain of Cerro Gordo. I (Taube 1983: 138, fig. 41) have compared the Tepantitla mountain to the Mapa de Quinatzin toponym of Teotihuacan, as both are mountains with rushes below. In both instances, the mountain is probably Cerro Gordo. During the sixteenth century, Cerro Gordo was known as Tenan, the Mother of Stone, and was believed to contain a single great cleft of rushing

On the eastern slope of the aforesaid mountain [Tenan], about half way up, is a chasm in which one hears a great noise which appears to proceed from the interior, a distance of twenty yards. This seems to be the noise of the water which descends from the said mountain. The natives are convinced that it is water, because in the whole plain that extends between the town of San Juan and the confines of Texcoco there is no river nor spring other than the one at the head of the town of San Juan. . . . (Nuttall 1926: 76)

The Tepantitla mountain is split by a cleft running from the peak down to the pool below. The rushes in the two mountain scenes presumably refer to some sort of cave spring from where the mountain water issues. This pool is notably similar to the fabled Tollan, or place of rushes. According to Seler (1902–1923, V: 149), Tollan was a place of birth and ancestral origin known as the cave of the west (Höle im Westen), the fertile paradise of Ouetzalcoatl.

At times, fish are represented in depictions of Tollan. Thus in the Codex Boturini, the Tollan toponym is a pool containing a clump of rushes and a single large fish (fig. 1d). In the Manuscrit Tovar, Tollan appears as a mountain surrounded by a pool with rushes and a series of swimming fish (fig. 1e). Fish with prominent winglike pectoral fins swim in the two streams at the base of the Mural 3 mountain (fig. 1c); several are immediately below the pool filled with swimming and splashing humans. Similar fish appear in the Teotihuacan Mythological Animals Mural (fig. 1b), where they are being attacked by jaguars. Spiked caymans and large plumed serpents are also in the

water (cf. Miller 1973: figs. 96–98). Clara Millon (1972: 7–8) considers the Mythological Animals Mural as an early version of the Aztec Myth of the Five Suns, a cosmogonic history of the four previous suns, or worlds, and the origins of the fifth and present era: "It is possible that the painting represents an earlier version of the myth, perhaps compressing several cycles perhaps here destruction takes place both by flood and by jaguars." According to this view, the strange birdlike fish represent the race of men transformed into fish by the flood.

In the Myth of the Five Suns, the precise order of the previous worlds varies widely in the different accounts (cf. Moreno de los Arcos 1967). However, in consideration of the various Aztec accounts and monumental representations concerned with the myth, the order is usually placed as follows: 4-Ocelotl, the sun of earth; 4-Ehecatl, the sun of wind; 4-Quiahuitl, the sun of fire; 4-Atl, the sun of water; and finally 4-Ollin, the sun of motion, the fifth and present world (ibid.: 209; Thompson 1970: 332; Nicholson 1971: 398–399). It is thus the sun of water, a world destroyed by flooding, which immediately precedes the present era.

The Aztec Vaticanus A codex presents a detailed account of Nahui Atl, the sun of water (Corona Nuñez 1964, III: 18-21). In the accompanying illustration, a deluge surrounds a cave lined with reeds or rushes (fig. 1a). Flanking the grotto are two tlacamichin, or fish-men, the previous humans who became fish after the flood. With their prominent fins, the fish are quite like the examples at Teotihuacan. According to the Vaticanus A, 4-Water is the first of the five suns. However, the account contains an event occurring at the end of the fourth sun, that is, at the end of the era where 4-Water usually belongs. The text states that seven men escaped the flood ending 4-Water by hiding in a cave, illustrated by the plant-lined grotto. These individuals are described as the founding leaders of seven nations. The episode is undoubtedly a version of the Chicomoztoc or seven caves legend in which the seven tribes emerged from a place of seven caves to populate the present world. The Vaticanus A cave represents this place of emergence; it is quite similar to the Mural 3 pool, which is also a plant-lined cave filled with humans in close proximity to fish.

In Central Mexican accounts, people preceding the present era are described as fish-men. The concept is recorded not only for the protohistoric Aztec, but also among contemporary Mesoamerican peoples.



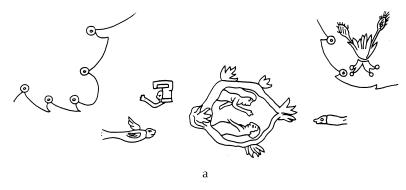
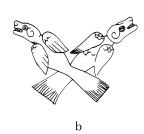
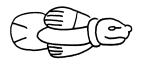


Figure 1. Teotihuacan and Aztec representations of fish. a. Vaticanus A scene of 4-Atl, the Sun of Water (detail); two tlacamichin flank plant-lined cave containing ancestral pair. After Corona Nuñez 1964, III: 18. b. Pair of fish in Mythological Animals Mural, Teotihuacan. After Miller 1973: fig. 95. c. Fish within basal stream, Mural 3 of Tepantitla Patio 2, Teotihuacan. Drawn from sketches at Tepantitla. d. Codex Boturini toponym of Tula, fish in pool with rushes. After Seler 1902-1923, IV: 702. e. Manuscrit Tovar Tula toponym, hill surrounded by pool containing rushes and fish. After Lafaye 1972: plate II.

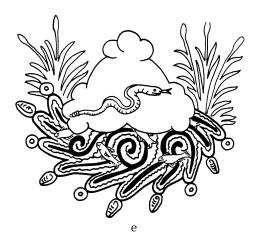
According to one Chorti Maya informant, fish are traditionally considered to be people transformed by the flood; "those people who were destroyed—and the world with them, were covered by the water and became fish. So people used to tell long ago, that fish were people" (Fought 1972: 378). A Huastec flood myth recorded by Alcorn (1985: 60) describes the eating of fish by the lone human survivor as tantamount to cannibalism: "The man assuaged his hunger through the use of other men." In a Popoluca version of the flood, the survivors became monkeys as punishment for eating fish. Transformed back into human form, the fish became the first to populate the present world (Foster 1945: 239). The fish in the Teotihuacan Mythological Animals Mural may represent not humans turned into fish, but fish before they became humans. In other words, they may represent the ancestors in their journey to the present human world. The Teotihuacan fish appear to be passing through a watery cave or underworld of jaguars and other fierce beasts, which does recall the Aztec sun, or world, destroyed by jaguars. The Quichean Popol Vuh mentions a series of

1. The contemporary Tarahumara of Chihuahua believe in multiple world creations, the last ending with a flood. Lacking maize, the survivors were cannibals, and for this God destroyed them with fire (Merrill 1983: 297).









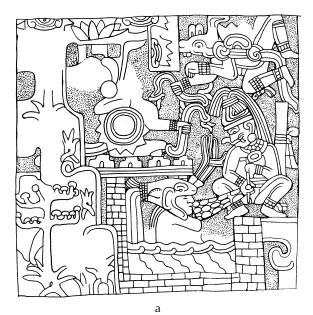
underworld chambers, each containing a specific danger; one chamber was the House of Jaguars (Recinos 1950: 149). Mural 3 of Tepantitla Patio 2 may depict the conversion of fish into men at the time of emergence. The streams containing the winged fish converge at the reed-lined pool; one individual is being pulled from the stream into the group of swimming humans.

Three of the symbolic themes that have been discussed — subterranean watery passageways, fish, and a series of four chambers or worlds—are represented within the cave underlying the Pyramid of the Sun. At the end of the cave, near the center of the pyramid, the passageway flares into four distinct lobes. The chambers have been interpreted as being symbolic of four underworlds or underworld headquarters (Furst and Furst 1980: 43, 60; Taube 1983: 139). Citing the presence of U-shaped stone drains, Millon (1981: 234) suggests that water was ceremonially drained into the cave. Considering the expenditure involved in placing the drain, water seems to have had a major ceremonial role within the cave. In one part of the passageway, a hearth contained a deposit of fish and shell remains: "In one of several large fire pits in the highest part of the cave, near its center and beneath a blockage, Jeffrey H. Altshul found offerings of fragments of iridescent shell surrounded by an enormous quantity of tiny fish bones" (ibid.). The drain, fish remains, and four-lobed chamber may constitute part of a ritual complex pertaining to the emergence of mankind.

It is recognized that Teotihuacan had important ties with the Veracruz site of El Tajín. Decorative scrollwork in El Tajín style occurs at Teotihuacan; well-known examples are the La Ventilla ball court marker (Aveleyra Arroyo de Anda 1963) and the Interlace Scroll Platform (Miller 1973: fig. 144). Recent neutron activation studies demonstrate that El Tajín was the major importer of Gulf Coast ceramics at Teotihuacan (Millon 1981: 223). Slate-backed pyrite mirrors were undoubtedly an important elite good shared between the two centers: such circular mirrors are widespread in the iconography of both sites (cf. Taube 1983: fig. 15). The economic, political, and religious affiliations become all the more intriguing when one considers the presence of a probable Teotihuacan toponym at El Tajín. The two opposing central reliefs of the El Tajín South Ball Court, Panels 5 and 6, contain mirror images of a temple structure backed by a large, magueycovered mountain (fig. 2). Curiously enough, a standing pool of water lies within the temple. In El Tajín

iconography such pools appear to depict netherworld entrances if not the underworld itself; thus skeletal figures and bats appear upon the pools (cf. Kampen 1972: figs. 20–23, 28c). The temple scene appears to depict Teotihuacan, the mountain Cerro Gordo and the structure, the Pyramid of the Sun with its aquatic, drain-lined cave. The stepped silhouette stones, or almenas, found on the roof cornice of the ball court bas-relief temple are widespread at Teotihuacan. Some, supplied with lower central perforations, are identical to the El Tajín relief examples (e.g., Seler 1902-1923, V: 433). However, although probably a Teotihuacanderived trait, such roof stones also occur at El Tajín. The maguey mountain is definitely not a local El Tajín feature and strongly suggests highland Mexicowhereas El Tajín is not within a maguey-producing region, Teotihuacan decidedly is. Since the Early Postclassic period, there is archaeological evidence for the extraction of pulgue on the flanks of Cerro Gordo (Evans 1985: 3). From at least the sixteenth to the twentieth century, Teotihuacan has been a famed center for the production of maguey and pulque (Gamio 1922: 492-495, 796; Nuttall 1926: 78).

An individual covered by a large triangular-edged disk sits upon the Panel 5 roof. In another El Tajín relief, a seated figure's abdomen is also covered by an identically rimmed disk containing an Ollin sign (cf. Kampen 1972: fig. 32b). The Ollin disks at El Tajín and Teotihuacan represent pyrite mirrors and appear to be symbolic representations of the world, the sun as well as the earth (cf. Taube 1983: 113, 122-127). The Panel 5 disk probably represents such a mirror. Seler (1902–1923, V: 407) cites the eighteenth-century accounts of Boturini and Clavijero, which mention that the Teotihuacan Pyramid of the Sun was originally topped by a great stone figure having a gold plate upon his chest, a disk believed to reflect the rays of the sun. Seler (ibid.) dismisses the reports as baseless fancy. However, it is now known that similar disks, not of actual gold but pyrite mosaic, were common in Teotihuacan times. Certain of the ceramic figures found within the Teotihuacan cache at Becan hold large circular mirrors to their chests (Taube 1983: fig. 13b). The remains of actual slate-backed pyrite mirrors were found during excavations by Leopoldo Batres upon the summit of the Pyramid of the Sun (Seler 1902–1923, V: 431). The El Tajín scene, the eighteenth-century accounts, and the presence of actual pyrite mirrors suggest that mirrors were an important symbolic component of the Pyramid of the Sun.



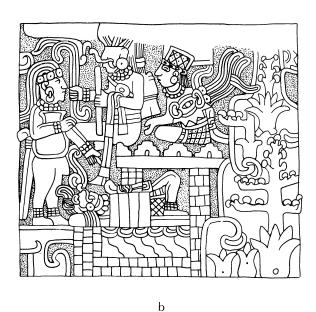


Figure 2. Panels 5 and 6 of South Ball Court, El Tajín. Probable depiction of the Teotihuacan Pyramid of the Sun and the origin of mankind and maize. After Kampen 1972: figs. 24, 25, and on-site observations by author. a. Panel 5, Tlaloc squats at mouth of temple cave, blood from phallus falls upon fish-man. Figure with solar mirror over abdomen sits on temple roof; note lightning held by this individual and flying star-marked mammal. b. Panel 6, Tlaloc lies prone within temple cave, knotted cloth identifies figure as personified bundle (cf. fig. 19). Another Tlaloc sits on roof, holds lightning in right hand and wears maize-filled basket on back; basket strap slung over shoulder identical to that of Panel 5 Tlaloc.

The four end panels of the El Tajín South Ball Court represent ritual events involving heart sacrifice and the ball game, ceremonies that could actually have been held in the immediate court area. However, the aforementioned central reliefs, Panels 5 and 6, appear to depict a purely mythical episode. Because of the explicit representation of maguey in Panels 5 and 6, García Payón (1973) and Wilkerson (1982) have interpreted the South Ball Court reliefs in terms of a sort of pulgue cult. The central reliefs are viewed as scenes of the gods with the divine beverage, whereas the side panels are elaborate ceremonies devoted in some fashion to pulgue. However, there is no convincing explanation for the human sacrifice, nor why the skeletal death god, Mictlantecuhtli, appears to be receiving the offering of human life. Rather than depicting gods of pulgue, Panels 5 and 6 provide a mythical charter for human sacrifice—the repayment of human substance stolen from the underworld death god.

The main protagonist on the central ball court reliefs is a male anthropomorphic deity with a long, outwardly turning upper lip, large curving canines, and a topknot of bound hair. His actions closely parallel those of

Quetzalcoatl in the Aztec myth describing the theft of bones from Mictlantecuhtli. In the legend, recorded in the Leyenda de los Soles (Paso y Troncoso 1903: 29; Leon Portilla 1963: 107-111), the Histoyre du Mechique (Garibay K. 1965: 106), and the Historia Eclesiastica Indiana by Mendieta (1980: 78), Quetzalcoatl or his twin, Xolotl, descends into the underworld to retrieve the remains of the race of men destroyed in the flood ending 4-Water. Below is an excerpt from the Levenda de los Soles version:

he went and took the precious bones, next to the bones of man were the bones of woman; Quetzalcoatl took

And again Mictlantecuhtli said to those in his service, "Gods, is Quetzalcoatl really carrying away the precious bones? Gods, go and make a pit."

The pit having been made, Quetzalcoatl fell in it; he stumbled and was frightened by the quail. He fell dead and the precious bones were scattered. The quail chewed and gnawed on them.

Then Quetzalcoatl came back to life; he was grieved and he asked of his nahualli [double], "What shall I do

And the nahualli answered, "since things have turned out badly, let them turn out as they may." And he

gathered them . . . and then he took them to Tamoanchan. And as soon as he arrived, the woman called Quilaztli, who is Cihuacoatl, took them to grind and put them in a precious vessel of clay.

Upon them Quetzalcoatl bled his member. The other gods and Quetzalcoatl himself did penance.

(Leon-Portilla 1963: 108)

In South Ball Court Panel 6, the long-lipped figure lies prone within the underworld chamber, a scene suggestive of the fall and temporary death of Quetzalcoatl. Over the prone deity stands a human figure holding a ceramic vessel—recalling the precious vessel of fired clay in which the ground bones of man were placed. The skeletal figure of Mictlantecuhtli emerges from a similar vessel in Panels 1, 2, 3, and 4 (cf. Kampen 1972: figs. 20–23); there the pot is submerged in water, suggesting that Mictlantecuhtli also is in the underworld. In Panel 5, the long-lipped deity drips blood from his phallus onto a figure halfsubmerged in the temple pool.² With his prominent fish headdress, the figure probably represents the former race of fish-men, whose remains the Aztec Quetzalcoatl takes to the surface and upon which he bleeds his phallus.

In a recent article, Delhalle and Luykx (1986: 117) independently arrive at similar conclusions concerning Panel 5.3 They view the bloodletting scene as the creation of man by Quetzalcoatl, and the fish-man is again considered as a depiction of the race destroyed by the flood. In support of their argument, the authors cite a Huastec shell pendant first described by Beyer (1933: plate 1). In this case, a standing figure pours blood from his phallus into a bowl, which they interpret as the vessel containing the ground remains of mankind. Although not mentioned by Delhalle and Luykx, an almost identical phallus perforation scene is carved on another Huastec pendant illustrated by Beyer (ibid.: fig. 37). Here the figure stands not above a bowl but a hooped container and a single large fish.

- 2. For a stimulating recent discussion of bloodletting and ancestor worship among the Classic Maya, see Stuart (1984).
- 3. The article by Delhalle and Luykx appeared in print as I was preparing this paper for publication. I fully agree with much of their study, although at times our interpretations differ considerably. In their concise paper, Delhalle and Luykx make no mention of the other five ball court reliefs, nor do they note the presence of Mictlantecuhtli, maize, and the fall or death of the hero figure. The authors mention that the Panel 5 structure resembles Teotihuacan architecture, but go on to state that the scene occurs at the mythical region of Tamoanchan, which they place in Veracruz.

Although the actions of the principal protagonist in the El Tajín central South Ball Court reliefs parallel those of Quetzalcoatl, he is not this particular deity. Both García Pavón (1973: 35) and Wilkerson (1984: 125) correctly identify the El Tajín character as Tlaloc, the god of rain and lightning. An almost identical figure is carved upon an El Tajín-style stela from Cerro de Moreno, in the Veracruz region of Misantla (cf. Proskouriakoff 1954: fig. 9f). In this case, the deity has not only the curling lip and canines but also the conventional goggle-eyes of Tlaloc.

A number of the protagonists within South Ball Court Panels 5 and 6 hold a long curving object. The device is not found in the other four ball court reliefs and appears to be a specific feature of the temple-mountain scenes. García Payón (1973: 38) interprets the article as lightning. His identification is surely correct, as the shaft is supplied with small curling flames. In Mesoamerican mythology, the origin of both mankind and maize is commonly the result of lightning penetrating the earth. Thus in the aforementioned episode, either Quetzalcoatl or the lightning dog, Xolotl, descends for the bones of man. In the Aztec Levenda de los Soles (Paso y Troncoso 1903: 30), Quetzalcoatl organizes the taking of maize from the mountain of sustenance, but it is actually the lightning Tlaloque who seizes the grain. In recent versions of the myth recorded both for Central Mexico (Taggart 1983: 89-92) and the southern Maya area (Thompson 1970: 349–351, 354), lightning explicitly breaks open the maize-enclosing rock. It will become evident that the emergence of mankind and corn are often a closely related if not single event.

The South Ball Court middle panels concern not only the creation of man but also the taking of corn from the temple cave. The seated Tlaloc of Panel 6 wears an object slung over his back. Because the same strap occurs with the Panel 5 Tlaloc, he probably carries an identical article. In Panel 6, it is clearly a basket with a bifurcated pendant element, probably of paper or cloth. In Panel 3 of the neighboring Pyramid of the Niches, Tlaloc holds another strapped basket as he swims with a plumed serpent (cf. Kampen 1972: fig. 6a). The basket has the same form, although here the suspended tassels are absent. At Zacuala, Teotihuacan, Tlaloc carries on his back an almost identical rimmed basket brimming with maize cobs (cf. Miller 1973: fig. 206). A conical element projects above the rim of the El Tajín Panel 6 basket; it is probably also maize. In

contemporary Mexico, strapped baskets of similar scale and shape are commonly used to harvest corn (cf. Bonfil Batalla 1982: 55).

The identification of lightning with maize at El Tajín is by no means an isolated Classic example. In one Teotihuacan mural, Tlaloc wields a lightning bolt not only affixed by curling flames and smoke, but also a flowering plant and mature maize (cf. Miller 1973: fig. 360). The most complex Classic scenes regarding the origin of corn are to be found in Late Classic Maya art. Quirigua Altar O depicts lightning striking the rock of sustenance, a region depicted as follows: an Ik sign, the symbol for wind and by extension cave, is surrounded on three sides by Cauac stone signs that in turn overlie a series of nine large maize grains (fig. 3). The figure immediately above, who appears to be crashing into the stone, has been identified by Coe (1978: 76) as a Classic prototype of Chac, the Yucatec god of rain and lightning. The deity is surrounded by large beaded swirls, which I take to be lightning. From his head, a striking serpent with fire breath hangs over almost the exact center of the maize cave. This fire serpent is surely a Maya version of the Central Mexican xiuhcoatl lightning serpent, an entity that will subsequently be discussed in detail.

The Classic Maya form of Chac appears on painted vessel scenes in still another context, where he cleaves a large tortoise shell (fig. 4). Occurring either singly or paired, the god wields a flint weapon, quite often an axe, the common thunderbolt of the Postclassic codical Chac. Out of the center of the split carapace rises a deity I have recently identified as the Tonsured Maize God, a Classic prototype of the Popol Vuh Hun Hunahpu (Taube 1985).4 In the tortoise shell scenes he is often accompanied by his sons, the Headband Twins. The latter are clear Classic forms of the Popol Vuh Xbalanque and Hunahpu, the hero twins who descend to the underworld for the remains of their father. As with Ouirigua Altar O, the tortoise shell emergence scenes depict the taking of maize with the aid of lightning.

In the earliest recorded colonial Maya myths

4. Nagao (1985: 12) mentions an interesting visual pun appearing on certain Aztec carvings of the "Two-Horned God," which she identifies as Tonacatecuhtli, the aged god of sustenance. Nagao notes that at times the hornlike elements are a conflation of two distinct forms, a maize cob and a tortoise shell. In view of the Classic Maya resurrection scenes, the identification of maize with tortoise shells appears to be of some antiquity.



Figure 3. A late Classic Maya representation of lightning breaking open the rock of sustenance, Quirigua Altar O. At top, Classic form of Chac descends upon stone, represented as Cauac markings surrounding Tau-shaped cave; note series of nine large maize grains below Cauac band. From Coe 1980: illus. 62. Reproduced with permission of author.

concerning the subject, maize is taken from the mountain of sustenance for a specific reason, the creation of human beings. According to the Quichean Popol Vuh, the flesh of mankind is made from ground maize (Recinos 1950: 165-167). A document of the neighboring Cakchiquel states that mankind is created from maize dough mixed with the blood of the tapir and the serpent (Recinos and Goetz 1953: 47). In the Aztec accounts describing the theft of bones from Mictlantecuhtli, the remains are also identified with maize. Thus once dropped and scattered, they are avidly devoured by quail. Moreover, just like the preparation of maize masa, the bones are taken to be ground into a doughy mass. As in the Cakchiquel myth, it is upon this dough that blood is drawn. The middle panels of the El Tajín South Ball Court represent the taking of maize, the remains of the fish-men, from the underworld cave. It is this nourishing material, in the form of human flesh, that is repaid to Mictlantecuhtli in the four neighboring panels.

The fact that the former race of mankind, the fishmen, are identified with corn at El Tajín is entirely consistent with known Mesoamerican lore. In the



Figure 4. The Classic Maya resurrection scene: the emergence of the Tonsured Maize God out of the earth. At left, Classic forms of Chac with serpents and smoking flints flank maize god rising out of tortoise carapace. Headband twins with water-lily fronds at right; one figure appears to be swimming. Roll-out painting of Late Classic polychrome vessel by Diane Griffiths Peck. Reproduced with permission of Michael D. Coe.

Popol Vuh, the bones of Hunahpu and Xbalangue are pulverized upon a metate "as corn meal is ground" and then thrown into a river. The twins reappear to those of Xibalba as fish-men, vinac car (Recinos 1950: 154-155). According to Girard (1962: 78-85), the contemporary Chorti Maya identify fish with corn. A similar concept is recorded for the Huichol; "to the Indian, green corn (iku'ri) is fish (mu'ri iku'ri)'' (Lumholtz 1900: 55). Lumholtz (ibid.: 132) notes that the Huichol consider the act of netting fish as symbolic of gathering corn. On pages 13 of the Codex Borgia and 32 of the Vaticanus B, Xochipilli is depicted in scenes where fish are netted from streams; it is widely recognized that Xochipilli is a young maize god who merges into Centeotl, the more specific Central Mexican corn god. Seler (1963, I: 106) compares the two netting scenes to a portion of the Nahuatl hymn sung at the festival of Atamalcualiztli: "nació el dios de maíz en el lugar del agua y de la niebla, donde son hechos los hijos de los hombres, en el Michoacan de la piedra preciosa." The term michoacan actually means "place of the owners of fish." Thus, an alternative translation of the final line, chalchimmichoacan, could be "place of the owners of jeweled fish" (Louise Burkhart, pers. comm., 1985). In this terse excerpt, the place of human creation—"donde son hechos los hijos

de los hombres"—is described as a region of maize and fish.

Plants of growing maize are prominent along the intact basal stream of the Tepantitla Mural 3 cave scene. The corn and fish-laden streams do not occur within the other complex talud murals of Tepantitla Patio 2, and are specifically associated with the central cleft mountain. The Mural 3 mountain has been compared to sixteenth-century descriptions of Chapultepec (Taube 1983: 137). The two eminences share the following characteristics: a basal bathing pool, a long split fissure, and a surmounting ball court. Within Chapultepec is Cincalco, the house of corn (Dewey 1983). The Mural 3 mountain probably depicts the place where maize and mankind emerged. Its cleft flank and outpouring water recall the Highland Maya mountain of Paxil, from where the maize used to create man originated (Recinos 1950: 165-166). In Quiche, the root pax carries such meanings as divide, split, or flood (Edmonson 1965: 87).

Quetzalcoatl and the Postclassic wind temple

Quetzalcoatl is well recognized as a god of generation and fertility: "This god clearly expressed, above all, the fundamental fertility theme with

particular emphasis on the fructifying-vivifying aspect of the wind" (Nicholson 1979: 35). Among the most direct expressions of his creative power are his journeys to the underworld to bring forth the material basic to the well-being of mankind. In Postclassic mythology, maguey, maize, and even human substance were acquired through these netherworld journeys (cf. Nicholson 1971: 400-401). As early as the Middle Formative (ca. 800–400 B.C.), Quetzalcoatl is painted in the interior of caves at Oxtotitlan and Calixtlahuaca, Guerrero. Joralemon (1971: 82-83) identifies these figures as Olmec feathered serpents and compares them to a roughly contemporaneous stela at La Venta. Found in 1955, Monument 19 was identified by its discoverers as a representation of a plumed serpent (Drucker et al. 1959: 199-200). The La Venta stela portrays a human figure, possibly a ruler, sitting against a huge crested rattlesnake. Between his headdress and the face of the overarching feathered serpent, there is a long, rodlike horizontal element (fig. 5). On close inspection, it is found to be two quetzal birds facing a central bar with crossed bands. The latter element is the sky sign known both for the Olmec and for the Classic Maya (cf. Coe 1966: 12). Noting that the terms for snake and sky are generally homophonous in Mayan languages, Coe (ibid.) suggests that the Olmec and Maya crossed bands derive from the diamond pattern found on serpent backs. The device on La Venta Monument 19 is an Olmec sign for Quetzalcoatl, here read as "quetzalsky," or "quetzal-serpent."

The Olmec examples of Quetzalcoatl cited are limited to feathered serpents, and similarly, no human form of this deity is known for Early Classic Teotihuacan. One of the earliest explicit anthropomorphic representations of Quetzalcoatl appears on a Late Classic Veracruz palma (fig. 6). Carved in the ornate scroll style of El Tajín, the palma depicts Quetzalcoatl with outstretched limbs, his hands forming visual puns as quetzal heads. Two intertwined serpents, supplied with mammalian ears, cover his torso. Quetzalcoatl is portrayed as the maize-bringer. Between the arms, a stalk of mature maize springs from a volute, possibly blood, issuing from the mouth of Quetzalcoatl.

During the Postclassic period, the wind deity Ehecatl-Quetzalcoatl wears ornaments of cut shell, these being the epcololli ear pieces, and the sectioned conch breast pendant, or ehecailacacozcatl. The Veracruz palma figure wears the spiral breast piece, and there is other direct evidence of a Classic association of Quetzalcoatl with shells. Four carved conch were placed in the stairway

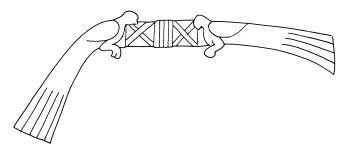


Figure 5. Middle Formative Olmec sign for the plumed serpent, La Venta Monument 19. Nominal glyph formed by two quetzal birds flanking a central sky band. After Bernal 1969: plate 58.

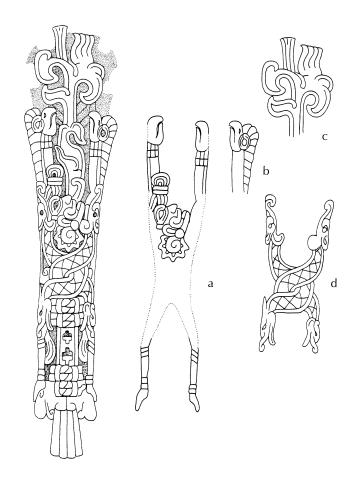


Figure 6. Classic period depiction of Quetzalcoatl upon El Tajín-style palma. After von Winning 1968: plate 310. a. Suggested outline of anthropomorphic figure; note cut conch pendant. b. One of two Quetzal heads forming hands of Quetzalcoatl figure. c. Mature maize with cob and pollen tassel rises from volute issuing out of mouth of Quetzalcoatl. d. Intertwined bicephalic serpents covering torso.

cache of the Miccaotli phase Temple of Quetzalcoatl at Teotihuacan (Rubín de la Borbolla 1947: 62–63, figs. 4–6). A similar carved conch formed part of a cache in the Late Classic Xochicalco Pyramid of the Plumed Serpent (Saenz 1963: 13; fig. 3). The Xochicalco piece is clearly a cut conch trumpet—an instrument of Quetzalcoatl. During his underworld journey for the bones of mankind, Quetzalcoatl bests. Mictlantecuhtli by sounding the conch (Paso y Troncoso 1903: 29). Other types of marine shell were also placed in the Teotihuacan and Xochicalco caches associated with the Quetzalcoatl structures. The conch was specifically identified with wind, but marine shell may have had a broader significance by alluding to the great original sea surrounding and underlying the present world.

In the Teotihuacan Mythological Animals scene, Quetzalcoatl appears to be assisting the fleeing fish through the underwater region of felines. A green feathered serpent confronts one of the cats depicted attacking and devouring the winged fish. The positions of the two creatures appear antagonistic; the cat has a paw raised as if to strike (cf. Kubler 1967: fig. 25). As none of the serpents is attacking the fish, it may be that they have a supportive and protective role, in accord with the mythology of Quetzalcoatl and the emergence. During the Early Postclassic of Chichen Itza, fish are also represented swimming in the coils of Quetzalcoatl (cf. Seler 1902–1923, V: 368).

The middle panels of the El Tajín South Ball Court apparently depict the origin of both mankind and maize at the Teotihuacan Pyramid of the Sun. Based on his excavations, Batres (1912: 191) suggested that the Pyramid of the Sun was dedicated to Quetzalcoatl. Caches found in the pyramid and its adosada platform have been compared to caches at the Temple of Quetzalcoatl, where similar items were interred (Millon et al. 1965: 26). A more striking shared pattern is the burial of children in the four corners of both structures (ibid.: 36, n. 3). It has been mentioned that the Pyramid of the Sun was identified with mirrors. At least twelve circular pyrite mirrors were discovered in the rich dedicatory cache accompanying the later adosada platform overlying the Miccaotli phase Temple of Quetzalcoatl. A pyrite mirror was also interred in each of the two foundation caches in the Late Classic Pyramid of the Plumed Serpent at Xochicalco (Saenz 1963: 13). One of the caches, Ofrenda 1, also contained a fine painted tecalli stone bowl depicting a descending eagle (fig. 7). Directly below the bird lies a circular device found frequently in the headdress of the Aztec Ehecatl-Quetzalcoatl (e.g., Codex

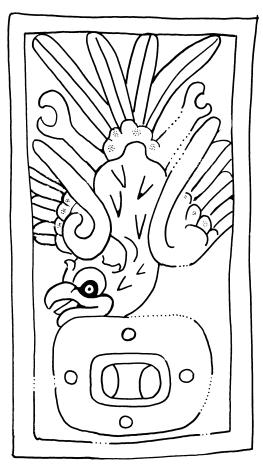


Figure 7. Design painted on exterior of fine *tecalli* bowl from the Pyramid of the Plumed Serpent at Xochicalco, Late Classic period. Panel depicts eagle descending upon stone disk, probably a mirror. After Bernal 1969: plate 18.

Borbonicus, p. 22). Although it is the Aztec symbol of turquoise, Coggins (1985) suggests that for the Classic period, the disk represents not a turquoise mosaic but one of pyrite—in other words, the divinatory mirror. As a Classic mirror sign, it is also present at Teotihuacan in association with Quetzalcoatl. The miniature painted temple altar at Atetelco depicts Tlaloc, Quetzalcoatl, and the mirror sign, here in a band alternating with conch and other shells (cf. Miller 1973: fig. 347).

The Miccaotli phase facade upon the Temple of Quetzalcoatl is represented with a series of feathered rings through which two forms of serpents pass (fig. 8a). Whereas one is clearly the plumed serpent, the other is probably the *xiuhcoatl*, the fire or lightning serpent (cf. Caso and Bernal 1952: 113; Cowgill 1983: 324). A

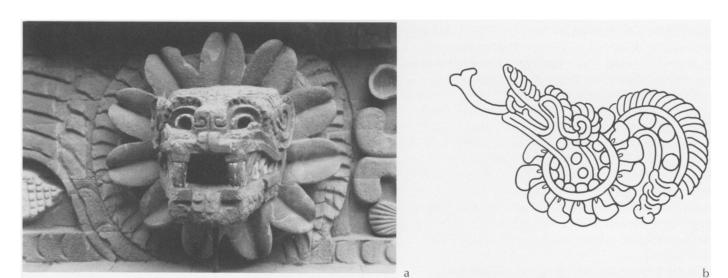


Figure 8. Teotihuacan plumed serpents passing through circular mirror rims. a. Detail of Miccaotli phase Temple of Quetzalcoatl, head of serpent projects through mirror, feather serpent ruff partially obscures feathered mirror rim, body of serpent continues to left. Photograph by author, b. Detail of modeled ceramic bowl from Las Colinas; feathered serpent passes through decorated mirror rim, serpent body continues to right. After Linne 1942: fig. 128.

modeled Teotihuacan bowl excavated by Linné (1942: fig. 128) at Las Colinas depicts a feathered serpent passing through another decorated ring (fig. 8b). Similarly rimmed and feather-edged disks occur as mirrors in Teotihuacan iconography (Taube 1983: 116, figs. 5d, 8b, 15d, 31a). Identical feathered rings, here serving as ceramic adornos for Teotihuacan incensarios, frequently have a central disk of reflective mica to represent the mirror face. In one mural in the Tepantitla compound there are a number of headdresses representing a pair of feathered serpents flanking a cave mirror (fig. 9). In outline, the mirror is identical to the four-lobed cave motif known for both the Olmec and the Classic Maya (cf. Easby and Scott 1970: fig. 32; Jones and Satterthwaite 1982: fig. 58b) and also recalls the four-chambered cave underlying the Pyramid of the Sun. However, mirrors and not actual caves are what appear as medallions on Teotihuacan headdresses (cf. Taube 1983: fig. 10). The segmented, triangular-edged mirror rim can be seen projecting above the headdress frame. The concept of the cave mirror is not limited to Teotihuacan; according to Furst (1978: 31), the contemporary Huichol consider round mirrors as supernatural passageways—"a symbol of the cosmic opening or emergence hole of the gods, akin to the Pueblo sipapu."

The Temple of Quetzalcoatl is a great facade of mirrors through which lightning and feathered serpents thrust their heads. According to the Histoyre du Mechique, the first human pair emerged when a celestial arrow split open the earth (Garibay 1945: 7-8; 1965: 91). This event was said to have occurred at Tezcalco, which Garibay (1945: 7–8) translates as the house of mirrors. The episode recalls the recurrent and overlapping themes of lightning, mirrors, and Quetzalcoatl in Classic emergence mythology. However, the link would be weak were it not for the abundant evidence of this myth in the

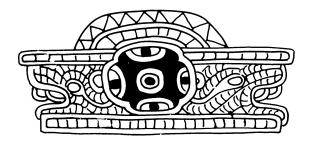


Figure 9. Detail of headdress from mural in Tepantitla Corridor 2, Teotihuacan. Two plumed serpents flank semicircular device resembling four-lobed sign for cave; eyes contained in disk also found on bodies of water in Teotihuacan art. Central element probably depicts reflective mirror; note segmented chevron rim at top. After Miller 1973: fig. 158.

iconography and architectural remains of the Postclassic period. The emergence episode is centered upon a particular Postclassic structure, the circular wind temple of Ehecatl-Quetzalcoatl.

The wind temple appears to have served as a symbolic cave providing a means of passage to and from the nether regions. In view of the common but striking phenomenon of wind issuing out of caves, it is not surprising that caves are considered the source of wind. According to one Huichol informant, the Spirit of Wind rose out of a hole at the volcano of Ixtlan (Negrín 1975: 102). In the Sierra de Puebla, the Nahuatl people of San Miguel Tzinacapan believe that disease-bringing evil winds blow out of caves (Knab 1978: 134). The Nahuatl inhabitants near the mountain of Ostotempa, Guerrero, have a tradition of a great four-chambered mountain cave in which, at the four cardinal points, wind giants reside. It is believed that from this cave issue wind, rains, and by extension, maize (Sepulveda 1973). A similar concept can be found among the Tzotzil Maya of San Andres Larrainzar, Chiapas, where the cave-dwelling Chaucs are considered to be the senders of wind and rain (Holland 1963: 93).

In a previous study, I (Taube 1983: 118, n. 3) noted briefly that the House of Mirrors episode appears on pages 37 and 38 of the Codex Borgia (fig. 10). The scene is very similar to the Classic central ball court panels at El Tajín, involving Tlaloc taking maize from the House of Mirrors, lightning, bloodletting, and the creation of man. The principal protagonists are Tlaloc and Xolotl, although Quetzalcoatl also plays a central, albeit indirect, role. The House of Mirrors appears in the upper right corner of page 37. Seler (1963, II: 33) states that the serpents and rimmed disks upon the thatched temple roof represent lightning striking mirrors. Below the temple, four figures within circular colored fields face toward Xolotl, who hurls a burning xiuhcoatl serpent; Seler (1963, Atlas: p. 37) interprets all five as lightning bearers. A blue path marked with footprints extends from the interior of the House of Mirrors, past the lightning bearers, to another representation of Xolotl on page 38. The blue road is clearly of a watery nature, and is depicted as urine issuing out of the posterior of the canine god.5

The two scenes of special import on Borgia pages 37 and 38 occur near each end of the stream. On page 37, Tlaloc holds a somewhat effaced itzcoatl lightning serpent and faces the House of Mirrors. From the temple, he receives maize placed upon what may be a blackened

5. A similar scene occurs on page 29 of the Yucatec Madrid Codex. Here Chac and two maize god figures sit on a stream of blue urine issuing from a dog.

human leg, possibly an allusion to the former race of mankind. The second major scene is on the right side of page 38, where a large rectangular basin is filled with red liquid, undoubtedly blood. The basin walls are covered with bejewelled maguey spines—in Aztec iconography commonly represented as bloodletting instruments (cf. Gutiérrez Solana 1983). In the center of the pool, a small human flanked by maize cobs emerges from a jade bead. The basin scene is an explicit representation of the creation of man from maize and penitential blood. The maize is probably that acquired by Tlaloc from the House of Mirrors. Just below the pool, there is an individual represented as a newborn with water and steam issuing from the top of his skull; the colored steam volutes pass along the right side of the pages until returning to Tlaloc at the House of Mirrors. In Nahuatl, the fontanel of an infant is termed atl (López Austin 1984, I: 160), meaning "water." The cranial steam and gushing water are to suggest that the figure is newly born. The act of Tlaloc pouring water upon the figure's head also suggests the time of birth. Sahagún (1950-1971, bk. 6: 176, 205) mentions that in the Aztec baptism rite, the infant was doused with water upon the crown and chest.

Internal evidence within the Codex Borgia strongly suggests that the House of Mirrors is the circular wind temple. On Borgia page 37, the House of Mirrors has the thatched conical roof generally found with the temple of Ehecatl-Ouetzalcoatl. It is paired opposite a red Xochicalli, or House of Flowers; an identical pairing occurs on Borgia pages 40 and 41 to 42. In these two instances, the conically roofed structure, again on the right, is explicitly labeled as a temple of Ehecatl-Quetzalcoatl.

A structural complex at the Late Postclassic site of Cempoala, Veracruz, fully establishes that the structure on Borgia page 37 is indeed a wind temple. On the upper portion of Borgia page 38, there is a crenated ring containing a xiuhcoatl. Seler (1963, II: 35) identifies the device as a circular hearth. The firepit lies directly in front of a small Xolotl shrine situated at the base of the wind temple. These three architectural features, their positioning as well as additional details, are duplicated at Cempoala (fig. 11a). Here a large circular wind temple, known as El Templo del Dios del Aire, has at its base a low building that contained the remains of hollow

6. Another individual with water pouring in two streams from the top of his head appears in Mural 3 of Tepantitla Patio 2. He is to be found standing at the edge of the basal stream, just to the right of the cleft mountain. Here again the allusion to maize is explicit, as the figure holds a stalk of green corn to his mouth.

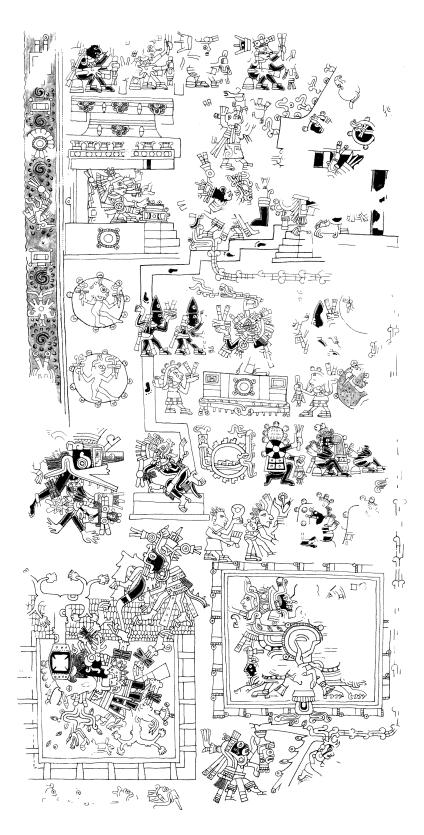


Figure 10. The origin of mankind and maize, pages 37 and 38 of the Codex Borgia. Drawing by author. At upper right of page 37, Tlaloc hurls lightning onto wind temple roof. Maize, placed on object resembling human leg, lies between Tlaloc and temple. Xolotl shrine appears below wind temple. Xolotl is flanked by personified blades as he casts a xiuhcoatl lightning serpent. Circular xiuhcoatl hearth lies directly below Xolotl shrine. To left of hearth, Xolotl urinates on low platform; fluid serves as blue road leading to wind temple. At lower left of page 38, Tlaloc lets blood into water pool. Ahuehuetl tree, marked with drum on lower trunk, rises from water. Other rectangular basin contains blood. Nude human descends from central circular jade element; figure originally flanked by maize cobs, one at right still intact. Below blood pool, Tlaloc pours water on head of seminude figure. Water and steam rise from fontanel, steam continues at far right to wind temple on page 37. On far left of pages 37 and 38, smoke or ash from bundle of page 36 ends with Ehecatl head containing Quetzalcoatl.

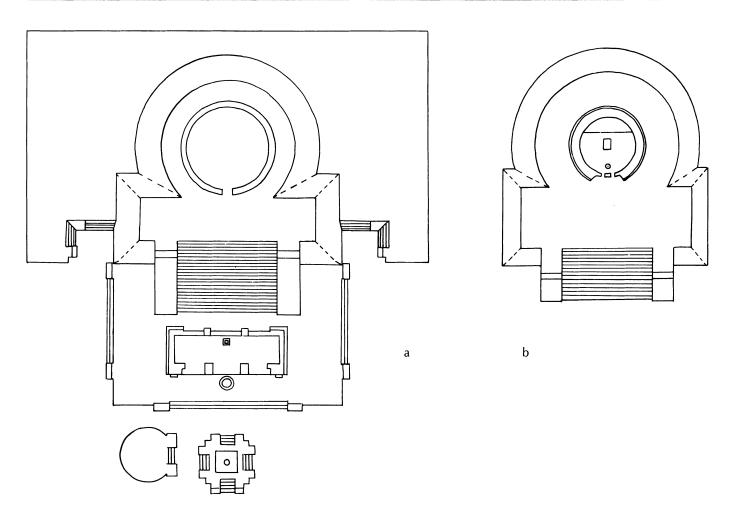


Figure 11. El Templo del Dios del Aire, Cempoala. After Marquina 1964: Lam. 138. a. Reconstruction of final stage of wind temple complex. At base of steps lies rectangular Xolotl shrine where ceramic almena blades and fragmentary Xolotl figures were uncovered. Hearth shown as circular element in front of shrine. Radial structure with four staircases has sunken central region containing sacrificial pedestal. b. Plan of earlier underlying wind temple excavated by García Payón. Rectangular depression in center of chamber possible hearth; conical fossa near altar at chamber entrance.

ceramic Xolotl figures and roof *almenas* in the form of sacrificial flint blades. Because of the Xolotl sculptures and the *almena*-bladed roof, excavator José García Payón (1949: 656) identified the building as a Xolotl shrine. The *almena* blades recall the page 37 shrine, where Xolotl is flanked by personified blades. At the entrance to the Cempoala Xolotl structure, centered upon the overlooming wind temple, lies the raised circular hearth found at the base of the Borgia structure. There is a small round platform to the southeast of the platform, identical in position to that supporting the urinating Xolotl of page 38. In view of the many shared features, it is possible that

pages 37 and 38 are partly modeled upon El Templo del Dios del Aire at Cempoala.⁷

The Nochistlan Vase, a fine polychrome vessel painted in the Late Postclassic Mixteca Puebla style, contains a representation of Ehecatl-Quetzalcoatl seated before his wind temple (fig. 12). Here a serpent with

7. One structure in the Cempoala group not found on Borgia pages 37 and 38 is the axial platform situated east of the hearth. It lies in front of the aforementioned wind temple on Borgia pages 41 and 42. This scene reveals that the column within the Cempoala platform, a masonry post embedded with a human skull, served as a sacrificial altar for heart extraction.

the canine head of Xolotl and a xiuhcoatl tail pierces the split temple roof. Seler (1902–1923, III: 526) identifies the creature as a symbol of lightning. The serpent enters the temple through a beaded ring, probably a decorated mirror rim, placed at the juncture of the roof peaks. The scene represents the emergence episode present on Borgia pages 37 and 38, lightning striking the House of Mirrors. The visual concept of the serpent surging through the temple mirror is almost identical to the Teotihuacan Temple of Quetzalcoatl facade, although the Teotihuacan serpents exit rather than penetrate the structure.

Along with the wind temple, the Nochistlan Vase contains another scene, an aged god seated before a mountain split into two curving peaks. Seler (1902-1923, III: 528) identifies the mountain as Colhuacan, a well-known place of origin represented as a sharply curving peak. The Nahuatl term Colhuacan can be glossed as "place of those who have grandfathers or ancestors" (Heyden 1981: 15). In the Historia Tolteca-Chichimeca, the hooked peak of Colhuacan is placed above the seven caves of emergence (ibid.: fig. 12). As Seler notes, the Nochistlan mountain also contains a cave, in this case designated by an open-mouthed serpent head, a conventional Central Mexican cave symbol. The cave is represented as a watery grotto, in the center of which swims a single prominent fish.

At the top of the Nochistlan mountain, just within the fissure, there is a bifurcated tree having a thick and swollen trunk. In outline, it is virtually identical to the bulging trees found in the prehispanic Mixtec "treebirth" emergence scenes. The tree, fish, and aquatic

cave recall the Vaticanus A account of the flood ending the Sun of Water. Here the ancestral people not only escaped through the cave but also via an ahuehuetl tree (Taxodium mucronatum). Fray Diego Durán (1971: 267 -268) describes the properties and etymology of the ahuehuetl:

The springs most hallowed were those which sprang from the roots of the trees we call sabinas . . . , which in the language is called ahuehuetl. This word is made up of two, that is, of atl, meaning "water", and huehuetl, meaning a "water drum". . . . They are large and leafy, and the Indians once revered them greatly because they were always to be found at the foot of a spring, all of which was a cause of superstition and mystery. Once I asked why the tree was called "water drum", and I was told that, since the water passes through its roots and its leaves and branches make a soft noise in the air [it is called thus].

Thus the ahuehuetl, or "water drum," was believed to contain passageways filled with running water. On Borgia page 38, next to the scene depicting the creation of mankind, there is another basin, in this case filled with water rather than blood. Growing out of the pool is another bulging tree. The lower trunk is demarcated as a huehuetl drum, clearly labeling the tree as an ahuehuetl.

Seler (1963, II: 35) notes that the crenated xiuhcoatl hearth on Borgia page 38 also appears in association with four wind temples on pages 15, 17, 18, and 19 of the Mixtec Codex Nuttall (fig. 13). Aside from that of page 19, feathered serpents appear with all of the Quetzalcoatl temples. Each of the four structures has a

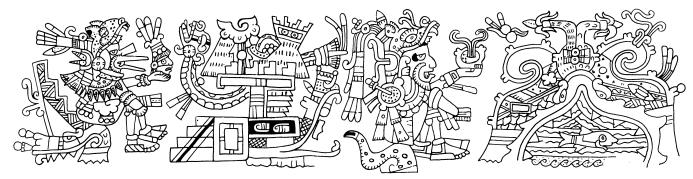


Figure 12. Roll-out drawing of the Nochistlan Vase. At left, Ehecatl sits in front of wind temple; lightning serpent with Xolotl head and xiuhcoatl tail pierces circular mirror rim in bifurcated temple roof. Temple foundation formed by head of open-mouthed serpent; note two shells in chamber floor. To right of wind temple scene, old god sits facing cleft mountain with sharply curving peaks. Mountain cave formed by open serpent mouth containing water and single fish. Bifurcated tree grows out of mountain cleft. After Seler 1902-1923, III: 524.



Figure 13. Wind temple scene on page 17 of Codex Nuttall, Postclassic Mixtec. Structure with feathered serpent at right, note disk in temple roof; wrapped bundle in temple chamber. Individual named as 10-Reed blows conch in front of wind temple. Crenellated *xiuhcoatl* hearth below, note ball court in jaws of serpent.

large disk prominently placed upon the thatched roof. Yet another disk appears on the wind temple carried by the deity 12-Wind on Nuttall page 21. Although there are subtle differences among these disks, they are all entirely comparable to the circular mirrors placed upon the wind temple roofs of the Codex Borgia and the Nochistlan Vase. On page 50 of the Vaticanus B, a Quetzalcoatl temple is again the House of Mirrors; here Quetzalcoatl faces a temple having a large circular mirror on the roof.⁸

The most complex wind temple scene in the Codex Nuttall is that on page 19. A cave lined with young maize lies at the base of the temple steps. Both the

8. Lumholtz (1900: 59–60) mentions a contemporary Huichol practice in which a stone disk is placed in the thatched roof of the circular community temple (toki'pa) to protect it from lightning.

temple and its cave lie atop a great curving mountain. Just below its hooked peak, a curious composite creature pierces the mountain wall. Seler (1902-1923, IV: 657) identifies the entity as a xiuhcoatl, although it is legged and has a torso encased by a tortoise carapace. With flints in its hands and yet another serving as the burning tail, the creature is clearly portrayed as lightning penetrating the mountain. In the Selden Roll, an almost identical flint-wielding character lies within Chicomoztoc; Burland (1955: 15) states that his carapace makes the sound of thunder. In the Historia Tolteca-Chichimeca (Kirchoff et al. 1976: 163), Quetzalteueyac strikes open the emergence cave contained in the curving mountain of Colhuatepec Chicomoztoc. The text mentions that a second name of the hero was Uitec, a term meaning "striker" or "lightning" (ibid.: 163, n. 5). In this context, the authors (ibid.) note two emergence accounts recorded by Mendieta (1980: 77, 81); one of these mentions that the gods emerged after a flint struck Chicomoztoc. Nuttall page 19 and the other cited examples are versions of the House of Mirrors emergence episode, although in these instances the lightning penetrates the actual mountain cave rather than a standing temple structure.

The cylindrical Caracol at Chichen Itza is one of the earliest known examples of the Postclassic wind temple. Within the center of the first circular structure, a stone-lined cyst contained a ceramic *olla* placed above a narrow vertical conduit running sixty-nine centimeters down into the earth (fig. 14b). The *olla* held remains of stone, bone, shell, and a circular sandstone-backed pyrite mirror (Ruppert 1935: 84–86, figs. 99, 102). Placed within the pivotal center of the Caracol foundations, the *olla*, its contents, and vertical shaft all had an important symbolic role. Like other examples of the House of Mirrors, this early circular Quetzalcoatl temple and its stone-lined cyst apparently provided a symbolic means of passage between the surface and the underworld.

During the Late Postclassic at Dzibilchaltun, Yucatan, an earlier abandoned structure was converted into a late form of wind temple, complete with a circular foundation, serpent entrance, floor fossa, and the representation of a probable mirror within an explicit wind symbol. Structure 1-sub, also known as the Temple of the Seven Dolls, was originally constructed during the Late Classic period. The upper moulding on all four sides of the superstructure is covered with an elaborate representation of an avian

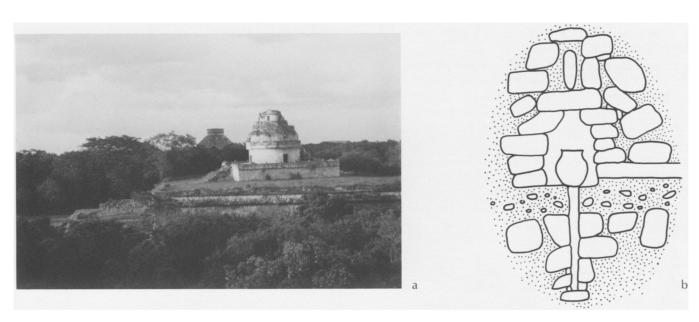


Figure 14. The Caracol at Chichen Itza, Yucatan, an Early Postclassic wind temple. a. View of Caracol from Las Monjas, Castillo to north in background. Photograph by author, b. Cache in center of earliest Caracol foundation. Olla containing pyrite mirror and other materials placed above vertical conduit. After Ruppert 1935: fig. 99, detail.

water serpent—a creature occurring as the personified tun glyph and as a head variant of the number thirteen (e.g., Thompson 1971: figs. 25: 9, 27: 30). A profile of this entity was drawn upon the interior chamber floor (cf. Andrews and Andrews 1980: fig. 110). The entire building was subsequently buried under Structure 1. which in turn was apparently abandoned in the tenth century A.D. By the Late Postclassic, Structure 1 was a mound of rubble, "destroyed beyond possible reuse" (ibid.: 112). During this period, the western side was excavated down to Structure 1-sub, exposing the serpent doorway. Whereas the other sides remained entirely buried under the roughly circular mound, the west face received a stairway that led up to the serpent entrance and interior chamber (fig. 15).9 A small altar was constructed at the back of the chamber, in front of which a funnel-shaped pit was excavated. Placed within the hole were seven human figures crudely fashioned from clay. A succession of hieroglyphic medallions resembling turquoise-rimmed mirrors were painted upon the Dzibilchaltun altar, directly in line with the floor cyst (Andrews and Andrews 1980: figs.

9. Whereas the Postclassic Central Mexican wind temples face east, forms in the Maya region usually face west. Examples are the Caracol and Casa Redonda at Chichen Itza, the Mayapan Caracol, and the Paalmul wind temple (cf. Pollock 1936: 112, figs. 32, 35,

130, 131). During the latest phases of occupation the medallions were definitely contained within the taushaped device found also on Quirigua Altar O. This aforementioned element is the identifying feature of the Maya day sign Ik, meaning wind in Yucatec and equivalent to the Central Mexican day sign Ehecatl.

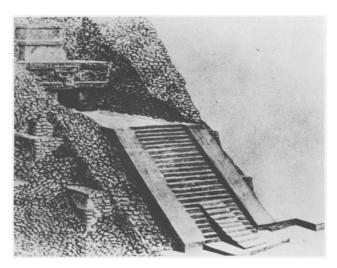


Figure 15. The Temple of the Seven Dolls, Dzibilchaltun, a Late Classic structure readapted as a Late Postclassic Maya wind temple. Drawing by George E. Stuart. Reproduced with permission of Dr. Stuart.

fig. 9).

The Dzibilchaltun Structure 1-sub pit was capped at floor level by a loosely fitting stone disk. A similar floor feature appears in a roughly contemporaneous Central Mexican temple, Structure 1 of Malinalco. Carved into mountain bedrock, this Late Postclassic building is a replica of a freestanding temple, complete with stairway, doorway facade, and circular interior chamber. Once covered by a conical thatched roof, the chamber contains a low U-shaped bench running along most of the interior wall. Upon the bench are two eagle skins flanking a central jaguar pelt; a third eagle lies on the floor in the center of the chamber (fig. 16). Behind

the central eagle lies the circular pit, originally capped

by a removable stone disk (García Payón 1947: 16, 29,

The actual meaning and identity of the Malinalco temple has been a source of much controversy. One of its most striking features is the doorway, rendered as the open maw of a serpent. Citing a number of colonial sources, Pollock (1936) states that round temples with serpent-mouth doorways were dedicated to Ehecatl-Quetzalcoatl. However, Thompson (1943) questions the veracity of these colonial accounts, suggesting that they derive from a single description by Motolinia of two types of circular temples, one low with a serpent doorway and the other high and many-stepped. Thompson states that in Motolinia's account, only the high temple was dedicated to Quetzalcoatl in his aspect as god of wind. According to Thompson, temples with serpent-mouth doorways were dedicated to Tepeyollotl, or "Heart of the Mountain," a god of the earth, caves, and underworld. The doorway is viewed as the open



Figure 16. Interior of Structure 1, Malinalco. Eagle and jaguar skins placed on encircling banquette; floor pit directly behind eagle in foreground. From Pasztory 1983: plate 83.

mouth of the earth monster. García Payón (1947: 38) also interprets the Malinalco portal as the mouth of the earth monster, and for this reason states that the temple was not dedicated to Quetzalcoatl. Krickeberg (1949: 160-166) elaborates on Thompson's argument and suggests that as a temple of Tepeyollotl, the Malinalco structure functions as a symbolic cave. In a recent study, Townsend (1982) also interprets the structure as a temple dedicated to the earth rather than the wind.

The apparent distinction made by Motolinia between low serpent-mouth temples and elevated structures dedicated to Ehecatl-Quetzalcoatl has been overstressed. Townsend (1982: 126) notes that whereas only the low temple reputedly has the serpent doorway, at Malinalco it occurs with the high temple conventionally associated with Quetzalcoatl. Townsend goes on to mention that the serpent-face temple on Borgia page 19 is also on a raised platform. It is also noteworthy that the aforementioned Quetzalcoatl temple on page 50 of the Vaticanus B is on a low platform with no staircase.

In previous studies of the Malinalco structure, Tepeyollotl and Ehecatl-Quetzalcoatl are generally considered as inhabiting sharply contrasting realmsthe netherworld versus the sky. However, it is clear that Quetzalcoatl and the wind have inherent ties to the earth and underworld. The attendant iconography of the Malinalco temple suggests that it is indeed a symbolic cave, but one probably dedicated to Ehecatl-Quetzalcoatl. The serpent-mouth entrance is an explicit cave symbol. The Nochistlan Vase wind temple also has an architectonic serpent-mouth cave, in this case serving as the foundation of the structure (fig. 12). A figure carved in the form of a bladed serpent stands at one side of the Malinalco doorway. Whereas Thompson (1943: 396) suggests that the creature represents a xiuhcoatl serpent, Krickeberg (1949: 192-193) favors the itzcoatl, or obsidian snake, noting that in either case the Malinalco sculpture should be regarded as a lightning serpent. Flanking the other side of the doorway, there is a columnar form identified by García Payón (1947: 17) as a huehuetl drum. Durán (1971: 134) records that the Aztec Tenochtitlan temple of Ehecatl-Quetzalcoatl contained an immense drum:

This drum was so big that its hoarse sound was heard throughout the city. Having heard it, the city was plunged into such silence that one would have thought it uninhabited. . . . Thus, when the Indians heard the sound of the drum, they said, "Let us retire, for Yecatl has sounded!" . . . At dawn, when the sun was rising, the priest again sounded his drum. . . .

At Malinalco, the bladed serpent represents lightning, and the flanking drum the accompanying thunder.

The eagle and jaguar seats found in the interior of the Malinalco temple are usually interpreted in terms of the well-known Aztec solar war cult. However, in the underworld House of Maize scene on page 43 of the Codex Borgia, Tezcatlipoca and Quetzalcoatl sit upon eagle and jaguar skin thrones. In particular, Quetzalcoatl is found upon the eagle, an important avatar or messenger of Quetzalcoatl. It has been noted that the Classic tecalli vase from the Xochicalco Temple of the Plumed Serpent portrays an eagle descending upon a stone mirror. On page 21 of the Mixtec Codex Nuttall, there is a wind temple marked not by a mirror but by the date 9-Wind, the Mixtec name for Quetzalcoatl. At the base of the Nuttall wind temple, an eagle steps into a cave (fig. 17). On Borgia pages 35 and 36, immediately preceding the House of Mirrors episode on pages 37 and 38, Quetzalcoatl and Tezcatlipoca



Figure 17. Tlaloc and eagle in front of wind temple marked with date 9-Wind, a Mixtec name for Ehecatl-Quetzalcoatl. Eagle stands with one foot in cave at base of temple steps, Codex Nuttall, page 21.



Figure 18. Quetzalcoatl descends on back of eagle to obtain bundle from temple of underworld night sun, Codex Borgia, page 35 (detail).

descend to the underworld to obtain a bundle. Quetzalcoatl rides upon the back of an eagle as he receives the bundle from the underworld night sun (fig. 18). The eagle lying directly in front of the Malinalco floor pit probably represents the underworld messenger found in the Borgia and Nuttall codices and at the Late Classic site of Xochicalco.

Seler (1963, II: 32) suggests that the wrapped cloth bundle on Borgia pages 35 and 36 is a nexquimilli funerary bundle containing the remains of Quetzalcoatl's father. In support, Seler (ibid.) cites a passage in the Anales de Cuahtitlan in which Quetzalcoatl takes the exhumed bones of his father to the temple of Quilaztli. This is clearly a version of the previously cited myth describing the origin of man, as Quetzalcoatl again takes the ancestral bones to the goddess Quilaztli. The descent by the Borgia pair Quetzalcoatl and Tezcatlipoca also recalls the Popol Vuh, and related scenes on Late Classic Maya vessels. In the Popol Vuh, Xbalanque and Hunahpu journey to the underworld for their slain father. A number of Classic Maya vessels depict the Headband Twins, the Classic antecedents of Xbalanque and Hunahpu, carrying a wrapped cloth bundle. This object is identified with maize and probably contains the remains of their father, the Tonsured Maize God (cf. Taube 1985). The Borgia bundle is undoubtedly

Figure 19. Rain and lightning bundles of Classic Mesoamerica. a. Masked Tlaloc bundle with feather crest, note water markings on body and stream of water at left, from unprovenanced Teotihuacan mural. After Miller 1973: fig. 360. b. Masked Tlaloc bundle held in arm of Teotihuacan Tlaloc (after Sejourné 1959: fig. 76). c. Tlaloc bundle held in arm of Early Classic Maya ruler, Tikal Stela 4. After Greene et al. 1972: plate 121; Jones and Satterthwaite 1982: fig. 5. d. Tlaloc, as personified bundle, lies in underworld temple cave, El Tajín South Ball Court, Panel 6 (cf. fig. 2). e. Maya rain and lightning gods as masked bundles, Late Classic period (after Robicsek and Hales 1981: vessel 11).

concerned with the House of Mirrors creation scene on adjacent pages 37 and 38. On page 36, maize, maguey, reeds, water, blood, and other substances issue from the bundle. Another band of smoke or ash passes out of the object and continues on the left side of the House of Mirrors scene to end on page 38 with Quetzalcoatl in the mouth of Ehecatl (fig. 10, left side). In the outpouring band, one can discern such other obvious allusions to fertility as flowers, flutes, butterflies, and the hummingbird and quetzal. Within every one of the aforementioned wind temples in the Codex Nuttall (pp. 15, 17, 18, 19, 21), there is a similarly wrapped cloth bundle. Additionally, a bundle marked with the face of Ehecatl plays an important part in the Selden Roll, a manuscript concerned with the legendary emergence and early wanderings (Burland 1955). It is probable that the Borgia, Selden Roll, and Nuttall examples are all deified ancestor bundles, traced back to the place of origin.

Masked bundles comparable to the Selden Roll example exist for the Classic period, although in this case they represent gods of neither wind nor maize, but lightning. A pair of masked bundles appear in Late Classic Maya vessel scenes (fig. 19e). Whereas one represents the Classic form of the lightning Chac, the other is the Pax God, a deity of war, music, and thunder. A possible prototype of this pair may be found on Tikal Stela 4, an Early Classic Maya monument with recognized Teotihuacan traits. Here the ruler holds a bundle in the form of the Teotihuacan Tlaloc, complete with goggle eyes and projecting fangs (fig. 19c). Tlaloc bundles are also present at Teotihuacan, although they have previously been viewed as staffs (Caso 1966: 235), dolls (Miller 1973: 97, 360), or effigy vessels (Pasztory 1974: 7; 1976: 132-133). The vessel interpretation is apt, since urns in similar form are common at Teotihuacan as well as at later sites. However, the bundle frequently is found with a feathered crest at top, appropriate for a wrapped cloth item, but quite out of place on a water vessel (e.g., figs. 19a, b). The Tlaloc bundle is apparently a miniature version of the supposed Teotihuacan funerary bundles, objects that may have worn the well-known life-size stone masks (cf. Easby and Scott 1970: 148, figs. 30, 31, 39). At El Tajín, the prone Tlaloc within the temple cave of South Ball Court Panel 6 is but a more personified form of the Teotihuacan bundle; here both his arms and legs project from the knotted cloth (fig. 19d). On page 16 of the Aztec Codex Borbonicus, there is a Postclassic form of the masked Tlaloc bundle

placed opposite a knife-wielding Xolotl. The object, clearly a nexquimilli, is covered by a large solar disk and sits directly above an open-mouthed cave. In the account by Mendieta (1980: 79-80) of the creation of the sun at Teotihuacan, Xolotl executed the gods with a sacrificial blade, and from their remains he made god bundles. Like the El Tajín form, the Borbonicus example may represent a Tlaloc bundle placed within the Teotihuacan cave.10

Both the mirror and lightning, important features of the Postclassic wind temple, are represented in the Pyramid of the Sun scenes within the El Tajín South Ball Court. I have mentioned that the Temple of Quetzalcoatl depicts Quetzalcoatl and lightning serpents passing through circular mirrors. Caches contained in the Pyramid of the Sun and the Temple of Quetzalcoatl also suggest that these Teotihuacan structures were identified with lightning as well as mirrors. Six obsidian eccentrics chipped in the form of serpents were discovered during the 1933 excavations within the Pyramid of the Sun and the neighboring Plataforma Adosada (Noguera 1935: Lam. XXXIV). In 1939, four nearly identical examples were found in a cache directly associated with the decorated Miccaotli phase Temple of Quetzalcoatl (Rubín de la Borbolla 1947: fig. 9). With their undulating outlines, the serpents closely resemble Teotihuacan representations of lightning; they may represent itzcocoa, or obsidian lightning serpents, such as are being hurled by Tlaloc on Borgia page 37. The Pyramid of the Sun excavations also uncovered long needlelike lancets (Noguera 1935: Lam. XXIII), which recall the prominent depictions of Tlaloc bloodletting in the El Tajín and Codex Borgia emergence scenes. There is also direct evidence of Tlaloc at the Pyramid of the Sun. During excavations in 1959, a Tlaloc effigy jar was discovered at the juncture of the Plataforma Adosada and the Pyramid of the Sun. The vessel probably dates to the Tzacualli phase, that is, during the time when the great superstructure was created (Millon et al. 1965: 28, fig. 95).

Emergence mythology of the American Southwest

The cultural history of the American Southwest has inherent ties to that of Mesoamerica. Both maize and pottery-making are generally believed to have been

10. The scene appears with the trecena date 1-Cozcacauhtli and is also found in the Aubin Tonalmatl and the Teleriano-Remensis. In these examples, Xolotl also faces a solar Tlaloc figure situated in a cave. In the Vaticanus B and Borgia codices, Xolotl again appears

introduced into the Southwest from Mesoamerica. Willey (1966: 186) notes that during the period of 100 B.C. to A.D. 400 there was a sharply growing tendency toward sedentism, pottery-making, and farming based on the Mesoamerican trilogy of maize, beans, and squash: "at its threshold the Southwestern cultural tradition consisted of small village societies in the process of creating a new way of life by synthesizing Mesoamerican and Desert tradition elements." Material evidence of Mesoamerican influence continues from the development of the Hohokam, Anasazi, and Mogollon to the time of European contact. Pyrite mosaic and copper mirrors, cast bells, marine shell and live scarlet macaws are among the more obvious trade items imported from Mesoamerica. More subtle and complex is the possible influence of Mesoamerica upon the religious traditions of the American Southwest.

During the Mesoamerican Classic period, the Hohokam had considerable contact with West Mexico. However, there is no evidence of direct exchange with Teotihuacan, the greatest urban center of Classic Mesoamerica. If any contact did occur, it was apparently through a strong West Mexican filter. Moreover, evidence of Postclassic Central Mexican influence is also weak in the Hohokam region, and it is noteworthy that the religious traditions of the Pima and Papago, the probable descendants of the Hohokam, have relatively little in common with those of Mesoamerica. This is not the case with the contemporary Pueblos, historically derived from the prehispanic Anasazi and, in part, the Mogollon. Since the beginnings of ethnographic work on the Pueblos, comparisons have been made with Mesoamerican religious traditions. Among the shared elements most frequently cited are the male hero twins (Parsons 1939: 1016; Kelley 1966: 95), the sacred bundle (Burland 1955: 16; Nowotny 1961: 32; Stenzel 1970), and the plumed serpent (Fewkes 1900: 622-623; Parsons 1939: 1016; Kelley 1966: 95; Ellis and Hammack 1968: 42; Di Peso 1974: 548, 552). What has not been noted in the studies cited is that both these and other traits form only part of what is surely the most striking shared religious tradition, the myth of the emergence.¹¹

with the 1-Cozcacuauhtli trecena; however, rather than the solar Tlaloc, there is the date 4-Ollin, the name of the sun created at Teotihuacan.

^{11.} Ellis and Hammack (1968: 30) state that certain of the Pueblo emergence accounts describing the passage through successive worlds are "an almost direct reproduction of that told by Mexican tribes," but make no mention as to how they are similar.

In a recent study, I (Taube 1985) noted a number of specific cultural traits shared between Teotihuacan and the Pueblos of the American Southwest. One example is a hoop-handled netted vessel used for ritual aspersion; it may be found both in the mural art of Teotihuacan and that of the protohistoric Pueblo IV period (ibid.: 143, fig. 43). More important, there is a Teotihuacan spider goddess closely akin to the Spider Grandmother of the Pueblos and the neighboring Navajo—in emergence tales of the Southwest, Spider Grandmother often has an important succoring role. The aforementioned entity above Tepantitla Mural 3 is the Teotihuacan Spider Woman; a spider is also present below, immediately above the cleft mural mountain (cf. ibid.: fig. 40). Mural 3 exhibits other traits found in Southwest emergence accounts, such as the playing of competitive games and the sipapu-like emergence pool (ibid.: 139). The spider, games, and cave pool are by no means the only features shared between Mural 3 and Southwestern emergence mythology. As will be seen, a great deal of the Mesoamerican emergence symbolism discussed in the present study also appears in recorded texts of the American Southwest.

A widespread feature of Southwestern emergence lore is the journey of mankind through successive subterranean worlds before arriving at the surface. Among many Southwest groups, such as the Navajo (Stephen 1930), Zuni (Bunzel 1932: 487), and Keres (Boas 1928: 9), there are four underworlds. As four distinct stages leading to the present world of mankind, the cave worlds are comparable to the four previous suns of Aztec legend. In Southwestern accounts, the people frequently lose bestial qualities in their journey to the surface. Considering the watery nature of the underworld and the sipapu emergence hole, it is not surprising that the qualities lost are often fishlike. Thus in the Zuni lower worlds the people were slimy and possessed tails and webbed fingers (Parsons 1923: 138-139; Bunzel 1932: 584). Cushing (1896: 383) mentions scales and goggle eyes, features also suggestive of fish. However, the Zuni lower-world people were also horned and thus appear to have had a more generalized bestial nature. Among the Tewa, the association of netherworld ancestors with fish is more direct, since the ancestors under the lake of origin are named patowa, a term meaning "made people" or "fish-people" (Parsons 1939: 210; Ortiz 1969: 79-80, 163–164). At Taos, the kiva clan known as Water People or Lightning Corn Cob People are believed to have emerged in the form of fish (Parsons 1936: 74,

113). As in Mesoamerica, the concept of fish-people appears to be of some antiquity. On one Mogollon Mimbres bowl, a pair of males share a prominent fish headdress. Moulard (1981: 115) identifies them as twins and compares them to the Pueblo War Twins and, more tangentially, to the fish transformation episode of the *Popol Vuh* hero twins. A similar scene is found painted on a Pueblo IV kiva mural at Kuaua (Dutton 1963: plate XXV). Here a pair of figures have large fish bodies in place of heads; Dutton (ibid.: 185) interprets the pair as the War Twins, prominent in Pueblo origin mythology.

The playing of competitive games warrants further discussion. In a number of Pueblo accounts, stick ball or kick stick is frequently played at the time of emergence (cf. Taube 1983: 139). Moreover, the Hopi and Zuni War Twins, who directly assist in the emergence of mankind, are not only the gods of games but also of war and lightning. Probably for this reason, the Hopi place kick-balls used in racing in the kiva sipapu (cf. Parsons 1939: 309). To bring mankind out of the underworld, the Zuni War Twins penetrate the earth with lightning arrows given by Sun Father (Stevenson 1904: 25). The mythical role of the Southwest twins is thus almost identical to that of Xolotl, the lightning dog, whose importance in Central Mexican emergence mythology has been mentioned. Thus, in his discussion of the House of Mirrors scene on Borgia pages 37 and 38, Seler (1963, II: 34) notes that Xolotl, whose name means twin, is also the god of the ball game. A ball court is prominently depicted on Borgia page 35, where Quetzalcoatl and Tezcatlipoca take the bundle from the underworld night sun. In the wind temple scenes on Nuttall pages 15, 17, 18, and 19, a ball court lies in the jaws of the crenated xiuhcoatl hearth (e.g., fig. 13). The Popol Vuh hero twins are great ball players who descend to the underworld through the playing field. It is surely no coincidence that the emergence scenes at El Tajín are carved within a ball court. Finally, although Tepantitla Mural 3 is filled with many varied games, the most important is clearly that played in the ball court directly above the central cleft mountain.

Mesoamerican and Southwest emergence mythology shares the concepts not only of fish-men and hero twins of lightning and games but also of the sacred bundle. It is of particular interest that the Southwest bundles also play a major role in the emergence and contain the vital forces or materials of human life. Thus, according to the Navajo, Spider Grandmother surfaced with the

stolen child of Water Monster wrapped in her silk (Stephen 1930: 102). The Zuni rain priests each have an ettone, a string-wrapped bundle of water and seeds carried up at the emergence (Stevenson 1904: 324); should the object be seen by profane eyes, the offender would be struck by lightning (Parsons 1939: 324). In Keres mythology, Corn Mother, who assists in the emergence of man, is identified with another seed-filled bundle (ibid.: 243). At Acoma, it is reported that Corn Mother (latiku) made at sipapu a cloth-enclosed maize bundle (White 1932: 121, n. 21). This object is directly identified with mankind; for each blemished grain contained within the bundle, an individual will die (ibid.: n. 23). Parsons (1939: 1034-1037) notes that the Plains Pawnee and closely related Arikara share many ceremonial traits with the Pueblos, among the most striking being the Mother Corn bundles. Parsons (ibid.: 1034) mentions that one of these, the Pawnee rain bundle, consists of two decorated maize ears and is termed "rain-storm wrapped up," a phrase recalling not only the Navajo and Zuni bundles but also the rain god bundles of ancient Mesoamerica. Although the Pawnee have no account of a netherworld origin, the Arikara describe their emergence after multiple world destructions culminating in the flood (cf. Dorsey 1904). As a protection from the flood, people were placed as maize grain within the earth, and those exposed to the water became fish (ibid.: 28). It was Mother Corn who

brought the Arikara out and taught them the bundle ceremonies.

The great horned and feathered serpent of the Southwest is preeminently a god of standing water and the underworld (fig. 20). Mindeleff (1891: 16) aptly describes him as the "genius of water," and states that he assisted the Hopi in their journey to the surface. At Zuni, the plumed serpent Kolowisi is summoned with conch shell trumpets; his Hopi counterpart, Palulukong, is accompanied by similar sounding horns of gourd (Stevenson 1904: 95; Fewkes 1900: 608) (fig. 20). The Zuni conch has strong ties to the underworld and the emergence; a conch filled with seeds is reportedly kept with each of the ettone rain priest bundles (Parsons 1933: n. 62). As has been noted, the conch has been identified with Quetzalcoatl since Miccaotli phase Teotihuacan. Quetzalcoatl was also considered as the maize-bringer in ancient Mesoamerica and the contemporary Southwest.12 According to the Zuni, Kolowisi brings maize out of the underworld; "it [maize] is brought every four years by the great plumed serpent as a gift from the gods of the undermost world for planting in the Zuni fields" (Stevenson 1915: 99).

The Hopi Palulukong serpent appears in two major Walpi kiva ceremonies, Soyal and Palulukongti. Central

12. The Huichol goddess of maize is identified with a feathered snake; "the serpent of the Corn Mother has only wings, and 'flies in rain'" (Lumholtz 1900: 54).

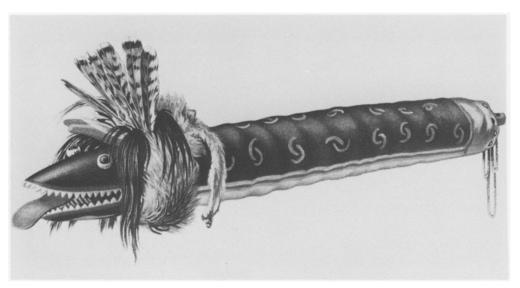


Figure 20. Nineteenth-century Zuni effigy of plumed serpent used in kiva initiation ceremony. From Stevenson 1904: plate XIII.

to these rites is the manipulation of feathered serpent effigies behind screens; only one serpent is present during Soyal, whereas many project through the Palulukongti screens. Both kiva dramas concern lightning and the issuance of corn from out of the underworld. As in ancient Mesoamerica, maize and lightning are closely identified in Pueblo culture. In a Pueblo IV kiva mural from Kawaika-a, maize cobs are affixed to a lightning bolt (Smith 1952: fig. 62a). In a roughly contemporaneous mural from Awatovi, lightning strikes a standing cob (ibid.: fig. 81b). The Soyal is a winter solstice ceremony concerned with the return or emergence of particular kachina. Parsons (in Stephen 1936: 1) notes that the name derives from the phrase shoya'lnyuna, meaning "they come out." Among the principal kachinas that emerge are Blue corn girl and Yellow corn girl. At certain moments during the ceremony, the floor plank containing the sipapu is stamped on. This sound, along with shaking rattles and the din of shouting, symbolizes thunder within the kiva (Stephen ibid.: 22).

During the Palulukongti ceremonies performed at Walpi and Oraibi, young maize grown inside the kiva is placed before the serpent screen. According to Titiev (1944: 184), the great serpent is portrayed here as the engenderer and harvester of maize. As a wall of rings through which the feathered effigy serpents thrust and writhe their heads, the Palulukongti screens are strikingly similar to the Temple of Quetzalcoatl facade at Teotihuacan (fig. 21). The screens are painted with explicit lightning symbols, and lightning is also ritually displayed during the Walpi ceremony. Thus there is a kiva buffalo dance in which wooden lightning slats are wielded (Fewkes 1900: 610). Moreover, at one point in the ceremony a procession of kachina visit all of the East Mesa kivas. Standing at the entryways and accompanied by drumming in imitation of thunder, the kachina cast water and shoot extendable latticed lightning serpents into each of the kiva mouths (Fewkes 1893: 278; Stephen 1936: 318-319), evidently a Pueblo form of lightning striking the House of Mirrors.

The Pueblo kiva and Mesoamerican emergence structures

In many respects, the frequently circular and subterranean Pueblo kiva is comparable to the Postclassic wind temple dedicated to Ehecatl-Quetzalcoatl. Both structures are replications of the emergence place, a cave from which issues the

sustaining forces of life. Through the kiva sipapu, the Hopi two-horned underworld god of fertility Muingwu sends "the germs of all living things" (Mindeleff 1891: 17). An important symbolic component of the wind temple and kiva is lightning; far from being destructive, it serves as a vital catalyst for bringing fertile forces out of the underworld.

The writings of the early Spanish chroniclers provide the only eyewitness descriptions of wind temples, in several instances describing them as hornos, or ovens (cf. Pollock 1936: 5–6). Until the beginning of this century, the common term for the Pueblo kiva in ethnographic literature was estufa, another Spanish word signifying "oven" (e.g., Mindeleff 1891). In the most detailed sixteenth-century description of a Mesoamerican wind temple, Durán (1971: 134) notes that the structure had its own large dance plaza: "This temple contained a fair-sized courtyard, where, on the day of the feast, were performed splendid dances, merry celebrations, and amusing farces." Among the clowns described are individuals personifying particular diseases and animals (ibid.: 135). Certain of these animal impersonators, namely the fly and beetle, are also present in the Atamalcualiztli festival, where their actions are described as "godly dancing," teuittotiloia (Sahagun 1950-1971, bk. 2: 177). The wind temple courtyard is almost identical in function to the kiva plaza, where the kachina impersonators engage in public performances that are both religious and burlesque in nature.

Perhaps the most striking architectural feature shared by the wind temple and kiva is the floor fossa, or sipapu. Roberts (1932: 57) describes the importance of the kiva *sipapu* in Pueblo ritual and cosmogony:

Among the present-day Pueblos it is regarded as the place of the gods and the most sacred portion of the ceremonial room. In addition, it symbolizes the opening through which the gods first emerged when coming up from the under to the outer world and the aperture through which their spirits must return when they go to join the ancestors.

Pueblo sipapu frequently are covered with removable disks or plugs, which recall the stone disks placed over the Dzibilchaltun and Malinalco floor pits. Because of its circular interior and floor fossa, Malinalco Structure 1 has been compared to the Pueblo kiva (Ferdon 1955: 11; Townsend 1982: 127).13 García Payón (1949: 644)

13. Aside from the circular interior, banquette, and axial floor pit, the Malinalco structure is comparable to the kiva in a number of other ways. The horizontal series of rectangular wall niches is very

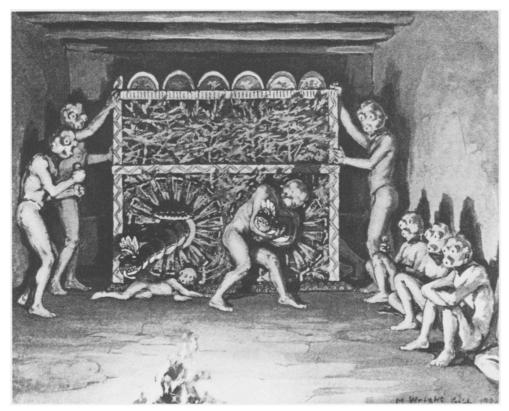


Figure 21. Nineteenth-century Hopi Palulukongti screen, Walpi. Effigy feathered serpent heads thrust through "trap door" sun disks surrounded by turkey plume rims. Note lightning motif on frame. Background of this particular screen composed of cut fir branches. From Fewkes 1900: plate XXXIII.

notes that the earlier circular chamber underlying El Templo del Dios del Aire resembles a kiva. Lined upon the central axis are two floor depressions, one conical, the other larger and rectangular (fig. 11b). Although not mentioned by García Payón, the floor features are identical in position to the sipapu and firebox encountered in Pueblo kivas (e.g., Kidder 1958: fig. 52; Vivian and Reiter 1960: figs. 20, 29). The olla and vertical shaft in the center of the Chichen Itza Caracol are also similar to Pueblo sipapu. The Hopi place water jars symbolic of the sipapu within their fields to bring rain (Stephen 1936: 483). Ceramic ollas and jars have been discovered inside ancient kiva sipapu (e.g., Reiter, Mulloy, and Blumenthal 1940: 11-12; Stubbs and Stallings 1953: 44; Kidder 1958: 191, figs. 52, 53).

similar to the wall crypts placed at regular intervals in great kivas of Chaco Canyon (cf. Vivian and Reiter 1960: plate 83). At the modern pueblo of Acoma, the skins of bears and pumas are placed on the "cloud seat" kiva bench (Stirling 1942: 20), recalling the eagle and jaguar skin seats carved on the Malinalco banquette.

Contemporary Zuni place shell in the sipapu (Roberts 1932: 58), surely an allusion to the watery place of origin. Similarly, two bivalve shells are carefully represented either on or inside the floor of the Nochistlan Vase wind temple (fig. 12). That the ancient Mesoamerican floor pits are also watery in nature is portrayed graphically on page 31 of the Vaticanus B. Here Tlaloc sits facing a thatched temple struck by a burning axe; Seler (1963, I: 88) identifies the axe as lightning. A steaming conduit runs through the temple foundation, serving as a means of passing upwelling water, as well as fish, into the temple chamber (fig. 22).

Although the wind temple and kiva are notably similar in form and symbolic content, they have had different social functions. The Pueblo kiva serves as an important meeting place, a virtual "men's house" for clan or sodality. Given the higher population densities of Mesoamerican cities, it is unlikely that the wind temple or even the Pyramid of the Sun cave could have performed similar roles. The wind temple probably

Figure 22. A Mesoamerican *sipapu*; steaming conduit in floor of thatched temple struck by lightning axe; note fish in stream at base of temple foundation, Vaticanus B, page 31 (detail).

served as the pivotal focus for rituals held in barrio or lineage shrines. It may have been at these dispersed sites, rather than at the central temple, that one would usually petition the gods or ancestors for health, fertility, and general prosperity. At Teotihuacan, this situation is suggested by the patio altars found within apartment compounds. Made in the form of miniature temples (cf. Miller 1973: figs. 286, 344-349), they may have been copies of the temple, the Pyramid of the Sun. Carefully shaped pits have been found in the central portions of these patio shrines (e.g., Sejourné 1966: 167–168, figs. 87a, c). As in the case of the sipapu and wind temple fossa, the altar pit may also have served as a symbolic cave to the underworld. Such a system of replication could provide a strong ideological force for social cohesion: each compound linked directly to the single place of origin, which would be visible from all sectors of the city.

* * *

In Southwestern and ancient Mesoamerican emergence accounts, the origin of mankind is inextricably linked to

forces of agricultural fertility. The imagery frequently evoked, such as the enclosing earth, lightning, wind, pools, streams, and seed- or water-filled bundles, concerns the growth of plants, especially maize. In much of the mythology here discussed, mankind is identified, explicitly or implicitly, with corn. Growing maize is prominently represented in the Tepantitla emergence scene, and in the El Tajín South Ball Court panels Tlaloc carries maize out of the temple cave. On Borgia pages 37 and 38, Tlaloc creates mankind from penitential blood and maize obtained from the wind temple of Ehecatl-Quetzalcoatl. Variants of this episode are recorded for the protohistoric Aztec and the Quiche and Cakchiquel Maya. The Classic Maya also appear to have considered maize as the origin and nature of mankind. The descent of Hunahpu and Xbalanque for the remains of their father appears on Late Classic polychrome vessels, where the Headband Twins hold the bundled remains of the Tonsured Maize God. In other vessel scenes, this maize deity emerges from a carapace cleft by lightning, an episode recalling the Zuni War Twins, who split the earth with lightning arrows to bring up mankind. In the American Southwest, the identification of corn with mankind is most developed in the Eastern Pueblos, where Corn Mother has an important role in the emergence.

I have suggested that the cave underlying the Teotihuacan Pyramid of the Sun is related to an ancient origin myth in which people emerged as fish from a series of four underworlds. In the Mythological Animals Mural the fish-men pass through a cave world of caymans and felines, whereas Mural 3 of Tepantitla Patio 2 represents the conversion of fish into people at the emergence pool. This event also occurs in the middle panels of the El Tajín South Ball Court; Panel 5 depicts a fish-man inside the Teotihuacan cave. Traits of the Classic emergence myth survive in the Aztec Myth of the Five Suns, the Quichean Popol Vuh, contemporary Mesoamerican lore, and North American emergence accounts. Seler (1902-1923, IV: 702) states that fish were a symbol of fertility in ancient Mesoamerica. The widespread association of fish with the origin of mankind suggests that fish may have had a more specific meaning. At times, they may have been considered as the unborn ancestors.

In the emergence mythology discussed, mankind is compared not only to the sprouting of maize, but also to the conception and birth of an infant. The earth is compared to a woman, with the underworld her womb and the emergence place her vagina. Haeberlin (1916:

34) suggests that the penetration of the earth by lightning in Zuni emergence accounts symbolizes the male impregnation of the womb. Taggart (1983: 92) makes a like case for Mesoamerica when he describes as an act of coitus the cracking open of the maize rock by lightning. In the Historia Tolteca-Chichimeca episode where lightning strikes open Chicomoztoc, Quetzalteueyac thrusts his staff into the newly created orifice (Kirchoff et al. 1976: 164; F. 16r). The recurrent theme of serpents penetrating circular mirrors is probably yet another allusion to copulation. The development of the human embryo and fetus is analogous to the upward journey of the semihuman ancestors to the earth's surface. During the fifth and sixth week of pregnancy, the flexed embryo can be seen to possess a large head, gills, flipperlike limbs, and a tail (cf. Patten 1968: figs. V-12, 13, VII-5b, c). In other words, it looks like a fish. The concept of fishlike ancestors in Mesoamerican and Southwestern lore may be related to this striking biological fact.

The circular wind temple of Postclassic Mesoamerica contains much of the ritual and symbolic significance found in the Teotihuacan Pyramid of the Sun. Foremost is the concept of the emergence temple, a structure offering access to the generative forces from which mankind is created and sustained. In both structural form and symbolic meaning, the Postclassic wind temple is notably similar to the Pueblo kiva. However, the Pueblo kiva is not the result of a direct diffusion of Postclassic Mesoamerican traits into the Southwest. It is well established that the kiva evolved out of the ancient Southwest pit house. By Basketmaker III (ca. A.D. 500-700), the kiva appears in pit house villages, although the sipapu occurs only in the circular household floors (Cordell 1979: 134). Mesoamerican influences in Pueblo religion are usually thought to derive from the Postclassic period. However, many of the most striking shared traits—hero twins, fertile bundles, maizelightning, the feathered serpent, ancestral fish-men, and the emergence—are plainly present in Classic Mesoamerica. It is unlikely that the Mogollon and Anasazi received these ex nihilo from Postclassic emissaries; instead, the early kiva and sipapu suggest that some of these traits may already have been present in the Southwest, perhaps due to stimulus diffusion from Classic Central Mexico. As the symbolic focus of the greatest urban center of Classic Mesoamerica, the Teotihuacan cave may mark an important stage not only in the development of Mesoamerican emergence mythology, but also in that of the American Southwest.

BIBLIOGRAPHY

Alcorn, Janis B.

1984 Huastec Mayan Ethnobotany. University of Texas Press. Austin.

Andrews, E. Wyllys, IV, and E. Wyllys Andrews V 1979 Excavations at Dzibilchaltun, Yucatan, Mexico. Middle American Research Institute, pub. 48. Tulane University, New Orleans.

Aveleyra Arroyo de Anda, L.

1963 La estela teotihuacana de la ventilla. Instituto Nacional de Antropología e Historia, Mexico City.

Batres, Leopoldo

1912 Descubrimientos y consolidación de los monumentos arqueológicos de Teotihuacan. Proceedings of the 18th International Congress of Americanists, pp. 188-193, London.

Bernal, Ignacio

1969 100 Great Masterpieces of the Mexican National Museum of Anthropology. Harry N. Abrams, New York.

Beyer, Hermann

1933 Shell Ornament Sets from the Huasteca, Mexico. Middle American Research Institute, pub. 5, pp. 155-216. Tulane University, New Orleans.

Boas, Franz

1928 Keresan Texts. American Ethnological Society Publications, vol. 8, pt. 2, New York.

Bonfil Batalla, Guillermo

1982 El maíz, fundamento de la cultura popular mexicana. Museo Popular de Culturas Populares, Mexico City.

Bunzel, Ruth

1932 Zuni Origin Myths. 47th Annual Report of the Bureau of American Ethnology for the Years 1929-1930, Washington, D.C.

Burland, Cottie A.

1955 The Selden Roll: An Ancient Mexican Picture Manuscript in the Bodleian Library at Oxford. Monumenta Americana, II, Verlag Gebr. Mann, Berlin.

Caso, Alfonso

1942 El paraíso terrenal en Teotihuacan. Cuadernos Americanos 6(6): 127-136, Mexico City.

1966 Dioses y signos teotihuacanos. Teotihuacan,

Onceava Mesa Redonda, pp. 249–279. Sociedad Mexicana de Antropología, Mexico City.

Coe, Michael D.

- 1966 An Early Stone Pectoral from Southeastern Mexico. Studies in Pre-Columbian Art and Archaeology, no. 1. Dumbarton Oaks, Washington, D.C.
- 1978 Lords of the Underworld: Masterpieces of Classic Maya Ceramics. Princeton University Press, Princeton, N.J.
- 1980 *The Maya*, revised edition. Thames and Hudson, New York.

Coggins, Clemency Chase

1985 New Fire at Chichen Itza. Paper presented at El Primer Coloquio Internacional de Mayistas, August 5, 1985, Mexico City.

Cordell, Linda S.

1979 Prehistory: Eastern Anasazi. In *Handbook of North American Indians*, vol. 9. William J. Sturtevant, gen. ed., pp. 131–151. Smithsonian Institution, Washington, D.C.

Corona Nuñez, José

1964 Antigüedades de México, basadas en recopilación de Lord Kingsborough. Secretaria de Hacienda y Crédito Público, Mexico City.

Cowgill, George L.

1983 Rulership and the Ciudadela: Political Inferences from Teotihuacan Architecture. In Civilization in the Ancient Americas, Richard M. Leventhal and Alan L. Kolata, eds., pp. 313–343. University of New Mexico Press and Peabody Museum of Archaeology and Ethnology, Harvard University, Cambridge, Mass.

Cushing, Frank H.

1896 Outlines of Zuni Creation Myths. 13th Annual Report of the Bureau of American Ethnology for the Years 1891–1892, pp. 321–447, Washington, D.C.

Delhalle, Jean-Claude, and Albert Luykx

1986 The Nahuatl Myth of the Creation of Humankind: A Coastal Connection? *American Antiquity* 51(1): 117–121.

Dewey, Janice

1983 Huemac: el fiero de Cincalco. *Estudios de Cultura Nahuatl*, 16: 183–192, Mexico City.

Di Peso, Charles

1974 Casas Grandes: A Fallen Trading Center of the Grand Chichimeca. Northland Press, Flagstaff, Ariz.

Dorsey, George A.

1904 Traditions of the Arikara. Carnegie Institution, Washington, D.C.

Drucker, Philip, Robert F. Heizer, and Robert J. Squier 1959 Excavations at La Venta, Tabasco, 1955. Bureau of American Ethnology Bulletin 170. Smithsonian Institution, Washington, D.C.

Durán, Fray Diego

1971 Book of the Gods and Rites and the Ancient Calendar. Translated and edited by Doris Heyden and Fernando Horcasitas. University of Oklahoma Press, Norman.

Dutton, Bertha P.

1963 Sun Father's Way: The Murals of Kuaua. University of New Mexico, Albuquerque.

Easby, Elizabeth K., and John F. Scott 1970 Before Cortez: Sculpture of Middle America. Metropolitan Museum of Art, New York.

Edmonson, Munro

1965 *Quiché-English Dictionary*. Middle American Research Institute, pub. 30. Tulane University, New Orleans

Ellis, Florence H., and Laurens Hammack

1968 The Inner Sanctum of Feather Cave, A Mogollon Sun and Earth Shrine Linking Mexico and the Southwest. *American Antiquity* 33(1): 25–44.

Evans, Susan T.

1985 The Cerro Gordo Site: A Rural Settlement of the Aztec Period in the Basin of Mexico. *Journal of Field Archaeology* 12(1): 1–18.

Ferdon, Edwin N., Jr.

1955 A Trial Survey of Mexican-Southwestern Architectural Parallels. Monographs of the School of American Research, no. 20, Santa Fe.

Fewkes, J. Walter

- 1893 The Pa-lu-lu-kon-ti: A Tusayan Ceremony. *Journal of American Folklore* 6: 269–283.
- 1900 A Theatrical Performance at Walpi. *Proceedings of the Washington Academy of Sciences* II: 605–629.

Foster, George M.

1945 Sierra Popoluca Folklore and Beliefs. *University of California Publications in American Archaeology and Ethnology*, vol. 42, no. 2: pp. 177–250.

Fought, John

1972 *Chorti Mayan Texts*. University of Pennsylvania Press, Philadelphia.

Furst, Iill Leslie, and Peter T. Furst

1980 Pre-Columbian Art of Mexico. Abbeville Press, New York.

Furst, Peter T.

- 1974 Morning Glory and Mother Goddess at Tepantitla, Teotihuacan: Iconography and Analogy in Pre-Columbian Art. In Mesoamerican Archaeology: New Approaches, edited by Norman Hammond, pp. 187 -215. University of Texas Press, Austin.
- 1978 The Art of Being Huichol. In Art of the Huichol Indians, Kathleen Berrin, ed., pp. 18-34. Harry N. Abrams, New York.

Gamio, Manuel

1922 La población del Valle de Teotihuacan. Secretaria de Agricultura y Fomento, Mexico City.

García Payón, José

- 1947 Los monumentos arqueológicos de Malinalco. Talleres Graficos de la Nación, Mexico City.
- 1949 Arqueología de Zempoala. Uni-Ver 1: 636-656.
- 1973 Los enigmas de El Tajín. Colección Científica 3, Instituto Nacional de Antropología e Historia, Mexico City.

Garibay K., Ángel María

- 1945 Epica Nahuatl. Universidad Nacional Autonoma de Mexico, Mexico City.
- 1965 Teogonía e Historia de los Mexicanos: Tres Opúsculos del Siglo XVI. Editorial Porrua, Mexico

Girard, Rafael

1962 Los Mayas Eternos. Antigüa Libreria Robredo, Mexico City.

Greene, Merle, Robert Rands, and John A. Graham

1972 Maya Sculpture from the Southern Lowlands, the Highlands and Pacific Piedmont. Lederer, Street, and Zeus, Berkeley.

Gutiérrez Solana, Nelly

1983 Objetos ceremoniales en piedra de la cultura Mexica. Universidad Nacional Autónoma de México, Mexico City.

Haeberlin, H. K.

1916 The Idea of Fertilization in the Culture of the Pueblo Indians. American Anthropological Society Association Memoirs 3(13): 1-55.

Heyden, Doris

1973 Un Chicomoztoc en Teotihuacan? La cueva bajo la Pirámide del Sol. Boletín del Instituto Nacional de

- Antropología e Historia, época II, no. 6: 3–18, Mexico City.
- 1975 An Interpretation of the Cave Underneath the Pyramid of the Sun in Teotihuacan, Mexico. American Antiquity 40: 131-147.
- 1981 Caves, Gods, and Myths: World View and Planning at Teotihuacan. In Mesoamerican Sites and World Views, Elizabeth Benson, ed., pp. 1–35. Dumbarton Oaks, Washington, D.C.

Holland, William R.

1963 Medicina Maya en los altos de Chiapas: Un estudio del cambio socio-cultural. Colección de Antropología Social, vol. 2. Instituto Nacional Indigenista, Mexico City.

Jones, Christopher, and Linton Satterthwaite

1982 The Monuments and Inscriptions of Tikal: The Carved Monuments. University Museum Monograph 44. The University Museum, University of Pennsylvania, Philadelphia.

Joralemon, Peter David

1971 A Study of Olmec Iconography. Studies in Pre-Columbian Art and Iconography 7. Dumbarton Oaks, Washington, D.C.

Judd, Niel M.

1954 The Material Culture of Pueblo Bonito. Smithsonian Miscellaneous Collections, 147(1), Washington, D.C.

Kampen, Michael E.

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

Kelley, J. Charles

1966 Mesoamerica and the Southwestern United States. In Handbook of Middle American Indians, Robert Wauchope, gen. ed., vol. 4, pp. 95-110. University of Texas Press, Austin.

Kidder, Alfred V.

1958 Pecos, New Mexico: Archaeological Notes. Papers of the Robert S. Peabody Foundation for Archaeology, 5, Andover, Mass.

Kirchoff, Paul, Linda Odena Güemes, and Luis Reyes García 1976 Historia Tolteca-Chichimeca. Instituto Nacional de Antropología e Historia, Mexico City.

Knab, Tim

1970 Talocan Talmanic: Supernatural Beings of the Sierra de Puebla. Proceedings of the 42nd International Congress of Americanists, vol. 6: 127–136.

Krickeberg, Walter

1949 Felsplastik und Felsbinder bei den Kulturvölkern Altamerikas. Palmen Verlag, Berlin.

Kubler, George

1962 The Art and Architecture of Ancient America. Penguin Books, Harmondsworth.

1967 The Iconography of the Art of Teotihuacan. Dumbarton Oaks Studies in Pre-Columbian Art and Archaeology, no. 4. Dumbarton Oaks, Washington, D.C.

Lafaye, Jaques

1972 Manuscrit Tovar: Origines et croyances des indiens du Mexique. Akademische Druk-U. Verlagsanstalt, Graz.

Leon-Portilla, Miguel

1963 Aztec Thought and Culture. University of Oklahoma Press, Norman.

Linné, Sigvald

1942 Mexican Highland Cultures. The Ethnological Society of Sweden, n.s., pub. 7, Stockholm.

López Austin, Alfredo

1984 Cuerpo humano e ideología: Las concepciones de los antiguos Nahuas. Universidad Nacional Autónoma de México, Mexico City.

Lumholtz, Carl

1900 Symbolism of the Huichol Indians. Memoirs of the American Museum of Natural History, vol. 1, New York.

Marquina, Ignacio

1964 Arquitectura prehispanica. Instituto Nacional de Antropología e Historia, Mexico City.

Mendieta, Fray Gerónimo

1980 Historia Eclesiastica Indiana, Editorial Porrua. Mexico City.

Merrill, William L.

1983 Tarahumara Social Organization, Political Organization, and Religion. In Handbook of North American Indians, William C. Sturtevant, gen. ed., vol. 10: 290-305.

Miller, Arthur C.

1973 The Mural Painting of Teotihuacan, Mexico. Dumbarton Oaks, Washington, D.C.

Millon, Clara

1972 The History of Mural Art at Teotihuacan. In

Teotihuacan: XI Mesa Redonda, pp. 1–16. Sociedad Mexicana de Antropología, Mexico City.

Millon, René

1981 Teotihuacan: City, State, and Civilization. In Supplement to the Handbook of Middle American Indians, Victoria R. Bricker, ed., pp. 198-243. University of Texas Press, Austin.

Millon, René, Bruce Drewitt, and James Bennyhoff 1965 The Pyramid of the Sun at Teotihuacan: 1959 Investigations. Transactions of the American Philosophical Society, n.s., 55(6), Philadelphia.

Mindeleff, Victor

1891 A Study of Pueblo Architecture in Tusayan and Cibola. 8th Annual Report of the Bureau of American Ethnology for the Years 1886-1887, Washington, D.C.

Moreno de los Arcos, Roberto

1969 Los cinco soles cosmogónicos. Estudios de Cultura Nahuatl 7: 183-210.

Moulard, Barbara L.

1981 Within the Underworld Sky: Mimbres Ceramic Art in Context. Twelvetrees Press, Pasadena.

Nagao, Debra

1985 The Planting of Sustenance: Symbolism of the Two-Horned God in Offerings from the Templo Mayor. Res: Anthropology and Aesthetics 10: 5-27.

Negrín, Juan

1975 The Huichol Creation of the World. E. B. Crocker Art Gallery, Sacramento.

Nicholson, H. B.

1971 Religion in Pre-Hispanic Central Mexico. In Handbook of Middle American Indians, Robert Wauchope, gen. ed., vol. 10, pt. 1, pp. 395-446. University of Texas Press, Austin.

1979 Ehecatl Ouetzalcoatl vs. Topiltzin Ouetzalcoatl of Tollan: A Problem in Mesoamerican Religion and History. Proceedings of the 42nd International Congress of Americanists, vol. 6: 35-47, Paris.

Nowotny, Karl Anton

1961 Tlacuilolli: die mexikanischen Bilderhandschriften, Stil und Inhalt. Ibero-Amerikanischen Bibliothek, Monumenta Americana, 3. Verlag Gebr. Mann, Berlin.

Nuttall, Zelia

1926 Official Reports on the Towns of Tequizistlan,

Tepechpan, Acolman, and San Juan Teotihuacan Sent by Francisco de Castaneda to His Majesty, Philip II, and the Council of the Indies, in 1580. Papers of the Peabody Museum of Archaeology and Ethnology, vol. 11-2, Harvard University, Cambridge, Mass.

Ortiz, Alfonso

1969 The Tewa World: Space, Time, Being, and Becoming in a Pueblo Society. University of Chicago Press, Chicago.

Parsons, Elsie Clews

- 1923 The Origin Myth of Zuni. *Journal of American Folk-lore* 36: 135–162.
- 1933 Zuni and Hopi Ceremonialism. Memoirs of the American Anthropological Association, 39, Menasha, Wisconsin.
- 1936 Taos Pueblo. General Series in Anthropology, 2, Menasha, Wisconsin.
- 1939 Pueblo Indian Religion. University of Chicago Press, Chicago.

Paso y Troncoso, Francisco

1903 Leyenda de los Soles continuada con otras leyendas, y noticias. Salvador Landi, Florence.

Pasztory, Esther

- 1973 The Gods of Teotihuacan: A Synthetic Approach in Teotihuacan Iconography. *Proceedings of the 40th International Congress of Americanists*, 1.
- 1974 The Iconography of the Teotihuacan Tlaloc. *Studies* in *Pre-Columbian Art and Archaeology*, no. 15. Dumbarton Oaks, Washington, D.C.
- 1983 Aztec Art. Harry N. Abrams, New York.

Patten, Bradley M.

1968 Human Embryology, 3d ed. McGraw-Hill Book Company, New York.

Pollock, Harry E. D.

1936 Round Structures of Aboriginal Middle America. Carnegie Institution, pub. 619, Washington, D.C.

Proskouriakoff, Tatiana

1954 Varieties of Classic Central Veracruz Sculpture. Carnegie Institution, pub. 506, contribution 58, Washington, D.C.

Recinos, Adrian

1950 The Popol Vuh: The Sacred Book of the Ancient Quiche Maya, translated from Spanish by Delia Goetz and Sylvanus G. Morley. University of Oklahoma Press, Norman.

Recinos, Adrian, and Delia Goetz

1953 The Annals of the Cakchiquels. University of Oklahoma Press, Norman.

Reiter, Paul, William T. Muloy, and E. H. Blumenthal, Jr. 1940 Preliminary Report of the Jemez Excavation at Nanishagi, New Mexico. The University of New Mexico Bulletin, Anthropology Series, 3, no. 3. Albuquerque, New Mexico.

Roberts, Frank H. H., Jr.

1932 The Village of the Great Kivas on the Zuni Reservation, New Mexico. Bureau of American Ethnology Bulletin 111, Washington, D.C.

Robiscek, Francis, and Donald Hayles

1982 The Maya Book of the Dead: The Ceramic Codex. University of Oklahoma Press, Norman.

Rubín de la Borbolla, Daniel F.

1947 Teotihuacan: Ofrendas de los Templos de Quetzalcoatl. Anales del Instituto Nacional de Antropología e Historia 2: 61–72.

Ruppert, Karl

1935 The Caracol at Chichen Itza, Yucatan. Carnegie Institution, pub. 454, Washington, D.C.

Saenz, Cesar

1963 Nuevos descubrimientos en Xochicalco. Boletín del Instituto Nacional de Antropología e Historia, no. 11: 3-7.

Sahagún, Fray Bernardino

1950– Florentine Codex: General History of the Things of
1971 New Spain, translated by A. J. O. Anderson and
C. E. Dibble. School of American Research, Santa Fe.

Sejourné, Laurette

1959 Un Palacio en la Ciudad de los Dioses: Exploraciones en 1955–1958. Instituto Nacional de Antropología e Historia. Mexico City.

1966 El lenguaje de las formas en Teotihuacan. Instituto Nacional de Antropología e Historia, Mexico City.

Seler, Eduard

- 1902- Gesammelte Abhandlungen zur Amerikanischen
- 1923 Sprach- und Alterthumskunde, 5 vols. Ascher & Co., Berlin.
- 1963 Comentarios al Códice Borgia, 3 vols., trans. by M. Fenk. Fondo de Cultura Economica, Mexico City.

Sepúlveda, María Teresa

1973 Petición de lluvias en Ostotempa. Boletín del

Instituto Nacional de Antropologia e Historia, epoca II, no. 4: 9-20, Mexico City.

Smith, Watson

1952 Kiva Mural Decorations at Awatovi and Kawaika-a, with a Survey of Other Wall Paintings in the Pueblo Southwest. Papers of the Peabody Museum of Archaeology and Ethnology, vol. 37, Harvard University, Cambridge, Mass.

Stenzel, Werner

1970 The Sacred Bundles in Mesoamerican Religion. Proceedings of the 38th International Congress of Americanists, vol. 2: 347-352, Stuttgart and Munich.

Stephen, Alexander M.

- 1930 Navajo Origin Legend. Journal of American Folk-Lore 43: 88-104.
- 1936 Hopi Journal of Alexander M. Stephen, edited by Elsie C. Parsons. Columbia University Contributions to Anthropology, 23, New York.

Stevenson, Matilda C.

- 1904 The Zuni Indians: Their Mythology, Esoteric Fraternities, and Ceremonies. 23rd Annual Report of the Bureau of American Ethnology for the Years 1901-1902, Washington, D.C.
- 1915 Ethnobotany of the Zuni Indians. 30th Annual Report of the Bureau of American Ethnology for the Years 1908-1909, Washington, D.C.

Stirling, Matthew W.

1942 Origin Myth of Acoma and Other Records. Bureau of American Ethnology Bulletin 135, Washington, D.C.

Stuart, David

1984 Royal Auto-Sacrifice Among the Maya: A Study of Image and Meaning. Res: Anthropology and Aesthetics 7/8: 6-20.

Taggart, James M.

1983 Nahuat Myth and Social Structure. University of Texas Press, Austin.

Taube, Karl A.

- 1983 The Teotihuacan Spider Woman. Journal of Latin American Lore 9(2): 107-189.
- 1985 The Classic Maya Maize God: A Reappraisal. In Fifth Palengue Round Table, 1983, Merle Greene Robertson, gen. ed., pp. 171-181. Pre-Columbian Art Research Institute, San Francisco.

Thompson, J. Eric S.

- 1943 Las llamadas fachadas de Quetzalcoatl. Proceedings of the 27th International Congress of Americanists, vol. 1: 391-399, Mexico City.
- 1970 Maya History and Religion. University of Oklahoma Press, Norman.
- 1971 Maya Hieroglyphic Writing: An Introduction. University of Oklahoma Press, Norman.

Titiev, Mischa

1944 Old Oraibi: A Study of the Hopi Indians of Third Mesa. Papers of the Peabody Museum of Archaeology and Ethnology, vol. 22-1, Harvard University, Cambridge, Mass.

Tobriner, Stephen

1972 The Fertile Mountain: An Investigation of Cerro Gordo's Importance to the Town Plan and Iconography of Teotihuacan. In Teotihuacan: XI Mesa Redonda, Alberto Ruz, ed., pp. 103-115. Sociedad Mexicana de Antropología, Mexico City.

Townsend, Richard F.

1982 Malinalco and the Lords of Tenochtitlan. In The Art and Iconography of Late Post-Classic Central Mexico. Elizabeth H. Benson, ed., pp. 111-140. Dumbarton Oaks, Washington, D.C.

Vivian, R. Gordon, and Paul Reiter

1960 The Great Kivas of Chaco Canyon and Their Relationships. Monographs of the School of American Research, 22, Santa Fe.

White, Leslie A.

1932 The Acoma Indians. 47th Annual Report of the Bureau of American Ethnology for the Years 1929-1930, Washington, D.C.

Wilkerson, S. Jeffrey K.

1982 In Search of the Mountain of Foam: Human Sacrifice in Eastern Mesoamerica. In Ritual Human Sacrifice in Mesoamerica, Elizabeth H. Boone, ed., pp. 101-132. Dumbarton Oaks, Washington, D.C.

Willey, Gordon R.

1966 An Introduction to American Archaeology, 2 vols. Prentice-Hall, Englewood Cliffs, N.J.

von Winning, Hasso

1968 Pre-Columbian Art of Mexico and Central America. Harry N. Abrams, New York.