
The Dwarf Motif in Classic Maya Art

VIRGINIA E. MILLER

Among the curiosities of Moctezoma's court described by the early Spanish chroniclers were the dwarfs and hunchbacks who served as confidants and jesters to the Mexica ruler (Alvarado Tezozomoc 1878:669ff.; Cortés 1866:111; Durán 1967:364; Sahagún 1950- [1952], bk. 3:35, [1954], bk. 8:30). While little else is known about the role of deformed individuals in preconquest life, they are represented in the art of ancient America from very early times. The ceramic figures of West Mexico and of the Moche of Peru immediately come to mind, but the representation of human deformity is not lacking in the art of other pre-Columbian peoples.

Among the Maya, the physical abnormality most often portrayed is dwarfism. During the Late Classic, images of dwarfs occur throughout the Maya area in a wide range of media. They appear as clay and jade figurines, on incised jades and shells, on polychrome pottery, and in monumental sculpture. Over forty Late Classic monuments alone are known to depict dwarfs.

Small-scale figures of various types abound in Maya art, not all of whom are dwarfs. Prisoners, for example, are sometimes shown in smaller scale than their captors. These small captives are easily distinguishable from dwarfs by their normal physical proportions. Other short figures can be identified as supernaturals by costume, body markings, and nonhuman characteristics. Dwarfs, however, are decidedly human in appearance.

Most dwarfs represented in Maya art share the following physical features: small stature, abnormally short and fleshy limbs, a protruding abdomen, and a disproportionately large head with prominent forehead, sunken face, and drooping lower lip (Figs. 1 and 2). These traits are all diagnostic of the most common type of dwarfism, usually called achondroplasia but more correctly described as short-limb dwarfism. Some of the dwarfs depicted display other deformities, however. In certain types of dwarfism, the trunk is shortened rather than the limbs (Fig. 3). Spinal deformities may result in a barrel chest or hunchback (Fig. 4). Since there are now known to be over one hundred different disorders in which dwarfism occurs (William A. Horton 1978 and personal communication, 1980), it is not surprising that the Maya were aware of and carefully observed the various deformities.

That Maya artists accurately portrayed the physical characteristics of dwarfism suggests that real dwarfs existed among the population. Unfortunately, no skeleton has been excavated that has proved conclusively to be that of a dwarf. Although an abnormally short individual was found in Burial 24 on the North Acropolis at Tikal, his bones could not be salvaged; thus it was not determined whether he was a true dwarf (William A. Haviland, personal communication, 1980). Given that only a small number of Maya burials have been scientifically excavated and that dwarfs generally constitute only a tiny fraction of any population, it is not surprising that no firm evidence has come to light.

Whatever their actual numbers in the population, the large number of dwarfs represented in Maya art indicates that they had a special significance for the ancient Maya, as they have had throughout history in many parts of the world (Tietze-Conrat 1957). But, despite their prevalence



Fig. 1 *Jaina dwarf.*

in Classic Maya art, references to dwarfs are almost entirely lacking in both native and Spanish chronicles of the postconquest period. Since numerous myths about dwarfs are recorded in modern ethnographic studies of the Maya (J. E. S. Thompson 1970:326-327, 335, 340-341, 347), it is unlikely that dwarfs were absent or without importance during the intervening colonial years (Corson 1973:59).

Whatever the reason for this curious gap in the litera-



Fig. 2 Clay head from Palenque figurine.

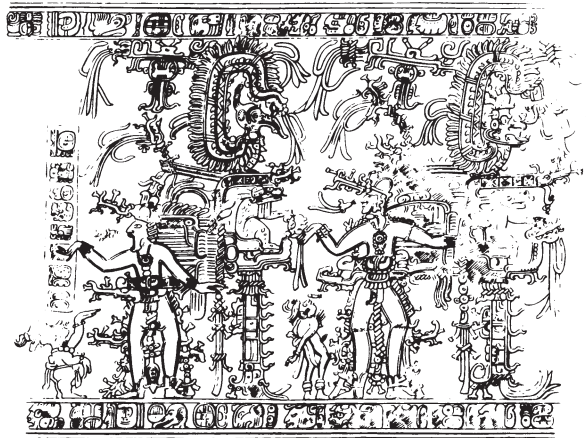


Fig. 3 Cylinder vase from Yalloch.

ture, the lack of early colonial sources on dwarfs limits the usefulness of ethnographic analogy in any attempt to understand their significance during the Classic period. Although most efforts at interpretation have relied to some extent on modern dwarf lore, twentieth-century myths generally shed little light on the earlier images. Furthermore, the few studies of Maya dwarfs deal almost exclusively with Jaina figurines, which are among the most difficult of Maya images to interpret (Cook de Leonard 1971; Corson 1973; Goldstein 1979). A recent article by Foncerrada de Molina (1976a), however, does bring together a selection of dwarfs from various mediums and provides a good general introduction to the subject.

Among the contemporary Maya, there are many different myths about dwarfs, and their role varies considerably from place to place. Given the variety of contexts in which dwarfs appear during the Classic period, it is logical to assume that they did not have a single function then, either. In examining the corpus of extant dwarf images, it became apparent that they could be grouped into categories according to the medium and provenience of the object, the activity represented, and the costume and accoutrements of the dwarf and of any participants in the scene.

Figurines from Jaina, coastal Campeche, and elsewhere in the Maya area comprise one such group. Dwarfs are one of the most popular motifs at Jaina (M. E. Miller 1975:18); a recent study of Jaina figurines lists forty examples (Goldstein 1979:163). Jaina dwarfs, like all those represented in Maya art, are invariably masculine or perhaps sexless like Olmec figures. Some display the facial features of achondroplastic dwarfs (Fig. 1), while others have a typically Maya profile (Fig. 5). While short-limbed and hunchbacked dwarfs often occur together in two-dimensional images, as figurines they belong to different time periods. Hunchbacks are typical of the earlier, hand-modeled Jaina I phase, while dwarfs are moldmade and date from the later Jaina II phase (Corson 1973:60).

On Jaina figurines, details like pectorals and headdresses, which show considerable variety, are usually added by hand (Cook de Leonard 1971:59). Some dwarfs wear deity heads reminiscent of the headdresses of principal figures in monumental art. Bird and animal headdresses are common, the deer being especially popular (Fig. 5). Animal heads may be placed sideways on the dwarf's head rather than facing in the same direction as the wearer, creating an asymmetrical effect unusual in Maya art (Fig. 6). This curious practice is shared with a few other figurine types, including hunchbacks (Goldstein 1979:64). It is perhaps significant that asymmetrical bird headdresses are also worn by figurines at Teotihuacán and can also be seen on Teotihuacán personages depicted in the Maya area (Clemency Coggins 1975:170-171 and personal communication, 1980). Since there is no strong figurine tradition in the Early Classic in the Maya area, the Late Classic production of clay figurines may have been an innovation from Central Mexico (Kubler 1962: 159). The asymmetrical animal headdress may

have been an imported motif as well. Another type of headdress commonly worn by dwarfs is a large turban decorated with small pellets (Fig. 7). This turban resembles those worn by secondary figures on polychrome ceramics, including the dwarf on a vase in the Villahermosa museum (Covarrubias 1957: pl. opp. p. 228).

The large number of Jaina dwarf figurines surely represents not an unusually large dwarf population but, rather, some widespread belief that the dwarf would be a useful companion during the journey to the underworld. When Tlaxcalan rulers died, their wives, slaves, dwarfs, and hunchbacks were buried alive with them (Herrera y Tordesillas 1726-1730, 1:165). A tableau from Jaina includes attendant dwarfs flanking an enthroned figure in ballplayer dress (Fig. 8). Since there would never have been enough real dwarfs to accommodate all those who wished to have one in attendance after death, dozens were manufactured in clay instead.

Modern Maya beliefs indicate that there is a strong connection between dwarfs, the earth, and the underworld. The Tzotzil conceive of the earth as a cube whose lower portion is inhabited by the dead and by dwarfs (Laughlin 1969:175). The mythology of both the Tzotzil and the Tzeltal describes a race of dwarfs living beneath the earth who assist in the sun's nightly passage through the underworld (Thompson 1970:347). These myths recall both Olmec and Toltec altars supported by dwarflike figures with upraised arms. The Chontal refer to dwarfs as "Lords of the Earth" (ibid:327). In Yucatec Maya, the less polite expressions *k'is kab* and *ciz lu'um*, both meaning 'earth-farther' and presumably referring to the dwarf's proximity to the ground, are in current use as terms for dwarf (Thom Smith-Stark, personal communication, 1980; Larry Mills, personal communication, 1980).

While most of the extant dwarf figurines, except those excavated at Jaina, are without provenience, one (Fig. 9) was found in a burial at Palenque (Ruz 1952:54). A broken clay head, also said to be from Palenque, has the features of an achondroplastic dwarf (Fig. 2). Palenque is perhaps unique in that dwarfs are represented there in at least three different mediums. In addition to the clay figurines, the remains of a hunchbacked dwarf in stucco can be seen in the Palace on the south side of Pier c, House C (Fig. 10). It was repainted at least four times, twice in red and twice in blue, a color normally reserved for divinities (Greene Robertson 1977:307). It is interesting to note that the serpent-legged infants on the Temple of the Inscriptions piers were also painted blue – the possible relationship between dwarfs and children will be explored in my discussion of monumental sculpture. Figure 11 illustrates what may be yet another dwarf, also in House C, who sits shaded by a parasol.

The third medium in which a dwarf is portrayed at Palenque is jade. Figure 12 is a rare example of a two-dimensional image of a dwarf in frontal view. In Maya art, dwarfs sit not cross-legged but with their legs flexed before them, soles nearly touching or turned out as they are here.

Dwarfs also occur on a number of Nebaj-style jade pendant plaques (A. L. Smith and Kidder 1951: fig. 59).

The same scene occurs on all these: a dwarf (sometimes two) sits in profile next to a seated ruler, with whom he appears to converse. The dwarf usually wears a simple costume and tied headdress like those of attendant figures on polychrome pots, and, like them, he may cross his arms over his chest.

Jade figurines depicting dwarfs were also made by the Maya (Fig. 13). Of the approximately sixteen representations of human figures tossed into the Sacred Cenote at Chichén Itzá, most were dwarfs (Proskouriakoff 1974:



Fig. 4 Painted capstone depicting a hunchback. From Sacnicté, Yucatán.

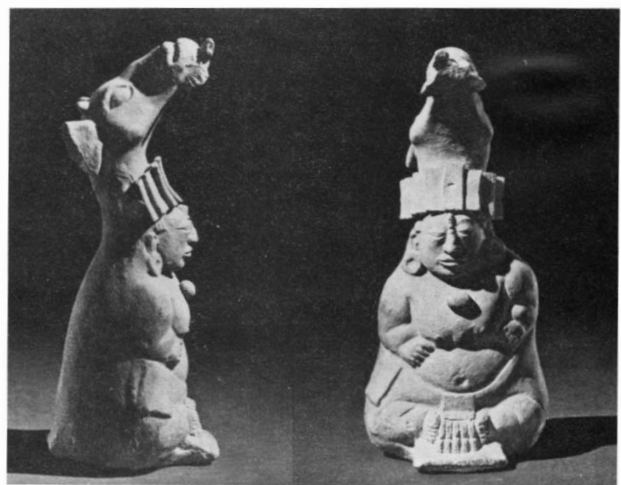


Fig. 5 Jaina dwarf with deer headdress.



Fig. 6 Jain dwarf wearing asymmetrical deer headdress.



Fig. 7 Jain dwarf wearing turban.



Fig. 8 Jain enthroned ballplayer with dwarfs.



Fig. 9 Palenque dwarf figurine. From looted burial in Funerary Group 1.

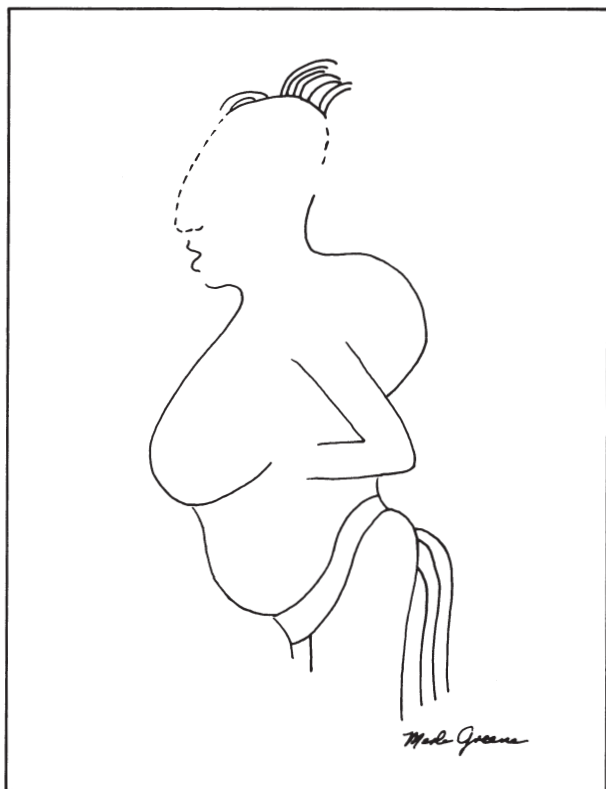


Fig. 10 Palenque, stucco hunchbacked dwarf. South side of House C, Pier c, the Palace.

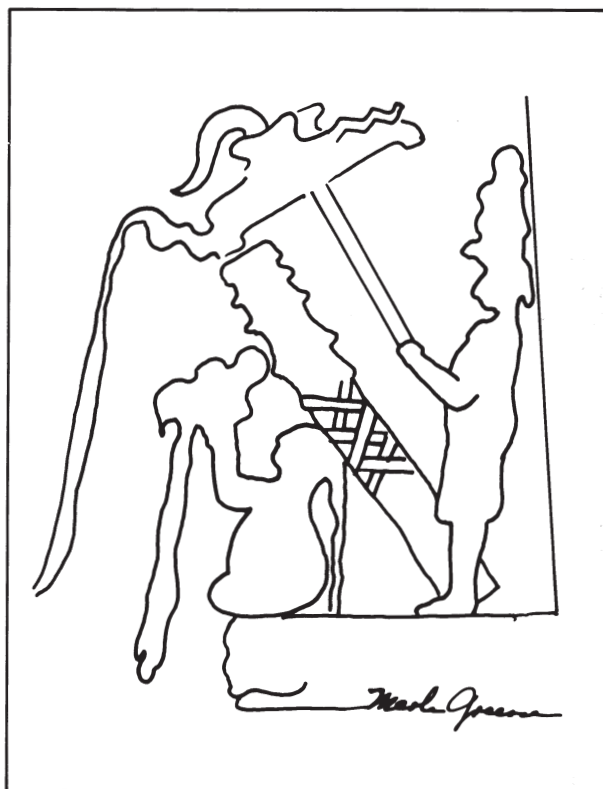


Fig. 11 Palenque, detail of stucco decoration. West corridor, House C, the Palace.



Fig. 12 Jade plaque from Palenque.



Fig. 13 Late Classic jade figurine. From the Sacred Cenote, Chichén Itzá.

102). Although these dwarfs have been assigned to the Late Classic on stylistic grounds, not one has been found in an excavation (ibid.:102-103). As a result, little is known regarding either their provenience or their function. Like the jade plaques discussed above, the dwarfs were pierced to be worn as pendants.

Although the Chichén Itzá dwarfs are simply dressed, like the others so far examined, they differ in certain respects. Their faces seem typically Maya, with none of the features of dwarfism. The most interesting aspect of these jades is the crested "Mohawk" haircut that nearly all the dwarfs wear. Bareheaded dwarfs in other mediums share this hairstyle, which occurs on Olmec, Veracruz, and Teotihuacán figurines as well. Its significance, however, is unknown.

Dwarfs are also represented in the monumental art of the northern Maya region, notably in the Puuc area. Small hunchbacks appear on at least two painted capstones, including the one from Sacnité, Yucatán, illustrated in Figure 4. Two dwarfs can be seen among taller figures on a panel from the Palace at Santa Rosa Xtampak (Proskouriakoff 1950: fig. 94). At least ten of the carved columns typical of the Puuc region may depict dwarfs (Larry Mills, personal communication, 1980). Most of these columns are no longer *in situ*; those at Sayil, however, flank the central doorway of a three-chambered building (Pollock 1980:121, fig. 253).

Figure 14 illustrates a typical Puuc column. On these columns, the large figure wears a heavy costume that completely obscures the body; he carries a shield and an eccentric flint or other weapon. He is usually shown frontally, with one or two dwarfs at his side. At least one of the figures on each column lifts one foot, as if dancing. An examination of dancing figures in the monumental art of the Petén indicates that they, too, are often armed and may be dancing in a sacrificial ritual.

The costume of the Puuc figures may also connect them to the theme of human sacrifice. In a recent paper, Schele (1979b) has proposed that Teotihuacán imagery appearing in Classic Maya costume may refer not to political connections with Central Mexico but to blood-letting rites. Several of the Puuc columns portraying dwarfs share a mixture of Maya and non-Maya traits that might be Central Mexican in origin. These traits include the extensive use of mosaic plaques in costume; the frontal, openmouthed animal headdress; and Tlaloc imagery (in Fig. 14, this is seen on the shield of the principal figure). Similar Central Mexican elements, which Schele (ibid.:17, and personal communication, 1979) believes are characteristic of a bloodletting complex, can be seen on Piedras Negras Stela 9 and Tikal Temple IV Lintel 3, for example.

Other connections with central highland Mexico are suggested on this column by the presence of the so-called

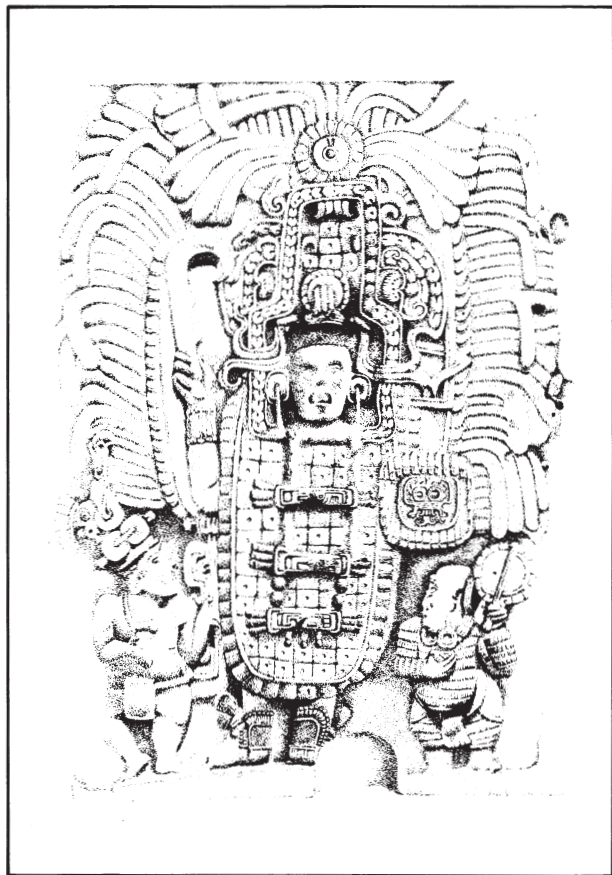


Fig. 14 Carved column from Campeche.

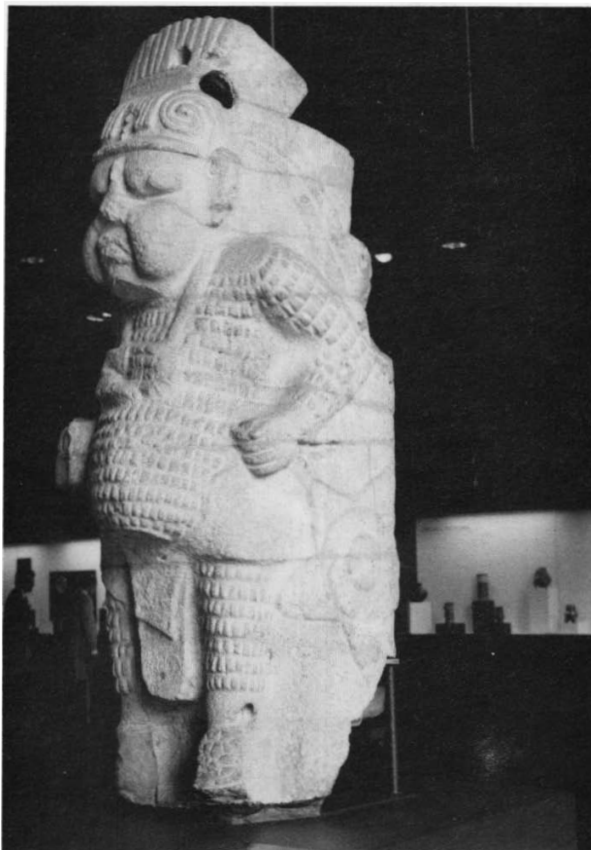


Fig. 15 Oxkintok, north column of central doorway, Structure 3C7.

fat god on the larger figure's left. The fat god was first identified by Beyer (1930), who recognized the type among figurines from both Teotihuacán and Veracruz. Although less common in the Maya area, the fat god does occur in Jaina figurines and in monumental sculpture, often in the round, in the Puuc region (Fig. 15). While the fat god and dwarfs share some physical characteristics, such as short stature and a potbelly, I had originally believed that they were not directly related. Dwarfs do not have the closed eyes, jowly cheeks, tight-fitting body-suit, and fan that are typical of the fat god. At Teotihuacán, however, dwarfs and fat gods do share one feature: both may wear what look like Tlaloc goggles over the forehead rather than over the eyes. If the dwarf and the fat god were somehow related at Teotihuacán, it is possible that they were connected in Teotihuacán-influenced Maya iconography as well. Of the columns I have examined, however, only one includes the fat god as well as a dwarf.

One Puuc column, unlike the others here, depicts a narrative scene that might have been taken from a cylinder vase (Fig. 16). A hefty dwarf dances before an enthroned lord, to the accompaniment of two kneeling horn players (just visible at the lower left) who may themselves be dwarfs. While at first glance this looks like a scene of palace entertainment, the presence of an ax, held over the head of the dwarf by a figure standing behind him, adds an ominous note. The relief recalls certain polychrome vessels depicting a sacrificial victim being dispatched with musical accompaniment (M. D. Coe 1973b: no. 33). It can also be compared to the Bonampak murals, where dance, music, and sacrifice are combined. In Room 3 of Bonampak Structure 1, in which the sacrificial dance occurs, a dwarf beating a drum is represented, borne on a litter by a group of deformed figures (M. E. Miller 1981:235).

It is possible that the dwarfs on the columns discussed above were themselves sacrificial victims. The Zapotecs were said to have sought small victims, including dwarfs, for sacrifice during the eclipse of the sun (Córdova 1886: 215). No such practice is recorded for the Maya but, given their apparent interest in novel forms of bloodletting, it is entirely possible that dwarfs were sought as special victims.

On Stela 31 from Yaxhá (Fig. 17), a nude, bound dwarf sits at the feet of a dancing figure whose ceremonial bar ends in flint blades aimed at the dwarf. In the text above, the glyph for 'capture' occurs, whether in reference to the dwarf or not is unclear. This is the only relief, however, in which a dwarf appears to be under an imminent threat of attack or sacrifice.

Dwarfs and dancing figures of a different type occur on cylinder vases of the Holmul style (Figs. 3, 18, and 19). On at least thirteen of these vessels (which include one tripod plate), dwarfs are paired with the taller figures. Of great interest is the fact that, when two or more dwarfs are shown, one is always short-limbed, while the other has a short trunk and usually a hunchback as well. Most of the short-limbed dwarfs have the sunken faces typical



Fig. 16 Carved column, Campeche.

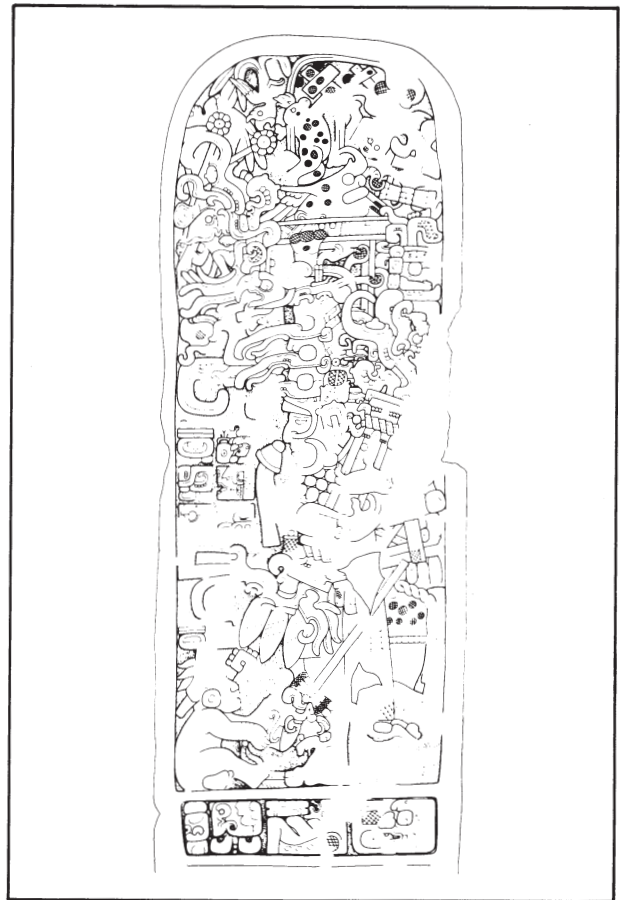


Fig. 17 Yaxhá Stela 31.

of achondroplasia. A few, however, have the characteristic alteration of head and nose practiced by the Maya (Fig. 19). Whether this difference reflects actual practice among the Maya or merely artistic license is, of course, not known. I suspect that some Maya artists, unfamiliar with real dwarfs, may have simply produced a short, chubby Maya. Like the dwarfs from Chichén Itzá and those on the Puuc columns, these dwarfs are simply dressed and have the characteristic “Mohawk” haircut.

The texts of a number of these vessels include emblem glyphs (Figs. 18 and 20). Naranjo, Tikal, Machaquilá, and El Peru are named on the vessels. At all these sites, with the exception of Machaquilá, dwarfs are also represented in monumental sculpture. The presence of water birds around the rim of the plate from Holmul illustrated in Figure 20 is of interest because similar birds, as well as a dwarf, occur on a Tikal lintel (Jones 1977: fig. 17). This plate may have a Tikal emblem glyph just above the outstretched hand of the larger figure.

As Coe (1978:96-99) has pointed out, there is some consistency in the relationship between the type of dwarf and the animal represented in the back rack of the dancer facing him. This short, fat dwarf is usually associated with the waterlily jaguar, for example, while the hunchback may face another type of quadruped (Fig. 18).

On one unpublished vessel, not illustrated here, a dwarf appears wearing a deer headdress that recalls those on Jaina dwarf figurines. Behind the hunchbacked figure on this pot stands a figure who may wield an ax, a reminder of the Puuc columns. But, on the majority of Holmul-style vases, there is no overt reference to sacrifice or death.

That so many vessels from one small area of the Petén illustrate variations on a single theme suggests the depiction of a now lost myth with strong regional associations. The meaning of the scene, and the significance of the two types of dwarfs, remains obscure, however. A tiny piece of jade from the cenote at Chichén Itzá, on which the remains of a dancer’s arm and part of a small hunch-

back are visible, indicates that the theme was not limited to vases (Proskouriakoff 1974: pl. 76a-3).

The first dated appearance of a dwarf in monumental art occurs on Caracol Stela 1 at 9.8.0.0.0 (Fig. 21); the last occurs on Xultún Stela 10 at 10.3.0.0.0 (von Euw 1978, 5:37). Other southern Maya lowland sites where dwarfs are represented include Tikal, Calakmul, Yaxhá, Dos Pilas, Yaxchilán, La Florida, Palenque, El Peru and possibly Naranjo. At some sites the dwarf is a recurring motif over a long period of time: at Caracol, dwarfs appear on stelae whose dates span eight katuns, while at Xultún the period is nearly ten katuns. Elsewhere, as at Tikal, the dwarf occurs within a more restricted time period or is present on only one extant monument.

While these dwarfs generally appear on stelae and lintels, some form part of architectural reliefs. The stucco dwarfs from Palenque have already been noted. At Tikal, the upper façade of a Late Classic structure in the Central Acropolis, now covered over, once displayed a large seated figure holding a ceremonial bar. On either side of the throne are a hunchbacked dwarf and a normally proportioned seated attendant, both with hands extended toward the central figure (Foncerrada de Molina 1976a: fig. 9; unpublished photograph, courtesy of Peter D. Harrison).

The dwarfs depicted in monumental sculpture, all of whom appear to be of the short-limbed type, are more elaborately dressed than the others discussed so far. Most wear jaguar-skin skirts, and their jade jewelry is comparable to that worn by the principal figures (Jones 1977: fig. 1). A tied cloth cap, however, is the typical headdress. Objects held by dwarfs include “incense” bags and manikin-head scepters (both present at Caracol only) and, more commonly, what looks like leaves or other vegetation (ibid.: fig. 17). Some appear to wear a partial mask over either the mouth or the eyes (ibid.).

The visual evidence indicates that dwarfs were of some importance at certain Maya sites. Other evidence suggests



Fig. 18 Painted cylinder vase, probably from Naranjo.

that they were close to, and perhaps even members of, the ruling families at sites where they are commonly represented. Reference has already been made to the burial of an abnormally short male at Tikal. This tomb was closely associated with a burial of another male who was short – although not abnormally so. Since the occu-

pants of tomb burials were generally larger than the rest of the population at Tikal, the small stature of these two individuals is unexpected (Haviland 1967:322). Nevertheless, if the Maya elite tended to intermarry, as recent work on the inscriptions of various sites suggests (e.g., Marcus 1976; Coggins 1975; Haviland 1977), this would increase the probability of hereditary defects in



Fig. 19 Holmul-style cylinder vase, detail. Central Maya Lowlands.



Fig. 20 Detail of tripod plate from Holmul.

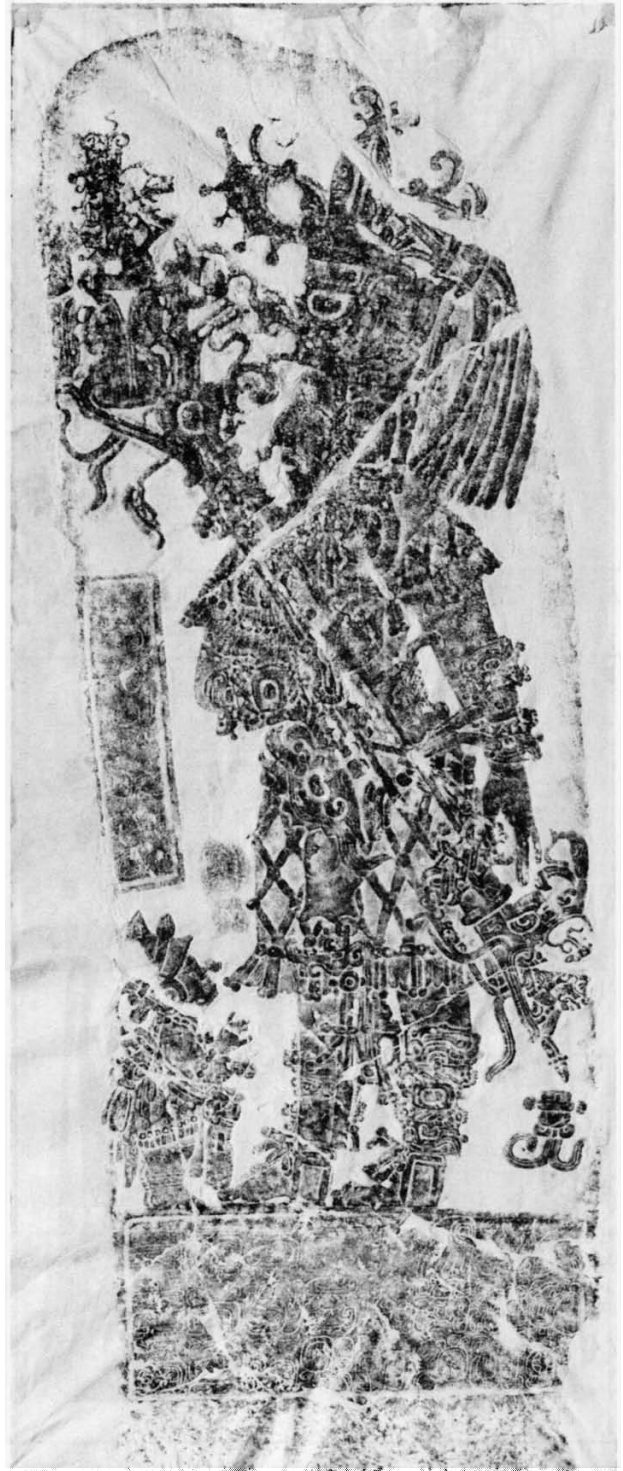


Fig. 21 Caracol Stela 1.

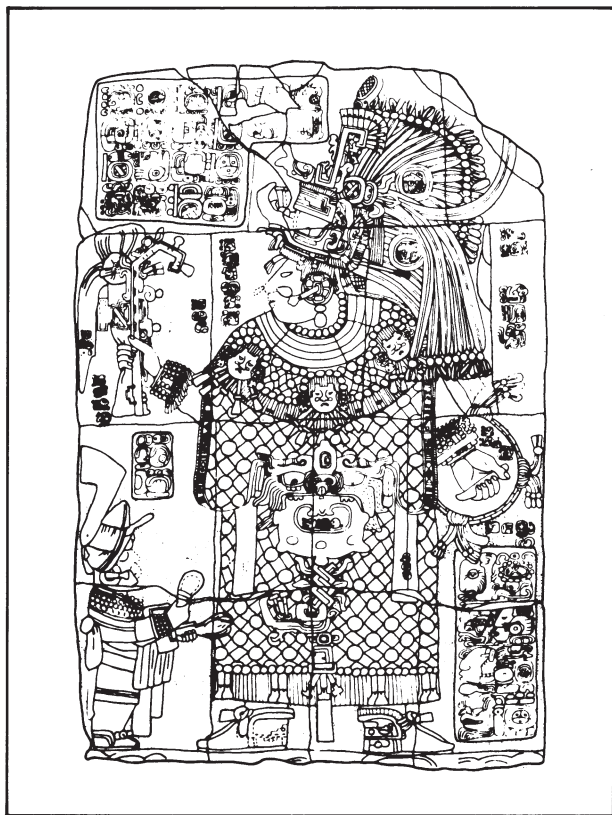


Fig. 22 El Perú Stela 34.

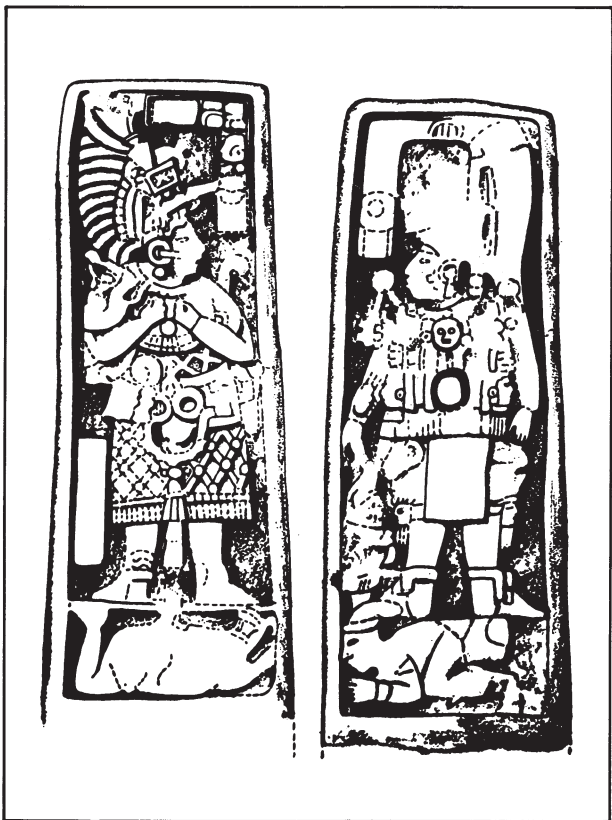


Fig. 23 Calakmul Stelae 28 and 29.

the noble line, particularly among later generations (Haviland 1967:322). An attempt has already been made to demonstrate that physical abnormalities represented in the art of Palenque were the direct result of inbreeding (Greene Robertson, Scandizzo, and Scandizzo 1976).

The representation of dwarfs at some sites over a long period of time suggests two possibilities. First, dwarfism was prevalent either within the general population or in the ruling family, and each dwarf represented is a different individual. Second, only one dwarf was born at the site, but he assumed such importance that subsequent rulers wished to include his portrait on their monuments. Even if only one dwarf was born into the ruling line, such an unusual being could have added special status to the hereditary elite. It is even possible that dwarfs born outside the ruling family were adopted because of presumed magical powers or other qualities that may have been attributed to them. This is not a farfetched possibility, considering that the Mexica supposedly deliberately deformed children for service in the emperor's court (Herrera y Tordesillas 1726-1730, 1:185), a practice also noted in antiquity and at even later periods in Europe (Linné 1943:182; Tietze-Conrat 1957:7, 14).

The short occupant of Tikal Burial 24 was buried in the most important possible location in Structure 5D-33, immediately before the door of the temple (Clemency Coggins 1975:382-383, and personal communication, 1980). The contents of the tomb were unusual for Tikal and suggest that the dead man had a specialized role (*ibid.*). Of course, it cannot be concluded that special treatment was accorded this individual because of his small stature, but it is evident that his height did not prevent him from holding an important position at Tikal. Coggins (*ibid.*:371) presents evidence linking this man to the southeast, particularly to Caracol, where the motif of the dwarf originated and endured for well over one hundred years. Shortly after Burial 24 (ca. 9.12.10.0.0), a dwarf was represented for the first time on a dated Tikal monument, Lintel 3 of Temple I (Jones 1977: fig. 1). The introduction of this motif seems to derive neither from Caracol nor from the possible dwarf burial but from yet another source.

Between about 9.11.0.0.0 and 9.15.10.0.0, Tikal displays close ties with sites in the Río Pasión region (Marcus 1976: 63-74). Tikal and Dos Pilas seem to have had the closest relationship, rulers at the latter site being titled with the emblem glyph of the former. The sites are also linked in their texts to a ruler from a third site, represented by the relief illustrated in Figure 22. Jeffrey Miller (1974) first proposed that this panel, now in the Cleveland Museum of Art, formed a pair with another relief in the Kimbell Art Museum in Fort Worth and that they came from the site of Calakmul. The reliefs have since been identified as Stela 33 (the Kimbell relief) and Stela 34 (the Cleveland panel) of El Perú, Guatemala (Ian Graham, personal communication, 1983). A dwarf is featured on Stela 34. The glyph at A4 refers to the ruler Great Jaguar-Paw, whose name also occurs at Dos Pilas, Tikal and on numerous looted reliefs.

At Tikal, Dos Pilas, and El Perú, dwarfs occur on

monuments over a period of approximately fifty years, beginning with the El Perú reliefs dated 9.13.0.0.0. This sequence of dwarfs – and of paired monuments – may begin even earlier at Calakmul. Calakmul Stelae 28 and 29 (Fig. 23) have dedicatory dates of 9.9.10.0.0. On Stela 29, a dwarf is present at the (male) figure's right, barely visible below his hand. Proskouriakoff (1950: 185) has given Stela 29 a style date of 9.14.0.0.0, which, if correct, would place this half of the pair, at least, within the period under discussion. Because of the deteriorated condition of the inscriptions of these stelae, however, it is unlikely that much more information will be gleaned from them. Calakmul Stela 89, which also shows a dwarf, was dedicated at 9.15.10.0.0 but does not seem to have been paired with a female portrait (Ruppert and Denison 1943: pl. 53).

While there are stylistic and iconographic similarities between the El Perú and Calakmul stelae, the former also resemble reliefs of the Río Pasión area (see Fig. 24): the beaded tripartite pectoral, the fringed mask, and the fish-and-waterlily motif also occur on both El Perú Stela 33 and the Pasión monuments (Coggins 1975:400). Furthermore, the protagonist of Stela 34, Great Jaguar-Paw, is named at an earlier date at Dos Pilas. Persons from El Perú continue to be mentioned in Dos Pilas texts, including the ruler pictured in Figure 24, Shield God K of Tikal (Stuart and Stuart 1977:20). This newly discovered monument, Stela 25, is dated 9.14.0.0.0. It is the only Dos Pilas stela that depicts a dwarf. He is shown with a mythical water bird, a motif first introduced at Dos Pilas on Stela 1, dated five tuns earlier.

Meanwhile, the first Tikal relief representing a dwarf, Lintel 3 of Temple I, had been dedicated at 9.13.3.0.0 (Jones 1977: fig. 1). According to Coggins (1975: table 4), the personage represented here, Ruler A, may have been the brother of Shield God K of Dos Pilas. Although epigraphic evidence for such a relationship is lacking, surely the two sites were closely linked at this time, possibly ruled by two branches of the same family (ibid.: 300, 380, 445). Among the events discussed in the text of the lintel is some sort of war activity against the peripatetic Great Jaguar-Paw, in which he may have been captured and sacrificed (Schele 1979b:12).

The last Tikal monument with a dwarf is the lintel of Structure 5D-52, possibly dedicated by Ruler B at 9.15.10.0.0 (Jones 1977: fig. 17, p. 52). The water bird motif, last seen on Dos Pilas Stela 25 at 9.14.0.0.0, recurs with the dwarf. Coggins (1975:302), citing the presence of water birds on imported ceramics at an earlier period at Tikal, suggests that the bird may have somehow been an emblem of the Río Pasión connections of the Tikal ruling dynasty. Perhaps the dwarf, then, served as a symbol of a particular family, one with ties to Tikal, Dos Pilas, and El Perú.

Yet another example of this combination of dwarf and water bird occurs far away at Chichén Itzá. Figure 25 illustrates a jade plaque, clearly Late Classic in style, that was found in the cenote. Although the plaque was in fragments, it was possible to reconstruct the main elements of the scene: the bird, the large figure, and the

dwarf. The hieroglyphs on the back (Fig. 26) were reconstructed on the basis of parallel inscriptions from the cenote and elsewhere (Proskouriakoff 1974:207). Although the person and the place named here remain unidentified, perhaps someday they will be linked to one of the sites with dwarfs and water birds in its monuments.

To recapitulate: dwarfs appear at El Perú, Tikal, and Dos Pilas between 9.13.0.0.0 and 9.15.10.0.0. Tikal, Dos Pilas, and an unidentified site represented by the



Fig. 24 Dos Pilas Stela 25.

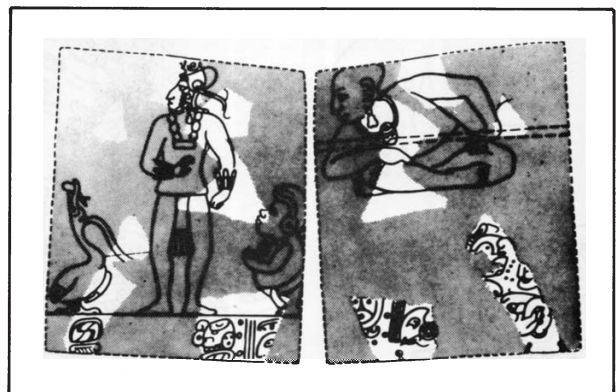


Fig. 25 Late Classic jade plaque. From the Sacred Cenote, Chichén Itzá.

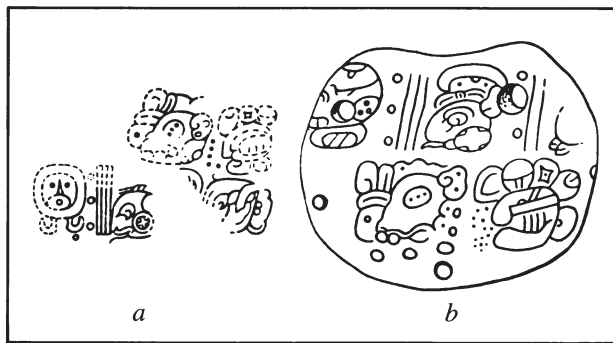


Fig. 26 Inscriptions from Classic Maya jades: (a) reconstruction of inscription on back of jade plaque illustrated in Fig. 25; (b) jade pendant from Guaymil, Yucatán.

jade plaque from Chichén Itzá also display the water bird. These places are linked not only by their shared iconography but by references in their texts to each other. Although the relationship between the three sites is not entirely clear, it is evident that their histories were somehow intertwined for a number of years. I have suggested that the dwarf may be symbolic of one family and its intersite connections.

There is other evidence that dwarfs may have been associated with lineage. They are often shown with women or with paired monuments of males and females that resemble family portraits. Clemency Coggins reminded me that small children are almost never represented by the Maya, despite their apparent preoccupation with documenting the family line. The dwarfs, then, may have served in some capacity as surrogate children. In a discussion of Olmec images, Coe (1973a:10-11) cites studies of human behavior in which the subjects showed a preference for large-headed, infantile images over normally proportioned figures. Perhaps the Maya, too, saw dwarfs as “superchildren.”

A dwarf, with the appearance of a child but the knowledge and training of an adult, could be expected to perform important rituals without the risk of error. One such

ritual may have been bloodletting, an activity with strong feminine associations. Males may have even donned female clothing to participate in autosacrifice (Ruppert, Thompson, and Proskouriakoff 1955:64). The first Maya stela to depict a dwarf, Caracol Stela 1, portrays not a woman but a male in female clothing (Stone, Reents, and Coffman, this volume), perhaps about to undergo a bloodletting ritual. Yaxhá Stela 31, discussed earlier, may indeed depict a dwarf about to be sacrificed (Fig. 17).

On one of the carved steps from Structure 33 at Yaxchilán, dwarfs appear, not as companions to a Maya lord but as participants or spectators in a ball game (Fig. 27). The presence of dwarfs with a figure in ball player attire at Jaina has already been noted (Fig. 8). Dwarfs also occur in ball game scenes on Late Classic polychrome vases (Nicholas Hellmuth, personal communication, 1980). The dwarfs on the Yaxchilán step have Venus signs on their bodies, and a Venus sign also occurs in a glyph in the panel between the ballplayers and the first dwarf. In Yucatec *ac* means both ‘turtle’ and ‘dwarf,’ and Gemini is known as *ac ek*, ‘turtle’ or ‘dwarf star’ (Martínez Hernández 1929). Since the inscriptions on this step record dates far into the past (Linda Schele, personal communication, 1980), the scene may represent a mythical event involving ball players and “astral” dwarfs. Whatever the meaning of the scene, it does not fit the historical mold suggested for the other reliefs on which dwarfs appear in southern lowland sculpture.

The dwarf, then, is a widespread motif in Classic Maya art, appearing from highland Guatemala to northern Yucatán, in nearly every medium and in a variety of contexts. Dwarfs apparently enjoyed a privileged status and played a number of important roles in Maya society. Their presence in palace scenes on pottery and next to rulers portrayed in monumental art is suggestive of the Mexica practice of employing dwarfs as court attendants. They may even have served as surrogates for royal children for important events like bloodletting. The Puuc columns and Yaxhá Stela 31 raise the possibility that dwarfs may themselves have been sacrificed. Nevertheless, there are indications that dwarfs may have been members of

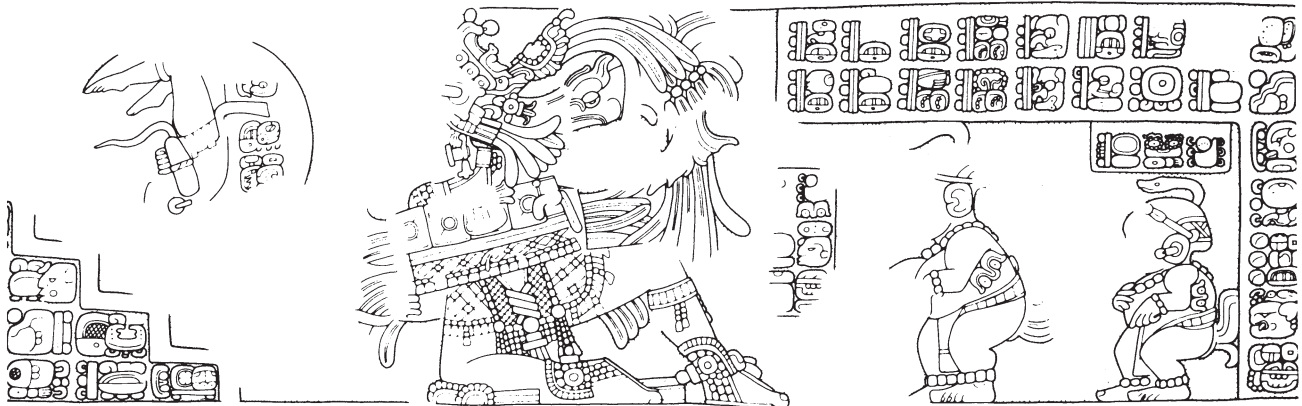


Fig. 27 Yaxchilán, Structure 33, Step VII. Detail center.

the ruling elite, the result, perhaps, of inbreeding. Some dwarfs may even have been emblematic of a ruling dynasty or of its connections with various sites.

Unlike many of the dwarfs depicted in monumental art, some of whom were very likely historical persons, those on Holmul-style vessels seem to be mythological. The great number of pottery dwarfs deposited in Jaina burials indicates that they had an especially powerful association with the earth and the underworld, a connection that persists today among the Maya.

The Maya, like many other peoples, singled out deformed individuals, particularly dwarfs, as special beings. Their significance for the Classic Maya may never be fully understood. It is hoped, however, that this introduction to this rich body of material will encourage archaeologists, art historians, ethnologists, and medical doctors to undertake further investigations of the motif of the dwarf in Maya art and society.

Acknowledgments

I would like to thank Clemency Coggins for her careful reading of an earlier draft of this paper. Dr. Coggins introduced me to Larry Mills, who generously shared both his knowledge and his beautiful drawings of carved columns from the Puuc area. William A. Horton introduced me to the scientific study of dwarfism, patiently answering my questions and examining

and commenting on dozens of illustrations of Maya dwarfs. I am also grateful to numerous colleagues who have not only informed me of the existence of Maya artifacts on which dwarfs are represented but have also provided me with photographs and drawings of unpublished materials.

Note

Fig. 1, redrawn by the author, is from Cook de Leonard 1971. Figs. 2, 9, 10, and 11 are by Merle Greene Robertson. Fig. 3 is from Gordon and Mason 1925-1943. Fig. 4 is from J. E. S. Thompson 1973b. Fig. 5, in the Barbachano Collection, Mexico City, is from Rothmans of Pall Mall Canada 1978. Fig. 6 is from Corson 1976. Fig. 7 is from Groth-Kimball 1960. Figs. 8 and 15, in the Museo Nacional de Antropología, Mexico City, are by the author. Fig. 12, in the Palenque museum, is by Linda Schele. Figs. 13, 25, and 26 are from Proskouriakoff 1974; Fig. 26b is in the Elizabeth K. Easby Collection. Figs. 14 and 16 are by Larry Mills; Fig. 14 is in the Worcester Art Museum, Fig. 16 in the Campeche museum. Figs. 17 and 27 are by Ian Graham. Fig. 18, in the Marianne Faivre Collection, Dixon, Illinois, is by Justin Kerr. Fig. 19, in a private collection, is by Nicholas M. Hellmuth, courtesy of the Foundation for Latin American Anthropological Research, Los Angeles. Fig. 20 is from Merwin and Vaillant 1932. Fig. 21 is by Merle Greene Robertson. Fig. 22 is from J. Miller 1974. Fig. 23 is from Ruppert and Denison 1943. Fig. 24 is by George Stuart.

Bibliography

- ABASCAL, RAFAEL, PATRICIO DÁVILA, PETER SCHMIDT, and DIANA Z. DE DÁVILA
1976 La arqueología del sur-oeste de Tlaxcala (primera parte). *Comunicaciones: Proyecto Puebla-Tlaxcala*, supp. 2. Puebla: Fundación Alemana para la Investigación Científica.
- ABASCAL, RAFAEL, GARMAN HARBOTTLE, and EDWARD V. SAYRE
1974 "Correlations between Terra Cotta Figurines from the Valley of Mexico and Source Clays by Activation Analysis." In *Archaeological Chemistry*: 81-99. Edited by C. W. Beck. Washington: American Chemical Society.
- ACOSTA SAIGNES, MIGUEL
1945 Los Pochteca. *Acta Athropológica* 1(1). Mexico.
- ADAMS, RICHARD E. W.
1963 "A Polychrome Vessel from Altar de Sacrificios." *Archaeology* 16(2):90-92.
1971 The Ceramics of Altar de Sacrificios. *Harvard University, Papers of the Peabody Museum of Archaeology and Ethnology* 63(1).
1978 "Routes of Communication in Mesoamerica: The Northern Guatemalan Highlands and the Peten." *Papers of the New World Archaeological Foundation* 40:27-35.
- ADAMS, RICHARD E. W., and T. PATRICK CULBERT
1977 "The Origins of Civilization in the Maya Lowlands." In *The Origins of Maya Civilization*: 3-24. Edited by Richard E. W. Adams. Albuquerque: University of New Mexico Press.
- ALVARADO TEZOMOC, HERNANDO
1878 *Crónica mexicana escrita hacia el año de 1598*. Mexico.
- ANALES DE CUAUHTITLÁN
1945 In *Códice Chimalpopoca: Anales de Cuauhtitlán y leyenda de los soles*. *Universidad Nacional Autónoma de México, Publicación del Instituto de Historia, primera serie* 1.
- ANCIENT MAYA PAINTINGS OF BONAMPAK, MEXICO
1955 *Carnegie Institution of Washington Supplementary Publication* 46.
- ANDERSON, A. HAMILTON
1958 "Recent Discoveries at Caracol Site, British Honduras." In *Proceedings of the Thirty-second International Congress of Americanists* (1956): 494-499. Copenhagen.
- 1959 "More Discoveries at Caracol, British Honduras." In *Actas del XXXIIIº Congreso de Americanistas* (1958): 211-218. San José.
- ANDERSON, A. HAMILTON, and HERBERT J. COOK
1944 Archaeological Finds near Douglas, British Honduras. *Carnegie Institution of Washington, Notes on Middle American Archaeology and Ethnology* 2(40): 83-92.
- ANDREWS, E. WYLLYS, IV
1965a "Archaeology and Prehistory in the Northern Maya Lowlands: An Introduction." In *Handbook of Middle American Indians* 2(1):288-330. General editor, Robert Wauchope. Austin: University of Texas Press.
1965b "Exploration in the Gruta de Chac, Yucatan, Mexico." *Tulane University, Middle American Research Institute Publication* 31:1-21.
1970 Balankanche, Throne of the Tiger Priest. *Tulane University, Middle American Research Institute Publication* 32.
- ANTON, FERDINAND
1970 *Art of the Maya*. New York.
1973 *La mujer en la América antigua*. Mexico.
- ARA, DOMINGO DE
1616 *Bocabulario de lengua Tzeldal, según el orden de Copanabaztla*. Edited by Fray Alonzo de Guzman. Photocopy of MS, Newberry Library.
- ARROYO, ESTEBAN
1961 *Los Dominicos, forjadores de la civilización oajaqueña*. Oaxaca.
- ATTINASI, JOHN J.
1973 "Lak T'an: A Grammar of the Chol (Mayan) Word." Ph.D. dissertation, University of Chicago. Ann Arbor: University Microfilms International.
- AULIE, H. WILBUR, and EVELYN W. DE AULIE
1978 *Diccionario ch'ol-español, español-chol. Serie de Vocabularios y Diccionarios Indígenas Mariano Silva y Aceves* 21. Mexico: Instituto Lingüístico de Verano.
- AVELEYRA ARROYO DE ANDA, LUIS
1964 *Obras selectas del arte prehispánico (adquisiciones recientes)*. Mexico: Consejo para la Planación e Instalación del Museo Nacional de Antropología.
- AVENI, ANTHONY F., and HORST HARTUNG
1979 "Some Suggestions about the Arrangement of Buildings at Palenque." In *Tercera Mesa Redonda de Palenque* 4:173-177. Edited by Merle Greene Robertson and Donnan Call Jeffers. Monterey, Calif.: Pre-Columbian Art Research Center.

- BAILEY, JOYCE WADDELL
1972 "A Preliminary Investigation of the Formal and Interpretative Histories of Monumental Relief Sculpture from Tikal, Guatemala: Pre-, Early and Middle Classic Periods." Ph.D. dissertation, Yale University. Ann Arbor: University Microfilms International.
- BARDAWIL, LAWRENCE W.
1976 "The Principal Bird Deity in Maya Art – An Iconographic Study of Form and Meaning." In *The Art, Iconography & Dynastic History of Palenque, Part 3: Proceedings of the Segunda Mesa Redonda de Palenque: 195-209*. Edited by Merle Greene Robertson. Pebble Beach: Robert Louis Stevenson School.
- BARRERA RUBIO, ALFREDO
1978 Field notes, Uxmal, Yucatán.
1979 "Patrón de asentamiento en el área de Uxmal, Yucatán, México." Paper presented at the XVI^o Mesa Redonda de la Sociedad Mexicana de Antropología, Saltillo, Coahuila.
1980 Field notes, Puuc sites, Yucatán.
- BARRERA VÁSQUEZ, ALFREDO
1948 *El libro de los libros de Chilam Balam*. Mexico and Buenos Aires: Fondo de Cultura Económica.
1980 *Diccionario maya cordemex: maya-español, español-maya*. Mérida.
- BARRERA VÁSQUEZ, ALFREDO, and SILVANUS GRISWOLD MORLEY
1949 "The Maya Chronicles." *Carnegie Institution of Washington Contributions to American Archaeology and History* 10(48).
- BARRERA VÁSQUEZ, ALFREDO, and SILVIA RENDÓN
1972 *El libro de los libros de Chilam Balam*. 3rd printing, Mexico.
- BARRY, IRIS
1975 "Investigation of Structure 277 at Nohmul." In *Archaeology in Northern Belize: British Museum-Cambridge University Corozal Project 1974-75 Interim Report: 109-115*. Edited by Norman Hammond. Cambridge: Centre of Latin American Studies.
- BARTHEL, THOMAS S.
1954 "Maya Epigraphy: Some Remarks on the Affix 'al.'" In *Proceedings of the Thirtieth International Congress of Americanists (1952): 45-49*. London.
1963 "Die Stele 31 von Tikal." *Tribus* 12:159-214.
1964 Comentarios a las inscripciones clásicas tardías de Chichén Itzá." *Estudios de Cultura Maya* 4:223-244.
1966 "Mesoamerikanische Fledermausdämonen." *Tribus* 15:101-124.
1968 "El complejo 'emblema.'" *Estudios de Cultura Maya* 7:159-193.
1974 "Neue Lesungen zur Mayaschrift." *Tribus* 23:175-211.
1977a "A Tuebingen Key to Maya Glyphs." *Tribus* 26:97-102.
1977b "Untersuchungen zur grossen Göttin der Maya." *Zeitschrift für Ethnologie* 102:44-102.
- BASSETA, DOMINGO DE
n.d. *Vocabulario quiché*. Paris: Bibliothèque Nationale.
- BECQUELIN, PIERRE, and CLAUDE F. BAUDEZ.
1982 Tonina: Une cité maya du Chiapas (Mexique). *Études Mésoaméricaines* 6(2). Mexico: Mission Archéologique et Ethnologique Française au Mexique.
- BEETZ, CARL P., and LINTON SATTERTHWAITHE
1981 The Monuments and Inscriptions of Caracol, Belize. *University Museum Monograph* 45. Philadelphia: University of Pennsylvania.
- BENSON, ELIZABETH P.
1974 "Gestures and Offerings." In *Primera Mesa Redonda de Palenque, Part 1: 109-120*. Edited by Merle Greene Robertson. Pebble Beach: Robert Louis Stevenson School.
1982 "Symbolic Objects in Maya Art." *Mexicon* 4(3):45-47. Berlin.
- BERLIN, BRENT, and TERRENCE KAUFMAN
1962 Diccionario del tzeltal de Tenejapa, Chiapas. Unpublished MS on file in the Department of Anthropology, Yale University.
- BERLIN, HEINRICH
1944 "Un templo olvidado en Palenque." *Revista Mexicana de Estudios Antropológicos* 6:62-90.
1958 "El glifo 'emblema' en las inscripciones mayas." *Journal de la Société des Américanistes* n.s.47:111-119. Paris.
1959 "Glifos nominales en el sarcófago de Palenque." *Humanidades* 2(10):1-8. Guatemala: Universidad de San Carlos.
1963 "The Palenque Triad." *Journal de la Société des Américanistes* n.s. 52:91-99. Paris.
1965a "The Inscription of the Temple of the Cross at Palenque." *American Antiquity* 30(3):330-342.
1965b "Neue Funde zu alten Zeichnungen." *Ethnos* 30:136-143.
1968 "Estudios epigráficos II." *Antropología e Historia de Guatemala* 20:13-24.
1970a "Miscelánea palencana." *Journal de la Société des Américanistes* n.s. 59:107-128. Paris.
1970b "The Tablet of the 96 Glyphs at Palenque, Chiapas, Mexico." *Tulane University, Middle American Research Institute Publication* 26:135-149.
1973 "Contributions to the Understanding of the Inscriptions at Naranjo." Typescript translated by Christopher Jones from German; original in *Bulletin de la Société Suisse des Américanistes* 37:7-15. Geneva.
1977 *Signos y significados en las inscripciones mayas*. Ministerio de Educación, Instituto Nacional del Patrimonio Cultural de Guatemala.
- BERNAL, IGNACIO
1969a *The Olmec World*. Berkeley: University of California Press.
1969b *100 Great Masterpieces of the Mexican National Museum of Anthropology*. New York.
- BEYER, HERMANN
1928 "El origen del jeroglífico maya akbal." *Revista Mexicana de Estudios Históricos* 2:5-9.
1930 "A Deity Common to Teotihuacan and Totonac Cultures." In *Proceedings of the Twenty-third International Congress of Americanists (1928): 82-84*. New York.
1937 "Studies on the Inscriptions of Chichen Itza." *Carnegie Institution of Washington Publication* 483, *Contributions to American Archaeology* 4(21):29-175.
- BISHOP, RONALD L.
1975 "Western Lowland Maya Ceramic Trade: An Archaeological Application of Nuclear Chemical and Geological Data Analysis." Ph.D. dissertation, Southern Illinois University, Carbondale. Ann Arbor: University Microfilms International.
1980 "Aspects of Ceramic Compositional Modeling." In *Models and Methods in Regional Exchange, Society*

- for *American Archaeology Papers* 1:47-66. Edited by R. E. Fry. Washington.
- BISHOP, RONALD L., MARILYN P. BEAUDRY, RICHARD M. LEVENTHAL, and ROBERT J. SHARER
1980 "Compositional Analysis of Classic Period Painted Ceramics in the Southeast Maya Area." Paper presented at the Forty-fifth Annual Meeting of the Society for American Archaeology, Philadelphia.
- BISHOP, RONALD L., GARMAN HARBOTTLE, and EDWARD V. SAYRE
1979 "Characterization of Jades and Accompanying Rocks through Neutron Activation." Paper presented at the annual meeting on Archaeometry and Archaeological Prospection, London.
- BISHOP, RONALD L., GARMAN HARBOTTLE, and EDWARD V. SAYRE
1982 "Chemical and Mathematical Procedures Employed in the Mayan Fine Paste Ceramics Project." In *Analyses of Fine Paste Ceramics, Excavations at Seibal, Guatemala*. Edited by Jeremy A. Sabloff. *Harvard University, Memoirs of the Peabody Museum of Archaeology and Ethnology* 15(2).
- BISHOP, RONALD L., GARMAN HARBOTTLE, EDWARD V. SAYRE, and LAMBERTUS VAN ZELST
1980 "Analytical Study of Mesoamerican Jade Artifacts and Sources." Paper presented at the annual meeting on Archaeometry and Archaeological Prospection, Paris.
- BISHOP, RONALD L., and ROBERT L. RANDS
1982 "Mayan Fine Paste Ceramics: A Compositional Perspective." In *Analyses of Fine Paste Ceramics, Excavations at Seibal, Guatemala*. Edited by Jeremy A. Sabloff. *Harvard University, Memoirs of the Peabody Museum of Archaeology and Ethnology* 15(2).
- BITTMAN, BENTE, and THELMA D. SULLIVAN
1978 "The Pochteca." *Papers of the New World Archaeological Foundation* 40:211-218.
- BLANTON, RICHARD E.
1978 *Monte Alban: Settlement Patterns at the Ancient Zapotec Capital*. New York.
- BLOM, FRANS
1934 "Short Summary of Recent Explorations in the Ruins of Uxmal, Yucatan." In *Proceedings of the Twenty-fourth International Congress of Americanists* (1930): 55-59. Hamburg.
- BLOM, FRANS, and OLIVER LAFARGE
1926 *Tribes and Temples: A Record of the Expedition to Middle America Conducted by the Tulane University of Louisiana in 1925*. 2 vols. New Orleans: Tulane University.
- BOGGS, STANLEY H.
1973 "Pre-Maya Costumes and Coiffures." *Américas* 25(2):19-24.
- BOLLES, JOHN
1977 *Las Monjas: A Major Pre-Mexican Architectural Complex at Chichen Itza*. Norman: University of Oklahoma Press.
- BOWDITCH, CHARLES
1910 *The Numeration, Calendar Systems and Astronomical Knowledge of the Mayas*. Cambridge, Mass.
- BRASSEUR DE BOURBOURG, C. E.
1961 *Gramatica de la lengua quiche (vocabulario)*. Guatemala.
- BRICKER, VICTORIA R.
1977 "Pronominal Inflection in the Mayan Languages." *Tulane University, Middle American Research Institute Occasional Paper* 1.
- 1981 "The Source of the Ergative Split in Yucatec Maya." *Journal of Mayan Linguistics* 2(2). Iowa City.
- BRINTON, DANIEL G.
1882 *The Maya Chronicles*. Philadelphia.
- BRUCE, ROBERT D.
1968 *Gramática del Lacandón. Instituto Nacional de Antropología e Historia, Departamento de Investigaciones Antropológicas Publicaciones* 21. Mexico.
- 1979 *Lacandon Dream Symbolism*. Vol. 2. Mexico.
- BURGOA, FRAY FRANCISCO DE
1934 *Geográfica descripción de la parte septentrional y sitio astronómico de Mexico*.
- CAMPBELL, LYLE RICHARD
1971 "Historical Linguistics and Quichean Linguistic Prehistory." Ph.D. dissertation, University of California at Los Angeles. Ann Arbor: University Microfilms International.
- CAMPBELL, LYLE RICHARD, and TERRENCE S. KAUFMAN
1976 "A Linguistic Look at the Olmecs." *American Antiquity* 41(1):80-89.
- CARLSON, JOHN B.
1981 "Olmec Concave Iron-Ore Mirrors: The Aesthetics of a Lithic Technology and the Lord of the Mirror." In *The Olmec and Their Neighbors: Essays in Memory of Matthew P. Stirling*: 117-147. Edited by Elizabeth P. Benson. Washington: Dumbarton Oaks Research Library and Collections.
- CARMACK, ROBERT M.
1973 *Quichean Civilization: The Ethnohistoric, Ethnographic, and Archaeological Sources*. Berkeley; University of California Press.
- CARRILLO, FRAY ESTANISLAO
1846 "La exploración de un subterráneo." *El Registro Yucateco* 4:229-230. Mérida: Imprenta de Castillo.
- CASTILLO FARRERAS, VICTOR M.
1969 "Caminos del mundo náhuatl." *Estudios de Cultura Náhuatl* 8:175-187. Mexico: Universidad Nacional Autónoma de México, Instituto de Investigaciones Históricas.
- CHARNAY, DESIRÉ
1863 *Cités et ruines américaines: Mitla, Palenque, Izamal, Chichén Itzá, Uxmal*. Paris.
- 1887 *The Ancient Cities of the New World: Being Voyages and Explorations in Mexico and Central America from 1857-1882*. Translated by J. Goniüs and Helen S. Conant. New York.
- CHASE, ARLEN F.
1979 "Regional Development in the Tayasal-Paxcaman Zone, El Peten, Guatemala: A Preliminary Statement." *Cerámica de Cultura Maya* 11:86-119.
- CHURCH, C. and K.
1955 *Vocabulario jocalteco-castellano*. Guatemala: Instituto Lingüístico de Verano.
- CLARKSON, PERSIS B.
1978 "Classic Maya Pictorial Ceramics: A Survey of Content and Theme." In *Papers on the Economy and Architecture of the Ancient Maya*. Edited by Raymond Sidrys. *University of California at Los Angeles, Institute of Archaeology Monograph* 8:86-141.
- CLOSS, MICHAEL P.
1979 "Venus in the Maya World: Glyphs, Gods and Associated Astronomical Phenomena." In *Tercera Mesa*

- Redonda de Palenque 4:147-165. Edited by Merle Greene Robertson and Donnan Call Jeffers. Monterey, Calif.: Pre-Columbian Art Research Center.
- n.d. Paired Words in the Ritual of the Bacabs and Implications for Glyphic Studies. Unpublished MS.
- CODEX BORBONICUS
- 1974 *Codex Borbonicus*. Bibliothèque de l'Assemblée Nationale-Paris (Y 120). Edited by Karl Anton Nowotny and Jacqueline de Durand-Forest. *Codices Selecti* 44. Graz.
- CODEX DRESDEN
- 1975 *Codex Dresdensis*. Edited by Helmut Deckert. Graz.
- CODEX MADRID
- 1967 *Codex Tro-Cortesianus (Codex Madrid): Museo de América, Madrid*. Introduction and summary by Ferdinand Anders. Graz.
- CODEX NUTTALL
- 1902 *Codex Nuttall: Facsimile of an Ancient Mexican Codex Belonging to Lord Zouche of Harynworth, England, with an Introduction by Zelia Nuttall*. Peabody Museum.
- 1975 *The Codex Nuttall, a Picture Manuscript from Ancient Mexico: The Peabody Museum Facsimile Edited by Zelia Nuttall*. Introduction by Arthur G. Miller. New York.
- CODEX PARIS
- 1968 *Codex Peresianus (Codex Paris)*. Graz.
- CODEX TELLERIANO-REMENSIS
- 1899 *Codex Telleriano-Remensis: Manuscrit mexicain du cabinet de Ch.-M. Le Tellier, archeveque de Reims à la Bibliothèque National (MS. mexicain no. 385)*. Edited by E.-T. Hamy. Paris.
- COE, MICHAEL D.
- 1970 "Olmec Jaguars and Olmec Kings." In *The Cult of the Feline*: 1-18. Edited by Elizabeth P. Benson. Washington: Dumbarton Oaks.
- 1973a "The Iconology of Olmec Art." In *The Iconography of Middle American Sculpture*. New York: The Metropolitan Museum of Art.
- 1973b *The Maya Scribe and His World*. New York: The Grolier Club.
- 1974 "A Carved Wooden Box from the Classic Maya Civilization." In *Primera Mesa Redonda de Palenque, Part 2*:51-58. Edited by Merle Greene Robertson. Pebble Beach: Robert Louis Stevenson School.
- 1975a *Classic Maya Pottery at Dumbarton Oaks*. Washington: Dumbarton Oaks, Trustees for Harvard University.
- 1975b "Three Maya Figurines from Jaina Island." *Yale University Art Gallery Bulletin* 35:24-25.
- 1976 "Early Steps in the Evolution of Maya Writing." In *Origins of Religious Art and Iconography in Preclassic Mesoamerica*: 107-122. Edited by H. B. Nicholson. Los Angeles: UCLA Latin American Center.
- 1977 "Supernatural Patrons of Maya Scribes and Artists." In *Social Process in Maya Prehistory*: 327-347. Edited by Norman Hammond. New York.
- 1978 *Lords of the Underworld: Masterpieces of Classic Maya Ceramics*. The Art Museum, Princeton University. Princeton University Press.
- COE, MICHAEL D., and ELIZABETH P. BENSON
- 1966 Three Maya Relief Panels at Dumbarton Oaks. *Studies in Pre-Columbian Art and Archaeology* 2. Washington: Dumbarton Oaks.
- COE, WILLIAM R.
- 1959 *Piedras Negras Archaeology: Artifacts, Caches, and Burials*. University of Pennsylvania, The University Museum Monographs.
- 1962 "A Summary of Excavation and Research at Tikal, Guatemala: 1956-61." *American Antiquity* 27:479-507.
- 1965 "Tikal: Ten Years of Study of a Maya Ruin in the Lowlands of Guatemala." *Expedition* 8(1):5-56.
- 1967 *Tikal: A Handbook of the Ancient Maya Ruins*. Philadelphia: University of Pennsylvania, The University Museum.
- COFFMAN, ROBERT J.
- n.d. "A Commentary on the Hieroglyphic Inscriptions of Naranjo, El Peten, Guatemala." Senior thesis, University of Texas at Austin.
- COGGINS, CLEMENCY CHASE
- 1975 "Painting and Drawing Styles at Tikal: An Historical and Iconographic Reconstruction. Ph.D dissertation, Harvard University. Ann Arbor: University Microfilms International.
- COHODAS, MARVIN
- 1978 *The Great Ball Court at Chichen Itza, Yucatan, Mexico*. Ph.D dissertation, Columbia University. New York: Garland Publishing, Inc.
- COMRIE, BERNARD
- 1976 *Aspect: An Introduction to the Study of Verbal Aspect and Related Problems*. Cambridge: Cambridge University Press.
- COOK DE LEONARD, CARMEN
- 1954 "Dos extraordinarias vasijas del Museo de Villa Hermosa (Tabasco)." *Yan* 3:83-104.
- 1971 "Gordos y enanos de Jaina (Campeche, Mexico)." *Revista Española de Antropología Americana* 6:57-83.
- CÓRDOVA, JUAN DE
- 1886 *Arte del idioma zapoteco*. Morelia.
- CORSON, CHRISTOPHER
- 1973 "Iconographic Survey of Some Principal Figurine Subjects from the Mortuary Complex of Jaina, Campeche." *Contributions of the University of California Archaeological Research Facility* 18:51-75. Berkeley.
- 1976 "Maya Anthropomorphic Figurines from Jaina Island, Campeche." *Ballena Press Studies in Mesoamerican Art, Archaeology and Ethnohistory* 1. Ramona.
- CORTÉS, HERNÁN
- 1866 *Cartas y relaciones de Hernán Cortés al emperador Carlos V*. Edited by Pascual de Gayangos. Paris.
- COVARRUBIAS, MIGUEL
- 1957 *Indian Art of Mexico and Central America*. New York.
- CRAINE, EUGENE R., and REGINALD C. REINDORP
- 1979 *The Codex Perez and the Book of Chilam Balam of Maní*. Norman: University of Oklahoma Press.
- CULBERT, T. PATRICK
- 1973 "Introduction: A Prologue to Classic Maya Culture and the Problem of Its Collapse." In *The Classic Maya Collapse*: 3-19. Edited by T. Patrick Culbert. Albuquerque: University of New Mexico Press.
- DAY, CHRISTOPHER
- 1978 *Diccionario jacalteco-español*. Preliminary version. University of Rochester.
- DE LA FUENTE, BEATRIZ
- 1968 "Un relieve de Palenque en Washington." *Anales del*

- Instituto de Investigaciones Estéticas* 37:37-41. Mexico: Universidad Nacional Autónoma de México.
- ed. 1976 "Arte huasteco prehispánico." *Artes de México* 22(187).
- DE LA FUENTE, BEATRIZ and DANIEL SCHÁVELZON
1976 "Algunas noticias poco conocidas que sobre Palenque se publicaron en el siglo XIX." In *The Art, Iconography & Dynastic History of Palenque, Part 3: Proceedings of the Segunda Mesa Redonda de Palenque*: 149-153. Edited by Merle Greene Robertson. Pebble Beach: Robert Louis Stevenson School.
- DE LA MAZA R., ROBERTO
1976 "La mariposa y sus estilizaciones en las culturas teotihuacana (200-750 D.C.) y azteca (1325-1521 D.C.)." *Revista de la Sociedad Mexicana de Lepidoterología* 2(1).
- DEL RÍO, ANTONIO
1822 *Description of the Ruins of an Ancient City, Discovered near Palenque . . .* London.
- DIBBLE, CHARLES E.
1951 Códice Xolotl. *Universidad Nacional Autónoma de México, Publicaciones del Instituto de Historia*, series 1(22).
- DIESELDORFF, E. P.
1926 *Kunst und Religion der Mayavölker im alten und heutigen Mittelamerika* 1. Berlin.
1933 *Kunst und Religion der Mayavölker, 3: Die Datierung der Tempel*. Berlin
- DUNNING, NICHOLAS
n.d. An Inscribed Column from Dzehkabtun, Campeche. MS.
- DUPRONT, A.
1972 "Pélérinages." *Encyclopaedia Universalis* 12. Paris.
- DURÁN, FRAY DIEGO DE
1967 *Historia de las Indias de Nueva España e islas de la Tierra Firme*. 2 vols. Edited by Angel María Garibay K. Mexico.
1971 *Book of the Gods and Rites and the Ancient Calendar*. Translated by Fernando Horcasitas and Doris Heyden. Norman: University of Oklahoma Press. (2nd ed., 1975.)
- DU SOLIER, WILFRIDO
1939- "Estudio arquitectónico de los edificios huastecos." *Anales del Instituto Nacional de Antropología e Historia* 1:121-145. Mexico.
1943 "Conclusiones sobre el estudio arqueológico de la Huasteca." *Tercera Reunión de Mesa Redonda sobre Problemas Antropológicos de México y Centro América*:148-152. Sociedad Mexicana de Antropología.
- DÜTTING, DIETER
1972 "Hieroglyphic Miscellanea." *Zeitschrift für Ethnologie* 97(1):220-256.
1974 "Sorcery in Maya Hieroglyphic Writing." *Zeitschrift für Ethnologie* 99:2-62.
1976 "The Great Goddess in Classic Maya Religious Belief." *Zeitschrift für Ethnologie* 101:41-146.
1978a "'Bats' in the Usumacinta-Valley: Remarks on the Inscriptions of Bonampak and Neighboring Sites in Chiapas, Mexico." *Zeitschrift für Ethnologie* 103:1-56.
1978b "Sustina Gracia: An Inquiry into the Farmer's Almanacs of the Codex Dresden." *Indiana* 5:145-170.
1979a "Birth, Inauguration and Death in the Inscriptions of Palenque, Chiapas, Mexico." In *Tercera Mesa Redonda de Palenque* 4:183-214. Edited by Merle Greene Robertson and Donnan Call Jeffers. Monterey, Calif.: Pre-Columbian Art Research Center.
- 1979b "On the Hieroglyphic Inscriptions of Three Monuments from Piedras Negras, Guatemala." *Zeitschrift für Ethnologie* 104:17-63.
- 1980 "Aspects of Classic Maya Religion and World View." *Tribus* 29:106-167.
1981 "Zum Charakter der Maya-Schrift und den Schwierigkeiten ihrer Entzifferung." *Mexikon* 3(3):45-48.
- EASBY, ELIZABETH KENNEDY, and JOHN F. SCOTT
1970 *Before Cortes: Sculpture of Middle America*. New York: The Metropolitan Museum of Art.
- ECHANOVE TRUJILLO, CARLOS
1975 *Dos héroes de la arqueología maya: El Conde Waldock y Teobert Maler*. Mérida: Universidad de Yucatán.
- ECHEAGARAY BABLOT, L.
1950 "Los recursos natural de Yucatán en relación con sus posibilidades de riego." *Ingeniería Hidráulica* 4(3):34-68. Mexico.
- EDMONSON, MUNRO S.
1965 Quiche-English Dictionary. *Tulane University, Middle American Research Institute Publication* 30.
1971 The Book of Council: The Popol Vuh of the Quiche Maya of Guatemala. *Tulane University, Middle American Research Institute Publication* 35.
1976 "The Mayan Calendar Reform of 11.16.0.0.0." *Current Anthropology* 17(4):713-717.
- EKHOLM, GORDON F.
1944 "Excavations at Tampico and Panuco in the Huasteca, Mexico." *Anthropological Papers of the American Museum of Natural History* 38(5):319-512.
1953 "Notas arqueológicas sobre el Valle de Tuxpan y áreas circunvecinas." *Revista Mexicana de Estudios Antropológicos* 13:413-421.
1970 *Ancient Mexico and Central America*. New York: American Museum of Natural History.
- EKHOLM, SUSANNA M.
1979a "The Lagartero Figurines." In *Maya Archaeology and Ethnohistory*:172-186. Edited by Norman Hammond and Gordon R. Willey. Austin: University of Texas Press.
1979b "The Significance of an Extraordinary Maya Ceremonial Refuse Deposit at Lagartero, Chiapas." In *Actes du XLII^e Congrès International de Américanistes* (1976)8:147-159. Paris.
- ENCYCLOPEDIA AMERICANA
1980 *Encyclopedia Americana*. Vol. 3. Danbury.
- FELDMAN, LAWRENCE H.
1978 "Timed Travels in Tarascan Territory: Friar Alonso Ponce in the Old Tarascan Domains 1586-1587." In *Mesoamerican Communication Routes and Cultural Contacts*. In *Papers of the New World Archaeological Foundation* 40:123-126. Edited by Thomas A. Lee and Carlos Navarrete.
- FEWKES, JESSE WALTER
1907 "Certain Antiquities of Eastern Mexico." *Smithsonian Institution, Bureau of American Ethnology Twenty-fifth Annual Report for 1903-04*:221-284.
- FLORENCIA, FRANCISCO DE
1690 *Descripción histórica y moral del yermo de San Miguel de las Cuevas*. Cádiz.
- FONCERRADA DE MOLINA, MARTA
1970 "Reflexiones sobre la decoración de un vaso maya."

- Universidad Nacional Autónoma de México, *Anales del Instituto de Investigaciones Estéticas* 39:79-86.
- 1972 "El pensamiento mítico maya en un vaso del clásico tardío." In *Religión en Mesoamérica, XIIª Mesa Redonda de la Sociedad Mexicana de Antropología*: 303-308. Mexico.
- 1976a "El enano en la plástica maya." *Universidad Nacional Autónoma de México, Anales del Instituto de Investigaciones Estéticas* 45:45-57.
- 1976b "La pintura mural de Cacaxtla, Tlaxcala." *Universidad Nacional Autónoma de México, Anales del Instituto de Investigaciones Estéticas* 46:5-20.
- 1978a "The Cacaxtla Murals: An Example of Cultural Contact?" *Ibero-Amerikanisches Archiv* n.f. 4(2):141-160.
- 1978b "Reflexiones en torno a la pintura mural de Cacaxtla." *Comunicaciones: Proyecto Puebla-Tlaxcala* 15:103-130.
- 1979a "La pintura mural de Cacaxtla." In *Actes du XLIIª Congrès International des Américanistes* (1976)7: 321-335. Paris.
- 1979b "Consideraciones sobre algunos de los signos glíficos en la pintura mural de Cacaxtla." In *Los Procesos de Cambio: XVª Mesa Redonda de Sociedad Mexicana de Antropología, Guanajuato, 1977*. Mexico.
- 1980 "Mural Painting in Cacaxtla and Teotihuacán Cosmopolitanism." In *Tercera Mesa Redonda de Palenque, Part 2* 5:183-198. Edited by Merle Greene Robertson. Austin: University of Texas Press.
- FÖRSTEMANN, ERNST W.
1880 *Die Mayahandschrift der königlichen öffentlichen Bibliothek zu Dresden*. Leipzig.
1886 *Erläuterungen zur Mayahandschrift der königlichen öffentlichen Bibliothek zu Dresden*. Dresden: Königliche Sammlungen für Kunst und Wissenschaft.
1901 "Der Mayagott des Jahresschlusses." *Globus* 80(12): 26.
- FOUGHT, JOHN
1965 "A Phonetic and Morphological Interpretation of Zimmerman's Affix 61 in the Maya Hieroglyphic Codices." *Estudios de Cultura Maya* 5:253-280.
1967 "Chorti (Mayan): Phonology, Morphophonemics, and Morphology." Ph.D. dissertation, Yale University. Ann Arbor: University Microfilms International.
- FOX, JAMES ALLAN
1978 "Proto-Mayan Accent, Morpheme Structure Conditions, and Velar Innovations," Ph.D. dissertation, University of Chicago.
- FOX, JAMES ALLAN, and JOHN S. JUSTESON
1984 "Polyvalence in Mayan Hieroglyphic Writing." In *Phoneticism in Mayan Hieroglyphic Writing*, edited by John S. Justeson and Lyle Campbell, pp. 17-76. Albany: Institute for Mesoamerican Studies, SUNY.
- FOX, JOHN W.
1980 "Lowland to Highland Mexicanization Processes in Southern Mesoamerica." *American Antiquity* 45(1): 43-54.
- FRAZER, SIR JAMES GEORGE
1922 *The Golden Bough*. New York.
- FREIDEL, DAVID A.
1975 "The Ix Chel Shrine and Other Temples of Talking Idols." *Harvard University, Peabody Museum Monographs* 3:107-113.
1979 "Culture Areas and Interaction Spheres: Contrasting Approaches to the Emergence of Civilization in the Maya Lowlands." *American Antiquity* 44(1):36-54.
- FRILLEY, JORGE.
n.d. *La India literaria*. Translated by Dr. M. Rodríguez Navas. Paris.
- FRY, ROBERT E.
1979 "The Economics of Pottery at Tikal, Guatemala: Models of Exchange for Serving Vessels." *American Antiquity* 44(3):494-512.
- FURST, JILL LESLIE
1978 *Codex Vindobonensis Mexicanus I: A Commentary*. State University of New York at Albany Institute for Mesoamerican Studies Publication 4.
- FURST, PETER T.
1968 "The Olmec Were-Jaguar Motif in the Light of Ethnographic Reality." In *Dumbarton Oaks Conference on the Olmec*:143-174. Edited by Elizabeth P. Benson. Washington: Dumbarton Oaks.
1976 "Fertility, Vision Quest and Auto-Sacrifice: Some Thoughts on Ritual Blood-Letting among the Maya." In *Segunda Mesa Redonda de Palenque, Part 3*:181-193. Edited by Merle Greene Robertson. Pebble Beach: Robert Louis Stevenson School.
- GADOW, HANS
1901 "Amphibia and Reptiles." In *The Cambridge Natural History* 7. Cambridge (Reprinted 1958).
- GANN, THOMAS W. F.
1914 "Report on Some Investigations in British Honduras." *University of Liverpool, Institute of Archaeology, Annals of Archaeology and Anthropology* 7(1, 2):28-42.
1918 *The Maya Indians of Southern Yucatan and Northern British Honduras*. *Smithsonian Institution, Bureau of American Ethnology Bulletin* 64. Washington.
1926 *Ancient Cities and Modern Tribes*. London.
1927 *Maya Cities*. London.
- GARCÍA DE LEÓN, A.
1971 *Los elementos del tzotzil colonial y moderno*. *Universidad Nacional Autónoma de México, Centro de Estudios Mayas, Cuaderno* 7. Mexico.
- GARCÍA PAYÓN, JOSÉ
1963 *Bibliografía arqueológica de Veracruz*. Jalapa: Universidad de Veracruz.
1974 "La Huasteca." *Historia de México* 2(21, 22):115-140. Mexico.
1976 "La Huasteca." In *Los Señorios y Estados Militaristas*: 243-290. Mexico: Instituto Nacional de Antropología e Historia.
- GATES, WILLIAM
1938 *A Grammar of Maya*. Baltimore: The Maya Society.
- GIFFORD, JAMES C.
1976 *Prehistoric Pottery Analysis and the Ceramics of Barton Ramie in the Belize Valley*. *Harvard University, Memoirs of the Peabody Museum of Archaeology and Ethnology* 18.
- GOLDSTEIN, MARILYN
1979 "Maya Figurines from Campeche, Mexico: Classification on the Basis of Clay Chemistry, Style, and Iconography." Ph.D. dissertation, Columbia University. Ann Arbor: University Microfilms International.
- GOMBRICH, E. H.
1969 *The Sense of Order*. The Wrightsman Lectures delivered under the auspices of the New York Institute of Fine Arts. Ithaca: Cornell University Press.
- GONZÁLEZ FERNÁNDEZ, BALTAZAR
1978 *Field notes, Uxmal, Yucatán*.
1979 *Informe preliminar del trabajo efectuado dentro del*

- Proyecto Uxmal. Unpublished MS on file, Centro Regional del Sureste del Instituto Nacional de Antropología e Historia, Mérida, Yucatán.
- GORDON, GEORGE B., and JOHN A. MASON
1925-1943 *Examples of Maya Pottery in the Museum and Other Collections*. Philadelphia: University of Pennsylvania, The University Museum.
- GOSSEN, GARY H.
1974 *Chamulas in the World of the Sun: Time and Space in a Maya Oral Tradition*. Cambridge, Mass. Harvard University Press.
- GRAHAM, IAN
1967 *Archaeological Explorations in El Petén, Guatemala. Tulane University, Middle American Research Institute Publication 33*.
1977 "Hieroglyphic Lintels." In *Las Monjas*:267-274. By John S. Bolles. Norman: University of Oklahoma Press.
- GRAHAM, IAN and ERIC VON EUW
1975- *Corpus of Maya Hieroglyphic Inscriptions*. Cambridge, Mass.: Harvard University, Peabody Museum of Archaeology and Ethnology.
- GRAHAM, IAN
1982 *Corpus of Maya Hieroglyphic Inscriptions*, vol. 3, part 3. Cambridge, Mass.: Harvard University, Peabody Museum of Archaeology and Ethnology.
- GRANATA, JOSEPH JOHN
1980 "The Significance of Zoological Identification of Serpent Species in the Pictorial Manuscripts of Ancient Mexico." Ph.D dissertation, University of Texas at Austin.
- GRAULICH, M.
n.d. "The Metaphor of the Day in Ancient Mexican Myth and Ritual." *Current Anthropology*. (In press.)
- GREEN, DEE F., and GARETH W. LOWE
1967 Altamira and Padre Piedra: Early Preclassic Sites in Chiapas, Mexico. *Papers of the New World Archaeological Foundation 20*.
- GREENE, MERLE, ROBERT L. RANDS, and JOHN A. GRAHAM
1972 *Maya Sculpture from the Southern Lowlands, the Highlands and Pacific Piedmont, Guatemala, Mexico and Honduras*. Berkeley.
- GREENE ROBERTSON, MERLE
1972 "The Ritual Bundles of Yaxchilan." Paper presented at the Tulane University Symposia on the Art of Latin America, New Orleans.
1974 "The Quadripartite Badge – A Badge of Rulership." In *Primera Mesa Redonda de Palenque, Part 1*:77-93. Edited by Merle Greene Robertson. Pebble Beach: Robert Louis Stevenson School.
1975 "Stucco Techniques Employed by Ancient Sculptors of the Palenque Piers." In *Actas del XLII Congreso Internacional de Americanistas 1*:449-472. Mexico.
1977 "Painting Practices and Their Change through Time of the Palenque Stucco Sculpture." In *Social Process in Maya Prehistory: Studies in Honour of Sir Eric Thompson*:297- 326. Edited by Norman Hammond. London.
1979a "An Iconographic Approach to the Identity of the Figures on the Piers of the Temple of the Inscriptions, Palenque." In *Tercera Mesa Redonda de Palenque 4*:129-138. Edited by Merle Greene Robertson and Donnan Call Jeffers. Monterey, Calif.: Pre-Columbian Art Research Center.
1979b "A Sequence for Palenque Painting Techniques." In *Maya Archaeology and Ethnohistory*:149-171. Edited by Norman Hammond and Gordon R. Willey. Austin: University of Texas Press.
- GREENE ROBERTSON, MERLE, MARJORIE S. ROSENBLUM SCANDIZZO, and JOHN R. SCANDIZZO
1976 "Physical Deformities in the Ruling Lineage of Palenque and the Dynastic Implications." In *The Art, Iconography & Dynastic History of Palenque, Part 3: Proceedings of the Segunda Mesa Redonda de Palenque*:59-86. Edited by Merle Greene Robertson. Pebble Beach: Robert Louis Stevenson School.
- GROTH-KIMBALL, IRMGARD
1960 *Maya Terrakotten*. Tübingen.
- GROVE, DAVID C.
1970 "The Olmec Murals in the Cave at Oxtotitlan, Morelos, Mexico." *Studies in Pre-Columbian Art and Archaeology 6*. Washington: Dumbarton Oaks.
- GUITERAS-HOLMES, C.
1961 *Perils of the Soul*. New York.
- HABERLAND, WOLFGANG
1953 "Die regionale Verteilung von Schmuckelementen in Bereiche der klassischen Maya-Kultur." *Beiträge zur mittelamerikanischen Völkerkunde 2*. Hamburg: Museum für Völkerkunde und Vorgeschichte.
- HAMILTON, GEORGE HEARD
1975 "The Art and Architecture of Russia." *The Pelican History of Art*. Harmondsworth.
- HAMMOND, NORMAN
1976 "Holmul and Nohmul: A Comparison and Assessment of Two Maya Lowland Protoclassic Sites." Paper presented at the Forty-second International Congress of Americanists, Paris.
1977 "The Earliest Maya." *Scientific American 236*(3):116-133.
1981 "Excavations at Cuello, 1980: A Summary." *Belizean Studies 9*(3).
- HAMMOND, NORMAN, DUNCAN PRING, RICHARD WILK, SARA DONAGHEY, FRANK P. SAUL, ELIZABETH S. WING, ARLENE V. MILLER, and LAWRENCE H. FELDMAN
1979 "The Earliest Lowland Maya? Definition of the Swazey Phase." *American Antiquity 44*(1):92-110.
- HARRISON, PETER D.
1970 "The Central Acropolis, Tikal, Guatemala: A Preliminary Study of the Functions of Its Structural Components during the Late Classic Period." Ph.D. Dissertation, University of Pennsylvania. Ann Arbor: University Microfilms International.
1977 "The Rise of the *bajos* and the Fall of the Maya." In *Social Process in Maya Prehistory: Studies in Honour of Sir Eric Thompson*:468-508. Edited by Norman Hammond. London.
1978 "So the Seeds Shall Grow: Some Introductory Comments." In *Pre-Hispanic Maya Agriculture*:1-11. Edited by Peter D. Harrison and B. L. Turner II. Albuquerque: University of New Mexico Press.
- HARTUNG, HORST
1971 *Die Zeremonialzentren der Maya: Ein Beitrag zur Untersuchung der Planungsprinzipien*. Graz.
1976 "El espacio exterior en el centro ceremonial de Palenque." In *The Art, Iconography & Dynastic History of Palenque, Part 3: Proceedings of the Segunda Mesa Redonda de Palenque*:123-135. Edited by

- Merle Greene Robertson. Pebble Beach: Robert Louis Stevenson School.
- 1980 "Certain Visual Relations in the Palace at Palenque." In *Third Palenque Round Table, Part 2* 5:74-80. Austin: University of Texas Press.
- HASLER, JUAN A.
1956 *Vocabulario: Chontal de Tamulté, Tabasco*. Mexico.
- HAVILAND, WILLIAM A.
1967 "Stature at Tikal, Guatemala: Implications for Ancient Maya Demography and Social Organization." *American Antiquity* 32(3):316-325.
1977 "Dynastic Genealogies from Tikal, Guatemala: Implications for Descent and Political Organization." *American Antiquity* 42(1):61-67.
- HELFRICH, KLAUS
1973 *Menschenopfer und Totungsrituale im Kult der Maya*. Berlin.
- HERRERA Y TORDESILLAS, ANTONIO DE
1726- *Historia general de los hechos de los castellanos en*
1730 *las islas i tierra firme del mar océano*. 4 vols. Madrid.
- HOLMES, WILLIAM H.
1897 "Archaeological Studies among the Ancient Cities of Mexico, Part 2, Monuments of Chiapas, Oaxaca and the Valley of Mexico." *Field Columbian Museum Publication* 16, *Anthropological Series* 1(1). Chicago.
- HOPKINS, NICHOLAS ARTHUR
1967 "The Chuj Language." Ph.D dissertation, University of Texas at Austin.
- HORTON, WILLIAM A.
1978 "Dwarfism – An Overview." *Journal of the Kansas Medical Society* 79(2):58-61.
- HUNN, EUGENE S.
1977 *Tzeltal Folk Zoology: The Classification of Discontinuities in Nature*. New York.
- JOHNSON, M. S., and D. R. Chaffey
1974 "An Inventory of the Southern Coastal Plain Pine Forests, Belize." *Ministry of Overseas Development, Land Resource Study* 15. Surbiton.
- JONES, CHRISTOPHER
1975 "A Painted Capstone from the Maya Area." In *Studies in Ancient Meso-America* 2:83-110. Edited by John A. Graham. *Contributions of the University of California Archaeological Research Facility* 27.
1977 "Inauguration Dates of Three Late Classic Rulers of Tikal, Guatemala." *American Antiquity* 42(1):28-60.
- JORALEMON, PETER DAVID
1971 "A Study of Olmec Iconography." *Studies in Pre-Columbian Art and Archaeology* 7. Washington: Dumbarton Oaks.
1974 "Ritual Blood-Sacrifice among the Ancient Maya: Part 1." In *Primera Mesa Redonda de Palenque, Part 2*:59-75. Edited by Merle Greene Robertson. Pebble Beach: Robert Louis Stevenson School.
1976 "The Olmec Dragon: A Study in Pre-Columbian Iconography." In *Origins of Religious Art & Iconography in Preclassic Mesoamerica*:27-71. Edited by Henry B. Nicholson. Los Angeles: UCLA Latin American Center.
- JOSSERAND, J. KATHRYN, and NICHOLAS A. HOPKINS
1978 Field notes, Salto de Agua Chol.
- JOSSERAND, J. KATHRYN, LINDA SCHELE, and NICHOLAS A. HOPKINS
1979 "On the Relationship of Chol to the Mayan Hieroglyphs." *paper presented at Taller Maya 4, Palenque, Chiapas, July 4.*
- JOYCE, THOMAS ATHOL
1927 *Maya and Mexican Art*. London.
1933 "The Pottery Whistle-Figurines of Labaantun." *The Journal of the Royal Anthropological Institute of Great Britain and Ireland* 53:15-34.
- JUSTESON, JOHN S.
1978 "Maya Scribal Practice in the Classic Peirod: A Test-Case of an Explanatory Approach to the Study of Writing Systems." Ph.D dissertation, Stanford University. Ann Arbor: University Microfilms International.
- KATZ, FRIEDRICH
1966 *Situación social y económica de los aztecas durante los siglos XV y XVI*. Universidad Nacional Autónoma de México. Instituto de Investigaciones Históricas.
- KAUFMAN, TERRENCE S.
1967 Preliminary Mocho Vocabulary. *Working Paper* 5. Laboratory for Language-Behavior Research, University of California, Los Angeles.
1969 "Teco – A New Mayan Language." *International Journal of American Linguistics* 35(154).
1971 "Materiales lingüísticos para el estudio de las relaciones internas y externas de la familia de idiomas mayanos." In *Desarrollo Cultural de los Mayas*:81-136. Edited by Evon Z. Vogt and Alberto Ruz Lhuillier. Universidad Nacional Autónoma de México.
1972 "El proto-tzeltal-tzotzil: Fonología comparada y diccionario reconstruido." *Universidad Nacional Autónoma de México, Centro de Estudios Mayas, Cuaderno* 5.
- KAUFMAN, TERRENCE S., and WILLIAM NORMAN
1984 "An Outline of Proto-Cholan Phonology, Morphology and Vocabulary." In *Phoneticism in Mayan Hieroglyphic Writing*, edited by John S. Justeson and Lyle Campbell, pp. 77-166. Albany: Institute for Mesoamerican Studies, SUNY.
- KELLER, KATHRYN C.
1959 "The Phonemes of Chontal (Mayan)." *International Journal of American Linguistics* 25:44-53.
- KELLEY, DAVID HUMISTON
1962a "Fonetismo en la escritura maya." *Estudios de Cultura Maya* 2:277-317.
1962b "Glyphic Evidence for a Dynastic Sequence at Quirigua, Guatemala." *American Antiquity* 27(3):323-335.
1965 "The Birth of the Gods at Palenque." *Estudios de Cultura Maya* 5:93-134.
1968 "Maya Fire Glyphs." *Estudios de Cultura Maya* :141-157.
1975 "Planetary Data on Caracol Stela 3." In *Archaeoastronomy*:257-262. Edited by Anthony F. Aveni. Austin: University of Texas Press.
1976 *Deciphering the Maya Script*. Austin: University of Texas Press.
1977b "A Possible Maya Eclipse Record." In *Social Process in Maya Prehistory: Studies in Honour of Sir Eric Thompson*:405-408. Edited by Norman Hammond. London.
1982 "Notes on Puuc Inscriptions and History." In *The Puuc: New Perspectives. Papers presented at the Puuc Symposium, Central College, May, 1977*, edited by Lawrence Mills. Pella, Iowa: Central College.
- KELSEY, VERA, and LILLY DE JONGH OSBORN
1939 *Four Keys to Guatemala*. New York.

- KIDDER, ALFRED, II, and CARLOS SAMAYOA
CHINCHILLA
1959 *The Art of the Ancient Maya*. New York.
- KING, J. C. H.
1974 "Ethnographic Notes on the Maya of Belize, Central America." *Cambridge University Center of Latin American Studies Working Papers* 19.
- KNAUTH, LOTHAR
1961 "El juego de pelota y el rito de la decapitación." *Estudios de Cultura Maya* 1:183-198.
- KNOROZOV, YURI V.
1967 "Selected Chapters from the Writing of the Maya Indians." Translated by Sophie Coe; Tatiana Proskouriakoff, collaborating editor. *Harvard University, Russian Translation Series of the Peabody Museum of Archaeology and Ethnology* 4.
- KÖHLER, W.
1974 "Zur Jagd auf die Schemel der Berggötter." *Indiana* 2: 193-207.
- KÖTTING, BERNHARD
1950 *Peregrinatio religiosa: Wallfahrt und Pilgerwesen in antike und alte Kirche*. Regensburg/Münster.
- KRICKEBERG, WALTER
1948 "Das mittelamerikanische Ballspiel und seine religiöse Symbolik." *Paideuma* 3(3-5):118-190.
- KUBLER, GEORGE
1943 "The Cycle of Life and Death in Metropolitan Aztec Sculpture." *Gazette des Beaux-Arts* 23:257-268.
1946 "The Quechua in the Colonial World." In *Handbook of South American Indians* 2:331-410. Edited by Julian H. Steward. *Smithsonian Institution, Bureau of American Ethnology Bulletin* 143.
1954 *The Louise and Walter Arensberg Collection: Pre-Columbian Sculpture*. Philadelphia: Philadelphia Museum of Art.
1961 "On the Colonial Extinction of the Motifs in Pre-Columbian Art." In *Essays in Pre-Columbian Art and Archaeology*:14-34. By Samuel K. Lothrop et al. Cambridge, Mass.: Harvard University Press.
1962 *The Art and Architecture of Ancient America: The Mexican, Maya, and Andean Peoples*. The Pelican History of Art. Baltimore. (2nd ed., 1975.)
1969 "Studies in Classic Maya Iconography." *Memoirs of the Connecticut Academy of Arts & Sciences* 18. New Haven.
1972 "The Paired Attendants of the Temple Tablets at Palenque." In *Religión en Mesoamerica, Sociedad Mexicana de Antropología, XIIª Mesa Redonda*:317-328.
1976 "The Double-Portrait Lintels of Tikal." In *Actas del XXIIIº Congreso Internacional de Historia del Arte*: 165-175. Universidad de Granada.
1980 "Eclecticism at Cacaxtla." In *Third Palenque Round Table, 1978, Part 2* 5:163-172. Edited by Merle Greene Robertson. Austin: University of Texas Press.
- KURBUJHN, KORNELIA
1979 "Precolumbian Maya Thrones." Paper presented at the Forty-third International Congress of Americanists, Vancouver, August.
1980 "Die Sitze der Maya: Eine ikonographische Untersuchung." Ph.D. dissertation, University of Tübingen.
- n.d. Toloc-mezquel: A Maya Gesture. Unpublished MS.
- KURJACK, EDWARD B., and E. WYLLYS ANDREWS V
1976 "Early Boundary Maintenance in Northwest Yucatan, Mexico." *American Antiquity* 41(3):318-325.
- KURJACK, EDWARD B., SILVIA GARZA T., and JERRY LUCAS
1979 "Archaeological Settlement Patterns and Modern Geography in the Hill Region of Yucatan." In *The Puuc: New Perspectives*:36-45. Edited by Lawrence Mills. Pella, Iowa: Central College.
- LAS CASAS, BARTOLOMÉ DE
1967 *Apologética histórica sumaria*. 2 vols. Edited by Edmundo O'Gorman. Mexico: Universidad Nacional Autónoma de México, Instituto de Investigaciones Históricas.
- LAUGHLIN, ROBERT M.
1969 "The Tzotzil." In *Handbook of Middle American Indians* 7:152-194. General editor, Robert Wauchope. Austin: University of Texas Press.
1975 The Great Tzotzil Dictionary of San Lorenzo Zinacantan. *Smithsonian Contributions to Anthropology* 19.
- LEE, THOMAS A., JR.
1969 "The Artifacts of Chiapa de Corzo, Chiapas, Mexico." *Papers of the New World Archaeological Foundation* 26.
- LEE, THOMAS A., JR., and CARLOS NAVARRETE, eds.
1978 Mesoamerican Communication Routes and Cultural Contacts. *Papers of the New World Archaeological Foundation* 40.
- LINNÉ, SIGVALD
1943 "Humpbacks in Ancient America." *Ethnos* 8(4):161-186.
1956 *Treasures of Mexican Art*. Stockholm.
- LITVAK KING, JAIME
1978 "Central Mexico as a Part of the General Mesoamerican Communications System." *Papers of the New World Archaeological Foundation* 40:115-122.
- LIZARDI RAMOS, CÉSAR
1961 "Las Estelas 4 y 5 de Balancán-Morales, Tabasco." *Estudios de Cultura Maya* 1:107-130.
- LOMBARDO DE RUIZ, SONIA
1979 "Contribución del estudio de la forma a la iconografía de los murales de Cacaxtla." *Comunicaciones: Proyecto Puebla-Tlaxcala* 16:149-160. Puebla: Fundación Alemana para la Investigación Científica.
- LONGACRE, ROBERT
1967 "Systematic Comparison and Reconstruction." In *Handbook of Middle American Indians* 5:117-160. General editor, Robert Wauchope. Austin: University of Texas Press.
- LÓPEZ DE COGOLLUDO, DIEGO
1842-1845 *Los tres siglos de la dominación española en Yucatán o sea historia de esta provincia*. 2 vols. Campeche-Mérida.
- LÓPEZ DE MOLINA, DIANA
1977 "Los murales prehispánicos de Cacaxtla." *Boletín del Instituto Nacional de Antropología e Historia* 3(20): 2-8.
1978 "Cacaxtla: Los murales y la investigación arqueológica." *Boletín del Museo del Hombre Dominicano* 7(9):65-72.
1979a "Cacaxtla: Los murales y la investigación arqueológica." In *Actes du XLIIº Congrès International des Américanistes* (1976)8:463-466. Paris.
1979b "Cacaxtla y su relación con otras áreas mesoamericanas." In *Procesos de Cambio, XVª Mesa Redonda de la Sociedad Mexicana de Antropología* 2:7-12. Guanajuato.

- 1979c "Excavaciones en Cacaxtla: Tercera temporada." *Comunicaciones: Proyecto Puebla-Tlaxcala* 16:141-148. Puebla: Fundación Alemana para la Investigación Científica.
- LÓPEZ DE MOLINA, DIANA, and DANIEL MOLINA
1976 "Los murales de Cacaxtla." *Boletín del Instituto Nacional de Antropología e Historia, Época 2* 16:3-8. Mexico.
- LOTHRÖP, SAMUEL KIRKLAND
1952 "Metals from the Cenote of Sacrifice, Chichen Itza, Yucatan." *Harvard University, Memoirs of the Peabody Museum of Archaeology and Ethnology* 10(2).
- LOTHROP, SAMUEL KIRKLAND, WILLIAM F. FOSHAG, and JOY MAHLER
1957 *Pre-Columbian Art: The Robert Woods Bliss Collection*. London.
- LOUNSBURY, FLOYD G.
1973 "On the Derivation and Reading of the 'Ben-Ich' Prefix." In *Mesoamerican Writing Systems*:99-143. Edited by Elizabeth P. Benson. Washington: Dumbarton Oaks, Trustees for Harvard University.
- 1974a "The Inscription of the Sarcophagus Lid at Palenque." In *Primera Mesa Redonda de Palenque, Part 2*:5-19. Edited by Merle Greene Robertson. Pebble Beach: Robert Louis Stevenson School.
- 1974b "Pacal." In *Primera Mesa Redonda de Palenque, Part 2*:ii. Edited by Merle Greene Robertson. Pebble Beach: Robert Louis Stevenson School.
- 1976 "A Rationale for the Initial Date of the Temple of the Cross at Palenque." In *The Art, Iconography & Dynastic History of Palenque, Part 3: Proceedings of the Segunda Mesa Redonda de Palenque*:211-224. Edited by Merle Greene Robertson. Pebble Beach: Robert Louis Stevenson School.
- 1980 "Some Problems in the Interpretation of the Mythological Portion of the Hieroglyphic Text of the Temple of the Cross at Palenque." In *Third Palenque Round Table, 1978, Part 2*:99-115. Edited by Merle Greene Robertson. Austin: University of Texas Press.
- MACHLIN, MILT, and BOB MARX
1971 "First Visit to Three Forbidden Cities." *Argosy* 372(5): 18-29.
- MACLEOD, BARBARA
1979 "La morfología comparativa entre las lenguas yucatecas y cholanes." Paper presented at Taller Maya 4, Palenque, Chiapas, July 4.
- 1983 An Epigrapher's Annotated Index to Cholan and Yucatecan Verb Morphology. Masters thesis, University of Texas at Austin.
- MACLEOD, BARBARA, and DENNIS E. PULESTON
1978 "Pathways into Darkness: The Search for the Road to Xibalba." In *Tercera Mesa Redonda de Palenque* 4:71-77. Edited by Merle Greene Robertson and Donnan Call Jeffers. Monterey, Calif.: Pre-Columbian Art Research Center.
- MACNEISH, RICHARD S.
1947 "A Preliminary Report on Coastal Tamaulipas, Mexico." *American Antiquity* 13(1):1-15.
- 1954 "An Early Archaeological Site near Panuco, Veracruz." *Transactions of the American Philosophical Society* 44(5).
- 1967 *The Prehistory of the Tehuacan Valley* 1. General editor, Douglas S. Byers. Austin: University of Texas Press.
- 1978 *The Science of Archaeology*. Belmont, Calif.
- MAHLER, JOY
1965 "Garments and Textiles of the Maya Lowlands." In *Handbook of Middle American Indians* 3:581-593. General editor, Robert Wauchope. Austin: University of Texas Press.
- MALER, TEOBERT
1901 Researches in the Central Portion of the Usumasintla Valley. *Harvard University, Memoirs of the Peabody Museum of American Archaeology and Ethnology* 2(1). (Reprinted 1970-1976, New York.)
- 1908 Explorations of the Upper Usumasintla and Adjacent Region. *Harvard University, Memoirs of the Peabody Museum of American Archaeology and Ethnology* 4(1).
- MARCUS, JOYCE
1976 *Emblem and State in the Classic Maya Lowlands*. Washington: Dumbarton Oaks, Trustees for Harvard University.
- MARTÍNEZ HERNÁNDEZ, JUAN, ed.
1929 *Diccionario de motul, maya-español, atribuido a fray Antonio de Ciudad Real y arte de lengua maya por fray Juan Coronel*. Mérida.
- MARTÍNEZ MARÍN, C.
1972 "Santuarios y peregrinaciones en el México prehispánico." In *Religión en Mesoamérica, XIIª Mesa Redonda, Sociedad Mexicana de Antropología*:161-179.
- MATHEWS, PETER
1980 "Notes on the Dynastic Sequence of Bonampak, Part 1." In *Third Palenque Round Table, 1978, Part 2*: 60-73. Edited by Merle Greene Robertson. Austin: University of Texas Press.
- n.d. The Identification of Themes in the Sculpture of Naranjo, Dept. of Peten, Guatemala. MS.
- MATHEWS, PETER, and DAVID PENDERGAST
1979 The Altun Ha Jade Plaque: Deciphering the Inscription. *Contributions of the California Archaeological Research Facility* 41:197-214. Berkeley: University of California.
- MATHEWS, PETER, and LINDA SCHELE
1974 "Lords of Palenque – The Glyphic Evidence." In *Primera Mesa Redonda de Palenque, Part 1*:63-76. Edited by Merle Greene Robertson. Pebble Beach: Robert Louis Stevenson School.
- MAUDSLAY, ALFRED PERCIVAL
1889- *Biologia Centrali-Americana: Archaeology*. 5 vols.
1902 London.
- MAYERS, M.
1956 *Vocabulario pocomchi-español*. Guatemala: Instituto Lingüístico Verano.
- MEADE, JOAQUIN
1939 "Exploraciones en la Huasteca Potosina." In *XVIIº Congreso Internacional de Americanistas* 2:12-24. Mexico.
- 1942 *La Huasteca: Epoca antigua*. Mexico.
- 1946 *Guía de San Luis Potosí*. Mexico.
- 1948 *Arqueología de San Luis Potosí*. Mexico: Ediciones de la Sociedad de Geografía y Estadística.
- 1951a "La Huasteca Quereretana." *Monografías Huastecas* 5, 6. Mexico.
- 1951b "La Huasteca Poblana." *Academia Mexicana de la Historia, Memorias* 10(3):313-348.
- 1953 "Historia Prehispánica de la Huasteca." In *Huastecos, Totonacos y sus vecinos, Revista Mexicana de Estudios Antropológicos* 8:291-302.

- 1962 *La Huasteca Veracruzana*, Vol. 1. Veracruz.
- MEANS, PHILIP AINSWORTH
1917 History of the Spanish Conquest of Yucatan and of the Itzas. *Harvard University, Papers of the Peabody Museum of American Archaeology and Ethnology* 7.
- MEDELLÍN ZENIL, ALFONSO
1955 "Investigaciones en la región de Chicontepec, Ver." *Boletín Bibliográfico de Antropología Americana* 18: 134-137.
- MELGAREJO VIVANCO, JOSÉ LUIS
1979 "Una pintura mural en Cacaxtla, estado de Tlaxcala." *Cuadernos Antropológicos* 2:214-220. Jalapa: Instituto de Antropología, Universidad Veracruzana.
- MERRIN, EDWARD H.
1970 *Pre-Columbian Art of Mexico and Guatemala*. New York: Edward H. Merrin Gallery.
- MERWIN, RAYMOND E., and GEORGE C. VAILLANT
1932 The Ruins of Holmul, Guatemala. *Harvard University, Memoirs of the Peabody Museum of American Archaeology and Ethnology* 3(2).
- MICHELON, OSCAR, ed.
1976 Diccionario de San Francisco. *Bibliotheca Linguistica Americana* 2. Graz.
- MILES, SUZANNE W.
1957 "The Sixteenth-Century Pokom-Maya." *Transactions of the American Philosophical Society* n.s. 47(4):731-781.
- MILLER, ARTHUR G.
1973a "Archaeological Investigations of the Quintana Roo Mural Project: A Preliminary Report of the 1973 Season." In *Studies in Ancient Mesoamerica. Contributions of the University of California Archaeological Research Facility* 18:137-148. Edited by John Graham. Berkeley.
1973b *The Mural Painting of Teotihuacan*. Washington: Dumbarton Oaks, Trustees for Harvard University.
- MILLER, JEFFREY
1974 "Notes on a Stelae Pair Probably from Calakmul." In *Primera Mesa Redonda de Palenque, Part 1*:149-161. Edited by Merle Greene Robertson. Pebble Beach: Robert Louis Stevenson School.
- MILLER, MARY ELLEN
1975 *Jaina Figurines: A Study of Maya Iconography*. Princeton: The Art Museum, Princeton University.
1981 *The Murals of Bonampak, Chiapas, Mexico*. Ph.D. dissertation, Yale University.
- MOLINA, DANIEL
1978 "La investigación arqueológica en Cacaxtla, Tlaxcala." *Boletín del Museo del Hombre Dominicano* 7(9):55-64.
1979 "Consideraciones sobre la cronología de Cacaxtla." In *Los Procesos de Cambio, XIª Mesa Redonda de la Sociedad Mexicana de Antropología*.
- MORAN, FRANCISCO
1685-
1695 Arte en lengua choltil, que quiere decir lengua de milperos. MS in the Gates Collection of the Latin American Library, Tulane University.
1935 Arte y Diccionario en Lengua Choltil, a Manuscript Copied from Libro Grande of fr. Pedro Moran of about 1625. *The Maya Society, Publication* 9. Baltimore.
- MORLEY, SYLVANUS GRISWOLD
1935 Guide Book to the Ruins of Quirigua. *Carnegie Institution of Washington Supplementary Publication* 16.
- 1937-
1938 The Inscriptions of Peten. *Carnegie Institution of Washington Publication* 437. 5 vols.
1946 *The Ancient Maya*. London: Oxford.
1956 *The Ancient Maya*. 3rd ed., revised by George W. Brainerd. Stanford: Stanford University Press.
1941 The Xiu Chronicle, Part 1: The History of the Xiu. MS in the Peabody Museum, Harvard University.
1970 "The Stela Platform at Uxmal, Yucatan, Mexico." Edited and with notes by H. E. D. Pollock. *Tulane University, Middle American Research Institute Publication* 26:152-180.
- MOTOLINÍA, TORIBIO
1971 *Memoriales*. Edited by Edmundo O'Gorman. Mexico.
- MOTUL VOCABULARIO MAYA.
MS. Original in J. S. Brown Library, Providence.
- NAHM, W.
n.d. Some Phonetic Readings of Maya Glyphs. MS.
- NICHOLSON, HENRY B.
1955 "The Temalcatl of Tehuacan." *El México Antiguo* 8: 95-134.
1971 "Religion in Pre-Hispanic Central Mexico." In *Handbook of Middle American Indians* 10:395-446. General editor, Robert Wauchope. Austin: University of Texas Press.
- NORDENSKIÖLD, ERLAND
1938 "An Historical and Ethnological Survey of the Cuna Indians." *Comparative Ethnographical Studies* 10. Göteborg.
- NORMAN, V. GARTH
1973 Izapa Sculpture, Part 1: Album. *Papers of the New World Archaeological Foundation* 30.
- OBREGÓN, GONZALO
1953 *El Real Convento y Santuario de San Miguel de Chalma: Homenaje a S. Zavala*. Mexico: Colegio de México.
- OSBORNE, LILLY DE JONGH
1965 *Indian Crafts of Guatemala and El Salvador*. Norman: University of Oklahoma Press.
- PAHL, GARY
1976a "The Maya Hieroglyphic Inscriptions of Copan: A Catalog and Historical Commentary." Ph.D. dissertation, University of California at Los Angeles. Ann Arbor: University Microfilms International.
1976b "A Successor-Relationship Complex and Associated Signs." In *The Art, Iconography & Dynastic History of Palenque, Part 3: Proceedings of the Segunda Mesa Redonda de Palenque*:35-44. Edited by Merle Greene Robertson. Pebble Beach: Robert Louis Stevenson School.
- PALACIOS, ENRIQUE JUAN
1937 "Mas gemas del arte maya en Palenque." *Anales del Museo Nacional de Arqueología, Historia y Etnografía, Época* 5 2:193-225. Mexico.
- PANG, HILDA DELGADO
1976 "Similarities between Certain Early Spanish, Contemporary Spanish Folk, and Mesoamerican Indian Textile Design Motifs." In *Irene Emery Round Table on Museum Textiles, 1976 Proceedings: Ethnographic Textiles of the Western Hemisphere*:385-404. Edited by Irene Emery and Patricia Fiske. Washington: The Textile Museum.
- PARSONS, LEE A.
1969 "Bilbao, Guatemala: An Archaeological Study of the Pacific Coast Cotzumalhuapa Region." *Milwaukee*

- Public Museum Publications in Anthropology* 12.
- PASZTORY, ESTHER
- 1972 "The Historical and Religious Significance of the Middle Classic Ball Game." In *Religión en Mesoamérica, XIIª Mesa Redonda, Sociedad Mexicana de Antropología*:441-455.
- 1974 "The Iconography of the Teotihuacan Tlaloc." *Studies in Pre-Columbian Art and Archaeology* 15. Washington: Dumbarton Oaks.
- 1976 *The Murals of Tepantitla, Teotihuacan*. New York: Garland Series, Outstanding Dissertations in the Fine Arts.
- 1978 "Artistic Traditions of the Middle Classic Period." In *Middle Classic Mesoamerica: A.D. 400-700*:108-142. Edited by Esther Pasztory. New York: Columbia University Press.
- PATCH, ROBERT
- 1977 "El mercado urbano y la economía campesina en el siglo XVIII." *Boletín de la Escuela de Ciencias Antropológicas de la Universidad de Yucatán* 27:52-66.
- PENDERGAST, DAVID
- 1967 *Palenque: The Walker-Caddy Expedition to the Ancient Maya City, 1839-1840*. Norman: University of Oklahoma Press.
- 1969 "The Prehistory of Actun Balam, British Honduras." *Royal Ontario Museum Occasional Paper* 16.
- 1971 "Evidence of Early Teotihuacan-Lowland Maya Contact at Altun Ha." *American Antiquity* 36(4):455-460.
- 1979 *Excavations at Altun Ha, Belize, 1964-1970* 1. Toronto: Royal Ontario Museum.
- PÉREZ, JUAN PÍO
- 1866-1877 *Diccionario de la lengua maya*. Mérida.
- PIÑA CHAN, ROMÁN
- 1967 *Una visión del México prehispánico* 1. Universidad Nacional Autónoma de México.
- 1968 *Jaina: La casa en el agua*. Instituto Nacional de Antropología y Arqueología.
- PINEDA, VICENTE
- 1888 *Historia de las sublevaciones indígenas habidas en el Estado de Chiapas*. Tuxtla Gutiérrez: Tipografía del Gobierno.
- PLOG, STEPHEN
- 1978 "Social Interaction and Stylistic Similarity: A Reanalysis." In *Advances in Archaeological Method and Theory* 1:144-182. Edited by M. B. Schiffer. New York.
- POHL, MARY
- 1981 Ritual Continuity and Transformation in Mesoamerica: Reconstructing the Ancient Maya *Cuch* Ritual. *American Antiquity* 46:513-529.
- POLLOCK, H. E. D.
- 1965 "Architecture of the Maya Lowlands." In *Handbook of Middle American Indians* 2(1):378-439. General editor, Robert Wauchope. Austin: University of Texas Press.
- 1980 The Puuc: An Architectural Survey of the Hill Country of Yucatan and Northern Campeche, Mexico. *Harvard University, Memoirs of the Peabody Museum* 19.
- PRING, D. C.
- 1977a "The Dating of the Teotihuacan Contact at Altun Ha: The New Evidence." *American Antiquity* 42(4):626-628.
- 1977b "The 'Protoclassic' in the Maya Lowlands." In *Social Process in Maya Prehistory: Studies in Honour of Sir Eric Thompson*:135-165. London.
- PROSKOURIAKOFF, TATIANA
- 1950 A Study of Classic Maya Sculpture. *Carnegie Institution of Washington Publication* 593.
- 1960 Historical Implications of a Pattern of Dates at Piedras Negras." *American Antiquity* 25(4):454-475.
- 1961a "The Lords of the Maya Realm." *Expedition* 11(1):14-21.
- 1961b "Portraits of Women in Maya Art." In *Essays in Pre-Columbian Art and Archaeology*:81-99. By Samuel K. Lothrop et al. Cambridge, Mass.: Harvard University Press.
- 1963 "Historical Data in the Inscriptions of Yaxchilan, Part 1." *Estudios de Cultura Maya* 3:149-167.
- 1964 "Historical Data in the Inscriptions of Yaxchilan, Part 2." *Estudios de Cultura Maya* 4:177-201.
- 1968 "The Jog and Jaguar Signs in Maya Writing." *American Antiquity* 33(2):247-251.
- 1970 "On Two Inscriptions at Chichen Itza." In *Monographs and Papers in Maya Archaeology*. *Harvard University, Papers of the Peabody Museum of Archaeology and Ethnology* 61:450-467. Edited by William R. Bullard.
- 1973 "The Hand-Grasping-Fish and Associated Glyphs on Classic Maya Monuments." In *Mesoamerican Writing Systems*:165-178. Edited by Elizabeth P. Benson. Washington: Dumbarton Oaks.
- 1974 Jades from the Cenote of Sacrifice, Chichen Itza, Mexico. *Harvard University, Memoirs of the Peabody Museum of Archaeology and Ethnology* 10(1).
- PULESTON, DENNIS E.
- 1971 "An Experimental Approach to the Function of Classic Maya Chultuns." *American Antiquity* 36:322-335.
- QUIRARTE, JACINTO
- 1964 "La pintura mural maya." Ph.D. dissertation, Universidad Nacional Autónoma de México.
- 1972 "El juego de pelota en Mesoamérica: Su desarrollo arquitectónico." *Estudios de Cultura Maya* 8:83-96.
- 1973 "Izapan-Style Art: A Study of Its Form and Meaning." *Studies in Pre-Columbian Art and Archaeology* 10. Washington: Dumbarton Oaks.
- 1974 "Terrestrial/Celestial Polymorphs as Narrative Frames in the Art of Izapa and Palenque." In *Primera Mesa Redonda de Palenque, Part 1*:129-135. Edited by Merle Greene Robertson. Pebble Beach: Robert Louis Stevenson School.
- 1976 "The Relationship of Izapan-Style Art to Olmec and Maya Art: A Review." In *Origins of Religious Art and Iconography in Preclassic Mesoamerica*:73-86. Edited by Henry B. Nicholson. Los Angeles: UCLA Latin American Center.
- 1979 "The Representation of Underworld Processions in Maya Vase Painting: An Iconographic Study." In *Maya Archaeology and Ethnohistory*:116-148. Edited by Norman Hammond and Gordon R. Willey. Austin: University of Texas Press.
- RANDEL, WALTER
- 1965 *Jaina Terracotta: Exhibition Catalogue*. New York.
- RANDS, ROBERT L.
- 1953 "The Waterlily in Maya Art: A Complex of Alleged Asiatic Origin." *Smithsonian Institution, Bureau of*

- American Ethnology and Anthropology Papers* 34: 75-153.
- 1955 "Some Manifestations of Water in Mesoamerican Art." *Smithsonian Institution, Bureau of American Ethnology Bulletin* 157:265-393.
- 1967 "Ceramic Technology and Trade in the Palenque Region, Mexico." In *American Historical Anthropology: Essays in Honor of Leslie Spier*:137-151. Edited by Charles L. Riley and W. W. Taylor. Carbondale: Southern Illinois University.
- 1974 "A Chronological Framework for Palenque." In *Primera Mesa Redonda de Palenque, Part 1*:35-59. Edited by Merle Greene Robertson. Pebble Beach: Robert Louis Stevenson School.
- RANDS, ROBERT L., and RONALD L. BISHOP
- 1980 "Resource Procurement Zones and Patterns of Ceramic Exchange in the Palenque Region, Mexico." In *Models and Methods in Regional Exchange. Society for American Archaeology Papers* 1:19-46. Edited by R. E. Fry.
- RANDS, ROBERT L., RONALD L. BISHOP, and GARMAN HARBOTTLE
- 1979 "Thematic and Compositional Variations in Palenque-Region Incensarios." In *Tercera Mesa Redonda de Palenque* 4:19-30. Edited by Merle Greene Robertson and Donnan Call Jeffers. Monterey, Calif.: Pre-Columbian Art Research Center.
- RANDS, ROBERT L. and BARBARA C. RANDS
- 1965 "Pottery Figurines of the Maya Lowlands." In *Handbook of Middle American Indians* 2(1):535-560. General editor, Robert Wauchope. Austin: University of Texas Press.
- RATHJE, WILLIAM L.
- 1972 "Praise the Gods and Pass the Metates: A Hypothesis of the Development of Lowland Rainforest Civilizations in Mesoamerica." In *Contemporary Archaeology*:365-392. Edited by Mark P. Leone. Carbondale and Edwardsville: Southern Illinois University Press.
- RATTRAY, EVELYN C.
- n.d. "Ceramics." In *Urbanization at Teotihuacan, Mexico, 4: Ceramics and Chronology*. Austin: University of Texas Press. (In press.)
- RECINOS, ADRIAN
- 1947 *Popol Vuh*. Mexico: Fondo de Cultura Económica. (Other editions, 1951, 1973, 1979.)
- RECINOS, ADRIAN, DELIA GOETZ, and SYLVANUS G. MORLEY
- 1950 *Popol Vuh: The Sacred Book of the Ancient Quiché Maya*. Norman: University of Oklahoma Press.
- REDFIELD, ROBERT, and ALFONSO VILLA ROJAS
- 1934 Chan Kom, a Maya Village. *Carnegie Institution of Washington, Publication* 448.
- REICHEL-DOLMATOFF, GERARDO
- 1978 "The Loom of Life: Akogi Principle of Integration." *Journal of Latin American Lore* 4(1):5-27. Los Angeles.
- RELACIONES DE YUCATÁN
- 1898-1900 *Relaciones de Yucatán*. In *Colección de Documentos Inéditos Relativos al Descubrimiento, Conquista y Organización de las Antiguas Posesiones Españolas de Ultramar*, 2nd series, 11 and 13. Madrid.
- RICE, PRUDENCE M.
- 1978 "Clear Answers to Vague Questions: Some Assumptions on Provenience Studies of Pottery." In *The Ceramics of Kaminaljuyu, Guatemala*:511-542. Edited by Ronald K. Wetherington. State College: The Pennsylvania State University Press Monograph Series on Kaminaljuyu.
- ROBERTSON, DONALD
- 1959 *Mexican Manuscript Painting of the Early Colonial Period: The Metropolitan Schools*. *Yale Historical Publications, History of Art* 12. New Haven: Yale University Press.
- 1963 "The Style of the Borgia Group of Mexican Pre-Conquest Manuscripts." In *Studies in Western Art: Acts of the Twentieth International Congress of the History of Art 3: Latin American Art and the Baroque Period in Europe*:148-164. Edited by Millard Meiss et al. Princeton: Princeton University Press.
- 1970 "The Tulum Murals: The International Style of the Late Post-Classic." In *Verhandlungen des XXXVIII. Internationalen Amerikanistenkongresses* (1968)2: 77-88. Munich.
- 1972 "The Pinturas (Maps) of the Relaciones Geograficas, with a Catalog." In *Handbook of Middle American Indians* 12: *Guide to Ethnohistorical Sources*:243-278. General editor, Robert Wauchope. Austin: University of Texas Press.
- ROBICSEK, FRANCIS
- 1972 *Copan, Home of the Mayan Gods*. New York: The Museum of the American Indian, Heye Foundation.
- 1975 *A Study in Maya Art and History: The Mat Symbol*. New York: The Museum of the American Indian, Heye Foundation.
- 1978 *The Smoking Gods*. Norman: University of Oklahoma Press.
- 1979 "The Mythical Identity of God K." In *Tercera Mesa Redonda de Palenque* 4:111-128. Edited by Merle Greene Robertson and Donnan Call Jeffers. Monterey, Calif.: Pre-Columbian Art Research Center.
- RODRÍGUEZ, BLAS
- 1932 *Tampico, datos para la historia de la Huasteca*. Mexico: Editorial Cultura.
- 1939 "Una escultura huasteca." In *XXVII Congreso Internacional de Americanistas* 1:587-600. Mexico. *Culturas huasteca y olmeca*. Mexico.
- ROJAS, GABRIEL DE
- 1927 "Descripción de Cholula." *Revista Mexicana de Estudios Históricos* 1:158-170.
- ROTHMANS OF PALL MALL CANADA
- 1978 *Los Mayas: The Manuel Barbachano Ponce Art Collection*.
- ROYS, RALPH L.
- 1931 *The Ethno-Botany of the Maya*. *Tulane University, Middle American Research Institute Publication* 2.
- 1933 *The Book of Chilam Balam of Chumayel*. *Carnegie Institution of Washington Publication* 438.
- 1940 *Personal Names of the Maya of Yucatan*. *Carnegie Institution of Washington Publication* 523, *Contributions to American Anthropology and History* 6(31).
- 1943 *The Indian Background of Colonial Yucatan*. *Carnegie Institution of Washington Publication* 548.
- 1949 *The Prophecies for the Maya Tuns or Years in the Books of Chilam Balam of Tizimin and Mani*. *Carnegie Institution of Washington Publication* 585, *Contributions to American Anthropology and History* 51.
- 1965 *Ritual of the Bacabs*. Norman: University of Oklahoma Press.
- 1967 *Chilam Balam of Chumayel*. Norman: University of Oklahoma Press.

- RUPPERT, KARL, and JOHN H. DENISON, JR.
1943 Archaeological Reconnaissance in Campeche, Quintana Roo, and Peten. *Carnegie Institution of Washington Publication* 543.
- RUPPERT, KARL, J. ERIC S. THOMPSON, and TATIANA PROSKOURIAKOFF
1955 Bonampak, Chiapas, Mexico. *Carnegie Institution of Washington Publication* 602.
- RUZ LHUILLIER, ALBERTO
1952 "Exploraciones arqueológicas en Palenque, 1949." *Anales del Instituto Nacional de Antropología e Historia* 4(32):49-60.
1958a "Exploraciones arqueológicas en Palenque – 1955." *Anales del Instituto Nacional de Antropología e Historia* 10(39). Mexico.
1958b "El juego de pelota de Uxmal." *Miscellanea Paul Rivet, Octogenario Dictata* 1:635-667. Mexico.
1968 *Costumbres funerarias de los antiguos mayas*. Universidad Nacional Autónoma de México.
1969 La costa de Campeche en los tiempos prehispánicos. *Instituto Nacional de Antropología e Historia, Serie Investigaciones* 18. Mexico.
1970 *The Civilization of the Ancient Maya*. Mexico: Instituto Nacional de Antropología e Historia.
- SABLOFF, JEREMY A.
1973 "New Horizons in Mesoamerican Archaeology." *American Anthropologist* 75(6):1768-1774.
1975 Excavations at Seibal: The Ceramics. *Harvard University, Memoirs of the Peabody Museum of Archaeology and Ethnology* 13(2).
- SABLOFF, JEREMY A., and WILLIAM L. RATHJE
1975 A Study of Changing Pre-Columbian Commercial Systems. *Harvard University, Monographs of the Peabody Museum* 3.
- SÁENZ DE SANTA MARÍA, CARMELO
1940 *Diccionario cakchiquel-español*. Guatemala.
- SAHAGÚN, BERNARDINO DE
1950- Florentine Codex: General History of the Things of New Spain. Translated and edited by Arthur J. O. Anderson and Charles E. Dibble. *Monographs of the School of American Research* 14.
- SANDERS, FRANK J.
1977 "The 'Twin Stelae' of Seibal." *American Antiquity* 42(1): 78-86.
- SATTERTHWAITE, LINTON, JR.
1935 *Piedras Negras Preliminary Papers* 3: *Palace Structures J-2 and J-6*. Philadelphia: The University Museum, University of Pennsylvania.
1943 *Piedras Negras Archaeology: Architecture, Part 1*. Philadelphia: The University Museum, University of Pennsylvania.
1944 *Piedras Negras Archaeology: Architecture, Part 2: Temples, No. 1: Structure R-9 (Temple and Associated Construction)*. Philadelphia: The University Museum, University of Pennsylvania.
1951 "Reconnaissance in British Honduras." *The University Museum Bulletin* 16(1):21-37. Philadelphia: University of Pennsylvania Press.
1954 "Sculptured Monuments from Caracol, British Honduras." *University Museum Bulletin* 18(1, 2). Philadelphia: University of Pennsylvania Press.
- SCHAFER, EDWARD H.
1973 *The Divine Woman: Dragon Ladies and Rain Maidens in Tang Literature*. Berkeley: University of California Press.
- SCHÁVELZON, DANIEL.
n.d. "Una visión romántica de la arquitectura: Jean Frederick Maximilien, Comte de Waldeck." In *Documentos de Arquitectura Nacional y Americana* 10, Resistencia. (In press.)
- SCHELE, LINDA
1974a "The Attribution of Monumental Architecture to Specific Rulers at Palenque." Paper presented at the Forty-first International Congress of Americanists, Mexico.
1974b "Observations on the Cross Motif at Palenque." In *Primera Mesa Redonda de Palenque, Part 1*:41-61. Pebble Beach: Robert Louis Stevenson School.
1976 "Accession Iconography of Chan-Bahlum in the Group of the Cross at Palenque." In *The Art, Iconography & Dynastic History of Palenque, Part 3: Proceedings of the Segunda Mesa Redonda de Palenque*: 9-34. Edited by Merle Greene Robertson. Pebble Beach: Robert Louis Stevenson School.
1978 An Odd Kinship Expression and the Classic Bloodletting Rite. Paper presented at the 26th Annual Meeting of the American Society for Ethnohistory, Austin.
1979a "Genealogical Documentation on the Tri-Figure Panels at Palenque." In *Tercera Mesa Redonda de Palenque* 4:41-70. Edited by Merle Greene Robertson and Donnan Call Jeffers. Monterey, Calif.: Pre-Columbian Art Research Center.
1979b *Notebook of the Maya Hieroglyphic Writing Workshop at Texas*. Austin: University of Texas.
1980a "Verb Morphology of the Classic Maya Writing System." Ph.D. dissertation, University of Texas at Austin. (1982 *Maya Glyphs: The Verbs*. Austin: University of Texas Press.)
1980b "The Xibalba Shuffle." Paper presented at the conference on the Style and Iconography of Classic Maya Vases, Princeton University Department of Art and Archaeology and Art Museum, November 8.
1981a *Notebook for the Maya Hieroglyphic Writing Workshop*. Austin: Institute of Latin American Studies, University of Texas.
1981b "Sacred Site and World-View at Palenque." In *Mesoamerican Sites and World Views*:87-114. Edited by Elizabeth P. Benson. Washington: Dumbarton Oaks.
1984a "Human Sacrifice Among the Classic Maya." In *Ritual Human Sacrifice in Mesoamerica*, edited by Elizabeth H. Boone, pp. 7-48. Washington, D.C.: Dumbarton Oaks.
1984b "Some Suggested Readings of the Event and Office of Heir-Designate at Palenque." In *Phoneticism in Mayan Hieroglyphic Writing*, edited by John S. Justeson and Lyle Campbell, pp. 287-305. Albany: Institute for Mesoamerican Studies, SUNY.
n.d. A Preliminary Commentary on the Tablet of the Sun at Palenque, Chiapas. MS on file, Latin American Collection, University of Texas at Austin.
- SCHELE, LINDA, PETER MATHEWS, and FLOYD LOUNSBURY
1977 Parentage Statements in Classic Maya Inscriptions. Paper presented at the International Conference on Maya Iconography and Hieroglyphic Writing, Guatemala City.
- SCHELE, LINDA, and PETER MATHEWS.
1979 *The Bodega of Palenque, Chiapas, Mexico*. Washington: Dumbarton Oaks, Trustees for Harvard University.

- SCHELE, LINDA, and JEFFREY MILLER
1983 The Mirror, the Rabbit, and the Bundle: 'Accession' Expressions from the Classic Maya Inscriptions. *Studies in Pre-Columbian Art and Archaeology* 25. Washington: Dumbarton Oaks.
- SCHELLHAS, PAUL
1904 Representation of Deities of the Maya Manuscripts. *Harvard University, Papers of the Peabody Museum of American Archaeology and Ethnology* 4(1).
- SCHOLES, FRANCE V., and RALPH L. ROYS
1948 The Maya Chontal Indians of Acalan-Tixchel: A Contribution to the History and Ethnography of the Yucatan Peninsula. *Carnegie Institution of Washington Publication* 560.
- SCHULTZE-JENA, LEONARD
1944 Popol Vuh: Das heilige Buch der Quiché Indianer von Guatemala. *Quellenwerke zur alten Geschichte Amerikas* 2. Berlin: Ibero-amerikanischen Institut preussischen Kulturbesitz.
- SCHUMANN G., OTTO
1971 Descripción estructural del maya Itzá del Petén, Guatemala. *Universidad Nacional Autónoma de México, Centro de Estudios Mayas, Cuaderno* 6.
1973 La lengua chol, de Tila (Chiapas). *Universidad Nacional Autónoma de México, Centro de Estudios Mayas, Cuaderno* 6.
- SEDAT, GUILLERMO
1955 *Nuevo diccionario de las lenguas k'ekch' y española*. Guatemala.
- SÉJOURNÉ, LAURETTE
1966 *Arquitectura y pintura en Teotihuacan: Historia y arqueología*. Mexico.
- SELER, EDUARD
1901-1902 *Codex Fejérváry*. Translated by A. H. Keane. Berlin.
1902-1923 *Gesammelte Abhandlungen zur amerikanischen Sprach- und Altertumskunde*. 5 vols. Berlin. (Reprinted 1960-1961, Graz.)
1904 "Las antiguas colonias en la región de la Huasteca." In *Colección de Disertaciones sobre Filología y Arqueología Americana* 2:148-166. MS copy in Archivo de la Biblioteca del Museo de Antropología, Mexico.
1976 *Observations and Studies in the Ruins of Palenque*. Translated by Gisela Morgner. Pebble Beach: Robert Louis Stevenson School.
- SERNA, JACINTO DE LA
1955 *Manuel de ministros de indios para el conocimiento de sus idolatrías, y extirpación de ellas*. Mexico.
- SESTIERI, PELLEGRINO CLAUDIO
1969 *Arte maya del Guatemala*. Instituto Italo-Latino Americano, Rome.
- SHAO, PAUL
1976 *Asiatic Influences in Pre-Columbian American Art*. Ames: Iowa State University Press.
- SIMON, HERBERT A.
1980 "The Behavioural and Social Sciences." *Science* 209(4452):72-77.
- SMAILUS, ORTWIN
1975 El maya-chontal de Acalan: Análisis lingüístico de un documento de los años 1610-1612. *Universidad Nacional Autónoma de México, Centro de Estudios Mayas, Cuaderno* 9.
- SMITH, A. LEDYARD
1950 Uaxactun, Guatemala: Excavations of 1931-1937. *Carnegie Institution of Washington Publication* 558.
- SMITH, A. LEDYARD, and ALFRED V. KIDDER.
1943 Explorations in the Motagua Valley, Guatemala. *Carnegie Institution of Washington Publication* 546, *Contributions to American Anthropology and History* 8(41).
1951 Excavations at Nebaj. *Carnegie Institution of Washington Publication* 594.
- SMITH, BRADLEY
1968 *Mexico: A History in Art*. New York.
- SMITH, JOSHUA
n.d. Manual de Manuel o el tzeltal como quien dice. MS.
- SMITH, ROBERT E.
1952 Pottery from Chipoc, Alta Verapaz, Guatemala. *Carnegie Institution of Washington, Contributions to American Anthropology and History* 56.
1955 Ceramic Sequence at Uaxactun, Guatemala. *Tulane University Middle American Research Institute Publication* 20. 2 vols.
1971 The Pottery of Mayapan Including Studies of Ceramic Material from Uxmal, Kabah, and Chichen Itza. *Harvard University, Papers of the Peabody Museum of Archaeology and Ethnology* 66.
- SMITH, WATSON
1962 "Schools, Pots, and Potters." *American Anthropologist* 64(6):1165-1178.
- SOSA, JOHN R.
n.d. A Reading of the Hieroglyphic Stairway at Naranjo, Guatemala. MS.
- SOSA, JOHN R., and DORIE J. REENTS
1980 "Glyphic Evidence for Classic Maya Militarism." *Belizean Studies* 8(3):2-11. Belize City.
- SOUSTELLE, JACQUES
1958 *Mexico: Pre-Hispanic Paintings*. Introduction by Ignacio Bernal. Paris.
- SPINDEN, HERBERT J.
1913 A Study of Maya Art. *Harvard University, Memoirs of the Peabody Museum of American Archaeology and Ethnology* 6. (Reprinted 1975, New York.)
1916 "The Question of the Zodiac in America." *American Anthropologist* 18(1):53-80.
1957 *Maya Art and Civilization*. Indian Hills.
- SPRANZ, BODO
1970 *Las pirámides de Teotimehuacan, Puebla. El Proyecto México de la Fundación Alemana para la Investigación Científica*. Investigaciones Regionales e Interdisciplinarias Mexicano-Alemanas Realizadas en la Cuenca Puebla-Tlaxcala. Wiesbaden.
- STAUB, WALTER
1919 "Some Data about the Prehispanic and the Now Living Huastec Indians." *El México Antiguo* 1(3):1-65.
1926 "Le Nord-Est du Mexique et les indiens de la Huastèque." *Journal de la Société des Américanistes* n.s. 18:279-296.
- STEPHENS, JOHN L.
1841 *Incidents of Travel in Central America, Chiapas, and Yucatan*. 2 vols. New York.
1843 *Incidents of Travel in Yucatan*. 2 vols. New York.
- STERN, THEODORE
1949 The Rubber-Ball Games of the Americas. *Monographs of the American Ethnographic Society* 17.
- STOLL, OTTO
1887 *Die Sprache der Ixil-Indianer, ein Beitrag zur Ethnologie und Linguistik der Maya-Völker*. Leipzig.
- STONE, ANDREA
1977 "Jaina Style Figurines: A Study in Gesture and Pose." M.A. thesis, University of Texas at Austin.

- STRESSER-PÉAN, GUY
 1967 "Recherches françaises au Mexique et en Amérique Centrale, 1962-1968." *Journal de la Société des Américanistes* 46(2):583-610.
- 1971 "Ancient Sources on the Huasteca." In *Handbook of Middle American Indians* 2:582-602. General editor, Robert Wauchope. Austin: University of Texas Press.
- STROSS, BRIAN
 1978 "Tzeltal Tales of Demons and Monsters." *University of Missouri, Columbia, Museum Brief* 24.
- STUART, GEORGE E., and GENE S. STUART
 1977 *The Mysterious Maya*. Washington: National Geographic Society.
- SUMPTION, JONATHAN
 1975 *Pilgrimage: An Image of Mediaeval Religion*. Ottawa.
- TAACK, GEORGE H.
 1976 "Accession Glyphs on Maya Monuments: A Linguistic Approach." *Anthropological Linguistics* 18(1):29-52.
- 1977 "Maya Script and Maya Language: New Data with Regard to the Phoneme /H'/. " *Anthropological Linguistics* 19(6):280-302.
- TAUBE, KARL
 1980 "The Deer and Vulture in Classic Maya Religion." Senior honors thesis, Department of Anthropology, University of California at Berkeley.
- TAYLOR, DICEY
 1979 "The Cauac Monster." In *Tercera Mesa Redonda de Palenque* 4:79-89. Edited by Merle Greene Robertson and Donnan Call Jeffers. Monterey, Calif.: Pre-Columbian Art Research Center.
- TEDLOCK, B. H.
 1978 *Quiché Maya Divination: A Theory of Practice*. Ph.D. dissertation, State University of New York at Albany. Ann Arbor: University Microfilms International.
- THOMPSON, EDWARD H.
 1888 "Extracts from Letters on Explorations in Yucatan." Paper presented at the semi-annual meeting of the American Antiquarian Society.
- 1897 *The Chultunes of Labna, Yucatan*. Harvard University, *Memoirs of the Peabody Museum of American Archaeology and Ethnology* 1(3).
- 1898 "Ruins of Xkichmook, Yucatan." *Chicago Natural History Museum Anthropological Series* 2:209-229.
- THOMPSON, J. ERIC S.
 1930 *Ethnology of the Mayas of Southern and Central British Honduras*. *Field Museum of Natural History, Publication* 274, *Anthropological Series* 17(2).
- 1939a *Excavations at San Jose, British Honduras*. *Carnegie Institution of Washington Publication* 506.
- 1939b "The Moon Goddess in Middle America with Notes on Related Deities." *Carnegie Institution of Washington, Contributions to American Anthropology and History* 5(29): 121-173.
- 1946 *Tattooing and Scarification among the Maya*. *Carnegie Institution of Washington, Notes on Middle American Archaeology and Ethnology* 3(63).
- 1950 *Maya Hieroglyphic Writing: Introduction*. *Carnegie Institution of Washington Publication* 589. (2nd and 3rd editions, 1960, 1971, Norman.)
- 1962 *A Catalog of Maya Hieroglyphs*. Norman: University of Oklahoma Press.
- 1970 *Maya History and Religion*. Norman: University of Oklahoma Press.
- 1971 *Preliminary Decipherments of Maya Glyphs* 6. Safron Walden.
- 1972 *A Commentary on the Dresden Codex*. Philadelphia: American Philosophical Society.
- 1973a "Maya Rulers of the Classic Period and the Divine Right of Kings." In *The Iconography of Middle American Sculpture*: 52-71. New York: The Metropolitan Museum of Art.
- 1973b "The Painted Capstone at Sacnité, Yucatan, and Two Others at Uxmal." *Indiana* 1:59-64.
- 1977 "Hieroglyphic Texts at Las Monjas and Their Bearing on Building Activities." In *Las Monjas, Major Pre-Mexican Architectural Complex at Chichen Itza*:262-267. By John Bolles. Norman: University of Oklahoma Press.
- TIETZE-CONRAT, ERIKA
 1957 *Dwarfs and Jesters in Art*. London.
- TORQUEMADA, F. JUAN DE
 1723 *Los veintidós libros rituales y monarchia indiana*. 3 vols. Madrid.
- TOSCANO, SALVADOR
 1944 *Arte precolombino de México y de la América Central*. Universidad Nacional Autónoma de México, Instituto de Investigaciones Estéticas.
- TOTTEN, GEORGE OAKLEY
 1926 *Maya Architecture*. Washington.
- TOZZER, ALFRED M.
 1913 *A Preliminary Study of the Prehistoric Ruins of Nakum, Guatemala: A Report on the Peabody Museum Expedition 1909-1910*. *Harvard University, Memoirs of the Peabody Museum of American Archaeology and Ethnology* 5(3).
- 1921 *A Maya Grammar*. *Harvard University, Papers of the Peabody Museum of American Archaeology and Ethnology* 9.
- 1941 *Landa's Relación de las Cosas de Yucatan: A Translation*. *Harvard University, Papers of the Peabody Museum of Archaeology and Ethnology* 18.
- 1957 *Chichen Itza and Its Cenote of Sacrifice*. *Harvard University, Memoirs of the Peabody Museum of Archaeology and Ethnology* 11 and 12.
- TOZZER, ALFRED M. and GLOVER M. ALLEN
 1910 *Animal Figures in the Maya Codices*. *Harvard University, Papers of the Peabody Museum of American Archaeology and Ethnology* 4(3).
- TRIK, AUBREY S.
 1963 "The Splendid Tomb of Temple I at Tikal, Guatemala." *Expedition* 6(1):2-18.
- TURNER, VICTOR, and EDITH TURNER
 1978 *Image and Pilgrimage in Christian Culture*. New York.
- TUROK, MARTA
 1974 "Symbolic Analysis of Contemporary Maya Textiles: The Ceremonial Huipil of Magdalenas, Chiapas, Mexico." Plan of study thesis, Tufts University, Tufts.
- ULRICH, MATEO, and ROSEMARY DE ULRICH
 1976 *Diccionario bilingüe: Maya mopán y español y maya mopán*. Guatemala: Instituto Lingüístico de Verano.
- VELAZQUEZ, PRIMO F.
 1946 *Historia de San Luis Potosí* 1. Mexico: Sociedad Mexicana de Geografía y Estadística.
- VILLACORTA C., J. ANTONIO, and CARLOS A. VILLACORTA
 1927 *Arqueología Guatemala. XI Pokoma, Kak-Yu,*

- Chama, Chijear, etc.* Guatemala: Tipografía Nacional.
- 1930 *Códices maya.* Guatemala. (Reprinted 1976, Guatemala.)
- VILLAGRA CALETI, AGUSTÍN
- 1947 "Las pinturas de Bonampak." *Cuadernos Americanos* 24(4):151-168.
- 1949 Bonampak, la ciudad de los muros pintados. *Anales del Instituto Nacional de Antropología e Historia* 3 (supplement).
- VIOLLET-LE-DUC, EUGÈNE EMMANUEL
- 1875 *Histoire de l'habitation humaine depuis les temps préhistoriques jusqu'à nos jours.* Paris.
- VOGT, EVON Z.
- 1976 *Tortillas for the Gods: A Symbolic Analysis of Zinacanteco Rituals.* Cambridge, Mass.: Harvard University Press.
- VOORHIES, BARBARA
- 1976 The Chantuto People: An Archaic Period Society in the Chiapas Littoral, Mexico. *Papers of the New World Archaeological Foundation* 41.
- WEAVER, MURIEL PORTER
- 1972 *The Aztecs, Maya, and Their Predecessors: Archaeology of Mesoamerica.* New York.
- WEBSTER, DAVID L.
- 1977 "Warfare and the Evolution of Maya Civilization." In *The Origins of Maya Civilization*:335-372. Edited by R. E. W. Adams. Albuquerque: University of New Mexico Press.
- WEST, ROBERT C.
- 1964 "The Natural Regions of Middle America." In *Handbook of Middle American Indians* 1:363-383. General editor, Robert Wauchope. Austin: University of Texas Press.
- WHITTAKER, ARABELLE, and VIOLA WARKENTIN
- 1965 *Chol Tales of the Supernatural.* Summer Institute of Linguistics. Norman: University of Oklahoma.
- WILKERSON, S. JEFFREY K.
- 1972 "Ethnogenesis of the Huastecs and Totonacs: Early Cultures of North-Central Veracruz at Santa Luisa, Mexico." Ann Arbor: University Microfilms.
- 1974 "The Late Preceramic Period in Veracruz." Paper presented at the Forty-first International Congress of Americanists, Mexico.
- 1975 "Pre-Agricultural Village Life: The Late Preceramic Period in Veracruz." *Contributions of the University of California Archaeological Research Facility* 27: 89-102. Berkeley.
- 1978 *Report to the National Geographic Society and the Instituto Nacional de Antropología e Historia on the 1978 Season of the Cultural Ecology Project in Mexico.* Gainesville: Florida State University.
- 1981 "The Northern Olmec and Pre-Olmec Frontier on the Gulf Coast." In *The Olmec and Their Neighbors: Essays in Memory of Matthew W. Stirling*: 181-194. Edited by Elizabeth P. Benson. Washington: Dumbarton Oaks Research Library and Collections.
- WILLARD, T. A.
- 1926 *The City of the Sacred Well.* London.
- WILLEY, GORDON R.
- 1966 *An Introduction to American Archaeology* 1: *North and Middle America.* Englewood Cliffs.
- 1972 The Artifacts of Altar de Sacrificios. *Harvard University, Papers of the Peabody Museum of Archaeology and Ethnology* 64(1).
- 1974 "The Classic Maya Hiatus: A 'Rehearsal' for the Collapse?" In *Mesoamerican Archaeology: New Approaches*:417-430. Edited by Norman Hammond. Austin: University of Texas Press.
- 1975 Excavations at Seibal. *Harvard University, Memoirs of the Peabody Museum of Archaeology and Ethnology* 13.
- 1976 "Mesoamerican Civilization and the Idea of Transcendence." *Antiquity* 50:205-215.
- 1977 "The Rise of Maya Civilization: A Summary View." In *The Origins of Maya Civilization*:383-423. Edited by Richard E. W. Adams. Albuquerque: University of New Mexico Press.
- WILLEY, GORDON P., and JEREMY A. SABLOFF
- 1958 *Method and Theory in American Archaeology.* Chicago: University of Chicago Press.
- WILLEY, GORDON P. and JEREMY A. SABLOFF
- 1974 *A History of American Archaeology.* San Francisco. (2nd ed., 1980).
- WINNING, HASSO VON
- 1968 *Pre-Columbian Art of Mexico and Central America.* New York.
- WIRSING, PAUL
- 1930 Q'uec Chi. Kekchi-German vocabulary in six books. Typescript copy in Peabody Museum Library, Harvard University.
- WIDSOM, CHARLES
- n.d. Chorti-English Dictionary. MS.
- WOODBURY, RICHARD B., and AUBREY S. TRIK
- 1953 *The Ruins of Zaculeu, Guatemala.* Richmond.
- WUTHENAU, ALEXANDER VON
- 1965 *The Art of Terracotta Pottery in Pre-Columbian Central and South America.* New York.
- ZANTWIJK, RUDOLF VAN
- 1970 "Las organizaciones social-económicas y religiosas de los mercaderes gremiales aztecas." *Boletín de Estudios Latinoamericanos* 10:1-20.
- ZIMMERMANN, G.
- 1956 Die Hieroglyphen der Maya-Handschriften. *Universität Hamburg, Abhandlung aus dem Gebiet der Auslandskunde, Band 62.* Series B, Vol. 34.
- n.d.
- ZORITA, ALONSO DE
- 1963 *Life and Labor in Ancient Mexico: The Brief and Summary Relation of the Lords of New Spain.* Translated by Benjamin Keen. New Brunswick: Rutgers University Press.
- ZUÑIGA, FRAY DIEGO DE
- n.d. Diccionario Pocomchi-Castellano y Castellano-Pocomchi de San Cristobal Cahcoh. MS, ca. 1608, in Berendt Linguistic Collection, University of Pennsylvania. Photographic copy in Peabody Museum Library, Harvard University.

Fourth Palenque Round Table, 1980

**General Editor
Volume Editor**

**Merle Greene Robertson
Elizabeth P. Benson**

The Pre-Columbian Art Research Institute
San Francisco

Copyright 1985 by the Pre-Columbian Art Research Institute.
All rights reserved. No part of this publication may be reproduced in any form or by any means without written permission of the copyright owner.

International Standard Book Number 9-934051-03-8
Library of Congress Catalog Card Number 85-61556

Lithographed and printed by Herald Printers Inc., Monterey, California.

Cover illustration:

LADY BEASTIE

Birth: 12.19.13.4.0 8 Ahau 18 Zec

Accession to the throne of Palenque: 2.1.0.14.2 9 Ik 0 Yax

Drawings courtesy of Merle Greene Robertson