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# Lineage Patrons and Ancestor Worship Among the Classic Maya Nobility: The Case of Copán Structure 9N-82

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The practice of ancestor worship has been ably documented by numerous ethnographers of the twentieth-century Maya. Largely because of the ethnographic literature, ancestor worship among the Classic Maya is widely assumed, especially since the discovery of dynasties and parentage statements in the inscriptions of the Classic Period. The burial chambers and accompanying inscriptions found in the excavated pyramid temples of Tikal, Palenque, and other sites showed that kings were revered even after death. Recently, epigraphers have shown the importance of lineage perpetuation by documenting the lengths to which rulers went to ensure it by means of sacrificial rituals. Given the overwhelming evidence for ancestor worship among the ruling lineages of the Classic Maya realm, and the equally strong evidence for ancestor worship among the peasant-class twentieth-century Maya, one could predict that supernatural lineage patrons, ancestor worship, and lineage perpetuation lore would all have been pervasive among the gamut of social classes existent during the Late Classic Period. Here I present data and interpretations derived from recent excavations at Copán that support this thesis.

## Copán Structure 9N-82 and Its Sculpture Facade

The present case material derives from a Late Classic residential compound of the noble class from Copán, Honduras. The site in question is the largest extended household compound in the residential sector located directly east of the Main Group or site core, known as "Las Sepulturas." Group 9N-8 has been shown to be a very elaborate and complex set of interrelated structures with its apogee in the late eighth century A.D., but with occupations stretching back to the beginning of the second millennium B.C. (Fash, Agurcia, and Abrams 1981; Webster, Fash, and Abrams 1986). Dominating the central part of the multiple-plaza Late Classic site is a raised platform, representing the accumulation of the living sites of the previous two millennia. Seated prominently

at the south end of the elevated platform is Plaza A, which contained the largest and most ornate structures during the eighth century (fig. 1). In the center of the south side of Plaza A was Structure 9N-82, a sumptuous vaulted edifice ornamented with a mosaic sculpture facade and an elaborate hieroglyphic bench in the central room (Webster 1989). This particular structure was to give the archaeologists of the Proyecto Arqueológico Copán (William Sanders, director, Phase II) a unique and explicit example of lineage patrons and ancestor worship. This paper touches upon those aspects of the investigations and archaeological remains that bear directly on these questions, referring the interested reader to other writings covering these and other facets of the Plaza A and other Group 9N-8 investigations.<sup>1</sup>

After being cleared of vegetation, Structure 9N-82 appeared as a long, linear construction with a raised central portion. In the center of this higher central sector was a notable depression, marking the doorway and inner chamber of what turned out to be the central room of the central superstructure (9N-82 Central, or C). During the initial excavation of the building in 1980, David Webster and Elliot Abrams discovered a magnificent sculpted bench in the central room, complete with hieroglyphic inscription and complex iconography (Webster and Abrams 1983). Flanking the three-roomed central superstructure on either side were the east and west superstructures (9N-82E and 9N-82W), each with two rooms. Two other rooms were built into what had originally been a corridor between the central and west superstructures, and a tenth room was built into the east side of the substructure, directly beneath the eastern room of the east superstructure. On the front side of this array of rooms ran a continuous stairway with five risers, which united at its eastern and western extremities with the continuous frontal stairways of Structures 9N-83 and 9-81, respectively (fig. 1).

Both the superstructures and substructure of 9N-82 were built of finely dressed blocks of the local green volcanic tuff. Unfortunately, the mud mortar used in the

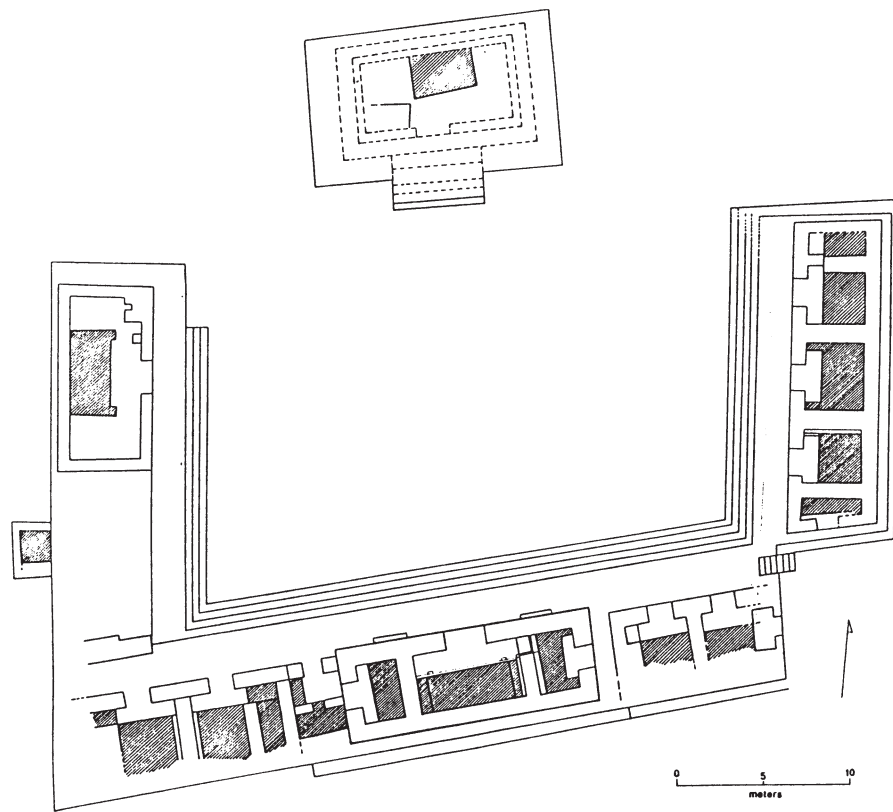


Fig. 1 Plan of Plaza A, Group 9N-8, Copán (after Larios and Fash 1985; courtesy Instituto Hondureño de Antropología e Historia).

original construction resulted in severe collapse of the upper portions of the superstructures (including all of the vaulted roofs), with the best-preserved superstructure walls standing ca. 2 m high, and most conserved only a little over a meter in height. In addition to the innumerable dressed tuff blocks, large slabs of roof plaster were found in the clearing of the superstructures and north side of Str. 9N-82, as well as many beveled, tenoned vault stones, and tenoned sculpture fragments.

The tenoned mosaic sculpture fragments discovered by Webster and Abrams in their 1980–1981 clearing of the top and front side of the structure were concentrated on the substructure terrace, steps, and adjacent plaza area in front of the central superstructure (82C). Provenience points for all of these pieces were dutifully recorded on a map, and each fragment was given a field number and subsequently fully cataloged. This methodology had already given outstanding results in Copán when applied to the 1978–1979 excavations at Ball Court B, where it was possible to make a number of behavioral inferences based on the provenience of the sculpture fragments found at that court (Fash and Lane 1983). Once the back side of the structure was excavated by the author in consultation with Rudy Larios in 1982, we had a complete excavated sample with good provenience data from which to proceed with our reconstruction of the form and content of the 9N-82C building facades.

#### Methodology of Facade Reconstruction

Given the fact that the all four entablatures plus the vaults had completely collapsed, our reconstruction of the upper portions of the facade of this building was based on the position of the fallen fragments and internal evidence from the sculpture pieces themselves. The excavations of the back (south) side of the building provided us with a clear pattern of fall. There three discrete clusters of tenoned sculpture fragments were discerned during the excavation, which stand out in the composite plan map (figs. 2, 3a). Upon cleaning and cataloging of the pieces from each of these three back side sculpture clusters, it became obvious that each of these three groupings contained the same basic element. These were a long-tenoned base, carved in the form of a T23 (*na*, or “house”) sign, a human figure shown seated cross-legged and with its hands palms outward against the chest, a plumed headdress similar in style and layout to those of structure 10L-18 (fig. 3b), and iconic elements from the central headdress. A small feathered dais was also found with the east and west figures, which was in fact custom-fitted to line up with the bottom of the seated figures’ loincloths (fig. 3c).

With regard to actually fitting the pieces together, in Copán one has the advantage that the sculpture blocks were not actually carved until the constituent blocks had been assembled on the building. This happy circum-

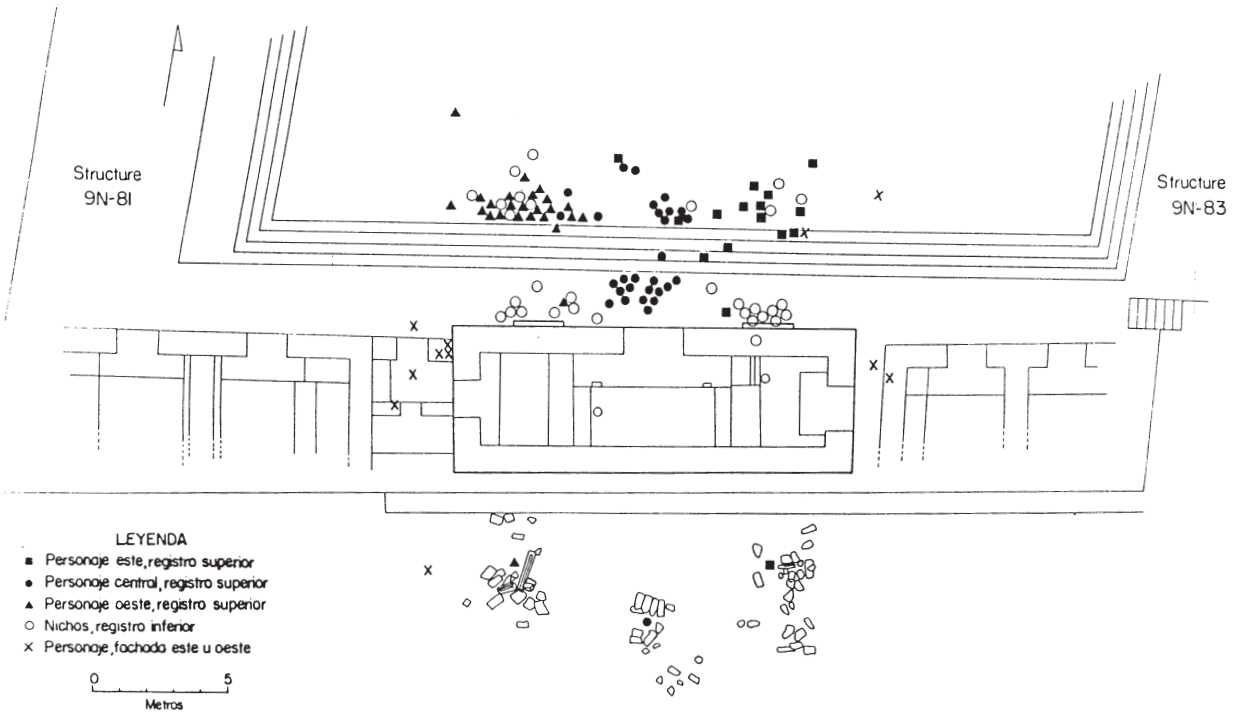


Fig. 2 Plan of Structure 9N-82, showing the distribution of the fallen fragments of tenoned mosaic facade sculpture (after Larios and Fash 1985; courtesy Instituto Hondureño de Antropología e Historia).

stance means that lines join up on adjacent blocks sharing the same motif. For example, when joining feather pieces, one lines up the edges and the central spines from one block to another, with the direction of curvature serving as a guide for which blocks are most likely to go together. In other cases, lining up of high-relief blocks can be done by vertical courses. For example, the belt pieces always fit perfectly on top of the leg pieces, and the central headdress pieces articulated with the head of the east figure (the only one found on the back side).

The fitting and rearticulation of the blocks on both the back and front sides of the building could be done with ease, once the basic patterns had been established with the south facade east figure. In fact, it was also possible to rearticulate several fragments that had been collected from the site by local representatives of the Honduran Institute of Anthropology in previous years, simply by checking the fit of lines, height of course, and tenon length in the case of feathers, and vertical alignment and proper proportion in the case of body parts. One particularly compelling case was that of the bust fragment of the south facade central figure. During the excavations in 1982, we recovered the (viewer's) left half of the bust with the hand, and the right hand, but found no traces of the right bust. In searching through the sculpture fragments stored by the IHAH, I found a right bust fragment that was missing an arm. Upon rearticulation, not only did the bust fit perfectly with the arm recovered in the excavations, but the lines of beads

corresponded perfectly with those of the companion left half of the bust. The fittings offered here are presented with complete confidence.

It remained only to determine the height at which the three figures on the south facade were tenoned into the entablature. As luck would have it, a major section of the central portion of the south facade fell intact, as a unit, apparently at the time the vault of the central room of Str. 82C collapsed. Both courses of the medial molding were preserved intact for a distance of 4.2m (fig. 3d). Directly above the medial molding were found the still articulated pieces of the sculpted base (the T23 sign) of the central figure, indicating that the throne or seat of each figure was tenoned into the facade directly on top of the medial molding, with the figure and its headdress placed on top of the base. All of these data enabled us to produce a methodologically sound hypothetical reconstruction of the south facade (fig. 4).

For the north facade, the entablature was relatively easy to reconstruct once the south facade had been figured out. Here again there were fragments of three T23 bases, three seated figures, three sets of headdress feathers, three sets of central headdress motifs, and feathered daises for the east and west figures. The distribution map enabled us to separate the fragments of the three figures with relative ease. Of further help was the fact that the long-tenoned base fragments were very distinctive from one figure to the next. The eastern base is divided into two courses above the circular elements of the *na* sign, whereas the western base's division falls below the cir-

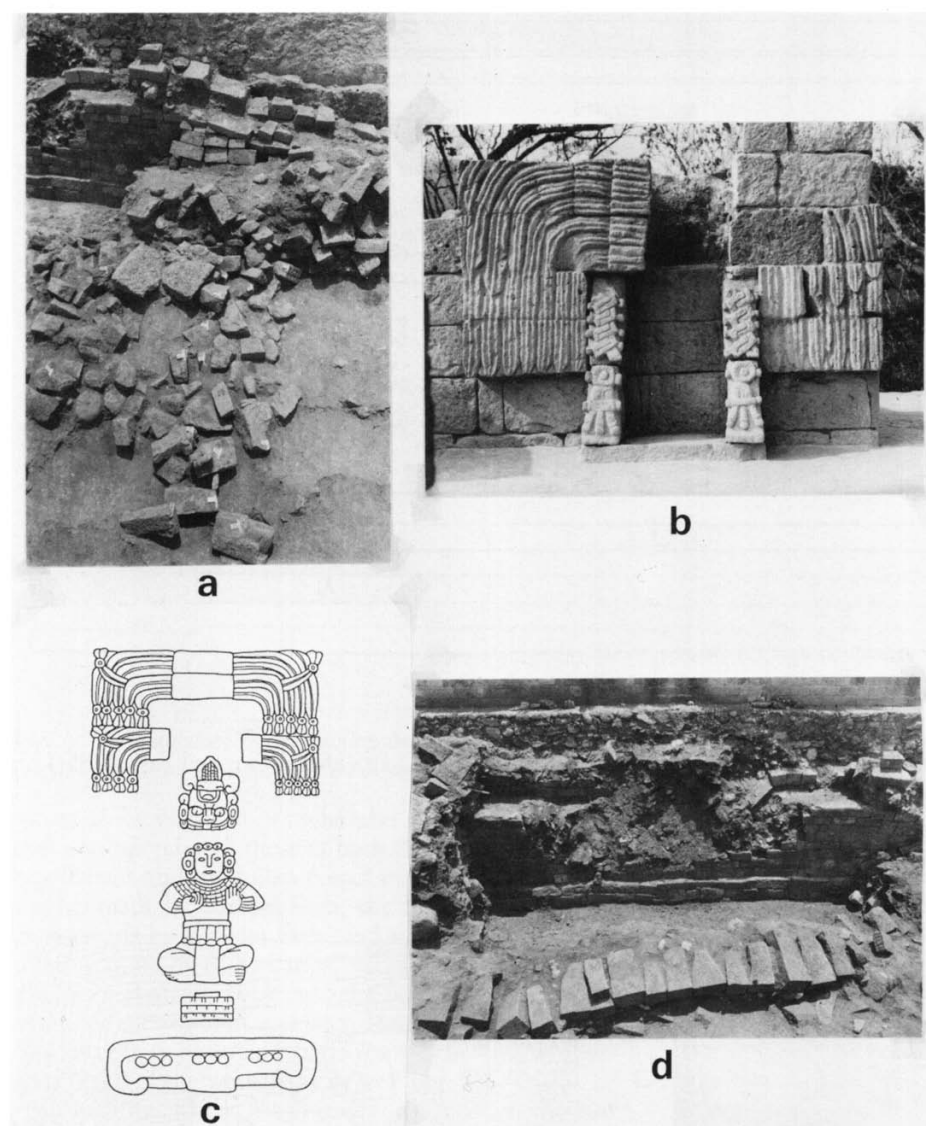


Fig. 3 (a) Photo of the fallen fragments comprising the east figure of the south facade of Structure 9N-82C-1st; (b) photo of the feathered headdress of the eastern figure in the interior chamber of Temple 18, Copán; (c) drawing traced from a photograph of a composite reconstruction of the fragments of the east and west figures of the north and south facades of Structure 9N-82C-1st; (d) photo of the medial molding as it fell in back of the central part of the south side of Structure 9N-82C-1st (photos after Fash 1986a:377, 378, 347, 378; courtesy Instituto Hondureño de Antropología e Historia).

cular elements, and the central base's division occurs exactly in the middle of these same rounded elements. Also, the central figure in fact turned out to be rather distinctive, having a wider base, a wider feathered headdress, a different set of central headdress elements, and a unique body posture (fig. 5). The head of the central figure was also unlike those of the south facade east figure or north facade west figure, being more distinguished in its cast and with finer treatment of the hair and adornment.

For the lower register of the facade (below the medial molding), there was a good deal of internal and excavation evidence to facilitate our reconstruction of the fallen elements, combined with the information derived from the entablatures. The resulting reconstruction is reproduced here as figure 6.

Two elements had been partially preserved on either

side of the north side doorway, and these were dutifully restored by the Phase II restoration director, Carlos Rudy Larios. Study of the map of fallen sculpture demonstrated a strong concentration of pieces that were demonstrably not like the rest of the sculptures from the entablature on the terrace directly in front of the two motifs preserved *in situ*. In working with these fragments, Barbara Fash was able to articulate four serpent heads. Close examination of these demonstrated that one of the heads from the front of the east sculpture element had burn marks. In fact, burn marks covered the west half of the *in situ* eastern element, and the basal block of the burned serpent head fit exactly in the space left by Larios between two stones of the same course that were still in place when he restored the building. Furthermore, the two fragments of a bust and the left hand of a figure that, due to its lack of tenon, was obviously

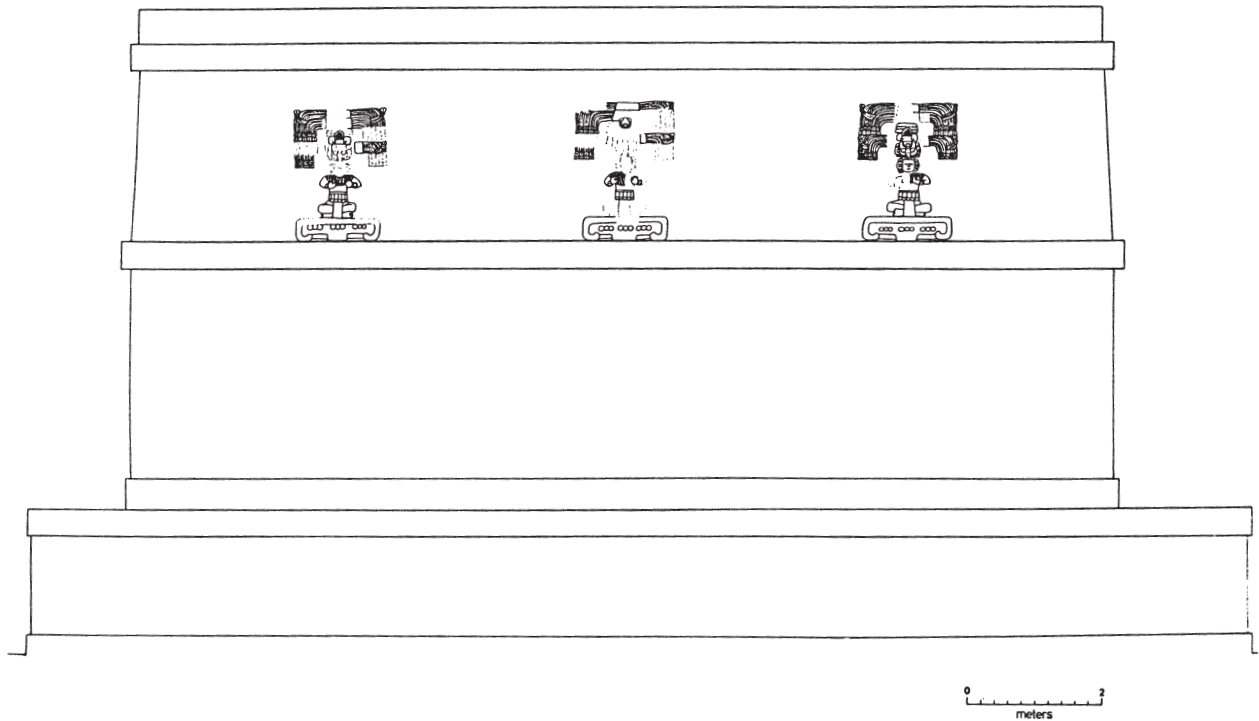


Fig. 4 Hypothetical reconstruction drawing of the south facade of Structure 9N-82C-1st (after Larios and Fash 1985:125; courtesy Instituto Hondureno de Antropología e Historia).

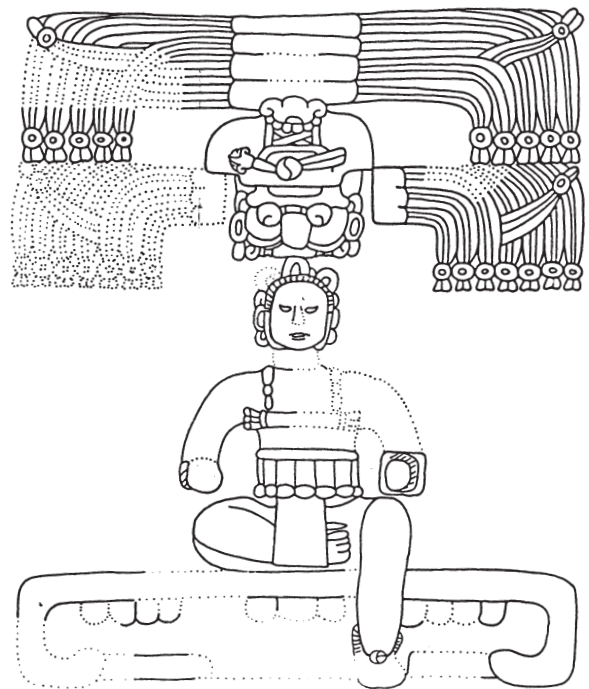


Fig. 5 The central figure of the north facade of Structure 9N-82C-1st (after Larios and Fash 1985:131; courtesy Instituto Hondureno de Antropología e Historia).

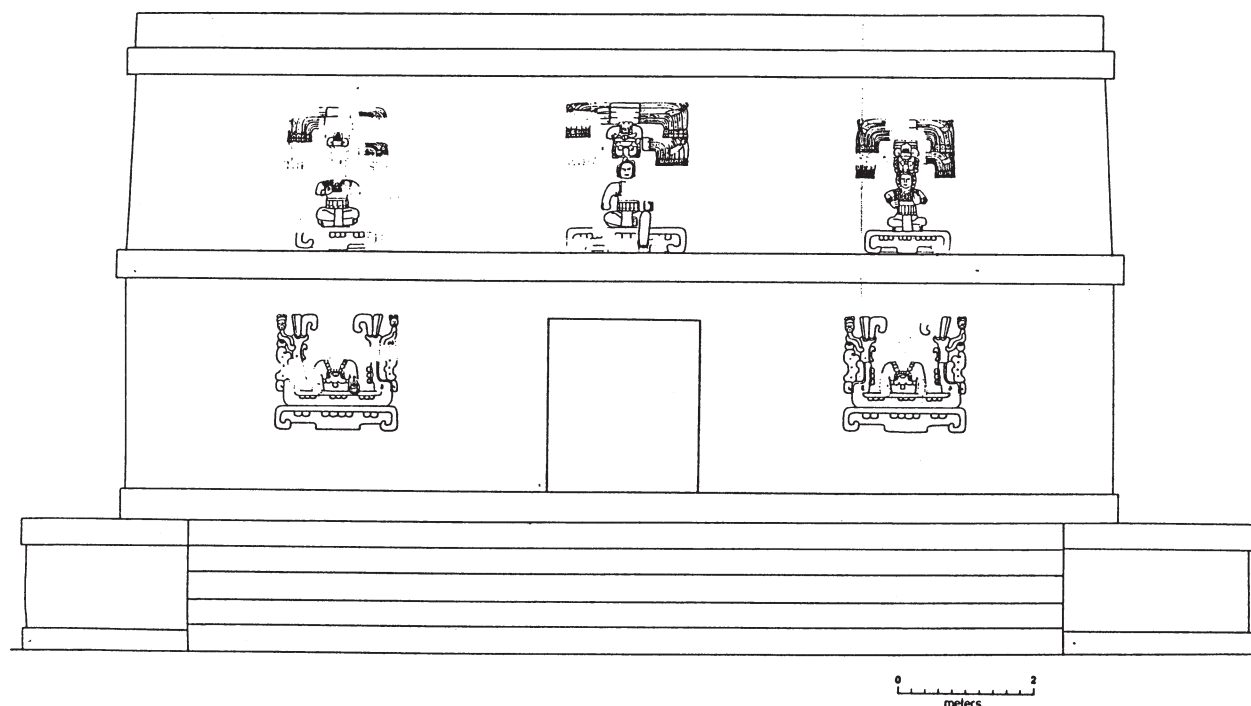


Fig. 6 Hypothetical reconstruction drawing of the north facade of Structure 9N-82C-1st (after Larios and Fash 1985:130; courtesy Instituto Hondureño de Antropología e Historia).

meant to be placed in a niche also showed burn marks that corresponded to those of both the *in situ* part of the *na* element and the fallen pieces in question. Based on the fits made by Barbara Fash, the correlations of burn marks made by William Fash, and the letter-perfect restoration done by Rudy Larios, it was possible to restore the fallen elements back onto the facade. Using the example of the restored east niche and figure (fig. 7a), it was possible to rearticulate and restore the bust and serpent heads of the west niche as well (fig. 7b).<sup>2</sup>

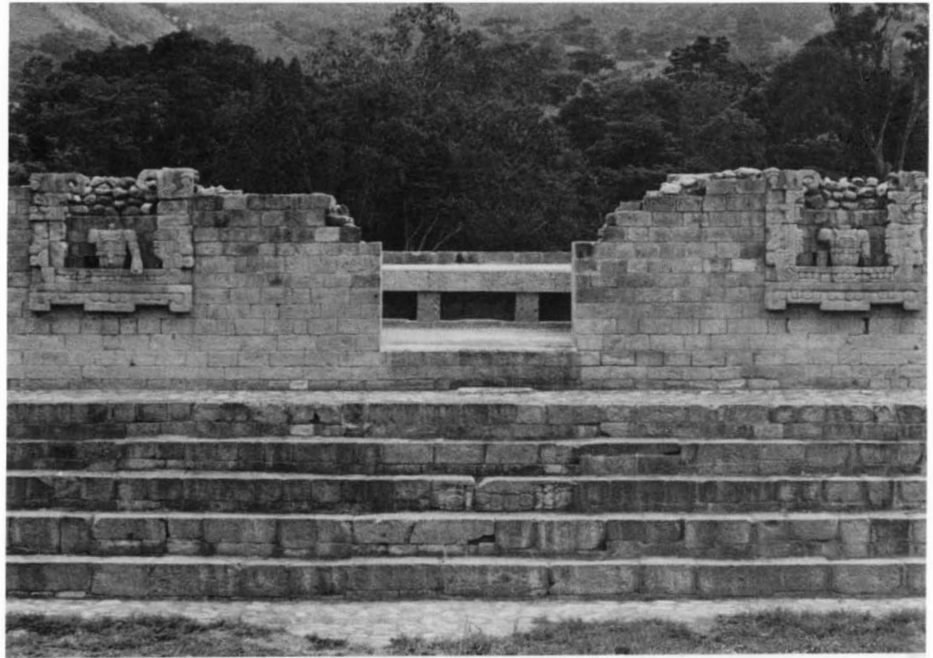
In addition to the south and north facades, the east and west entablatures were also adorned with tenoned mosaic sculptures. In the case of the west facade, many fragments were in fact found directly in front of the doorway on the west side of 82C, whereas others had fallen due north or south of the west plane of the central superstructure. For the east facade, most of the pieces recovered in the excavation were found north of the plane of the east facade of Str. 82C. The east figure was the more complete, containing (after fitting with pieces previously recovered by the IHAH staff) the seated legs, belt, and torso of a figure, at least part of both hands, and feathers from the headdress. No traces of any T23 sign base were found, in either the excavations or searches through the IHAH collections, nor was either of the two heads recovered. For the central headdress, it is possible that a large *k'in* sign formed a part of the composition (fig. 7c). One such *k'in* sign was found in the vicinity of the other fragments of the east and west facade figures, north of the building.

#### Structure 9N-82C-2nd and Associated Sculpture

The extensive trenching into the substructure and subsequent restoration work established that Str. 9N-82C-1st (discussed above) was originally a freestanding building. Internal structural evidence demonstrates that this central structure was built first, followed by the addition of 9N-82 West (1st), with 9N-82 East added last. Prior to the construction of the freestanding structure 9N-82C-1st, another building had existed at this locus.

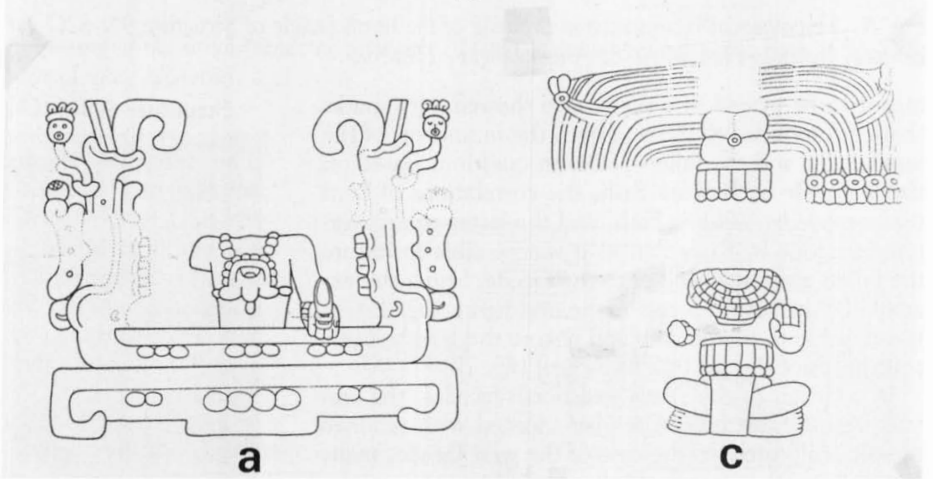
Fragmentary sections of this earlier edifice—Structure 9N-82C 2nd—were found during the stabilization process, prior to the restoration of the (later) central room of Str. 9N-82C-1st (fig. 8a). The two pieces of the full-round, complete Pauah Tun sculpture were both found in the fill of Str. 9N-82C-1st, though separated by 9 m. This slightly smaller than life-size figure (fig. 8b) was decapitated and the head burned, with both pieces thrown into the fill during the construction of 9N-82C-1st. This suggests that this sculpture was originally in use in the now-destroyed earlier building and ritually killed and buried when that building was abandoned.

The figure wears a necklace whose pendant is a finely executed example of the beaded water-lily motif found on the busts in the 9N-82C-1st niches, and also found (inverted) in the headdresses of the central figures in the entablatures of the north and south facades. The figure is shown cross-legged, with a sectioned conch-shell inkpot in the left hand and a stylus in the right. The deity is phonetically identified by the netted cap (*pauah*) and



b

Fig. 7 (a) Drawing of the east niche of the north facade of Structure 9N-82C-1st (drawing by G. Stanley Matta); (b) photo of Structure 9N-82C-1st, after restoration by Larios (after Larios and Fash 1985:126; courtesy Instituto Hondureño de Antropología e Historia; (c) drawing of a photograph of the composite reconstruction of the figure fragments from the east and west facades of Structure 9N-82C-1st (drawing by Barbara W. Fash).



a

c

Cauac (*tun*) body markings. These same identifiers are found on the easternmost pillar under the hieroglyphic bench in the central room of Str. 9N-82C-1st, signaling that he and his colleagues are also Pauah Tuns (underworld cousins of the Bacabs). The continuity through time and space of Pauah Tun worship led us to hypothesize that this deity served as a lineage patron, or minimally the patron of the lineage or titular head of the group, through time (Webster and Abrams 1983:295, Larios and Fash 1985; Fash 1986a).<sup>3</sup>

#### Interpretation and Comparative Study of Str. 9N-82 Sculpture

The north facade of Structure 9N-82 faced onto Plaza A of Group 9N-8 and as such was the most ornate and sym-

bolically explicit side of the building (fig. 6). This facade was divided into two fields, the lower one (including the doorway and decorations on either side of it) relating to the supernatural world, the upper one (the entablature) relating to the living, surface world. The serpents on either side of the doorway are characterized by fleshless, bony snouts, and by an *ahau* glyphic element capped by a *sak* ("white") sign, shown at the end of their nose-plugs. This glyph has been interpreted by Tatiana Proskouriakoff to have a meaning of "soul" or "spirit." From the split serpents' jaws emerge anthropomorphic deities: each wears a beaded, trilobed water-lily motif as a necklace pendant. The eastern deity clearly depicts a patron of scribes and artists by virtue of the conch-shell inkpot he carries in his left hand. By analogy with the earlier figure found associated with the earlier version of Struc-

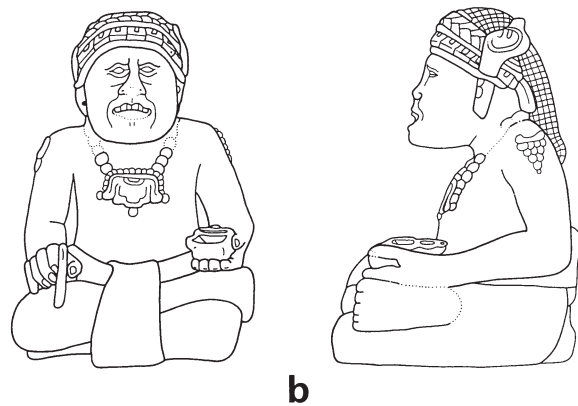
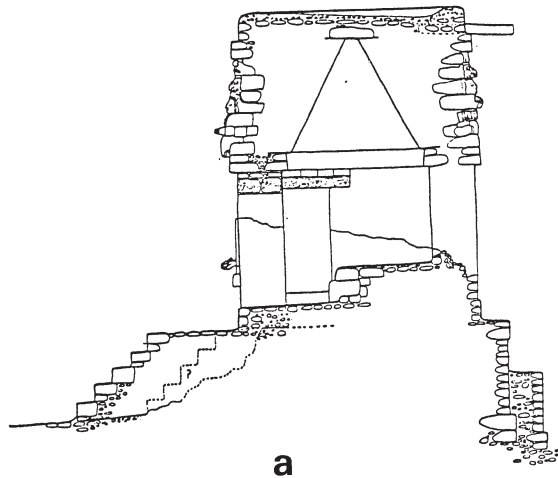


Fig. 8 (a) Section of Structure 9N-82C, showing reconstructed facade and conserved portions of 82C-1st, and preserved parts of 82C-2nd (after Fash 1986a:369; courtesy Instituto Hondureño de Antropología e Historia); (b) drawing of the Pauah Tun/Scribe (by Barbara W. Fash).

ture 82 (2nd), in all probability it represents a Pauah Tun/Scribe. The upper register, in contrast, contains human figures in rich garb, whose clothing, faces, and headdresses indicate that they are dwellers of the surface world. Analogy with stelae, lintels, and ceramic vases of the Classic Maya world indicates that these figures depict actual historical individuals. Given this basic framework, we can analyze the significance of the symbols and figures depicted in the two fields represented.

For the entablatures, the east and west figures of both the north and south facades are so similar as to be virtually identical to each other. The sharing of the (inverted) beaded water-lily motif by the central figures on the north and south facades implies that the two facades are two sides of the same coin, as it were: each side depicts the same three individuals. The virtual identity of

the east and west figures on both sides of the building leaves one with the impression that these individuals were of equal stature and less important than the distinctive central figures. Their headdresses have what Linda Schele (personal communication) refers to as the “personification head,” with maize as the element in the forehead, which is to be understood as the being or object being given life. Abundance and sustenance of life seem to be the principal attributes of these side figures; their identity as historical individuals can only be speculated upon at this point.

The north facade central figure is distinguished from his two entablature companions by a number of features: a distinctive central headdress complex, different body position, more finely detailed facial treatment, different clothing details, a wider base or throne, and possibly items held in the hands (fig. 5). Of particular interest are the central headdress elements, which should be the diagnostic indicator of the supernatural aspects being assumed or emulated by their wearer.

I have already noted the close association between the beaded water-lily motif and the Structure 9N-82-1st (facade) and 2nd (full-round figure) Pauah Tuns. The same association is found on Princeton Vase 16 (Coe 1978). In his consideration of the patrons of Maya scribes and artists, Coe illustrates figure 2 of this vessel, without including a beaded element and pendants as part of that figure (Coe 1977b: figure 11). This element would thus pertain to the deity pictured immediately in back of that figure, labeled figure 1 in Coe’s 1978 book and here represented as figure 9a. This individual also clearly represents a god of writing, by virtue of his “extra” ear with T7 infix, “computer print-out” with bar and dot numerals, and conch-shell inkpot in the right hand (for a Copán equivalent, see fig. 9b). The beaded water lily here is shown front on, but half of it is obscured behind the back of figure 2, as is the left hand. Even if we were to consider the motif here as associated with figure 2 (the “Monkey Man” God of Writing: Coe 1977b, 1978:106), this would only serve to strengthen the association between this motif and the Pauah Tun of Structure 9N-82C-2nd, which has decidedly simian facial features (fig. 8b). Indeed, one is led to wonder whether the oft-repeated association of one of the four Bacabs/Pauah Tuns with the conch shell at Copán, Chichén Itzá (Morris, Charlott, and Morris 1931: vol. 2), and other Classic Period sites and on painted ceramics may be in part derived from the association of this particular deity with a conch-shell inkpot, in his guise as a patron of Maya scribes and artists.

From the above, it may be suggested that the Pauah Tun, tied water-lily, and beaded water-lily motifs in the headdress of the central figure of the north facade of Str. 9N-82 are used to associate that individual with his supernatural patron, the Pauah Tun as patron of scribes and artists. This association finds support in the text of the hieroglyphic bench of the central room of 82C (1st), which according to Berthold Riese (cited in Webster and



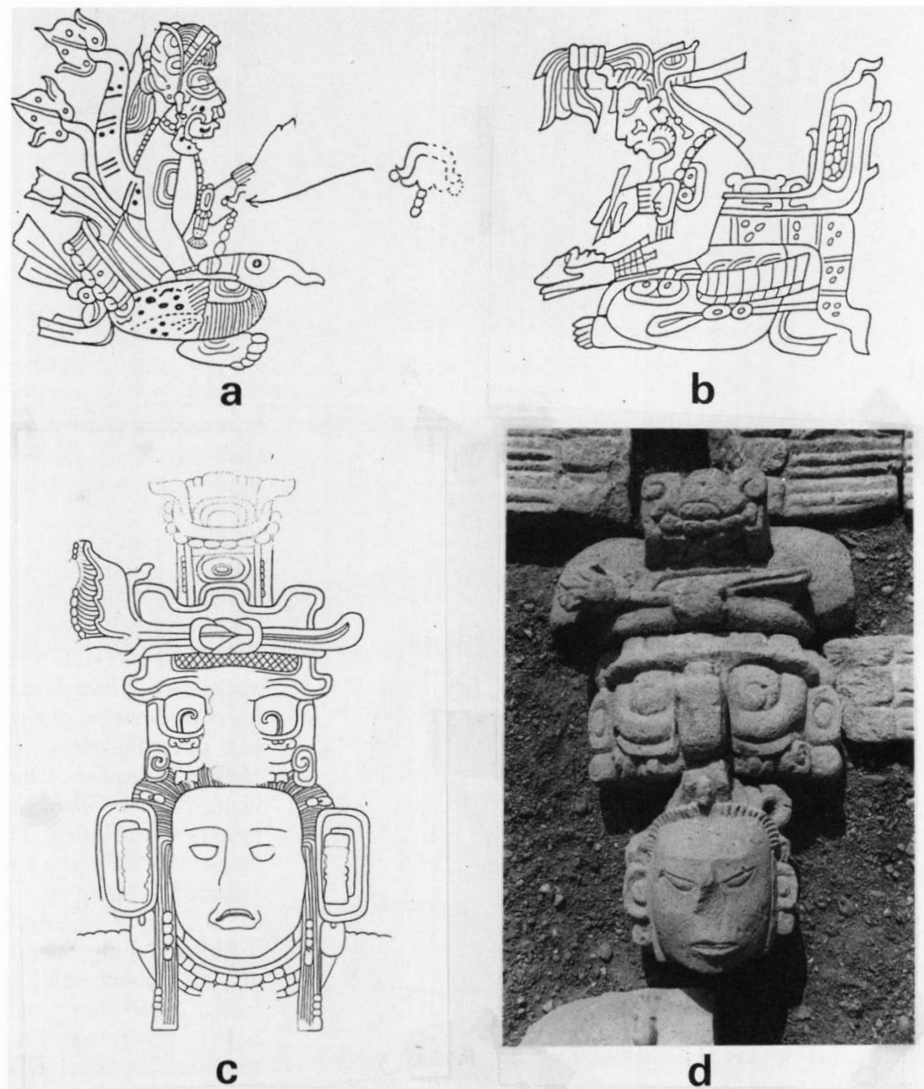


Fig. 9 (a) Princeton 16 (after Coe 1978); (b) inscribed figure on vessel from Tomb 37-2, Copán (drawing by Jose Humberto Espinoza, after Fash 1986a:373; courtesy Instituto Hondureño de Antropología e Historia); (c) detail of face and central headdress elements of north side figure of Copán Stela N (drawing by Barbara W. Fash); (d) detail of the face and central headdress elements of the central figure on the north side of Structure 9N-82C-1st (after Larios and Fash 1985:131; courtesy Instituto Hondureño de Antropología e Historia).

Abrams 1983) refers to the protagonist of the inscription (who also dedicates the temple) as “Ahau Kin,” which Riese infers to mean that he was an astronomer and calendar specialist. Such an individual must, of course, have been an accomplished scribe in order to practice such an esoteric trade. It is my belief that the distinctive features and prominent placement of the central figure of the entablature signify that this figure depicts the bench protagonist. That the bench protagonist was not the ruler of Copán is itself quite clear in the inscription, which refers to Yax-Pac in a secondary clause, following the initial clause, which refers to the date of commemoration of the temple, the act of commemoration itself, and the protagonist of that action, whose name is clearly different from that of any of the Copán dynasts.

In this context it is interesting to note that the central headdress elements found on the central figure of the Str. 9N-82C-1st facade are quite similar to the most

prominent central elements in the headdresses of both sides of Copán Stela N (cf. figs. 9c, d). A curved element found with the south facade central figure fragments also appears in the headdress of Stela N. Thus, the long-nosed god (personification) head, tied water lily, and inverted beaded water lily can be considered important elements in the Copán royal line’s own symbolism.

The emphasis of Pauah Tun/Bacab iconography can be seen in the works of the fifteenth ruler (“Smoke-Squirrel,” depicted on the south side of Stela N), but almost certainly reaches its climax in the reign of the sixteenth ruler, Yax-Pac. Examples of Pauah Tun/Bacab iconography datable to the reign of Yax-Pac include those of Temple 21 (first discovered by the author in 1984), Temple 11 (the famous “Old Man” head, and his little-remarked upon twin brother; figs. 10a, b), CV 43 Structure A (Willey, Leventhal, and Fash 1978), and the Str. 9N-82 facade and bench.

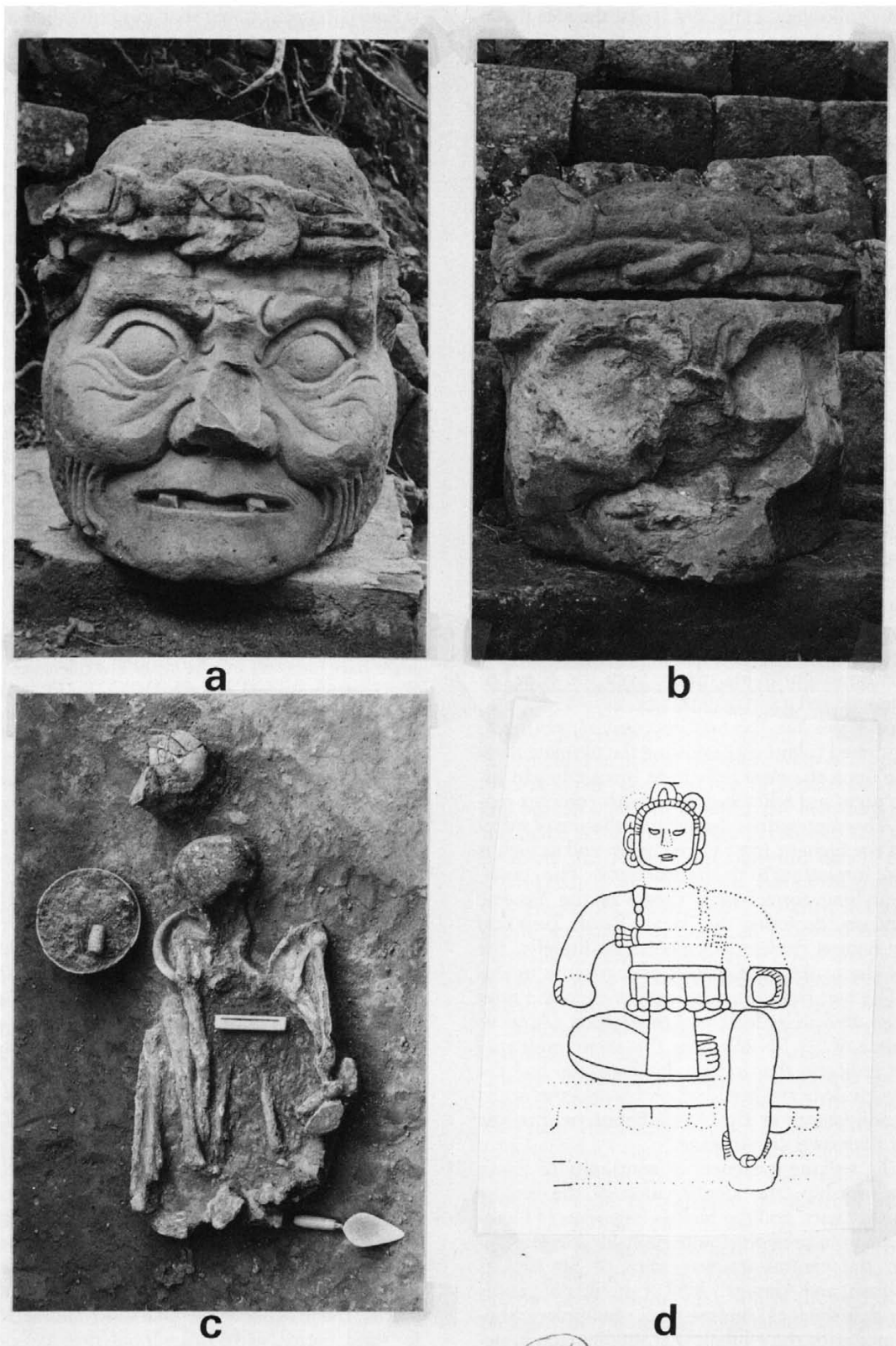


Fig. 10 (a) Photo of the “Old Man of Copán” (after Fash 1986a:382; courtesy Instituto Hondureno de Antropología e Historia); (b) photo of the “Old Man’s” companion figure from the facade of Temple 11 (after Fash 1986a:382; courtesy Instituto Hondureno de Antropología e Historia); (c) photo of Burial VIII-6 (after Fash 1986a:382; courtesy Instituto Hondureno de Antropología e Historia); (d) drawing of the central figure, north facade, Str. 9N-82C-1st (after Fash 1986a:363 courtesy Instituto Hondureno de Antropología e Historia).

Two of my colleagues on the PAC resist the idea that a local lineage head would be allowed to “manifest so much pride and independence by placing his image in such imposing situation” and prefer to view the central facade figure as a portrait of Yax-Pac (Baudez in press; Riese in press). In part this may stem from their adherence to traditional models of the nature of Classic Maya art and sociopolitical organization.<sup>4</sup> Elsewhere, I have developed a multivariant model to explain the sudden and explosive proliferation of elite stone art during the reign of Yax-Pac (Fash 1983:258–260). The model is rooted in the demographic and environmental conditions during the reign of this last, seemingly most creative and beneficent ruler. It was argued that the requirements of the Maya socioreligious and political system had devastating effects in Copán when it developed within an ecologically maladaptive settlement system. Therein the agriculturally richest, most centralized land in the Copán Valley was given over to a series of urban wards, forcing subsistence agriculture and cash-cropping upslope. This in turn entailed deforestation, shorter fallow cycles, soil exhaustion and erosion, and eventually long-term precipitation loss. These conditions were exacerbated by factional politics among the oldest and/or most powerful lineages not only of Copán, but apparently of Quiriguá, as well. It is my contention that the whole political system would have collapsed quite abruptly without continuing tribute from the elite lineages who supported it.

This model sees Yax-Pac and his court as seeking to ensure continued tribute by bestowing the ultimate royal prerogative upon the most important lineage heads: hieroglyphic texts and relief sculptures with complex iconography. This represents a significant “sharing of information” of the highest, most sacred order, and as such is all the more interesting in theoretical terms. The consistent, overarching cosmological theme of the Yax-Pac era monuments, depicting the Bacabs/Pauah Tuns and other supernatural patrons as supporters—literally, the pillars—of the world order, makes perfect sense in this context. The fact that individuals other than the ruler Yax-Pac are cited in at least two other texts (Altar W and the frieze of Str. 9N-69) from this same residential compound indicates that local individuals also had the prerogative to dedicate inscribed and iconographically complex monuments in their own honor, within the context of their own sacred space.

Given the striking evidence for continuity of Pauah Tun/Scribe worship, the identification of the lineage head with this deity, and the broken fragments of hieroglyphic texts from previous (quite probably local) monuments in the central stairway steps of Str. 9N-82 (Webster, Fash, and Abrams 1986), it should not greatly surprise us that the local lineage head would place himself—adorned with the symbols that simultaneously signify his supernatural patron, royal patron, and lineal ancestors—in the most prominent, public position on the structure.

Riese (in press) noted that this individual was labeled “second in the sequence” of Ahau Kins in the inscribed bench text, and that the initial verb of the inscription referred to Yax (“new”) Pauah Tun as well as the locative statement “in the house or temple.” This indicates that both 9N-82C-1st and its predecessor, 9N-82-2nd, were houses (or “temples”) of Pauah Tuns—both the supernatural deity and his flesh-and-blood followers—a conclusion bolstered by the presence of the full-round Pauah Tun/Monkey Man in association with the earlier building. Peter Mathews (personal communication) pointed out to me that this would provide a possible explanation for why the westernmost support of the bench, which structurally should show a Pauah Tun/Bacab figure, instead shows a human figure carrying the “*sak ahau*” (spirit or soul) glyphic element on a rope that connects him with the surface of the bench. This figure may represent the “first in the sequence”—the apotheosized ancestor of the Structure 9N-82C-1st protagonist. In this context, one is reminded of Coe’s thoughts (1973b:7) on the nature of Maya residential compounds *cum* holy places:

Who, then, might have been worshipped in a Maya temple? A god or the dead ruler for whom it was raised? Here we have an example of the false use of categories derived from our own culture, for in prehispanic Mexico and Central America these might have been one and the same. The rulers were descended from the gods, and a king probably became identified with his lineage god after death. By paying homage to the man, one was also paying homage to the god. Finely-made masonry tombs lavishly equipped with grave goods have often been found underneath the floors of the palaces as well. In other words, an ancient Maya center might have been as much a necropolis for rulers as a seat for the Maya administration.

This strikes a familiar chord for the present case material. Below and in front of the northeast corner of Structure 9N-82-2nd was the grave of an adult male. Labeled Burial VIII-6, this individual had been interred in a tightly flexed position and provided with three Late Classic polychrome pots and a single, 16 cm-long, greenstone pectoral (fig. 10c). Judging from the ceramics, flexed position (generally confined to the Late Classic, in Copán), and stratigraphic context and position of this burial, it probably dates to the time of use of Structure 9N-82-2nd, and the early, full-round Pauah Tun/Scribe statue. The most compelling thing about this burial is the greenstone pectoral, which is virtually identical in size to the one depicted on the chest of the central figure of the north facade of Str. 9N-82C-1st (fig. 10d). I believe that the burial and central facade figure provide further evidence for ancestor worship and lineage perpetuation lore, with the new lineage head proudly displaying the insignia of the same supernatural patron worn by (and buried with) his scribal predecessor and ancestor. Considering the demonstrated importance of ancestor worship among the Maya and other cultures sharing a similar level of sociopolitical complexity (Sanders

in press), I believe these data from Structure 9N-82 provide us with solid comparative evidence for the practice among the nonroyal elites of the Classic Period.

Regarding the status and duties of Classic Maya scribes, and the link between noble lineage and the scribal office, our best source of analogy is with sixteenth-century and Colonial Period Yucatán. In his analysis of the Titles of Ebtun, Ralph Roys wrote:

There was also the town clerk, or *escribano*, who drew up papers. Only rarely do we find his Maya title, *ah ñib huun* or *ah ñibul hun* (he who writes a document). In pre-Spanish times contracts were oral, and probably the only civil documents were the land maps. These may have been written by either the priests or certain nobles, to whom the knowledge of hieroglyphic writing is said to have been confined . . . .

The governors and town clerks seem to have been restricted to a small number of lineages. During the entire seventeenth and eighteenth centuries we find only seven different names in the governorship, and of the twenty governors who appear in our records during this long period fourteen were confined to three names, the Camals, Nauats, and Nohs . . . .

Although no governor of the name appears in our records, the Xuls appear to have been the second lineage of the town in number and importance. Except for the Camals, they show the most *alcaldes* and *regidores* and twice as many town clerks as any other name. [Roys 1939:45, 47, 50]

The sixteenth-century data support the idea derived from the excavations of Structures 9N-82 1st and 2nd (and the analysis of the sculptures associated with each) that the successive scribes who occupied those buildings were members of the same patriline. Indeed, the Copanecs living there seem to have deliberately belabored the continuities in lineage, office, and the supernatural patron of their profession. This is precisely what one should expect, given that important offices were passed down the male line (Landa, in Tozzer 1941:122), and that lineage was such a fundamental tenet of Maya social organization. It is ironic, in this context, that Roys could never know that genealogy was such an important, indeed primordial, concern of the Classic Period stone inscriptions. Again, from *The Titles of Ebtun*, we read:

The Maya had always considered genealogy seriously. Landa tells us: "They made much of knowing the origin of their lineages, especially if they came of one of the houses of Mayapan. The knowledge of this they obtained from their priests, which was one of their sciences; and they boast greatly of the men of their lineage who have been famous." That this pride of ancestry continued in the colonial period, is indicated by the questionnaire for the *batabs* in the Book of Chilam Balam of Chumayel. Here we read: "So also, these are the nobility, the lineage of the *batabs*, who know whence come the men and the rulers of their government." Not only do we find references to native nobility in the earlier Maya documents, but also the Ebtun papers continue to cite such nobles (*almehenob*) down to the middle of the second decade of the nineteenth century." [Roys 1939:51]

## Conclusions

The excavation, documentation, and analysis of Structure 9N-82 and its associated remains have provided a solid base from which to answer some of the sociocultural questions posed by anthropologists. Aspects of religion and social organization are often among the more difficult problems on which to gain direct, irrefutable evidence. Lacking living informants, archaeologists are very much dependent upon the preservation, explicitness, and methodologically sound interpretation of the relics of belief systems. In order to be credible to our anthropologist colleagues, these analyses should be congruent or otherwise complementary to comparative materials, preferably documented sources. The inspirational aspect of the Str. 9N-82 case is that it is both congruent and complementary to emic written records of its day, and to documented sources of the colonial and modern records concerning the fundamental nature of Maya supernatural (and living) patrons, ancestor worship, and lineage perpetuation lore. More compelling yet, there is an association between those cited in the inscriptions and portrayed in the symbolism of the building and the only contemporaneously buried individual found in the thorough excavation, reconsolidation, and restoration of this multifaceted structure.

Comparative study has revealed some associations between the beaded water-lily motif, the Pauah Tun/Bacab, and other gods of writing in other works of Maya art, an association most clearly shown and conflated in the full-round Pauah Tun-Monkey Man sculpture of Str. 9N-82C-2nd. The presence of Pauah Tun/Bacab tied and beaded water-lily motifs in the headdress of the central figure on the north facade cements the association between the Room 1 hieroglyphic bench protagonist ("Ahau Kin") and the Pauah Tun in his guise as patron of Maya scribes, artists, and, apparently in this case, calendric specialists. It has been proposed here that this centralized, most public figure in the Plaza A compound of Group 9N-8 represents the protagonist of the initial, dated, locative clause of the hieroglyphic inscription.

Structure 9N-82 was constructed at a nonroyal locus and should be appreciated as a monument to the local lineage, both its contemporary head and his lineal ancestors. This conclusion is based on the good evidence for Pauah Tun/Scribe worship in successive generations (the full-round statue of 9N-82-2nd, and the facade and bench motifs on 9N-82C-1st), the fragments of earlier, probably local hieroglyphic monuments incorporated into the 9N-82C-1st stairway, the commemoration of Altar W' at this site (which does not cite the reigning dynasty), and the single pectoral worn by the central figure on the facade in emulation of the one worn by and buried with the lineage head buried in association with Structure 9N-82-2nd.

It bears noting that the practice of incorporating previous monuments in the steps of later buildings was undertaken by the royal line as well. Both 18-Rabbit (in

the frontal stairway of Structure 10L-2) and Smoke-Squirrel (in a reused block in the Hieroglyphic Stairway of Structure 10L-26) incorporated broken glyptic monuments that sited their predecessors into the steps of their important buildings, in honor of their ancestors. In sum, localized lineage ancestor worship was tied into worship of that lineage's supernatural patron, just as was the case for the royal line. Replication of structures and concepts in Maya social organization and cosmogony is a well-accepted fact among ethnographers and archaeologists; the present case material provides us with a unique opportunity to examine the phenomenon on a local level and scale.

The foregoing analysis has sought to draw out the interrelatedness of the supernatural world of deities and ancestors and the living world of their supplicants and descendants. From ethnohistoric and hieroglyphic data, we know that lineage ties were the ultimate determinants of Classic Maya social and political organization, and Coe (1973b) argued that only the elite lineages had any chance of escaping the underworld after death. He further surmised that scribes and calendric specialists were held in great esteem among the Classic Maya, just as they were among the later Mexica (Coe 1977), and that these occupations were restricted to elite noble lines. The facade and bench of Structure 9N-82C-1st

and the burial and statue associated with Structure 9N-82C-2nd provide solid archaeological evidence for these arguments.

### Notes

1. See references cited herein. The excavations at Patio or Plaza A of Group 9N-8 were financed by the Instituto Hondureño de Antropología e Historia as part of the Proyecto Arqueológico Copán, Segunda Fase, directed by William T. Sanders. Thanks are due to the institute and its representatives, to the project director, and to colleagues who helped in the excavation and study of the Structure 9N-82 sculpture: Barbara Fash, Rudy Larios, David Webster, Elliot Abrams, Stanley Matta, and Celio Villeda.

2. Although we can be sure of the horizontal positions of the various figures from the entablature, we are unable to say what the original height of the medial molding (and therefore the figures) was, since neither said molding nor the vault spring was preserved *in situ* on the structure. For this reason, Larios restored the north facade only as high as the top of the split serpent niches, as appears in figure 7b. Larios arrived at the heights of the moldings and entablature in the hypothetical reconstruction drawing on the basis of ratios of doorway width to height in other Late Classic Maya structures.

3. Unlike my colleagues, I do not consider this interpretation to be "highly speculative," perhaps owing to the fact that I was the first to suggest it.

4. The interested reader is also referred to Sanders's contribution to the 1989 monograph on Str. 9N-82 (Sanders 1989) for a thorough examination of this theoretical issue.

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# Bibliography

- Ackerman, Diane  
1988 A Reporter at Large: Crocodilians. *The New Yorker* October 10:42–48.
- Adams, Richard E. W.  
1971 *The Ceramics of Altar de Sacrificios*. Papers of the Peabody Museum of Archaeology and Ethnology 63(1). Cambridge, Mass.: Harvard University.  
1973 Maya Collapse: Transformation and Termination in the Ceramic Sequence at Altar de Sacrificios. In *The Classic Maya Collapse*, edited by T. Patrick Culbert, pp. 133–163. Albuquerque: University of New Mexico Press.  
1984 Rio Azul Project Report, Number 1. Final 1983 Report. Center for Archaeological Research, University of Texas at San Antonio.  
1986 Rio Azul: Lost City of the Maya. *National Geographic* 169(4):420–451.  
n.d. A Reevaluation of Maya Militarism. MS.
- Anders, Ferdinand  
1963 *Das Pantheon der Maya*. Graz, Austria: Akademische Druck- und Verlagsanstalt.
- Anderson, A. H.  
1958 Recent Discoveries at Caracol Site, British Honduras. In *Proceedings of the 32nd International Congress of Americanists*. Copenhagen.  
1959. More Discoveries at Caracol, British Honduras. In *Actas del 33rd Congreso Internacional des Americanistas*. Costa Rica.
- Andrews IV, E. Wyllys  
1970 *Balankanche, Throne of the Tiger Priest*. Middle American Research Institute Publication no. 32. New Orleans: Tulane University.
- Andrews IV, E. Wyllys, and E. Wyllys Andrews V  
1980 *Excavations at Dzibilchaltun, Yucatan, Mexico*. Middle American Research Institute Publication no. 48. New Orleans: Tulane University.
- Andrews V, E. Wyllys  
1981 Dzibilchaltun. In *Supplement to the Handbook of Middle American Indians*. Vol. 1, *Archaeology*, edited by Victoria R. Bricker and Jeremy A. Sabloff, pp. 313–341. Austin: University of Texas Press.  
1982 Some Comments on Puuc Architecture of the Northern Yucatan Peninsula. In *The Puuc: New Perspectives*, edited by Lawrence C. Mills, pp. 1–17. Scholarly Studies in the Liberal Arts Publication no. 1. Pella, Iowa: Central College.
- Angulo V., Jorge  
1987 The Chalcatzingo Reliefs: An Iconographic Analysis. In *Ancient Chalcatzingo*, edited by David C. Grove, pp. 133–158. Austin: University of Texas Press.
- Attinasi, John J.  
1979 Chol Performance: Do Not Talk to Dogs, They Might Talk Back to You. In *Mayan Texts II*, edited by Louanna Furbee-Losee. IJAL-NATS Monograph 3:3–17.
- Aulie, H. Wilbur, and Evelyn W. de Aulie  
1978 *Diccionario Ch'ol-Español, Español-Ch'ol*. Serie de Vocabularios y Diccionarios Indigenas Mariano Silva y Aceves, tomo 21. Mexico, D.F.: Instituto Lingüístico de Verano.
- Aveni, Anthony F.  
1975 Possible Astronomical Orientations in Ancient Mesoamerica. In *Archaeoastronomy in Pre-Columbian America*, edited by Anthony F. Aveni, pp. 163–190. Austin: University of Texas Press.  
1977 Concepts of Positional Astronomy Employed in Ancient Mesoamerican Architecture. In *Native American Astronomy*, edited by Anthony F. Aveni, pp. 3–20. Austin: University of Texas Press.  
1980 *Skywatchers of Ancient Mexico*. Austin: University of Texas Press.  
1983 The Moon and the Venus Table in the Dresden Codex: An Example of Commensuration in the Maya Calendar. Paper presented at the Conference on Ethnoastronomy, Washington, D.C.
- Aveni, Anthony F., and Horst Hartung  
1976 Investigación Preliminar de las Orientaciones Astronómicas de Copan. *Yaxkin* 1(3):8–13.  
1979 Some Suggestions About the Arrangement of Buildings at Palenque. In *Tercera Mesa Redonda de Palenque*, edited by Merle Greene Robertson and Donnan Call Jeffers, pp. 173–177. Palenque: Pre-Columbian Art Research Center.  
1986 Maya City Planning and the Calendar. *Transactions of the American Philosophical Society* 76(pt. 1):1–81.
- Ayala Falcon, Maricela  
1985 *El Fonetismo en la Escritura Maya*. Mexico, D.C.: Universidad Nacional Autonoma de Mexico, Centro de Estudios Mayas.

- Ball, Joseph W.  
 1974 A Coordinate Approach to Northern Maya Prehistory: A.D. 700–1200. *American Antiquity* 39(1):85–93.  
 1979 Ceramics, Culture History, and the Puuc Tradition: Some Alternative Possibilities. In *The Puuc: New Perspectives*, edited by Lawrence C. Mills, pp. 18–35. Scholarly Studies in the Liberal Arts publication no. 1. Pella, Iowa: Central College.
- Balsler, Carlos  
 1974 *El Jade de Costa Rica*. San Jose, Costa Rica: Lehmann.
- 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*, edited by Merle Greene Robertson, pp. 195–209. Pebble Beach, Calif.: Robert Louis Stevenson School.
- Barrera, Marciano  
 1965 Apuntes sobre los rios de Usumacinta. *Periódico Oficial del Departamento de Yucatan*, Merida.
- Barrera Vasquez, Alfredo  
 1943 Horoscopus Mayas o el Prognostico de los 20 Signos del Tzolkin, segun los Libros de Chilam Balam, de Kaua y de Mani. *Registro de Cultura Yucateca* 6, Merida (reissued in 1976, with a new appendix by José Diaz Bolio).  
 1980 *Diccionario Maya Cordemex: Maya-Español, Español-Maya*. Merida, Mexico: Ediciones Cordemex.
- Barrera Vasquez, Alfredo, and Silvia Rendón  
 1948 *El Libro de los Libros de Chilam Balam*. Mexico City: Fondo de Cultura Económica.
- Barthel, Thomas S.  
 1953 Regionen des Regengottes (zur Deutung der unteren Teile der Seiten 65–69 in der Dresdener Mayahandschrift). *Ethnos* 18:86–105.  
 1955 Versuch über die Inschriften von Chich'en Itza Viejo. *Baessler-Archiv*, N.F. Band 3:5–33.  
 1966 Mesoamerikanische Fledermausdamonen. *Tribus* 15:101–124.
- Basauri, Carlos  
 1931 *Tojolabales, Tzeltales y Mayas: Breves Apuntes Sobre Antropología, Etnografía y Lingüística*. Mexico, D.F.: Talleres Graficos de la Nación.
- Bassie, Karen  
 1986 The Relationship Between Text and Image. Pt. 2, The Group of the Cross at Palenque. MS.  
 In preparation The Relationship Between Text and Image. Pt. 1, Yaxchilan.
- Baudez, Claude F.  
 1983 (editor) *Introducción a la arqueología de Copán, Honduras*. 3 vols. Tegucigalpa: Instituto Hondureño de Antropología e Historia.  
 1984 Le Roi, La Balle et le Mais: Images du Jeu de Balle Maya. *Journal de la Société des Americanistes* 70:139–152.  
 1985 The Knife and the Lancet: The Iconography of Sacrifice at Copan. In *Fourth Palenque Round Table, 1980*, edited by Elizabeth P. Benson (Merle Greene Robertson, General Editor), pp. 203–210. San Francisco: Pre-Columbian Art Research Institute.  
 1988 Solar Cycle and Dynastic Succession in the Southeastern Maya Zone. In *The Southeast Classic Maya Zone: A Symposium at Dumbarton Oaks*, edited by Elizabeth H. Boone and Gordon R. Willey, pp. 125–148. Washington, D.C.: Dumbarton Oaks.
- In press The House of the Bacabs: An Iconographic Analysis of Structure 9N-82, Copan. In *The House of the Bacabs*, edited by David Webster. Washington, D.C.: Dumbarton Oaks.
- Baudez, Claude F., and A. S. Dowd  
 1983 La Decoración del Templo. In *La Estructura 10L-18: Capítulo X*, edited by Marshall J. Becker and Charles D. Cheek, pp. 447–473. Vol. 2 of *Introducción a la Arqueología de Copán, Honduras*. Tegucigalpa: Instituto Hondureño de Antropología e Historia.
- Beadle, George  
 1977 The Origins of Maize. In *The Origins of Agriculture*, edited by Charles Reed, pp. 615–635. The Hague: Mouton Publishers.  
 1978 The Origin of Zea mays. In *Cultural Continuity in Mesoamerica*, edited by David L. Bowman, pp. 23–42. The Hague: Mouton Publishers.
- Becerra, Marcos E.  
 1980 *Nombres Geográficos Indígenas del Estado de Chiapas*. Tabasco, Mexico: Consejo Editorial del Gobierno del Estado de Tabasco. (First edition Tuxtla Gutiérrez: Imprenta del Gobierno, 1930.)
- Becquelin, Pierre, and Claude F. Baudez  
 1982 Tonina, une cité Maya du Chiapas (Mexique). *Etudes Mesoaméricaines* 6(2). Paris: Mission Archeologique et Ethnologique Française au Mexique. Tomes 2, 3.
- Betz, Carl P., and Linton Satterthwaite  
 1981 *The Monuments and Inscriptions of Caracol, Belize*. University Museum Monograph no. 45. Philadelphia: The University Museum, University of Pennsylvania.
- Benson, Elizabeth P.  
 1971 *An Olmec Figure at Dumbarton Oaks*. Studies in Pre-Columbian Art and Archaeology, no. 8. Washington, D.C.: Dumbarton Oaks.
- Bergh, Susan E.  
 1985 An Analysis of the Drawings of the “Beau Relief.” Seminar paper. Columbia University, New York.
- Bergman, John F.  
 1959 The Cultural Geography of Cacao in Aboriginal America and Its Commercialization in Early Guatemala. Ph.D. diss., Department of Geography, University of California, Los Angeles.
- Berjonneau, Gerald, and Jean-Louis Sonnerly  
 1985 *Rediscovered Masterpieces of Mesoamerica: Mexico-Guatemala-Honduras*. Boulogne: Editions Arts.
- Berlin, Heinrich  
 1955 News from the Maya World. *Ethnos* 20:201–209.  
 1958 El glifo “emblema” en las inscripciones mayas. *Journal de la Société des Americanistes* 47:111–119.  
 1963 The Palenque Triad. *Journal de la Société des Americanistes* 52:91–99.
- Bernal, Ignacio  
 1969 *The Olmec World*. Berkeley: University of California Press.
- Beyer, Hermann  
 1937 Studies on the Inscriptions of Chichén Itzá. *Contributions to American Archaeology* 4(21). Carnegie Institution of Washington Publication no. 483. Washington, D.C.  
 1969 Relaciones entre la civilización Teotihuacana y Azteca. In *Cien años de arqueología Mexicana*, pp. 245–272. El Mexico Antigua, tomo XI. Sociedad Alemana Mexicanista.

- Bloch, Maurice  
1977 The Disconnection Between Power and Rank as a Process: An Outline of the Development of Kingdoms in Central Madagascar. In *The Evolution of Social Systems*, edited by J. Friedman and M. J. Rowlands, pp. 303–340. London: Duckworth.
- Blom, Frans  
1923 *Las Ruinas de Palenque, Xupá y Finca Encanto*. Mexico, D.F.: Instituto Nacional de Antropología e Historia.  
1953 *La Selva Lacandona y Tierras Colindantes, Chiapas, Mexico*. San Cristobal de las Casas, Chiapas.
- Blom, Frans, and Oliver La Farge  
1926 *Tribes and Temples*. 2 vols. New Orleans: Tulane University.
- Bolles, John S.  
1977 *Las Monjas: A Major Pre-Mexican Architectural Complex at Chichén Itzá*. Norman: University of Oklahoma Press.
- Borhegyi, Stephen F.  
1959 The Composite or “Assemble-it-Yourself” Censer: A New Lowland Maya Variety of the Three-Pronged In-cense Burner. *American Antiquity* 25:51–58.  
1965 Archaeological Synthesis of the Guatemalan Highlands. In *Handbook of Middle American Indians* (Robert Wauchope, General Editor). Vol. 2, *Archaeology of Southern Mesoamerica*, edited by Gordon R. Willey, pp. 3–58. Austin: University of Texas Press.  
1969 The Pre-Columbian Ballgame: A Pan-Mesoamerican Tradition. *Proceedings of the 38th International Congress of Americanists* 1968(1):499–515. Munich.
- Borhegyi, Stephen, and Suzanne Borhegyi  
1963 The Rubber Ball-Game of Ancient America. *Lore-Leaves* (Milwaukee Public Museum) 8.
- Bove, Frederick J.  
1981 The Evolution of Chiefdoms and States on the Pacific Slope of Guatemala: A Spatial Analysis. Ph.D. diss., University of California, Los Angeles. (Available from University Microfilms, Ann Arbor, Michigan.)  
1989a Settlement Classification Procedures in Formative Escuintla, Guatemala. In *New Frontiers in the Archaeology of the Pacific Coast of Southern Mesoamerica*, edited by Frederick J. Bove and Lynette Heller. Anthropological Research Papers, no. 19. Tempe: Arizona State University.  
1989b Dedicated to the Costeños. Introduction. In *New Frontiers in the Archaeology of the Pacific Coast of Southern Mesoamerica*, edited by Frederick J. Bove and Lynette Heller. Anthropological Research Papers, no. 19. Tempe: Arizona State University.
- Brainerd, George  
1958 *The Archaeological Ceramics of Yucatan*. University of California Anthropological Papers, no. 19. Berkeley.
- Brasseur de Bourbourg, Charles E.  
1862 *Gramatica de la Lengua Quiche*. Vol. 2, pt. 2 of *Collections de Documents dans les Langues Indigenes*, edited by A. Beltrand. Paris.
- Breton, Adela C.  
1907 Wall Painting at Chichén Itzá. *Proceedings of the 15th International Congress of Americanists*, pp. 165–169. Quebec.
- Bricker, Harvey M., and Victoria R. Bricker  
1983 Classic Maya Predictions of Solar Eclipses. *Current Anthropology* 24(1):1–23.
- Bricker, Victoria R.  
1973 *Ritual Humor in Highland Chiapas*. Austin: University of Texas Press.  
1974 The Ethnographic Context of Some Traditional Mayan Speech Genres. In *Explorations in the Ethnography of Speaking*, edited by Richard Bauman and Joel Sherzer, pp. 368–388. Cambridge: Cambridge University Press.  
1981 Las Ceremonias de Año Nuevo en los Monumentos Clasicos Mayas. Paper presented at the 15th Mesa Redonda de la Sociedad Mexicana de Antropología, June 21–27, San Cristobal de las Casas, Chiapas, Mexico.  
1983 Directional Glyphs in Maya Inscriptions and Codices. *American Antiquity* 48:347–353.  
1984 The Last Gasp of Maya Hieroglyphic Writing in the Books of Chilam Balam Chumayel and Chan Kan. Paper presented at the Colloquium on the Language of Writing in the Maya Region, April 23–24, University of Chicago.  
1985 A Morphosyntactic Interpretation of Some Accession Compounds and Other Verbs in the Mayan Hieroglyphs. In *Fourth Palenque Round Table, 1980*, edited by Elizabeth P. Benson (Merle Greene Robertson, General Editor), pp. 67–85. San Francisco: Pre-Columbian Art Research Institute.  
1986 *A Grammar of Mayan Hieroglyphs*. Middle American Research Institute Publication no. 56. New Orleans: Tulane University.
- Bricker, Victoria R., and Harvey M. Bricker  
1986 Archaeoastronomical Implications of an Agricultural Almanac in the Dresden Codex. *Mexicon* 8(2): 29–35.
- Brinton, Daniel G.  
1882 *The Maya Chronicle*. Brinton's Library of Aboriginal American Literature, no. 1. Philadelphia.
- Bruce S., Roberto D.  
1976 *Textos y Dibujos Lacandones de Naja*. Colección Científica Lingüística, tomo 45. Mexico City: Instituto Nacional de Antropología e Historia.  
1979 *Lacandon Dream Symbolism: Dream Symbolism and Interpretation Among the Lacandon Mayas of Chiapas, Mexico*. Vol. 2. Mexico, D.F.: Ediciones Euroamericanas Klaus Thiele.
- Brundage, Burr C.  
1979 *The Fifth Sun: Aztec Gods, Aztec World*. Austin: University of Texas Press.
- Bullard, William R.  
1965 Ruinas Ceremoniales Mayas en el Curso Inferior del Rio Lacantun, Mexico. *Estudios de Cultura Maya* 5: 41–51.  
1970 *Topoxte: A Postclassic Maya Site in Peten, Guatemala*. Papers of the Peabody Museum of Archaeology and Ethnology 61(3):245–276. Cambridge, Mass.: Harvard University.
- Campbell, Lyle, and Terrence S. Kaufman  
1976 A Linguistic Look at the Olmecs. *American Antiquity* 41(1):80–89.
- Canny, John  
1983 Finding Edges and Lines in Images. Technical Report 720, Massachusetts Institute of Technology AI Lab. Cambridge, Mass.
- Carlson, John B.  
1986 The Iconography of Rio Azul Tomb 12. Paper presented at the Sexta Mesa Redonda de Palenque, Mexico.
- Carmack, Robert M.  
1981 *The Quiché Mayas of Uatatlán: The Evolution of a*



- Highland Guatemala Kingdom*. Norman: University of Oklahoma Press.
- Carmack, Robert M., and James L. Mondloch  
1983 *El Título de Totonicapán*. Mexico, D.F.: Universidad Nacional Autónoma de México.
- Castro, José I.  
1983 *The Sharks of North American Waters*. College Station: Texas A&M University Press.
- Cervantes, María Antonieta  
1969 Dos elementos de uso ritual en el arte olmeca. *Anales del Instituto Nacional de Antropología e Historia*, 1967–1968. Época 7, Tomo 1:37–51. México.
- Charnay, Désiré  
1885 *Les anciennes villes du Nouveau Monde: Voyages d'explorations au Mexique et l'Amérique Centrale*. Paris.  
1888 *Ancient Cities of the New World*. New York: Harper and Brothers.
- Charniak, Eugene, and Drew V. McDermott  
1985 *Introduction to Artificial Intelligence*. Reading, Mass.: Addison-Wesley.
- Chase, Arlen F.  
1976 Topoxte and Tayasal: Ethnohistory in Archaeology. *American Antiquity* 41:154–167.  
1983 A Contextual Consideration of the Tayasal-Paxcamán Zone, El Petén, Guatemala. Ph.D. diss., University of Pennsylvania.  
1984 Organizational Aspects of Classic Period Santa Rita Corozal, Belize. Paper presented at the 83rd annual meeting of the American Anthropological Association, Denver.  
1985a Archaeology in the Maya Heartland: The Tayasal-Paxcamán Zone, Lake Petén, Guatemala. *Archaeology* 38(1):32–39.  
1985b Contextual Implications of Pictorial Vases from Tayasal, Petén. In *Fourth Palenque Round Table*, 1980, edited by Elizabeth P. Benson (Merle Greene Robertson, General Editor), pp. 193–201. San Francisco: Pre-Columbian Art Research Institute.  
1985c Postclassic Petén Interaction Spheres: The View from Tayasal. In *The Lowland Maya Postclassic*, edited by Arlen F. Chase and Prudence D. Rice, pp. 184–205. Austin: University of Texas Press.  
1985d Troubled Times: The Archaeology and Iconography of the Terminal Classic Southern Lowland Maya. In *Fifth Palenque Round Table*, 1983, edited by Virginia M. Fields (Merle Greene Robertson, General Editor), pp. 103–114. San Francisco: Pre-Columbian Art Research Institute.  
1986 Time Depth or Vacuum: The 11.3.0.0.0 Correlation and the Lowland Maya Postclassic. In *Late Lowland Maya Civilization: Classic to Postclassic*, edited by Jeremy A. Sabloff and E. Wyllys Andrews, pp. 99–140. Albuquerque: University of New Mexico Press.
- Chase, Arlen F., and Diane Z. Chase  
1987a *Glimmers of a Forgotten Realm: Maya Archaeology at Caracol, Belize*. Orlando: University of Central Florida.  
1987b *Investigations at the Classic Maya City of Caracol, Belize: 1985–1987*. Pre-Columbian Art Research Institute Monograph no. 3. San Francisco.  
In press El Norte y el Sur: Política, Dominios, y Evolución Cultural Maya. In *Los Mayas del Norte de Yucatán*, edited by M. Rivera and F. Jiménez. Madrid: Sociedad Española de Estudios Mayas y Instituto de Cooperación Iberoamericana.
- Chase, Arlen F., Diane Z. Chase, and Harriot W. Topsey  
1988 Archaeology and the Ethics of Collecting. *Archaeology* 41(1):56–60, 87.
- Chase, Diane Z.  
1981 The Maya Postclassic at Santa Rita Corozal. *Archaeology* 34(1):25–33.  
1982 Spatial and Temporal Variability in Postclassic Northern Belize. Ph.D. diss., University of Pennsylvania.  
1985a Between Earth and Sky: Idols, Images, and Postclassic Cosmology. In *Fifth Palenque Round Table*, 1983, edited by Virginia M. Fields (Merle Greene Robertson, General Editor), pp. 223–233. San Francisco: Pre-Columbian Art Research Institute.  
1985b Ganned But Not Forgotten: Late Postclassic Archaeology and Ritual at Santa Rita Corozal, Belize. In *The Lowland Maya Postclassic*, edited by Arlen F. Chase and Prudence M. Rice, pp. 104–125. Austin: University of Texas Press.  
1988 Caches and Censerwares: Meaning from Maya Pottery. In *A Pot for All Reasons: Ceramic Ecology Revisited*, edited by L. Lackey and C. Kolb. Philadelphia: Temple University Press.
- Chase, Diane Z., and Arlen F. Chase  
1982 Yucatec Influence in Terminal Classic Northern Belize. *American Antiquity* 47:596–614.  
1986 *Offerings to the Gods: Maya Archaeology at Santa Rita Corozal*. Orlando: University of Central Florida.  
1988 *A Postclassic Perspective: Excavations at the Maya Site of Santa Rita Corozal, Belize*. Pre-Columbian Art Research Institute Monograph no. 4. San Francisco.
- Ciarcia, Steve  
1983a Build the Micro D-Cam Solid-State Video Camera. Pt. 1, The IS32 Optic Ram and the Micro D-Cam Hardware. *BYTE* (September).  
1983b Build the Micro D-Cam Solid-State Video Camera. Pt. 2, Computer Interfaces and Control Software. *BYTE* (October).
- Clark, Lawrence E.  
1981 *Diccionario Popolucá de Ojutla*. Serie de Vocabularios y Diccionarios Indígenas Mariano Silva y Aceves, tomo 25. México, D.F.: Instituto Lingüístico de Verano.
- Clark, Phil  
1972 *A Flower Lover's Guide to Mexico*. Mexico City: Minutiae Mexicana, S.A. de C.V.
- Clarkson, Persis  
1978 Classic Maya Pictorial Ceramics: A Survey on Content and Theme. In *Papers on the Economy and Architecture of the Ancient Maya*, edited by Raymond Sidrys, pp. 86–141. Institute of Archaeology Monograph no. 8. Los Angeles: University of California.
- Clavijero, Francisco Javier  
1968 *Historia Antigua de México*. Colección Sepan Cuentos 29, Editorial Porrúa, México.
- Closs, Michael  
1979 Venus in the Maya World: Glyphs, Gods, and Associated Astronomical Phenomena. In *Tercera Mesa Redonda de Palenque*, edited by Merle Greene Robertson and Donnan Call Jeffers, pp. 147–165. Palenque: Pre-Columbian Art Research Center.  
1981 Venus Dates Revisited. *Archaeoastronomy Bulletin* 4(4):38–41.  
1984a The Dynastic History of Naranjo: The Early Period. *Estudios de Cultura Maya* 15:77–96.

- 1984b The Maya Glyph *batel*, "warrior." *Mexicon* 6(4): 50–52.
- 1985 The Dynastic History of Naranjo: The Middle Period. In *Fifth Palenque: Round Table, 1983*, edited by Virginia M. Fields (Merle Greene Robertson, General Editor), pp. 65–78. San Francisco: Pre-Columbian Art Research Institute.
- In press Cognitive Aspects of Mayan Eclipse Theory. In *World Archaeoastronomy*, edited by Anthony F. Aveni. Cambridge: Cambridge University Press.
- Closs, Michael, Anthony F. Aveni, and B. Crowley  
1984 The Planet Venus and Temple 22 at Copan. *Indiana* 9:221–247.
- Cobean, Robert H., Michael D. Coe, Edward A. Perry, Jr., Karl R. Turekian, and Dinkar P. Kharkar  
1971 Obsidian Trade at San Lorenzo Tenochtitlan, Mexico. *Science* 174:666–671.
- Codex Dresden  
1880 *Die Maya-Handschriften der Koniglichen Bibliothek zu Dresden*. Edited by E. Forstemann. Leipzig: A. Naumann'scen Lichtdruckerei.
- Coe, Michael D.  
1965a *The Jaguar's Children: Preclassic Central Mexico*. New York: Museum of Primitive Art.  
1965b The Olmec Style and Its Distribution. In *Handbook of Middle American Indians* (Robert Wauchope, General Editor). Vol. 3, *Archaeology of Southern Mesoamerica*, edited by Gordon R. Willey, pt. 2, pp. 739–775. Austin: University of Texas Press.  
1965c A Model of Ancient Community Structure in the Maya Lowlands. *Southwestern Journal of Anthropology* 21(2).  
1966 *An Early Stone Pectoral from Southeastern Mexico*. Studies in Pre-Columbian Art and Archaeology, no. 1. Washington, D.C.: Dumbarton Oaks.  
1968 *America's First Civilization*. New York: American Heritage (in association with the Smithsonian Institution, Washington, D.C.).  
1972 Olmec Jaguars and Olmec Kings. In *The Cult of the Feline: A Conference in Pre-Columbian Iconography*, edited by Elizabeth P. Benson, pp. 1–18. Washington, D.C.: Dumbarton Oaks.  
1973a The Iconology of Olmec Art. In *The Iconography of Middle American Sculpture*, edited by Ignacio Bernal et al., pp. 1–12. New York: The Metropolitan Museum of Art.  
1973b *The Maya Scribe and His World*. New York: The Grolier Club.  
1975a *Classic Maya Pottery at Dumbarton Oaks*. Washington, D.C.: Dumbarton Oaks.  
1975b Death and the Ancient Maya. In *Death and Afterlife in Pre-Columbian America*, edited by Elizabeth P. Benson, pp. 87–104. Washington, D.C.: Dumbarton Oaks.  
1977a Olmec and Maya: A Study in Relationships. In *The Origins of Maya Civilization*, edited by R. E. W. Adams, pp. 183–196. Albuquerque: University of New Mexico Press.  
1977b Supernatural Patrons of Maya Scribes and Artists. In *Social Process in Maya Prehistory: Essays in Honour of Sir J. Eric S. Thompson*, edited by Norman Hammond, pp. 327–347. London: Academic Press.  
1978 *Lords of the Underworld: Masterpieces of Classic Maya Ceramics*. Princeton: Princeton University Press.  
1982 *Old Gods and Young Heroes: The Pearlman Collection of Maya Ceramics*. Jerusalem: The Israel Museum.
- Coe, Michael D., and Elizabeth P. Benson  
1966 *Three Maya Relief Panels at Dumbarton Oaks*. Studies in Pre-Columbian Art and Archaeology, no. 2. Washington, D.C.: Dumbarton Oaks.
- Coe, Michael D., and Richard A. Diehl  
1980 *In the Land of the Olmec*. 2 vols. Austin: University of Texas Press.
- Coe, William R.  
1965 Artifacts of the Maya Lowlands. In *Handbook of Middle American Indians* (General Editor, Robert Wauchope). Vol. 3, *Archaeology of Southern Mesoamerica* edited by Gordon R. Willey, pp. 594–602. Austin: University of Texas Press.  
1967 *Tikal: A Handbook of the Ancient Maya Ruins*. Philadelphia: The University of Museum, University of Pennsylvania.
- Coggins, Clemency C.  
1975 Painting and Drawing Styles at Tikal: An Historical and Iconographic Reconstruction. Ph.D. diss., Harvard University. (Available from University Microfilms, Ann Arbor, Michigan.)  
1979 A New Order and the Role of the Calendar: Some Characteristics of the Middle Classic Period at Tikal. In *Maya Archaeology and Ethnohistory*, edited by Norman Hammond and Gordon R. Willey. Austin: University of Texas Press.  
1980 The Shape of Time: Some Political Implications of a Four-Part Figure. *American Antiquity* 45:727–739.  
1983a An Instrument of Expansion: Monte Alban, Teotihuacan, and Tikal. In *Highland-Lowland Interaction in Mesoamerica: Interdisciplinary Approaches*, edited by Arthur G. Miller, pp. 49–68. Washington, D.C.: Dumbarton Oaks.  
1983b *The Stucco Decoration and Architectural Assemblage of Structure 1-sub, Dzibilchaltun, Yucatan, Mexico*. Middle American Research Institute Publication no. 49. New Orleans: Tulane University.  
1986 A New Sun at Chichén Itzá. Paper presented at the Second Oxford International Conference on Archaeoastronomy, January 1986, Merida, Mexico.
- Coggins, Clemency C., and Orrin C. Shane III  
1984 *Cenote of Sacrifice: Maya Treasures from the Sacred Well at Chichén Itzá*. Austin: University of Texas Press.
- Cogolludo, Diego Lopez de  
1867–68 *Historia de Yucatan*. 2 vols. Merida, Mexico: Manuel Aldana Rivas. (4th edition. Merida: Talleres Graficos del Gobierno, 1954.)
- Cohen, Abner  
1974 *Two-Dimensional Man: An Essay on the Anthropology of Power and Symbolism in Complex Societies*. London: Routledge and Kegan Paul.
- Cohodas, Marvin  
1975 The Symbolism and Ritual Function of the Middle Classic Ball Game in Mesoamerica. *American Indian Quarterly* 2(2):99–130.  
1978a *The Great Ballcourt at Chichén Itzá Yucatan, Mexico*. New York: Garland Publishing.  
1978b Diverse Architectural Styles and the Ball Game Cult: The Late Middle Classic Period in Yucatan. In *Middle Classic Mesoamerica: A.D. 400–700*, edited by Esther Pasztory, pp. 85–107. New York: Columbia University Press.  
1979 The Identification of Workshops, Schools, and Hands at Yaxchilan, a Classic Maya Site in Mexico. *Actes*

- du *Congres International des Americanistes* 7:301–313.
- Collins, William, Sons and Co.  
1974 *Collins Spanish–English, English–Spanish Dictionary*. Glasgow: Press of the Publishers.
- Compagno, L. J. V.  
1984 *FAO Species Catalogue*. Vol. 4, *Sharks of the World: An Annotated and Illustrated Catalogue of Shark Species Known to Date*. Pt. 2, *Carcharhiniformes*. Rome: United Nations Development Program, Food and Agriculture Organization.
- Connor, Judith  
1983 *The Ceramics of Cozumel, Quintana Roo, Mexico*. Ph.D. diss., University of Arizona.
- Côté, Manon Robyn  
1985 *Mayan Words Spoken and Written: A Linguistic and Epigraphic Approach*. *Haliksa'i* 4(Spring):15–42.
- Covarrubias, Miguel  
1957 *Indian Art of Mexico and Central America*. New York: Knopf.
- Cruz Guzman, Ausencio, J. Kathryn Josserand, and Nicholas A. Hopkins  
1980 *The Cave of Don Juan*. In *Third Palenque Round Table, 1978, Part 2*, edited by Merle Greene Robertson, pp. 116–123. Austin: University of Texas Press.
- 1986 *T'an ti Wajali: Tales of Long Ago*. MS. (Chol texts, translated and annotated).
- Culbert, T. Patrick  
1973 *The Maya Downfall at Tikal*. In *The Classic Maya Collapse*, edited by T. Patrick Culbert, pp. 63–92. Albuquerque: University of New Mexico Press.
- 1977 *Early Maya Development at Tikal, Guatemala*. In *The Origins of Maya Civilization*, edited by R. E. W. Adams, pp. 27–43. Albuquerque: University of New Mexico Press.
- Dahlin, Bruce H.  
1983 *Climate and Prehistory on the Yucatan Peninsula*. *Climatic Change* 5:245–263.
- 1984 *A Colossus in Guatemala: The Preclassic Maya City of El Mirador*. *Archaeology* 37(5):18–25.
- Darwin, Charles  
1869 *Pangenesi: Mr. Darwin's reply to Professor Delphino*. *Scientific Opinion: A Weekly Record of Scientific Progress at Home & Abroad* 2:426.
- 1871 *Pangenesi*. *Nature: A Weekly Illustrated Journal of Science* 3:502–503.
- Davoust, Michel  
1977 *Les Chefs Mayas de Chichen Itza*. Angers.
- 1986 *Nuevas lecturas de los textos Mayas de Chichen Itza*. Paper presented at the Sexta Mesa Redonda de Palenque, June 1986, Palenque, Chiapas, Mexico.
- Day, Christopher C.  
1971 *Un Diccionario de Jacalteco*. Computer printout, Department of Anthropology, University of Rochester.
- De Gruyter, W. J.  
1946 *A New Approach to Maya Hieroglyphics*. Amsterdam.
- De Kleer, Johann, and Gerald G. Sussman  
1980 *Propagation of Constraints Applied to Circuit Synthesis*. *International Journal of Circuit Theory and Applications* 9:127–144.
- De Kleer, Johann et al.  
1977 *AMORD, Explicit Control of Reasoning*. Memo 427, Massachusetts Institute of Technology AI Lab. Cambridge, Mass.
- 1978 *AMORD, a Deductive Procedure System*. Memo 435, Massachusetts Institute of Technology AI Lab. Cambridge, Mass.
- De la Fuente, Beatriz  
1968 *Palenque en la Historia y el Arte*. Mexico, D.F.: Fondo de Cultura Economica.
- De Long, Richard A.  
1986 *Chiasmus in Mesoamerican Writing*. Paper presented at the Sexta Mesa Redonda de Palenque, June 1986, Palenque, Chiapas.
- Demarest, Arthur A., ed.  
1984 *Proyecto El Mirador de la Harvard University 1982–1983, un informe preliminar*. *Mesoamerica* 5(7).
- Deutsche Gesellschaft für Volkerkunde  
1983 *Resolución*. October 11. Freiburg.
- De Vos, Jan  
1980 *Fray Pedro Lorenzo de la Nada, Misionero de Chiapas y Tabasco*. Chiapas, Mexico: Chilon.
- Doebley, John F., and Hugh H. Iltis  
1980 *Taxonomy of Zea (Gramineae)*. Pt. 1, *A Subgeneric Classification with Key to Taxa*. *American Journal of Botany* 67(6):982–993.
- Doyle, Jon  
1978 *Truth Maintenance Systems for Problem Solving*. Technical Report 419, Massachusetts Institute of Technology AI Lab. Cambridge, Mass.
- Drucker, Philip  
1952 *La Venta, Tabasco: A Study of Olmec Ceramics and Art*. Bureau of American Ethnology Bulletin no. 153. Washington, D.C., Smithsonian Institution.
- Drucker, Philip, Robert Heizer, and Robert Squier  
1959 *Excavations at La Venta, Tabasco, 1955*. Bureau of American Ethnology Bulletin no. 170. Washington, D.C.: Smithsonian Institution.
- Duran, Fray Diego de  
1965 *Historia de las Indias de Nueva España e Islas de Tierra Firme*. Tomo 2. Mexico, D.F.: Editora Nacional.
- 1971 *Book of the Gods and Rites and the Ancient Calendar*, translated by F. Horcasitas and Doris Heyden. Norman: University of Oklahoma Press.
- Dürting, Dieter  
1970 *On the Inscription and Iconography of Kuna-Lacanha Lintel 1*. *Zeitschrift für Ethnologie* 95:196–219.
- 1972 *Hieroglyphic Miscellanea*. *Zeitschrift für Ethnologie* 97:220–256.
- 1974 *Sorcery in Maya Hieroglyphic Writing*. *Zeitschrift für Ethnologie* 99:2–62.
- 1978 *"Bats" in the Usumacinta Valley: Remarks on Inscriptions of Bonampak and the Neighboring Sites in Chiapas, Mexico*. *Zeitschrift für Ethnologie* 103:1–56.
- 1980 *Aspects of Classic Maya Religion and World View*. *Tribus* 29:106–167.
- 1981 *Life and Death in Mayan Hieroglyphic Inscriptions*. *Zeitschrift für Ethnologie* 106:185–228.
- 1984 *Venus, the Moon, and the Gods of the Palenque Triad*. *Zeitschrift für Ethnologie* 109:7–74.
- 1985a *On the Astronomical Background of Mayan Historical Events*. In *Fifth Palenque Round Table, 1983*, edited by Virginia M. Fields (Merle Greene Robertson, General Editor), pp. 261–274. San Francisco: Pre-Columbian Research Institute.
- 1985b *On the Context-dependent Use of Bi- and Polyvalent Graphemes in Mayan Hieroglyphic Writing*. In *Fourth Palenque Round Table, 1980*, edited by Elizabeth P. Benson (Merle Greene Robertson, General Editor),

- pp. 103–114. San Francisco: Pre-Columbian Art Research Institute.
- 1986 The Vase of the Eighty-eight Glyphs: Implications for the Decipherment of the Maya Script. *Tribus* 35: 83–103.
- Earle, Duncan, and Dean Snow  
1985 The Origin of the 260-day Calendar: The Gestation Hypothesis Reconsidered in Light of Its Use Among the Quiche People. In *Fifth Palenque Round Table, 1983*, edited by Virginia M. Fields (Merle Greene Robertson, General Editor), pp. 241–244. San Francisco: Pre-Columbian Art Research Institute.
- Earle, Timothy K.  
1978 *Economic and Social Organization of a Complex Chiefdom: The Halelea District, Kauai, Hawaii*. Anthropological Papers, no. 63. Ann Arbor: University of Michigan, Museum of Anthropology.
- Easby, Elizabeth K.  
1966 *Ancient Art of Latin America: From the Collection of Jay C. Leff*. Brooklyn: The Brooklyn Museum.
- Easby, Elizabeth K., and John F. Scott  
1970 *Before Cortes: Sculpture of Middle America*. New York: Metropolitan Museum of Art.
- Edmonson, Munro S.  
1965 *Quiche-English Dictionary*. Middle American Research Institute Publication no. 30. New Orleans: Tulane University.  
1971 *The Book of Counsel: The Popol Vuh of the Quiche Maya of Guatemala*. Middle American Research Institute Publication no. 35. New Orleans: Tulane University.  
1982 *The Ancient Future of the Itza: The Book of Chilam Balam of Tizimin*. Austin: University of Texas Press.  
1984 Human Sacrifice in the Books of Chilam Balam of Tizimin and Chumayel. In *Ritual Human Sacrifice in Mesoamerica*, edited by Elizabeth Boone, pp. 91–100. Washington, D.C.: Dumbarton Oaks.  
1985 The Baktun Ceremonial of 1618. In *Fourth Palenque Round Table, 1980*, edited by Elizabeth P. Benson (Merle Greene Robertson, General Editor), pp. 261–265. San Francisco: Pre-Columbian Art Research Institute.
- Ekholm, Susanna  
1969 *Mound 30a and the Early Preclassic Ceramic Sequence of Izapa, Chiapas, Mexico*. Papers of the New World Archaeological Foundation, no. 25. Provo, Utah.
- Ekholm-Miller, Susanna  
1973 *The Olmec Rock Carving at Xoc, Chiapas, Mexico*. Papers of the New World Archaeological Foundation, no. 32. Provo, Utah.
- Farriss, Nancy M.  
1984 *Maya Society Under Colonial Rule: The Collective Enterprise of Survival*. Princeton: Princeton University Press.  
1987 Remembering the Future, Anticipating the Past: History, Time, and Cosmology among the Maya of Yucatan. *Comparative Studies in Society and History* 29:566–593.
- Fash, William L.  
1982 A Middle Formative Cemetery from Copan, Honduras. Paper presented at the annual meeting of the American Anthropological Association.  
1983 Maya State Formation: A Case Study and Its Implications. Ph.D. diss., Harvard University, Cambridge, Mass.  
1986 A New Look at the Early Classic Maya: Iconography, Inscriptions, and Archaeology. Paper presented at Maya Art and Civilization: The New Dynamics, May 16–18, Kimbell Art Museum, Fort Worth, Texas.
- 1986a La fachada esculpida de la Estructura 9N-82: Contenido, forma, iconografía. In *Excavaciones en el Area Urbana de Copan*, edited by William J. Sanders, pp. 319–382. Tegucigalpa: Instituto Hondureño de Antropología e Historia.  
In press The Sculpture Facade of Structure 9N-82: Content, Form, and Meaning. In *The House of the Bacabs*, edited by David Webster. Washington, D.C.: Dumbarton Oaks.
- Fash, William L., Ricardo Agurcia, and Elliot M. Abrams  
1981 Excavaciones en el Sitio CV36, 1980–1981. *Yaxkin* 4(2):111–132.
- Fash, William L., and C. Rudy Larios  
In press The Restoration and Hypothetical Reconstruction of a Maya Nobleman's Palace. *Archaeology*
- Fash, William L., and Sheree Lane  
1983 El Juego de Pelota B. In *Introducción a la Arqueología de Copan*. Vol. 2, pp. 502–562. Tegucigalpa: Secretaria de Estado en el Despacho de Cultura y Turismo.
- Ferguson, William M., and John Q. Royce  
1984 *Maya Ruins in Central America in Color: Tikal, Copan, and Quirigua*. Albuquerque: University of New Mexico Press.
- Fields, Virginia M.  
1989 The Origins of Divine Kingship Among the Lowland Classic Maya. Ph.D. diss., University of Texas at Austin.
- Flannery, Kent V.  
1968 The Olmec and the Valley of Oaxaca: A Model for Interregional Interaction in Formative Times. In *Dumbarton Oaks Conference on the Olmec*, edited by Elizabeth P. Benson, pp. 79–117. Washington, D.C.: Dumbarton Oaks.  
1972 The Cultural Evolution of Civilizations. *Annual Review of Ecology and Systematics* 3:399–426.  
1973 The Origins of Agriculture. *Annual Review of Anthropology* 2:271–310.  
1976 Contextual Analysis of Ritual Paraphernalia from Formative Oaxaca. In *The Early Mesoamerican Village*, edited by Kent V. Flannery, pp. 333–345. New York: Academic Press.
- Förstemann, E.  
1880 (editor) *Die Maya-Handschrift der königlichen Bibliothek en Dresden*. Leipzig: A. Naumann'schen Lichtdruckerei.
- Fought, John G.  
1965 A Phonetic and Morphological Interpretation of Zimmerman's Affix 61 in the Maya Hieroglyphic Codices. *Estudios de Cultura Maya* 5:253–280.  
1976 Time Structuring in Chorti (Mayan) Narratives. In *Mayan Linguistics*. Vol. 1, edited by Marlys McClaren, pp. 228–242. Los Angeles: American Indian Studies Center, University of California.  
1985 Cyclical Patterns in Chorti (Mayan) Literature. In *Supplement to the Handbook of Middle American Indians*. Vol. 3, *Literatures*, edited by Victoria R. Bricker and Munro S. Edmonson, pp. 133–146. Austin: University of Texas Press.
- Fox, James  
1984 The Hieroglyphic Band in the Casa Colorada. Paper presented at the American Anthropological Association, November 17, Denver, Colorado.

- Fox, James A., and John S. Justeson  
 1984a Conventions for the Transliteration of Mayan Hieroglyphs. In *Phoneticism in Mayan Hieroglyphic Writing*, edited by John S. Justeson and Lyle Campbell, pp. 363–366. Institute for Mesoamerican Studies Publication no. 9. Albany: State University of New York.  
 1984b Polyvalence in Mayan Hieroglyphic Writing. In *Phoneticism in Mayan Hieroglyphic Writing*, edited by John S. Justeson and Lyle Campbell, pp. 17–76. Institute for Mesoamerican Studies Publication no. 9. Albany: State University of New York.  
 1986 Classic Maya Dynastic Alliance and Succession. In *Supplement to the Handbook of Middle American Indians*. Vol. 4, *Ethnohistory*, edited by Victoria R. Bricker and Ronald Spores, pp. 7–34. Austin: University of Texas Press.
- Fox, John W.  
 1985 The Postclassic Highland Maya Ballgame: Its Spatial, Sociopolitical and Mythic Connotations. Paper presented at the Symposium on the Native American Ballgame: Regional Contexts and Comparative Interpretations, Tucson, Arizona.
- Freidel, David A.  
 1979 Culture Areas and Interaction Spheres: Contrasting Approaches to the Emergence of Civilization in the Maya Lowlands. *American Antiquity* 44:36–54.  
 1981 Civilization as a State of Mind: The Cultural Evolution of the Lowland Maya. In *The Transition to Statehood in the New World*, edited by Grant D. Jones and R. R. Kautz, pp. 188–227. Cambridge: Cambridge University Press.  
 1983 Polychrome Facades of the Lowland Maya Preclassic. In *Painted Architecture and Monumental Sculpture in Mesoamerica*, edited by Elizabeth Boone, pp. 5–27. Washington, D.C.: Dumbarton Oaks.  
 1986 The Monumental Architecture. In *Archaeology at Cerros, Belize, Central America*. Vol. 1, *An Interim Report*, edited by Robin A. Robertson and David A. Freidel, pp. 1–22. Dallas: Southern Methodist University Press.
- Freidel, David, and Linda Schele  
 1985 Knot-Skull, the Shining Seed: Death, Rebirth, and Heroic Amplification in the Lowland Maya Ballgame. Paper presented at the International Symposium on the Mesoamerican Ballgame and Ballcourts, Nov. 20–23, Tucson, Arizona.  
 1988 Symbol and Power: A History of the Lowland Maya Cosmogram. In *Maya Iconography*, edited by Elizabeth P. Benson and Gillett G. Griffin, pp. 44–95. Princeton: Princeton University Press.
- Furbee, Louanna, and Martha J. Macri  
 1985 Velar and Alveopalatal Consonants in the Maya Hieroglyphs. *Journal of American Linguistics* 51(4):412–416.
- Furst, Peter T.  
 1976 Fertility, Vision Quest, and Auto-Sacrifice: Some Thoughts on Ritual Blood-Letting Among the Maya. In *Segunda Mesa Redonda de Palenque*, edited by Merle Greene Robertson, pt. 3:181–193. Pebble Beach, Calif.: Robert Louis Stevenson School.
- Gallenkamp, Charles, and Regina Elise Johnson, eds.  
 1985 *Maya: Treasures of an Ancient Civilization*. New York: Harry N. Abrams (in association with The Albuquerque Museum).
- Gann, Thomas  
 1900 *Mounds in Northern Honduras*. Bureau of American Ethnology 19th Annual Report. Pt. 2:655–692. Washington, D.C.: Smithsonian Institution.  
 1918 *The Maya Indians of Southern Yucatan and Northern British Honduras*. Bureau of American Ethnology Bulletin no. 64. Washington, D.C.: Smithsonian Institution.
- Garber, James F.  
 1983 Patterns of Jade Consumption and Disposal at Cerros, Northern Belize. *American Antiquity* 48(4):800–807.
- García Moll, Roberto  
 1975 Primera Temporada Arqueológica en Yaxchilan, Chiapas. *Boletín INAH* 12, época 2:3–12.  
 1985 *Palenque 1926–1945*. Mexico: INAH-SEP.  
 1986 El “Planchon de las Figuras” en Chiapas, Nuevo Reconocimiento Arqueológico. *Antropología, Nueva Época* (Instituto Nacional de Antropología e Historia, Mexico, D.F.) 7:23–25.
- Gay, Carlo  
 1971 *Chalcacingo*. Graz, Austria: Akademische Druck-u. Verlagsanstalt.  
 1972 *Chalcacingo*. Portland: International Scholarly Book Services.  
 1974 *Xochipala: The Beginnings of Olmec Art*. Princeton: The Art Museum, Princeton University.
- Gibbs, S.  
 1977 Mesoamerican Calendars as Evidence of Astronomical Activity. In *Native American Astronomy*, edited by Anthony F. Aveni, pp. 21–35. Austin: University of Texas Press.
- Gillespie, Susan D.  
 1985 Ballgames and Boundaries. Paper presented at the International Symposium on the Mesoamerican Ballgame and Ballcourts, November 20–23, Tucson, Arizona.
- Goldman, Irving  
 1970 *Ancient Polynesian Society*. Chicago: University of Chicago Press.
- Gordon, George B.  
 1896 *Prehistoric Ruins of Copan, Honduras: A Preliminary Report of the Explorations by the Museum 1891–1895*. Peabody Museum Memoirs 1(1). Cambridge, Mass.: Harvard University.
- Gould, Stephen J.  
 1984 A Short Way to Corn. *Natural History* 93(3):12–20.
- Graham, Ian  
 1976 Archaeological Explorations. In *El Peten, Guatemala*. Middle American Research Institute Publication no. 33. New Orleans: Tulane University.  
 1978 *Naranjo, Chunhuitz, Xunantunich*. Vol. 2, pt. 2, of *Corpus of Maya Hieroglyphic Inscriptions*. Cambridge, Mass.: Peabody Museum of Archaeology and Ethnology, Harvard University.  
 1979 *Yaxchilan*. Vol. 3, pt. 2, of *Corpus of Maya Hieroglyphic Inscriptions*. Cambridge, Mass.: Peabody Museum of Archaeology and Ethnology, Harvard University.  
 1986 Looters Rob Graves and History. *National Geographic* 169(4):452–461.
- Graham, Ian, and Eric Von Ew  
 1975 *Naranjo*. Vol. 2, pt. 1, of *Corpus of Maya Hieroglyphic Inscriptions*. Cambridge, Mass.: Peabody Museum of Archaeology and Ethnology, Harvard University.  
 1977 *Yaxchilan*. Vol. 3, pt. 1, of *Corpus of Maya Hieroglyphic Inscriptions*. Cambridge, Mass.: Peabody Museum

- of Archaeology and Ethnology, Harvard University.
- Graham, Ian, Eric Von Euw, and Peter Mathews  
1975–83 *Corpus of Maya Hieroglyphic Inscriptions*. 6 vols. Cambridge, Mass.: Peabody Museum of Archaeology and Ethnology, Harvard University.
- Graham, John A., Robert F. Heizer, and Edward M. Shook  
1978 Abaj Takalik 1976: Exploratory Investigations. In *Contributions to the University of California Archaeological Research Facility* 36:85–109. Berkeley: University of California.
- Granger, Richard H.  
1980 Adaptive Understanding: Correcting Erroneous Inferences. Technical Report 171, Computer Science Department, Yale University. New Haven, Conn.
- Greene, Merle, Robert L. Rands, and John A. Graham  
1972 *Maya Sculpture from the Southern Lowlands, the Highlands and the Pacific Piedmont: Guatemala, Mexico, Honduras*. Berkeley, Calif.: Lederer, Street, and Zeus.
- Greene Robertson, Merle  
1974 The Quadripartite Badge—A Badge of Rulership. In *Primera Mesa Redonda de Palenque, Part 1*, edited by Merle Greene Robertson, pp. 77–92. Pebble Beach, Calif.: Robert Louis Stevenson School.
- 1977 Painting Practices and Their Changes Through Time of the Palenque Stucco Sculptors. In *Social Process in Maya Prehistory: Studies in Honour of Sir Eric Thompson*, edited by Norman Hammond, pp. 297–326. London and New York: Academic Press.
- 1979 A Sequence for Palenque Painting Techniques. In *Maya Archaeology and Ethnohistory*, edited by Norman Hammond and Gordon R. Willey, pp. 149–171. Austin: University of Texas Press.
- 1983 *The Sculpture of Palenque*. Vol. 1, *The Temple of the Inscriptions*. Princeton: Princeton University Press.
- 1985a *The Sculpture of Palenque*. Vol. 2, *The Early Buildings of the Palace and the Wall Paintings*. Princeton: Princeton University Press.
- 1985b *The Sculpture of Palenque*. Vol. 3, *The Late Buildings of the Palace*. Princeton: Princeton University Press.
- Greene Robertson, Merle, Edward Kurjack, and Ruben Maldonado C.  
1985 Ball Courts of the Northern Maya Lowlands. Paper presented at the Symposium on the Native American Ball Game: Regional Contexts and Comparative Interpretations, Tucson, Arizona.
- Griffin, Gillett G.  
1981 Olmec Forms and Materials Found in Central Guerrero. In *The Olmec and Their Neighbors*, edited by Elizabeth P. Benson, pp. 209–222. Washington, D.C.: Dumbarton Oaks.
- Grove, David C.  
1968 Chalcatzingo, Moreles, Mexico: A Reappraisal of the Olmec Rock Carvings. *American Antiquity* 33(4): 486–491.
- 1969 Olmec Cave Paintings: Discovery from Guerrero, Mexico. *Science* 164(3878):421–423.
- 1970 *The Olmec Paintings of Oxtotitlan Cave, Guerrero, Mexico*. Studies in Pre-Columbian Art and Archaeology, no. 6. Washington, D.C.: Dumbarton Oaks.
- 1973 Olmec Altars and Myths. *Archaeology* 26(2): 128–135.
- 1981 Olmec Monuments: Mutilation as a Clue to Meaning. In *The Olmec and Their Neighbors*, edited by Elizabeth P. Benson, pp. 48–69. Washington, D.C.: Dumbarton Oaks.
- 1984 *Chalcatzingo: Excavations on the Olmec Frontier*. London: Thames and Hudson.
- 1987a Comments on the Site and Organization. In *Ancient Chalcatzingo*, edited by David C. Grove, pp. 420–433. Austin: University of Texas Press.
- 1987b “Torches,” “Knuckledusters,” and the Legitimation of Formative Period Rulership. *Mexicon* 9(3):60–65.
- Grove, David C., and Susan Gillespie  
1984 Chalcatzingo’s Portrait Figurines and the Cult of the Ruler. *Archaeology* 37(4):27–33.
- Grove, David C., and Louise I. Paradis  
1971 An Olmec Stela from San Miguel Amuco, Guerrero. *American Antiquity* 36(1):95–102.
- Grube, Nikolai  
1985 Die Struktur der Primären Standardsequenz auf Keramiken der Klassischen Mayakultur. Master’s thesis, Altamerikanische Sprachen und Kulturen, University of Hamburg.
- 1986 *A Note on the Reading of Affix T142*. Research Reports on Ancient Maya Writing, no. 4. Washington, D.C.: Center for Maya Research.
- Grube, Nikolai, and David Stuart  
1987 *Observations on T110 as the Syllable ko*. Research Reports on Ancient Maya Writing, no. 8. Washington, D.C.: Center for Maya Research.
- Guiteras Holmes, Calixta  
1961 *Perils of the Soul: The World View of a Tzotzil Indian*. New York: The Free Press of Glencoe.
- Hagen, Victor W. von  
1977 *The Aztec and Maya Papermakers*. New York: Hacker Art Books. (Originally published in 1944.)
- Hardy Gonzalez, Arnulfo  
1985 *Palenque: Pasado y Presente*. Tuxtla Gutiérrez: Gobierno del Estado de Chiapas.
- Harrison, Peter D.  
1974 Precolumbian Settlement Distributions and External Relationships in Southern Quintana Roo. Pt. 1, Architecture. *Atti degli XL Congresso Internazionale degli Americanisti* 1:479–486.
- Hartig, Helga-Maria  
1979 Dateres Lintel in Playa del Carmen. *Mexicon* 1(1): 5–6.
- Haviland, William A.  
1978 On Price’s Presentation of Data from Tikal. *Current Anthropology* 19(1):180–181.
- In press From Double Bird to Ah Cacao: Dynastic Troubles and the Count of the Katuns at Tikal, Guatemala. In *Papers of the 1987 Maya Weekend*. Philadelphia: The University Museum, University of Pennsylvania.
- Hellmuth, Nicholas M.  
1976 (editor) *Tzakol and Tepeu Maya Pottery Drawings: Portfolio of Rollout Drawings by Barbara van Heusen, Persis Clarkson, Lin Crocker*. Guatemala City: Foundation for Latin American Anthropological Research.
- 1978 *Tikal Copan Travel Guide: A General Introduction to Maya Art, Architecture, and Archaeology*. Guatemala City and St. Louis: Foundation for Latin American Anthropological Research.
- 1982 The Holmul Dancer and the “Principle Young Lord” in Maya Art. MS. Foundation for Latin American Anthropological Research, Guatemala City.

- Helms, Mary W.  
1979 *Ancient Panama*. Austin: University of Texas Press.
- Henderson, John S.  
1979 *Atopula, Guerrero, and Olmec Horizons in Mesoamerica*. Yale University Publications in Anthropology, no. 77. New Haven.
- Herald, Earl S.  
1964 *Fishes of North America*. New York: Doubleday.
- Hermitte, Esther  
1970 *Poder Sobrenatural y Control Social*. Instituto Interamericano Ediciones Especiales, tomo 57. Mexico, D.F.
- Hildreth, Elen  
1980 Implementation of a Theory of Edge Detection. Technical Report 579, Massachusetts Institute of Technology AI Lab. Cambridge, Mass.
- Hohman, Hasso, and Annegrete Vogrin  
1982 *Die Architektur von Copan (Honduras)*. Graz, Austria: Akademische Druck- und Verlagsanstalt.
- Holmes, William L.  
1985–97 *Archaeological Studies Among the Ancient Cities of Mexico*. Field Columbian Museum Anthropological Series 1(1). Chicago.
- Hopkins, Nicholas  
1967a The Chuj Language. Ph.D. diss., University of Chicago.  
1967b Some Aspects of Social Organization in Chalchihuitan, Chiapas, Mexico. *Anthropology Tomorrow* 2(2):13–33.  
1968 A Method for the Investigation of Glyph Syntax. *Estudios de Cultura Maya* 7:79–83.  
1969 A Formal Account of Chalchihuitan Tzotzil Kinship Terminology. *Ethnology* 8(1):85–102.  
1973 Concordance of Glyph Strings from Thompson's Glyph Catalog. Computer printout, Department of Anthropology, University of Texas at Austin.  
1982 Classic-area Maya Kinship Systems: The Evidence for Patrilineality. Paper presented at the Taller Maya 6, July, San Cristobal de las Casas, Mexico.  
1984 Classic Maya Kinship Systems: Epigraphic and Ethnographic Evidence for Patrilineality. Paper presented at the annual meeting of the American Anthropological Association, Denver (revised version in press, *Journal of Mayan Linguistics*).
- Hopkins, Nicholas, and J. Kathryn Josserand  
1985 The Story of Lak Mam. Paper presented at the Third Annual Advanced Workshop on Maya Hieroglyphic Writing, March 11–16, the University of Texas at Austin.  
1986 The Characteristics of Chol (Mayan) Traditional Narrative. Paper presented to the 25th Conference on American Indian Languages: Mayan Discourse, annual meeting of the American Anthropological Association, December, Philadelphia.
- Houston, Stephen D.  
1983 A Reading for the Flint-Shield Glyph. In *Contributions to Maya Hieroglyphic Decipherment*, edited by Stephen D. Houston, pp. 13–25. New Haven: Human Relations Area Files.  
1986 *Problematic Emblem Glyphs: Examples from Altar de Sacrificios, El Chorro, Rio Azul, and Xultun*. Research Reports on Ancient Maya Writing, no. 3. Washington, D.C.: Center for Maya Research.  
n.d. Notes on the Primary Standard Sequence. MS.
- Houston, Stephen D., and Peter Mathews  
1985 *The Dynastic Sequence of Dos Pilas, Guatemala*. Pre-Columbian Art Research Institute Monograph 1. San Francisco, Calif.: Pre-Columbian Art Research Institute.
- Houston, Stephen, and Karl Taube  
1987 Name-Tagging in Classic Mayan Script: Implications for Native Classification of Ceramics and Jade Ornament. *Mexicon* 9(2):38–42.
- Hurley Vda. de Delgaty, Alfa, and Augustin Ruiz Sanchez  
1978 *Diccionario Tzotzil de San Andres con Variaciones Dialectales*. Vocabularios Indígenas 22. Mexico, D.F.: Instituto Lingüístico de Verano.
- Iltis, Hugh H.  
1983a Lecture. November 2, University of Texas at Austin.  
1983b From Teosinte to Maize: The Catastrophic Sexual Transmutation. *Science* 222(November 25):886–894.
- Iltis, Hugh H., and John F. Doebley  
1980 Taxonomy of *Zea* (Gramineae). Pt. 2, Subspecific Categories in the *Zea mays* Complex and a Generic Synopsis. *American Journal of Botany* 67(6):994–1004.
- Instituto de Antropología e Historia de Guatemala  
1985 Reconocimiento, Rescate e Investigación de la Ribera del Rio Usumacinta, 1985–2000.
- Integral Quality, Inc.  
1983 IQLISP Reference Manual. Seattle.
- Johnston, Kevin  
1985 Maya Dynastic Territorial Expansion: Glyphic Evidence from Classic Centers of the Pasion River, Guatemala. In *Fifth Palenque Round Table, 1983*, edited by Virginia M. Fields (Merle Greene Robertson, General Editor), pp. 49–56. San Francisco: Pre-Columbian Art Research Institute.
- Jones, Christopher  
1977 Inauguration Dates of Three Late Classic Rulers of Tikal, Guatemala. *American Antiquity* 42(1):28–60.  
1984 *Deciphering Maya Hieroglyphs*. Workshop notebook. Philadelphia: The University Museum, University of Pennsylvania.
- Jones, Christopher, and Linton Satterthwaite  
1982 *The Monuments and Inscriptions of Tikal: The Carved Monuments*. University Museum Monograph no. 44, Tikal Report no. 33, pt. A. Philadelphia: The University Museum, University of Pennsylvania.
- Jones, Larry B., and Linda K. Jones  
1984 Verb Morphology and Discourse Structure in Mesoamerican Languages. In *Theory and Application in Processing Texts in Non-Indo-European Languages*, edited by Robert E. Longacre, pp. 25–58. Hamburg: Helmut Buske.
- Jones, Linda K., ed.  
1979 *Discourse Studies in Mesoamerican Languages*. Vol. 1, Discussion. Vol. 2, Texts. Summer Institute of Linguistics, Publications in Linguistics, no. 58.
- Jones, Tom  
1985 The Xoc, the Sharke, and the Sea Dogs: An Historical Encounter. In *Fifth Palenque Round Table, 1983*, edited by Virginia M. Fields (Merle Greene Robertson, General Editor), pp. 211–222. San Francisco: Pre-Columbian Art Research Institute.
- Joralemon, Peter D.  
1971 *A Study of Olmec Iconography*. Studies in Pre-Columbian Art and Archaeology, no. 7. Washington, D.C.: Dumbarton Oaks.  
1974 Ritual Blood-Sacrifice Among the Ancient Maya, pt. 1. In *Primera Mesa Redonda de Palenque*, pt. 2, edited by Merle Greene Robertson, pp. 59–75. Pebble Beach,

- Calif.: Robert Louis Stevenson School.
- 1975 The Night Sun and the Earth Dragon: Some Thoughts on the Jaguar God of the Underworld. In *Jaina Figurines: A Study of Maya Iconography*, edited by Mary E. Miller, pp. 63–66. Princeton: The Art Museum, Princeton University.
- 1976 The Olmec Dragon: A Study in Precolumbian Iconography. In *Origins of Religious Art and Iconography in Preclassic Mesoamerica*, edited by H. B. Nicholson, pp. 27–72. Los Angeles: UCLA Latin American Center.
- 1981 The Old Woman and the Child: Themes in the Iconography of Preclassic Mesoamerica. In *The Olmec and Their Neighbors: Essays in Memory of Matthew W. Stirling*, edited by Elizabeth P. Benson, pp. 163–180. Washington, D.C.: Dumbarton Oaks.
- Josserand, J. Kathryn
- 1984 Discourse Analysis of Chol and Mayan Hieroglyphics. Lecture, 3rd Advanced Seminar on Maya Hieroglyphic Writing, University of Texas at Austin.
- Josserand, J. Kathryn, and Linda Schele
- 1984 Discourse Analysis of Narrative Hieroglyphic Texts. Paper presented at the annual meeting of the American Anthropological Association, Denver.
- In press Discourse Analysis of Narrative Hieroglyphic Texts. In *Hieroglyphic Studies in Memory of Marshall Durbin*, edited by J. Kathryn Josserand and C. A. Hofling. *Journal of Mayan Linguistics* (special issue).
- Josserand, J. Kathryn, Linda Schele, and Nicholas A. Hopkins
- 1985 Linguistic Data on Mayan Inscriptions: The *ti* Constructions. In *Fourth Palenque Round Table, 1980*, edited by Elizabeth P. Benson (Merle Greene Robertson, General Editor), pp. 87–102. San Francisco: Pre-Columbian Art Research Institute.
- Joyce, Rosemary A.
- 1981 Classic Maya Kinship and Descent: An Alternative Suggestion. *Journal of the Steward Anthropological Society* 13(1):45–57.
- Justeson, John S.
- 1978 Mayan Scribal Practice in the Classic Period: A Test Case of an Explanatory Approach to the Study of the Writing System. Ph.D. diss., Stanford University. (Available from University Microfilms, Ann Arbor, Michigan.)
- 1983 Mayan Hieroglyphic “Name-Tagging” of a Pair of Rectangular Jade Plaques from Xcalumkin. In *Contributions to Maya Hieroglyphic Decipherment*, edited by Stephen Houston. New Haven: Human Relations Area File.
- 1984a Interpretations of Mayan Hieroglyphs. In *Phoneticism in Mayan Hieroglyphs*, edited by John S. Justeson and Lyle Campbell, pp. 315–362. Institute for Mesoamerican Studies Publication no. 9. Albany: State University of New York.
- 1984b Subscript Designations for Mayan Hieroglyphs. In *Phoneticism in Mayan Hieroglyphic Writing*, edited by John S. Justeson and Lyle Campbell, pp. 367–370. Institute for Mesoamerican Studies Publication no. 9. Albany: State University of New York.
- Justeson, John S., and Lyle Campbell, eds.
- 1984 *Phoneticism in Mayan Hieroglyphic Writing*. Institute for Mesoamerican Studies no. 9. Albany: State University of New York.
- Justeson, John S., and William M. Norman
- 1983 A Reinterpretation of Some “Auxiliary Verb” Constructions in Mayan Hieroglyphic Writing. Paper presented at the Fifth Palenque Round Table, Palenque, Chiapas, Mexico.
- Justeson, John S., William M. Norman, Lyle Campbell, and Terrence Kaufman
- 1985 *The Foreign Impact on Lowland Mayan Language and Script*. Middle American Research Institute Publication no. 53. New Orleans: Tulane University.
- Kaufman, Terrence S.
- 1967 *Preliminary Mocho Vocabulary*. Working Paper no. 5, Laboratory for Language-Behavior Research. Berkeley: University of California.
- 1972 *El Proto-Tzeltal-Tzotzil: Fonología Comparada y Diccionario Reconstruido*. Centro de Estudios Mayas Cuaderno 5. Mexico, D.F.: Universidad Nacional Autónoma de Mexico.
- Kaufman, Terrence S., and William Norman
- 1984 An Outline of Proto-Cholan Phonology, Morphology, and Vocabulary. In *Phoneticism in Maya Hieroglyphic Writing*, edited by John S. Justeson and Lyle Campbell, pp. 77–166. Institute for Mesoamerican Studies Publication no. 9. Albany: State University of New York.
- Kelley, David H.
- 1962 Fonetismo en la Escritura Maya. *Estudios de Cultura Maya* 5:93–134.
- 1968 Kakupacal and the Itzas. *Estudios de Cultura Maya* 7:255–268.
- 1976 *Deciphering the Maya Script*. Austin: University of Texas Press.
- 1977 Maya Astronomical Tables and Inscriptions. In *Native American Astronomy*, edited by Anthony F. Aveni, pp. 57–76. Austin: University of Texas Press.
- 1982 Notes on Puuc Inscriptions and History. In *The Puuc: New Perspectives*, edited by Lawrence W. Mills, pp. 1–18. Scholarly Studies in the Liberal Arts Publication no. 1. Pella, Iowa: Central College.
- 1983 The Maya Calendar Correlation Problem. In *Civilization in the Ancient Americas: Essays in Honor of Gordon R. Willey*, edited by Richard Levanthal and Alan Kolata. Albuquerque: University of New Mexico Press (with the Peabody Museum, Cambridge, Mass.).
- 1984 The Toltec Empire in Yucatan. *Quarterly Review of Archaeology* 5(1):12–13.
- Kerr, Justin
- n.d. Collection of roll-out photographs of Maya vases. New York.
- Kidder, A. V.
- 1947 *The Artifacts of Uaxactun, Guatemala*. Carnegie Institution of Washington Publication no. 576. Washington, D.C.
- Kim de Bolles, Alejandra
- 1972 *Stories my Mother Was Told Long Ago: Stories and Songs in the Mayan Language*. Komchen, Yucatan.
- 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.) Russian Translation Series, no. 4. Cambridge, Mass.: Peabody Museum of Archaeology and Ethnology, Harvard University.
- Knowles, Susan M.
- 1984 A Descriptive Grammar of Chontal Maya (San Carlos Dialect). Ph.D. diss., Tulane University, New Orleans.



- leans. (Available from University Microfilms, Ann Arbor, Michigan.)
- Kohonen, Teuvo  
1978 *Associative Memory, A Systems Theoretical Approach*. Berlin: Springer-Verlag. (Corrected printing of the first edition.)
- Kowalewski, Stephen, Gary Feinman, Laura Finstein, and Richard E. Blanton  
1985 Prehispanic Ballcourts from the Valley of Oaxaca. Paper presented at the Symposium on the Native American Ball Game: Regional Contexts and Comparative Interpretations, Tucson, Arizona.
- Kowalski, Jeffrey K.  
n.d. A Reference to a Historical Figure in the Hieroglyphic Texts from the Cemetery Group and a Probable Tun-Ahau Date from the Glyphic Monument of the Nunnery Triangle. MS.
- Krickeberg, Walter  
1966 (1948) El Juego Mesoamericana y su Simbolismo Religioso. *Traducciones Mesoamericanistas* (Sociedad Mexicana de Antropología) 1: 191–313.
- Krochock, Ruth  
1985 A Reconsideration of Reading Orders from Selected Monuments at Chichén Itzá. Paper presented at the Workshop for Maya Hieroglyphic Writing, University of Texas at Austin.  
1986 A Possible Link Between Parentage and Sacrifice in the Hieroglyphic Inscriptions and Iconography of Chichén Itzá. Paper presented at the Sexta Mesa Redonda de Palenque, Palenque, Chiapas, Mexico.
- Kubler, George  
1961 Chichén Itzá y Tula. *Estudios de Cultura Maya* 1: 47–80.  
1962 *The Art and Architecture of Ancient America: The Mexican, Maya and Andean Peoples*. Baltimore: Penguin Books.  
1973 The Clauses of Classic Maya Inscriptions. In *Mesoamerican Writing Systems*, edited by Elizabeth P. Benson, pp. 145–164. Washington, D.C.: Dumbarton Oaks.  
1974 Mythological Ancestries in Classic Maya Inscriptions. In *Primera Mesa Redonda de Palenque, Part 2*, edited by Merle Greene Robertson, pp. 22–43. Pebble Beach, Calif.: Robert Louis Stevenson School.  
1976 *The Art and Architecture of Ancient America*. 2d ed. London: Penguin Books.  
1977 *Aspects of Classic Maya Rulership on Two Inscribed Vessels*. Studies in Pre-Columbian Art and Archaeology, no. 18. Washington, D.C.: Dumbarton Oaks.
- Kurbjuhn, Kornelia  
1980 Die Sitze de Maya. Eine ikonographische Untersuchung. Ph.D. diss., Eberhard-Karls-Universität, Tübingen, West Germany.  
1985 Man in the Turtle, Man in the Snail: A Study of Occupants of Turtle and Snail Shells in Maya Art. In *Fifth Palenque Round Table, 1983*, edited by Virginia M. Fields (Merle Greene Robertson, General Editor), pp. 159–169. San Francisco: Pre-Columbian Art Research Institute.
- Lacroix Gonzalez, Domingo  
1976 *Gotas de recuerdo*. Villahermosa, Mexico: Fondo de Cultura Tabasquena.
- La Farge, Oliver, and Douglas Beyers  
1931 *The Year Bearer's People*. Middle American Research Institute Publication no. 8. New Orleans: Tulane University.
- Landa, Fray Diego de  
1599 *Relación de las Cosas de Yucatan*. Mexico, D.F.: Editorial Porrúa.  
1966 *Relación de las Cosas de Yucatan*. Biblioteca Porrúa, tomo 13, Mexico, D.F.: Editorial Porrúa. (12th ed. published in 1982.)
- Laporte, Juan P., and W. Fialko  
1987 La Cerámica del Clásico Temprano desde Mundo Perdido, Tikal: Una Reevaluación. In *Maya Ceramics*, edited by Prudence M. Rice and Robert J. Sharer, pp. 121–181. British Archaeological Reports International Series, no. 35. Oxford.
- Larios, C. Rudy, and William L. Fash  
1985 Excavación y Restauración de un Palacio de la Nobleza Maya de Copán. *Yaxkin* 8 (1):111–134.
- Larráinzar, Manuel  
1875–78 *Estudios sobre la historia de America, sus ruinas y antigüedades*. 5 vols. Villanueva, Mexico: Imprenta de Villanueva.
- Laughlin, Robert M.  
1969 The Tzotzil. In *Handbook of Middle American Indians* (Robert Wauchope, General Editor). Vol. 7, *Ethnology*, pt. 1, edited by Evon Z. Vogt. Austin: University of Texas Press.  
1975 *The Great Tzotzil Dictionary of San Lorenzo Zinacantan*. Smithsonian Contributions to Anthropology, no. 19. Washington, D.C.: Smithsonian Institution.
- Lee, Thomas A., Jr.  
1969 *The Artifacts of Chiapa de Corzo, Chiapas, Mexico*. Papers of the New World Archaeological Foundation, no. 26. Provo, Utah.  
1985 (editor) *Los Codices Mayas*. Edición Conmemorativa X Aniversario. Universidad Autónoma de Chiapas.
- Leung, C. H., Y. S. Cheung, and K. P. Chan  
1985 A Distortion Model of Chinese Character Generation. In *Proceedings of the IEEE International Conference on Systems, Man, and Cybernetics*, pp. 38–41. Tucson.
- Liman, Florence F., and Marshall Durbin  
1975 Some New Glyphs on an Unusual Maya Stela. *American Antiquity* 40(3):314–320.
- Lincoln, Charles  
1982 The “Total Overlap” Model of Chichén Itzá as a Terminal Classic Maya Site: A Discussion of Monumental Sculpture. Seminar paper, Harvard University, Cambridge, Mass.  
1985 The Chronology of Chichén Itzá: A Review of the Literature. In *Late Lowland Maya Civilization: Classic to Postclassic*, edited by Jeremy A. Sabloff and E. Wyllys Andrews V, pp. 141–196. Albuquerque: University of New Mexico Press.
- Lineaweaver, Thomas H., and Richard H. Backus  
1984 *The Natural History of Sharks*. New York: Nick Lyons Books.
- Lizardi Ramos, Cesar  
1936 Los Secretos de Chichén Itzá. *Excelsior* (Mexico, D.F.), Dec. 21.  
1937 New Discoveries of Maya Culture at Chichén Itzá. *Illustrated London News* July 3:12–15.
- Longacre, Robert E.  
1979 Introduction. In *Discourse Studies in Mesoamerican Languages*, edited by Linda K. Jones, vol. 1, pp. vii–ix.

- Summer Institute of Linguistics. Publications in Linguistics, no. 58.
- Longyear, John M., III  
1952 *Copan Ceramics: A Study of Southeastern Maya Pottery*. Carnegie Institution of Washington Publication no. 597. Washington, D.C.
- Lopez de M., Diana, and Daniel Molina F.  
1980 *Cacaxtla: Guía Oficial*. Mexico, D.F.: Instituto Nacional de Antropología e Historia.
- Lothrop, Samuel K.  
1952 *Metals from the Cenote of Sacrifice*. Memoirs of the Peabody Museum of American Archaeology and Ethnology 10(2). Cambridge, Mass.: Harvard University.
- Lounsbury, Floyd  
1973 On the Derivation and Reading of the "Ben-Ich" Prefix. In *Mesoamerican Writing Systems*, edited by Elizabeth P. Benson, pp. 99–143. Washington, D.C.: Dumbarton Oaks.  
1974 The Inscription on the Sarcophagus Lid at Palenque. In *Primera Mesa Redonda de Palenque, Part 2*, edited by Merle Greene Robertson, pp. 5–20. Pebble Beach, Calif.: 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*, edited by Merle Greene Robertson, pp. 211–224. Pebble Beach, Calif.: Robert Louis Stevenson School.  
1978 Maya Numeration, Computation, and Calendrical Astronomy. In *Dictionary of Scientific Biography*, vol. 15, supp. 1, edited by C. C. Gillespie, pp. 759–818. New York: Scribner's.  
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*, edited by Merle Greene Robertson, pp. 99–115. Austin: University of Texas Press.  
1982 Astronomical Knowledge and Its Uses at Bonampak, Mexico. In *Archaeoastronomy in the New World*, edited by Anthony F. Aveni, pp. 143–168. Cambridge: Cambridge University Press.  
1983 The Base of the Venus Table of the Dresden Codex and Its Significance for the Calendar Correction Problem. In *Calendars in Mesoamerica and Peru: Native American Computations of Time*, edited by Anthony F. Aveni and Gordon Brotherston, pp. 1–26. British Archaeological Reports International Series, no. 174. Oxford.  
1984a Glyphic Substitutions: Homophonic and Synonymic. In *Phoneticism in Maya Hieroglyphic Writing*, edited by John S. Justeson and Lyle Campbell, pp. 167–184. Institute for Mesoamerican Studies Publication no. 9. Albany: State University of New York.  
1984b Positional Analysis of Glyph Substitutions. Paper presented at the Colloquium on the Language of Writing in the Mayan Region, April 23–24, University of Chicago.  
1985 The Identities of the Mythological Figures in the Cross Group Inscriptions of Palenque. In *Fourth Palenque Round Table, 1980*, edited by Elizabeth P. Benson (Merle Greene Robertson, General Editor), pp. 45–58. San Francisco: Pre-Columbian Art Research Institute.  
n.d.a Letter on the inscriptions of Copan to William Fash, 1975.  
n.d.b The Slaves Tablet: Notes on the Text. Class hand-  
out, Maya Hieroglyphic Writing, Yale University, 1976–1977. MS.
- Love, Bruce  
1984a Ethnographic Analogy and Maya Glyph Studies. Paper presented at the 83rd annual meeting of the American Anthropological Association, Denver.  
1984b Wahil Kol: A Yucatec Maya Agricultural Ceremony. *Estudios de Cultura Maya* 15:251–300.  
1986 Yucatec Maya Ritual: A Diachronic Perspective. Ph.D. diss., University of California, Los Angeles.  
1987 *Glyph T93 and Maya "Hand-scattering" Events*. Research Reports on Ancient Maya Writing, no. 5. Washington, D.C.: Center for Maya Research.  
In press Yucatec Sacred Breads Through Time. In *The Cultural Content of Mayan Glyphs: Language, History, and Representation*, edited by William Hanks and Don Rice.
- Lowe, G. W., T. A. Lee, Jr., and E. Martinez  
1982 *Izapa: An Introduction to the Ruins and Monuments*. Papers of the New World Archaeological Foundation, no. 31. Provo, Utah.
- McCarthy, John et al.  
1980 *LISP 1.5 Programmer's Manual*. 2d ed. Cambridge, Mass.: The MIT Press.
- MacCleod, Barbara  
1983 Remembrances of Cycles Past: T669b in Palenque Katun Histories. In *Contributions to Maya Hieroglyphic Decipherment*, edited by Stephen Houston. New Haven: Human Relations Area Files.  
1984 Cholan and Yucatecan Verb Morphology and Glyphic Verbal Affixes in the Inscriptions. In *Phoneticism in Mayan Hieroglyphic Writing*, edited by John S. Justeson and Lyle Campbell, pp. 233–262. Institute for Mesoamerican Studies Publication no. 9. Albany: State University of New York.
- McDonald, Andrew J.  
1983 *Tzutzuculi. A Middle Preclassic Site on the Pacific Slopes of Chiapas, Mexico*. Papers of the New World Archaeological Foundation, no. 47. Provo, Utah.
- Macri, Martha J.  
1985 Formulaic Patterns in the Maya Script. In *Proceedings of the Eleventh Meeting of the Berkeley Linguistics Society*, edited by Mary Niepokuj et al., pp. 216–225. Berkeley: Berkeley Linguistics Society.
- Madrid Codex  
1967 *Codex Tro-Cortesianus (Codex Madrid)*. Einleitung und Summary von F. Anders. Graz, Austria: Akademische Druck-und Verlagsanstalt.
- Maler, Teobert  
1901–03 *Researches in the Central Portion of the Usumatsintla Valley*. Memoirs of the Peabody Museum 2 (1, 2). Cambridge, Mass.: Harvard University.
- Mangelsdorf, Paul C.  
1974 *Corn: Its Origin and Improvement*. Cambridge, Mass.: The Belknap Press of Harvard University Press.  
1986 The Origin of Corn. *Science* 225:80–86.
- Marcus, Joyce  
1973 Territorial Organization of the Lowland Classic Maya. *Science* 180:911–916.  
1976 *Emblem and State in the Classic Maya Lowlands: An Epigraphic Approach to Territorial Organization*. Washington, D.C.: Dumbarton Oaks.
- Marquina, Ignacio  
1951 *Arquitectura Prehispanica*. División de Monumentos

- Prehispanics Memoirs, tomo 1. Mexico, D.F.: Instituto Nacional de Antropología e Historia. (2d ed. published in 1981.)
- Martínez Donjuan, Guadalupe  
1982 Teopantecuanitlan, Guerrero: un sitio Olmeca. *Revista Mexicana de Estudios Antropológicos* 28.
- Martínez Hernández, Juan, ed.  
1929 *Diccionario de Motul, maya-español, atribuido a Fray Antonio de Ciudad Real y Arte de la lengua maya por Fray Juan Coronel*. Merida, Mexico: Talleres de la Compañía Tipográfica Yucateca.
- Matheny, Raymond T.  
1978 Northern Maya Lowland Water-Control Systems. In *Prehispanic Maya Agriculture*, edited by P. D. Harrison and B. L. Turner, pp. 195–210. Albuquerque: University of New Mexico Press.  
1980 *El Mirador, Peten, Guatemala: An Interim Report*. Papers of the New World Archaeological Foundation, no. 45. Provo, Utah.  
1986 Investigations at El Mirador, Peten, Guatemala. *National Geographic Research* 2(3):332–353.
- Matheny, Raymond T. et al.  
1983 *Investigations at Edzna, Campeche, Mexico*. Vol. 1, pt. 1, *The Hydraulic System*. Papers of the New World Archaeological Foundation, no. 46. Provo, Utah.
- Mathews, Peter  
1977 The Inscription on the Back of Stela 8, Dos Pilas, Guatemala. Paper presented at the International Meeting on Maya Iconography and Hieroglyphic Writing, Guatemala City, Guatemala.  
1979 The Glyphs on the Ear Ornaments from Tomb A-1/1. In *Excavations at Altun Ha, Belize, 1964–1970*, edited by David Pendergast, vol. 1. Toronto: Royal Ontario Museum.  
1980 Notes on the Dynastic Sequence of Bonampak, pt. 1. In *Third Palenque Round Table, 1978*, edited by Merle Greene Robertson, pp. 60–73. Austin: University of Texas Press.  
1983a *Corpus of Maya Hieroglyphs*. Vol. 6, pt. 1, *Tonina*. Cambridge, Mass.: Peabody Museum of Archaeology and Ethnology, Harvard University.  
1983b Palenque's Mid-life Crisis. Paper presented at the Fifth Palenque Round Table, Palenque, Chiapas, Mexico.  
1984 A Maya Hieroglyphic Syllabary. In *Phoneticism in Mayan Hieroglyphic Writing*, edited by John S. Justeson and Lyle Campbell. Institute for Mesoamerican Studies Publication no. 9. Albany: State University of New York.  
1985a Maya Early Classic Monuments and Inscriptions. In *A Consideration of the Early Classic Period in the Maya Lowlands*, edited by Gordon R. Willey and Peter Mathews, pp. 5–54. Institute for Mesoamerican Studies Publication no. 10. Albany: State University of New York, Albany.  
1985b Maya Hieroglyphic Workshop Notebook. Department of Anthropology, University of Southern California, Los Angeles.  
1986 Late Classic Maya History and Site Interaction as Recorded in the Inscriptions. Paper presented at Maya Art and Civilization: The New Dynamics, May 16–18, Kimbell Art Museum, Fort Worth, Texas.
- Mathews, Peter, and John S. Justeson  
1984 Patterns of Sign Substitution in Mayan Hieroglyphic Writing: "The Affix Cluster." In *Phoneticism in Mayan Hieroglyphic Writing*, edited by John S. Justeson and Lyle Campbell, pp. 185–231. Institute for Mesoamerican Studies Publication no. 9. Albany: State University of New York.
- Mathews, Peter, and Merle Greene Robertson  
1985 Notes on the Olvidado, Palenque, Chiapas, Mexico. In *Fifth Palenque Round Table, 1983*, edited by Virginia M. Fields (Merle Greene Robertson, General Editor), pp. 7–18. San Francisco: Pre-Columbian Art Research Institute.
- Mathews, Peter, and Linda Schele  
1974 Lords of Palenque—The Glyphic Evidence. In *Primera Mesa Redonda de Palenque, Part 1*, edited by Merle Greene Robertson, pp. 63–76. Pebble Beach, Calif.: Robert Louis Stevenson School.
- Maudslay, Alfred P.  
1889–1902 *Archaeology: Biologia Centrali-Americana*. 5 vols. London.
- Mayer, Karl H.  
1978a Ein Inschriftenfund in Playa del Carmen, Mexico. *Ethnologia Americana* 15(87):859–860.  
1978b *Maya Monuments: Sculptures of Unknown Provenance in Europe*, translated by Sandra L. Brizee. Ramona, Calif.: Acoma Books.  
1980 *Maya Monuments: Sculptures of Unknown Provenance in the United States*. Ramona, Calif.: Acoma Books.  
1984 *Maya Monuments: Sculptures of Unknown Provenance in Middle America*. Translated by Sally Robinson and Karl H. Mayer. Berlin: K. F. von Flemming.
- Merwin, Raymond, and George Vaillant  
1932 *The Ruins of Holmul, Guatemala*. Memoirs of the Peabody Museum of American Archaeology and Ethnology 3(2). Cambridge, Mass.: Harvard University.
- Michelson, Oscar, ed.  
1976 *Diccionario de San Francisco*. Graz, Austria: Akademische Druck- und Verlagsanstalt.
- Miller, Arthur G.  
1974 West and East in Maya Thought: Death and Rebirth at Palenque and Tulum. In *Primera Mesa Redonda de Palenque, Part 2*, edited by Merle Greene Robertson, pp. 45–49. Pebble Beach, Calif.: Pre-Columbian Art Research Institute.  
1977 Captains of the Itza: Unpublished Mural Evidence from Chichén Itzá. In *Social Process in Maya Prehistory*, edited by Norman Hammond, pp. 197–225. New York: Academic Press.  
1982 *On the Edge of the Sea: Mural Painting at Tancah-Tulum, Quintana Roo, Mexico*. Washington, D.C.: Dumbarton Oaks.
- Miller, Jeffrey  
1974 Notes on a Stelae Pair Probably from Calakmul, Campeche, Mexico. In *Primera Mesa Redonda de Palenque, Part 1*, edited by Merle Greene Robertson, pp. 149–161. Pebble Beach, Calif.: Robert Louis Stevenson School.
- Miller, Mary Ellen  
1984 The Main Acropolis at Copan: Its Meaning and Function. Paper presented at the Dumbarton Oaks Conference on Copan, Quirigua, and the Southeastern Maya Periphery, Washington, D.C.  
1985 A Re-examination of the Mesoamerican Chacmool. *The Art Bulletin* 67(1):7–17.  
1986 *The Murals of Bonampak*. Princeton: Princeton University Press.

- Miller, Virginia  
 1981 Pose and Gesture in Classic Maya Monumental Sculpture. Ph.D. diss., University of Texas at Austin.  
 1985 The Dwarf Motif in Classic Maya Art. In *Fourth Palenque Round Table, 1980*, edited by Elizabeth P. Benson. (Merle Greene Robertson, General Editor), pp. 141–154. San Francisco: Pre-Columbian Art Research Center.
- Moholy-Nagy, Hattula  
 1966 Mosaic Figures from Tikal. *Archaeology* 19(2): 84–89.
- Moholy-Nagy, H., F. Asaro, and F. H. Stross  
 1984 Tikal Obsidian: Sources and Typology. *American Antiquity* 49:104–117.
- Molina Montes, Augusto  
 1978 Palenque—The Archaeological City Today. In *Tercera Mesa Redonda de Palenque*, edited by Merle Greene Robertson and Donnan Call Jeffers, pp. 1–8. Palenque: Pre-Columbian Art Research Center.
- Molloy, John P.  
 1985 Ball Courts and the Oaxaca Codices. Paper presented at the Symposium on the Native American Ball Game: Regional Contexts and Comparative Interpretations, Tucson, Arizona.
- Montejo, Victor  
 1984 *El Kanil, Man of Lightning*. Translated by Wallace Kaufman. Carrboro, N.C.: Signal Books.
- Moore, S. F., and B. G. Myerhoff  
 1977 *Secular Ritual*. Amsterdam: Van Gorcum.
- Moran, Fray Francisco  
 1935 *Arte y Diccionario en Lengua Cholti Quiere Decir Lengua de Milperos. Vocabulario en Lengua Cholti*. (Facsimile of 1695 manuscript. Edition by William Gates.) Baltimore: The Maya Society.
- Morel, V.  
 1986 The Lost Language of Coba. *Science* 86 (March): 48–57.
- Morley, Sylvanus G.  
 1938 *The Inscriptions of Peten*, vols. 2, 5. Carnegie Institution of Washington Publication no. 437. Washington, D.C.  
 1948 *Checklist of the Corpus Inscriptionum Mayarum*. Washington, D.C.: Carnegie Institution of Washington, Division of Historical Research.
- Morley, Sylvanus G., George W. Brainerd, and Robert J. Sharer  
 1983 *The Ancient Maya*. 4th ed. Stanford: Stanford University Press.
- Morris, Earl H., Jean Charlot, and Ann A. Morris  
 1931 *The Temple of the Warriors at Chichén Itzá, Yucatan*. 2 vols. Carnegie Institution of Washington Publication no. 406. Washington, D.C.
- Morris, Walter F., Jr.  
 1985 Flowers, Saints, and Toads: Ancient and Modern Maya Textile Design Symbolism. *National Geographic Research* Winter: 63–79.
- Mulleried, Federico K. G.  
 1927 El Llamado Planchon de las Figuras, en el Estado de Chiapas. *Revista Mexicana de Estudios Historicos* 6:235–243.
- Muse, Michael, and Terry Stocker  
 1974 The Cult of the Cross: Interpretations in Olmec Iconography. *Journal of the Steward Anthropological Society* 5(2):67–98.
- Nash, June  
 1970 *In the Eyes of the Ancestors: Belief and Behavior in a Maya Community*. New Haven: Yale University Press.
- Navarette, Carlos  
 1971 Algunas Piezas Olmecas de Chiapas y Guatemala. *Anales de Antropología* (Instituto de Investigaciones Historias, Universidad Nacional Autonoma de Mexico, Mexico, D.F.) 8:69–82.
- Navarette, Carlos, and Eduardo Martinez  
 1977 *Cueva de los Andasolos*. Tuxtla Gutiérrez: Universidad Autonoma de Chiapas.
- Nicholson, Henry B.  
 1971 Religion in Pre-Hispanic Central Mexico. In *Handbook of Middle American Indians* (Robert Wauchope, General Editor). Vol. 11, *Archaeology of Northern Mesoamerica*, edited by Gordon F. Ekholm and Ignacio Bernal, pp. 395–446. Austin: University of Texas Press.  
 1976 Preclassic Mesoamerican Iconography from the Perspective of the Postclassic: Problems in Interpretational Analysis. In *Origins of Religious Art and Iconography in Preclassic Mesoamerica*, edited by Henry B. Nicholson, pp. 157–175. Los Angeles: University of California Press.
- Nicholson, Irene  
 1967 *Mexican and Central American Mythology*. London: Paul Hamlyn.
- Norman, Garth  
 1976 *Izapa Sculpture*. Pt. 2, *Text*. Papers of the New World Archaeological Foundation, no. 30. Provo, Utah.
- Norman, J. R., and H. Greenwood  
 1963 *A History of Fish*. New York: Hill and Wang.
- Norman, William  
 1980 Grammatical Parallelism in Quiche Ritual Language. *Berkeley Linguistics Society* 6:387–399.
- Nutini, Hugo  
 1961 Clan Organization in a Nahuatl-speaking Village of the State of Tlaxcala, Mexico. *American Anthropologist* 63(1):62–78.
- Nuttall, Zelia  
 1940 The Periodical Adjustments of the Ancient Mexican Calendar. *American Anthropologist* 6:486–500.
- Ong, Walter J.  
 1982 *Orality and Literacy: The Technologizing of the Word*. London: Methuen.
- Orejil, Jorge L.  
 1984 Story Understanding with WATSON, a Computer Program Modeling Natural Language Inferences Using Nonmonotonic Dependencies. Report T-146. Urbana: University of Illinois at Urbana-Champaign.
- O'Rourke, Paul  
 1983 Reasons for Beliefs in Understanding: Application of Data Dependencies to Story Processing. In *Proceedings of the National Conference on Artificial Intelligence*, pp. 306–309. Washington, D.C.  
 1984 Generalization for Explanation-based Schema Acquisition. Draft report. Coordinated Science Laboratory, University of Illinois at Urbana-Champaign.
- Palacios, Enrique Jean  
 1945 Guía Arqueológica de Chacmultún, Labná, Sayil, Kabah, Uxmal, Chichén Itzá, y Tulum. In *Enciclopedia Yucatanense*, vol. 2, pp. 405–554. Mérida: Gobierno de Yucatán.
- Paradis, Louise I.  
 1981 Guerrero and the Olmec. In *The Olmec and their*

- Neighbors*, edited by Elizabeth P. Benson, pp. 195–208. Washington, D.C.: Dumbarton Oaks.
- Paris et al.  
1939 Ruins of Piedras Negras, Department of Peten, Guatemala. Map. Philadelphia: The University Museum, University of Pennsylvania.
- Parsons, Jeffrey A.  
1971 *Prehistoric Settlement Patterns in the Texcoco Region, Mexico*. Memoirs of the Museum of Anthropology, no. 3. Ann Arbor: University of Michigan.
- Parsons, Lee A.  
1969 *Bilbao, Guatemala: An Archaeological Study of the Pacific Coast Cotzumalhuapa Region*, vol. 2. Milwaukee Public Museum Publications in Anthropology, no. 12. Milwaukee: Milwaukee Public Museum.
- 1981 Post-Olmec Stone Sculpture: The Olmec-Izapan Transition on the Southern Pacific Coast and Highlands. In *The Olmec and Their Neighbors: Essays in Memory of Mathew W. Stirling*, edited by Elizabeth P. Benson, pp. 257–288. Washington, D.C.: Dumbarton Oaks.
- 1986 *The Origins of Maya Art: Monumental Stone Sculpture of Kaminaljuyu, Guatemala, and the Southern Pacific Coast*. Studies in Pre-Columbian Art and Archaeology, no. 28. Washington, D.C.: Dumbarton Oaks.
- Pasztory, Esther  
1972 The Historical and Religious Significance of the Middle Classic Ballgame. *Sociedad Mexicana de Antropología, XII Mesa Redonda*: 441–455.
- 1978 Artistic Traditions of the Middle Classic Period. In *Middle Classic Mesoamerica: A.D. 400–700*, edited by Esther Pasztory, pp. 108–142. New York: Columbia University Press.
- Pavlidis, T.  
1977 *Structural Pattern Recognition*. Berlin: Springer-Verlag.
- Paxton, Merideth  
1983 Codex Dresden: Glyphic Evidence Concerning Provenience and Date. Paper presented at the annual meeting of the American Society for Ethnohistory, November 3–6, Albuquerque, New Mexico.
- 1986 Codex Dresden: Stylistic and Iconographic Analysis of a Maya Manuscript. Ph.D. diss., University of New Mexico.
- Pendergast, David M.  
1971 Evidence of Early Teotihuacan–Lowland Maya Contact at Altun Ha. *American Antiquity* 36:455–460.
- 1981 Lamanai, Belize: Summary of Excavation Results, 1974–1980. *Journal of Field Archaeology* 8(1):29–53.
- 1982 *Excavations at Altun Ha, Belize, 1974–1980*. Vol. 2. Toronto: Royal Ontario Museum.
- Pina Chan, Roman  
1955 *Chalcatzingo, Morelos*. Dirección de Monumentos Prehispanicos Informes 4. Mexico, D.F.: Instituto Nacional de Antropología e Historia.
- 1975 *Historia, Arqueología y Arte Prehispanico*. Sección de Obras de Antropología. Fondo de Cultura Económica, Mexico.
- 1981 *Quetzalcoatl Serpiente Emplumada*. Sección de Obras de Antropología. Fondo de Cultura Económica, Mexico.
- Pina Chan, Roman, and Luis Covarrubias  
1964 *El Pueblo del Jaguar (Los Olmecas Arqueologicas)*. Mexico, D.F.: Consejo para la planeación e instalación del Museo Nacional de Antropología.
- Pio Perez, Juan  
1866–77 *Diccionario de la Lengua Maya*. Merida, Mexico: Imprenta Literaria de Juan F. Molina Solis.
- Pires-Ferreira, Jane W.  
1976 Shell and Iron Ore Exchange in Formative Middle America, with Comments on Other Commodities. In *The Early Mesoamerican Village*, edited by Kent V. Flannery, pp. 311–328. New York: Academic Press.
- Pollock, H. E. D.  
1980 *The Puuc: An Architectural Survey of the Hill Country of Yucatan and Northern Campeche, Mexico*. Memoirs of the Peabody Museum of Archaeology and Ethnology, no. 19. Cambridge, Mass.: Harvard University.
- Pontius, David Henne  
1980 *Diccionario Quiche-Español*. Guatemala: Instituto Lingüístico de Verano.
- Prensa Libre  
1983 Fahren Comenta Posibilidad de Construir Hidroeléctrica. 9 de Noviembre, p. 12.
- Pring, Duncan C.  
1977 The Dating of Teotihuacan Contact at Altun Ha: The New Evidence. *American Antiquity* 42:626–628.
- Proskouriakoff, Tatiana  
1946 *An Album of Maya Architecture*. Carnegie Institution of Washington Publication no. 558. Washington, D.C.
- 1950 *A Study of Classic Maya Sculpture*. Carnegie Institution of Washington Publication no. 593. Washington, D.C.
- 1960 Historical Implications of a Pattern of Dates at Piedras Negras, Guatemala. *American Antiquity* 25(4): 454–475.
- 1962 The Artifacts of Mayapan. In *Mayapan Yucatan Mexico*, edited by H. E. D. Pollock et al., pp. 321–438. Carnegie Institution of Washington Publication no. 619. Washington, D.C.
- 1963 Historical Data in the Inscriptions of Yaxchilan, pt. 1. *Estudios de Cultura Maya* 3:149–167.
- 1964 Historical Data in the Inscriptions of Yaxchilan, pt. 2. *Estudios de Cultura Maya* 4:177–201.
- 1968a The Jog and Jaguar Signs in Maya Writing. *American Antiquity* 33:247–251.
- 1968b Olmec and Maya Art: Problems of Their Stylistic Relations. In *Dumbarton Oaks Conference on the Olmec*, edited by Elizabeth P. Benson, pp. 119–130. Washington, D.C.: Dumbarton Oaks.
- 1970 On two inscriptions at Chichén Itzá. In *Monographs and Papers in Maya Archaeology*, edited by W. R. Bullard, Jr., pp. 457–467. Papers of the Peabody Museum of Archaeology and Ethnology, 61. Cambridge, Mass.: Harvard University.
- 1973 The “Hand-grasping fish” and Associated Glyphs on Classic Maya Monuments. In *Mesoamerican Writing Systems*, edited by Elizabeth P. Benson, pp. 165–178. Washington, D.C.: Dumbarton Oaks.
- 1974 *Jades from the Cenote of Sacrifice*. Memoirs of the Peabody Museum of American Archaeology and Ethnology 10(1). Cambridge: Mass.: Harvard University.
- Proskouriakoff, Tatiana, and J. Eric S. Thompson  
1947 *Maya Calendar Round Dates such as 9 Ahau 17 Mol*. Carnegie Institution of Washington, Division of Historical Research, Notes on Middle American Archaeology and Ethnology Publication no. 79. Washington, D.C.
- Puleston, Dennis E.  
1976 The People of the Cayman/Crocodile: Riparian Ag-

- riculture and the Origin of Aquatic Motifs in Ancient Maya Iconography. In *Aspects of Ancient Maya Iconography*, edited by Francois-August de Montequin, pp. 1–26. St. Paul: Hamline University.
- 1977 The Art and Archaeology of Hydraulic Agriculture in the Maya Lowlands. In *Social Process in Maya Prehistory: Studies in Honor of Sir Eric Thompson*, edited by Norman Hammond, pp. 449–469. New York: Academic Press.
- 1979 An Epistemological Pathology and the Collapse, or Why the Maya Kept the Short Count. In *Maya Archaeology and Ethnohistory*, edited by Norman Hammond and Gordon R. Willey, pp. 63–711. Austin: University of Texas Press.
- Quirarte, Jacinto
- 1974 Terrestrial/Celestial Polymorphs as Narrative Frames in the Art of Izapa and Palenque. In *Primera Mesa Redonda de Palenque*, edited by Merle Greene Robertson, pp. 129–136. Pebble Beach, Calif.: Robert Louis Stevenson School.
- 1982 *The Santa Rita Murals: A Review*. Middle American Research Institute Occasional Paper no. 4, pp. 43–58. New Orleans: Tulane University.
- Rands, Robert L., Ron L. Bishop, and G. Harbottle
- 1979 Thematic and Compositional Variation in Palenque Region Incensarios. In *Tercera Mesa Redonda de Palenque, Part 1*, edited by Merle Greene Robertson and Donnan Call Jeffers, pp. 19–30. Palenque: Pre-Columbian Art Research Center.
- Rands, Robert L., and Barbara C. Rands
- 1955 *Some Manifestations of Water in Mesoamerican Art*. Bureau of American Ethnology Bulletin no. 157, pp. 265–393. Washington, D.C.
- 1959 The Incensario Complex of Palenque, Chiapas. *American Antiquity* 25(2):225–236.
- 1961 Excavations in a Cemetery at Palenque. *Estudios de Cultura Maya* 1:87–106.
- Rappaport, Roy A.
- 1971 The Sacred in Human Evolution. *Annual Review of Ecology and Systematics* 2:23–44.
- Rathje, William
- 1971 The Origin and Development of Lowland Classic Maya Civilization. *American Antiquity* 36:275–285.
- 1972 Praise the Gods and Pass the Metates: A Hypothesis of the Lowland Rainforest Civilizations in Mesoamerica. In *Contemporary Archaeology*, edited by Mark Leone, pp. 365–392. Carbondale: Southern Illinois University Press.
- 1977 The Tikal Connection. In *The Origins of Maya Civilization*, edited by R. E. W. Adams, pp. 373–382. Albuquerque: University of New Mexico Press.
- Recinos, Adrian
- 1950 *Popol Vuh: The Sacred Book of the Ancient Quiche Maya*, translated by Delia Goetz and Sylvanus G. Morley. Norman: University of Oklahoma Press.
- Recinos, Adrian, and Delia Goetz
- 1953 *Tha Annals of the Cakchiquels and the Title of the Lords of Totonicapan*. Norman: University of Oklahoma Press.
- Redfield, Robert, and Alfonso Villa Rojas
- 1934 *Chan Kom, a Maya Village*. Carnegie Institution of Washington Publication no. 448. Washington, D.C.
- 1962 *Chan Kom: A Maya Village*. Chicago: University of Chicago Press.
- Redmond, Elsa M.
- 1983 *A fuego y sangre: Early Zapotec Imperialism in the Cuicatlan Canada, Oaxaca*. Memoirs of the Museum of Anthropology, no. 16. Ann Arbor: University of Michigan.
- Reents, Doris J.
- 1985 The Late Classic Maya Holmul Style Polychrome Pottery. Ph.D. diss., University of Texas at Austin. (Available from University Microfilms International, Ann Arbor, Michigan.)
- Reilly, F. Kent
- 1987 The Ecological Origins of Olmec Symbols of Rulership. Master's thesis, University of Texas at Austin.
- 1988 Olmec Conceptions of the Sacred Mountain as Underworld Entrance. MS. Institute of Latin American Studies, University of Texas at Austin.
- Ricketson, Oliver G., and Edith B. Ricketson
- 1937 *Uaxactun, Guatemala, Group E—1926–1931*. Carnegie Institution of Washington Publication no. 177. Washington, D.C.
- Riese, Berthold
- 1978 Stellungname zur Inschrift. *Ethnologica Americana* 15(87):859–861.
- 1984a Hel Hieroglyphs. In *Phoneticism in Mayan Hieroglyphic Writing*, edited by John S. Justeson and Lyle Campbell, pp. 263–286. Institute for Mesoamerican Studies Publication no. 9. Albany: State University of New York.
- 1984b Kriegerberichte der Klassischen Maya. *Baessler-Archiv, Beitrage zur Volkerkunde* 30(2):255–321.
- In press The Inscriptions of the Sculptured Bench in Copan Valley Structure 82. In *House of the Bacabs*, edited by David Webster. Washington, D.C.: Dumbarton Oaks.
- Roberts, L. G.
- 1965 Homogeneous Matrix Representations of N-Dimensional Constructs. Document MS1045. Massachusetts Institute of Technology Lincoln Lab. Lexington, Massachusetts.
- Robertson, Donald
- 1974 Some Remarks on Stone Relief Sculpture at Palenque. In *Primera Mesa Redonda de Palenque, 1973, Part 2*, edited by Merle Greene Robertson, pp. 103–124. Pebble Beach, Calif.: Robert Louis Stevenson School.
- Robertson, Merle Greene. See Greene Robertson, Merle.
- Robertson, Robin
- In press *Archaeology at Cerros, Belize, Central America*. Vol. 2, *The Ceramics*. Dallas: Southern Methodist University Press.
- Robertson, Robin A., and David A. Freidel
- 1986 *Archaeology at Cerros, Belize, Central America*. Vol. 1, *An Interim Report*. Dallas: Southern Methodist University Press.
- Robertson-Freidel, Robin A.
- 1980 The Ceramics from Cerros: A Late Preclassic Site in Northern Belize. Ph.D. diss., Harvard University, Cambridge, Mass.
- Robicsek, Francis
- 1972 *Copan: Home of the Mayan Gods*. New York: Museum of the American Indian, Heye Foundation.
- 1978 *The Smoking Gods: Tobacco in Maya Art, History, and Religion*. Norman: University of Oklahoma Press.
- 1979 The Mythical Identity of God K. In *Tercera Mesa Redonda de Palenque, Part 1*, edited by Merle Greene

- Robertson and Donnan Call Jeffers, pp. 111–128. Palenque: Pre-Columbian Art Research Center.
- Robicsek, Francis, and Donald M. Hales  
1981 *The Maya Book of the Dead: The Ceramic Codex*. Charlottesville: University of Virginia Art Museum.
- 1982 *Maya Ceramic Vases from the Late Classic Period: The November Collection of Maya Ceramics*. Charlottesville: The Bayley Museum, University of Virginia.
- 1984 Maya Heart Sacrifice: Cultural Perspectives and Surgical Techniques. In *Ritual Human Sacrifice in Mesoamerica*, edited by Elizabeth Boone, pp. 49–90. Washington, D.C.: Dumbarton Oaks.
- Robles, C., J. Fernando  
1980 La Secuencia Cerámica de la Región de Coba, Quintana Roo. Master's thesis, Escuela Nacional de Antropología e Historia, Mexico, D.F.
- Robles C., J. Fernando, and Anthony P. Andrews  
1986 A Review and Synthesis of Recent Postclassic Archaeology in Northern Yucatan. In *Late Lowland Maya Civilization: Classic to Postclassic*, edited by Jeremy A. Sabloff and E. Wyllys Andrews, pp. 53–98. Albuquerque: University of New Mexico Press.
- Rock, Miles  
1895 *Mapa de la Republica de Guatemala*, Guatemala, 2 de enero.
- Romney, A. Kimball  
1967 Kinship and Family. In *Handbook of Middle American Indians* (Robert Wauchope, General Editor). Vol. 6, *Social Anthropology*, edited by Manning Nash, pp. 207–237. Austin: University of Texas Press.
- Rosney, Leon de  
1872 *Archives Paleographiques de l'Orient et de Amerique*. Vol. 1. Paris: Maisonneuve.
- Roys, Ralph L.  
1933 *The Book of Chilam Balam of Chumayel*. Carnegie Institution of Washington Publication no. 505, Washington, D.C. Reprint, Norman: University of Oklahoma Press, 1967.
- 1939 *The Titles of Ebtun*. Carnegie Institution of Washington Publication no. 505. Washington, D.C.
- 1940 *Personal Names of the Maya of Yucatan*. Carnegie Institution of Washington Contributions to American Anthropology and History, no. 31 (Publication no. 523). Washington, D.C.
- 1943 *The Indian Background of Colonial Yucatan*. Carnegie Institution of Washington Publication no. 548. Washington, D.C. Reprint, Norman: University of Oklahoma Press, 1972.
- 1965 *Ritual of the Bacabs*. Norman: University of Oklahoma Press.
- Rumelhart, David  
1980 Schemata: The Building Blocks of Cognition. Chap. 2 in *Theoretical Issues in Reading Comprehension*, edited by R. J. Spiro, B. C. Bruce, and F. Weber. Hillsdale, New Jersey: Lawrence Erlbaum Associates.
- Ruppert, Karl  
1935 *The Caracol at Chichén Itzá, Yucatan, Mexico*. Carnegie Institution of Washington Publication no. 454. Washington, D.C.
- Ruz, Mario Humberto  
1982 *Los Legítimos Hombres: Aproximación Antropológica al Grupo Tojolabal*, vol. 2. Mexico, D.F.: Universidad Nacional Autónoma de México, Centro de Estudios Maya.
- Ruz Lhuillier, Alberto  
1969 *Guía Oficial de Uxmal*. Mexico: Instituto Nacional de Antropología e Historia.
- Sabloff, Jeremy A.  
1973 Continuity and Disruption During Terminal Late Classic Times at Seibal: Ceramic and Other Evidence. In *The Classic Maya Collapse*, edited by T. Patrick Culbert, pp. 107–132. Albuquerque: University of New Mexico Press.
- Saenz de Santa Maria, Carmelo  
1940 *Diccionario Cakchiquel-Español*. Guatemala: Sociedad de Geografía e Historia de Guatemala.
- Sahagun, Fray Bernardino de  
1950–71 *The Florentine Codex. A General History of the Things of New Spain*, translated by J. O. Anderson and C. E. Dibble. Santa Fe: School of American Research in cooperation with the University of Utah.
- 1981 *Historia General de las Cosas de Nueva España*. Mexico: Editorial Porrúa.
- Sahlins, Marshall  
1958 *Social Stratification in Polynesia*. Seattle: University of Washington Press.
- Salazar, Ortego Ponciano  
1952 El Tzompantli de Chichén Itzá, Yucatan. *Tlatoani* 1(5/6):36–41.
- Sanders, William T.  
1972 Population, Agricultural History, and Societal Evolution in Mesoamerica. In *Population Growth: Anthropological Implications*, edited by B. Spooner, pp. 101–153. Cambridge, Mass.: The MIT Press.
- 1973 The Cultural Ecology of the Lowland Maya: A Reevaluation. In *The Classic Maya Collapse*, edited by T. Patrick Culbert, pp. 325–365. Albuquerque: University of New Mexico Press.
- 1974 Chiefdom to State: Political Evolution at Kaminaljuyu, Guatemala. In *Reconstructing Complex Societies*, edited by C. B. Moore, pp. 97–121. Supplement to the Bulletin of the American School of Oriental Research, no. 20. Chicago.
- 1977 Ethnographic Analogy and the Teotihuacan Horizon Style. In *Teotihuacan and Kaminaljuyu: A Study in Prehistoric Culture Contact*, edited by William T. Sanders and Joseph W. Michels, pp. 397–410. College Park: Pennsylvania State University Press.
- 1989 Household, Lineage, and State at Eighth Century Copan. In *House of the Bacabs*, edited by David Webster. Washington, D.C.: Dumbarton Oaks.
- Sanders, William T., and Joseph W. Michels, eds.  
1977 *Teotihuacan and Kaminaljuyu: A Study in Prehistoric Culture Contact*. Monograph Series on Kaminaljuyu. College Park: Pennsylvania State University Press.
- Sanders, William T., J. R. Parsons, and R. S. Santley  
1979 *The Basin of Mexico: Ecological Processes in the Evolution of Civilization*. New York: Academic Press.
- Sanders, William T., and Barbara J. Price  
1968 *Mesoamerica: The Evolution of a Civilization*. New York: Random House.
- Sanders, William T., and David Webster  
1978 Unilinearism, Multilinearism, and the Evolution of Complex Societies. In *Social Archaeology: Beyond Subsistence and Dating*, edited by C. E. Redman et al., pp. 249–302. New York: Academic Press.
- Santley, Robert S.  
1983 Obsidian Trade and Teotihuacan Influence in Meso-

- america. In *Highland-Lowland Interaction in Mesoamerica: Interdisciplinary Approaches*, edited by Arthur G. Miller, pp. 69–124. Washington, D.C.: Dumbarton Oaks.
- Satterthwaite, Linton  
 1951 Reconnaissance in British Honduras. *University Museum Bulletin* (University of Pennsylvania) 16:21–37.  
 1954 Sculptured Monuments from Caracol, British Honduras. *University Museum Bulletin* (University of Pennsylvania) 18:1–45.  
 1958 *The Problem of Abnormal Stela Placements at Tikal and Elsewhere*. University Museum Monograph no. 15, Tikal Report no. 3, pp. 61–83. Philadelphia: The University Museum, University of Pennsylvania.  
 1965 Calendrics of Maya Lowlands. In *Handbook of Middle American Indians* (Robert Wauchope, General Editor). Vol. 3, *Archaeology of Southern Mesoamerica*, edited by Gordon R. Willey, pp. 603–631. Austin: University of Texas Press.
- Scarborough, Vernon  
 1985 Courting the Maya Lowlands: A Study in Pre-Hispanic Ball Game Architecture. Paper presented at the Symposium on the Native American Ball Game: Regional Contexts and Comparative Interpretations, Tucson, Arizona.
- Schaefer, B.  
 n.d. Heliacal Rise Dates. MS.
- Schank, Roger, and Christopher Riesbeck  
 1981 *Inside Computer Understanding: Five Programs Plus Miniatures*. Hillsdale, New Jersey: Lawrence Erlbaum Associates.
- Schapiro, Meyer  
 1953 Style. In *Anthropology Today*, edited by Alfred L. Kroeber, pp. 287–312. Chicago: University of Chicago Press.
- Schele, Linda  
 1974 Observations on the Cross Motif at Palenque. In *Primera Mesa Redonda de Palenque, Part 1*, edited by Merle Greene Robertson, pp. 41–61. Pebble Beach, Calif.: 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*, edited by Merle Greene Robertson, pp. 9–34. Pebble Beach, Calif.: The Robert Louis Stevenson School.  
 1977 The House of the Dying Sun. In *Native American Astronomy*, edited by Anthony Aveni, pp. 42–56. Austin: University of Texas Press.  
 1978a An Odd Kinship Expression and the Classic Bloodletting Rite. Paper presented at the 26th Annual Meeting of the American Society for Ethnohistory, Austin, Texas.  
 1978b Genealogical Documentation of the Tri-Figure Panels at Palenque. In *Tercera Mesa Redonda de Palenque*, edited by Merle Greene Robertson and Donnan Call Jeffers, pp. 41–70. Palenque: Pre-Columbian Art Research Center.  
 1978c *Notebook for the Maya Hieroglyphic Writing Workshop at Texas*. Austin: Institute of Latin American Studies, University of Texas at Austin.  
 1978d Preliminary Commentary on the Tablet of the Cross at Palenque. MS. University of Texas at Austin.  
 1979 The Puleston Hypothesis: The Water Lily Complex in Classic Maya Art and Writing. MS.  
 1980 *Notebook for the Maya Hieroglyphic Writing Workshop*. Austin: Institute of Latin American Studies, University of Texas at Austin.
- 1981 Sacred Site and World-View at Palenque. In *Mesoamerican Sites and World Views*, edited by Elizabeth P. Benson, pp. 87–117. Washington, D.C.: Dumbarton Oaks.
- 1982 *Maya Glyphs: The Verbs*. Austin: University of Texas Press.
- 1983 *Notebook for the Maya Hieroglyphic Writing Workshop at Texas*. Austin: Institute of Latin American Studies, University of Texas at Austin.
- 1984a Human Sacrifice Among the Classic Maya. In *Ritual Human Sacrifice in Mesoamerica*, edited by Elizabeth Boone, pp. 6–48. Washington, D.C.: Dumbarton Oaks.
- 1984b *Notebook for the Maya Hieroglyphic Writing Workshop at Texas*. Austin: Institute of Latin American Studies, University of Texas at Austin.
- 1984c Some Suggested Readings for 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. Institute for Mesoamerican Studies Publication no. 9. Albany: State University of New York.
- 1984d The Maya Inscriptions: A Window into World View. Paper presented at The Language of Writing in the Maya Region, a conference sponsored by the Center of Latin American Studies, April, 1984, University of Chicago.
- 1985a *Balan Ahau: A Possible Reading of the Tikal Emblem Glyph and a Title at Palenque*. In *Fourth Palenque Round Table, 1980*, edited by Elizabeth P. Benson (Merle Greene Robertson, General Editor), pp. 59–66. San Francisco: Pre-Columbian Art Research Institute.
- 1985b The Hauberg Stela: Bloodletting and the Mythos of Maya Rulership. In *Fifth Palenque Round Table, 1983*, edited by Virginia M. Fields (Merle Greene Robertson, General Editor), pp. 135–149. San Francisco: Pre-Columbian Art Research Institute.
- 1985c *Notebook for the Maya Hieroglyphic Writing Workshop*. Austin: Institute of Latin American Studies, University of Texas at Austin.
- 1986a *Notebook for the Maya Hieroglyphic Writing Workshop at Texas*. Austin: Institute of Latin American Studies, University of Texas at Austin.
- 1986b The Tlaloc Heresy: Cultural Interaction and Social History. Paper presented at Maya Art and Civilization: The New Dynamics, May 16–18, Kimbell Art Museum, Fort Worth, Texas.
- 1988 The Xibalba Shuffle: A Dance After Death. In *Maya Iconography*, edited by Elizabeth P. Benson and Gillett G. Griffin, pp. 294–317. Princeton: Princeton University Press.
- Schele, Linda, and Peter Mathews  
 1979 *The Bodega of Palenque, Chiapas, Mexico*. Washington, D.C.: Dumbarton Oaks.
- Schele, Linda, Peter Mathews, and Floyd Lounsbury  
 1977 Parentage Statements in Classic Maya Inscriptions. MS.
- Schele, Linda and Peter Mathews  
 1983 Parentage Statements in Classic Maya Inscriptions. MS. (Rev. ed. of Schele, Mathews, and Lounsbury 1977.)
- 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 Series, no. 25. Washington, D.C.: Dumbarton Oaks.
- Schele, Linda, and Mary E. Miller  
1986 *The Blood of Kings: Dynasty and Ritual in Maya Art*. Fort Worth: Kimbell Art Museum.
- Schele, Linda, and David Stuart  
1985 *Te-tun as the Glyph for Stela*. Copan Note no. 1. Copan, Honduras.
- Scholes, France V.  
1938 *Don Diego Quijada: Alcalde Mayor de Yucatan, 1561–1565*. Biblioteca Historica Mexicana de Obras Ineditas, vols. 14 and 15. Mexico: Porrúa e Hijos.
- Scholes, France V., and Eleanor B. Adams  
1938 *Don Diego Quijada: Alcalde Mayor de Yucatán, 1561–1565*. Vols. 14 and 15 of *Biblioteca Histórica Mexicana de Obras Inéditas*. Mexico: Porrúa e Hijos.
- Scholes, France V., and Ralph L. Roys  
1968 *The Maya Chontal Indians of Acalan-Tixchel*. Norman: University of Oklahoma Press.
- Schultes, Richard Evans  
1976 *Hallucinogenic Plants*. New York: Golden Press.
- Secretaria de Agricultura y Recursos Hidraulicos  
1983 *Problemática Regional de la Selva Lacandona*. Chiapas, Mexico: Subsecretaria Forestal.
- 1984 *Programa de Desarrollo Integral de la Selva Lacandona*. Chiapas, Mexico: Subsecretaria Forestal.
- Secretaria de Recursos Hidraulicos  
1976a *Atlas del Agua de la Republica Mexicana*. Mexico.  
1976b *Comportamiento de Presas Construidas en Mexico*. Contribucion al XII Congreso Internacional de Grandes Presas, Universidad Nacional Autonoma de Mexico, Mexico.
- Sedat, Guillermo S.  
1955 *Nuevo Diccionario: de las Lenguas K'chi y Española*. Alta Verapaz, Guatemala: Chamelco.
- Séjourné, Laurette  
1966 *Arqueologia de Teotihuacan*. Mexico: Fondo de Cultura Economica.
- Seler, Edward  
1902–23 *Gesammelte Abhandlungen zur Amerikanischen Sprach- und Altertumskunde*. 5 vols. Berlin. Reissued, Graz, Austria: Akademische Druck- und Verlagsanstalt, 1961.  
1904–09 *Codex Borgia: Eine altmexikanische Bilderschrift der Congregation de Propaganda Fide*. 3 vols. Berlin.
- Serna, J. de la  
1892 *Manual de Ministros de Indios*. Colección de Documentos Ineditos para la Historia de España, 114:1–267. Madrid.
- Sharer, Robert J.  
1977 *The Maya Collapse Revisited: Internal and External Perspectives*. In *Social Process in Maya Prehistory: Essays in Honour of Sir J. Eric S. Thompson*, edited by Norman Hammond, pp. 532–552. New York: Academic Press.
- Sheets, Payson D.  
1976 *The Ilopango Volcanic Eruption and the Maya Protoclassic*. University Museum Studies, no. 9, Carbondale: Southern Illinois University.  
1979 *Environmental and Cultural Effects of the Ilopango Eruption in Central America*. In *Volcanic Activity and Human Ecology*, edited by Payson D. Sheets and Donald Grayson, pp. 525–564. New York: Academic Press.
- Shook, E. M.  
1957 *The Tikal Project*. *University Museum Bulletin* (University of Pennsylvania) 21(3).  
1965 *Archaeological Survey of the Pacific Coast of Guatemala*. In *Handbook of Middle American Indians* (Robert Wauchope, General Editor). Vol. 2, *Archaeology of Southern Mesoamerica*, edited by Gordon R. Willey, pp. 180–194. Austin: University of Texas Press.
- Shook, E. M., and Robert F. Heizer  
1976 *An Olmec Sculpture from the South (Pacific) Coast of Guatemala*. *Journal of New World Archaeology* 1(3).
- Shook, Edwin M., and William N. Irving  
1955 *Colonnaded Buildings at Mayapan*. Carnegie Institution of Washington Current Reports, no. 22. Washington, D.C.
- Slocum, Marianna C., and Florencia L. Gerdel  
1976 *Vocabulario Tzeltal de Bachajon*. 3d ed. Serie de Vocabularios Indígenas Mariano Silva y Aceves 13. Mexico: Instituto Lingüístico de Verano.
- Smailus, Ortwim  
1975 *El Maya-Chontal de Acalan: Análisis Lingüístico de un Documento de los Años 1610–12*. Centro de Estudios Mayas Cuadernos 9. Mexico, D.F.: Universidad Nacional Autonoma de Mexico.
- Smith, A. Ledyard  
1950 *Uaxactun, Guatemala: 1931–1937*. Carnegie Institution of Washington Publication no. 588. Washington, D.C.
- Smith, Robert E.  
1937 *A Study of Structure A-1 Complex at Uaxactun, Peten, Guatemala*. Carnegie Institution of Washington Publication no. 456. Washington, D.C.  
1955 *The Ceramic Sequence at Uaxactun, Guatemala*. Middle American Research Institute Publication no. 20. New Orleans: Tulane University.  
1971 *The Pottery of Mayapan*. 2 pts. Papers of the Peabody Museum of Archaeology and Ethnology, 66. Cambridge, Mass.: Harvard University.
- Smith-Stark, Thomas C.  
1978 *The Origin of Corn*. In *Codex Wauchope: A Tribute Roll*, edited by M. Giardino, B. Edmonsens, and W. Creamer, pp. 57–60. New Orleans: Tulane University.  
1981 *A Commentary on the Dynastic History of the City of Crossed Bands*. MS.
- Solis Alcala, Ermilo  
1949 *Diccionario Español-Maya*. Merida, Mexico: Editorial Yikal Maya Than.
- Sosa, John R., and Dorie J. Reents  
1980 *Glyphic Evidence for Classic Maya Militarism*. *Belizean Studies* 8(3):2–21.
- Spence, Michael W.  
1981 *Obsidian Production and the State in Teotihuacan*. *American Antiquity* 46:769–788.
- Spinden, Herbert G.  
1913 *A Study of Maya Art*. Memoirs of the Peabody Museum of American Archaeology and Ethnology, no. 6. Cambridge, Mass.: Harvard University.
- Stallman, Richard, and Gerald G. Sussman  
1976 *Forward Reasoning and Dependency-Directed Backtracking in a System for Computer-Aided Circuit Analysis*. Memo 380, Massachusetts Institute of Technology AI Lab. Cambridge, Mass.
- Standley, Paul C.  
1917 *The Mexican and Central American Species of*

- Ficus. *Contributions from the United States National Herbarium* 20:1–35.
- Stephens, John Lloyd  
1963 (1843) *Incidents of Travel in Yucatan*. New York: Dover Publications.
- Stern, Theodore  
1948 *The Rubber Ball Games of the Americas*. Monographs of the American Ethnological Society, no. 17. New York.
- Stirling, Matthew W.  
1943 *Stone Monuments of Southern Mexico*. Bureau of American Ethnology Bulletin no. 138. Washington, D.C.: Smithsonian Institution.
- Stocker, Terrance, and Michael Spence  
1973 Trilobal Eccentrics at Teotihuacan and Tula. *American Antiquity* 38(2):195–199.
- Stone, Andrea  
1983 *The Zoomorphs of Quirigua, Guatemala*. Ph.D. diss., University of Texas at Austin. (Available from University Microfilms, Ann Arbor, Michigan.)  
1985 Variety and Transformation in the Cosmic Monster Theme at Quirigua, Guatemala. In *Fifth Palenque Round Table, 1983*, edited by Virginia M. Fields (Merle Greene Robertson, General Editor), pp. 39–48. San Francisco: Pre-Columbian Art Research Institute.
- Stone, Andrea, Dorie Reents, and Robert Coffman  
1985 Genealogical Documentation of the Middle Classic Dynasty of Caracol, El Cayo, Belize. In *Fourth Palenque Round Table, 1980*, edited by Elizabeth P. Benson (Merle Greene Robertson, General Editor), pp. 262–275. San Francisco: Pre-Columbian Art Research Institute.
- Strecker, Matthias  
In press Cuevas Mayas en el Municipio de Oxtutzcab (III): Una mascara de madera proveniente de una cueva. *Boletín ECAUDY* (Merida).
- Strömssvik, Gustav  
1941 *Substela Caches and Stela Foundations at Copan and Quirigua*. Contributions to American Anthropology and History, no. 37. Washington, D.C.: Carnegie Institution of Washington.  
1947 *Guide Book to the Ruins of Copan*. Carnegie Institution of Washington Publication no. 577. Washington, D.C.  
1952 *The Ball Courts of Copan, with Notes on Courts at La Union, Quirigua, San Pedro Pinula and Asuncion Mita*. Carnegie Institution of Washington Publication no. 596 (Contributions to American Archaeology and History, no. 55). Washington, D.C.
- Stross, Brian  
1986 Bloodletting Iconography on an Olmec Vase and a Maya Plate. MS. Department of Anthropology, University of Texas at Austin.
- Stuart, David  
1978 Some Thoughts on Certain Occurrences of the T565 Glyph Element at Palenque. In *Tercera Mesa Redonda de Palenque*, edited by Merle Greene Robertson and Donnan Call Jeffers, pp. 167–171. Palenque: Pre-Columbian Art Research Center.  
1984a A Note on the Hand-Scattering Glyph. In *Phoneticism in Mayan Hieroglyphic Writing*, edited by John S. Justeson and William M. Norman, pp. 307–310. Institute for Mesoamerican Studies Publication, no. 9. Albany: State University of New York.  
1984b A Reconsideration of Directional Count Glyphs. Paper presented at the annual meeting of the American Anthropological Association, November 1986, Denver, Colorado.  
1984c Epigraphic Evidence of Political Organization in the Usumacinta Drainage. MS.  
1984d Name-Tagging on Tikal Bones? MS.  
1984e Royal Auto-Sacrifice Among the Maya: A Study in Image and Meaning. *Res* 7/8:6–20.  
1985a *A New Child-Father Relationship Glyph*. Research Reports on Ancient Maya Writing, no. 2. Washington, D.C.: Center for Maya Research.  
1985b The “Count of Captives” Epithet in Classic Maya Writing. In *Fifth Palenque Round Table, 1983*, edited by Virginia M. Fields (Merle Greene Robertson, General Editor), pp. 97–101. San Francisco: Pre-Columbian Art Research Institute.  
1985c *The Yaxha Emblem Glyph as Yax-ha*. Research Reports on Ancient Maya Writing, no. 1. Washington, D.C.: Center for Maya Research.  
1986a The Classic Maya Social Structure: Titles, Rank, and Professions as Seen from the Inscriptions. Paper presented at Maya Art and Civilization: The New Dynamics, May 16–18, Kimbell Art Museum, Fort Worth, Texas.  
1986b The “Lu-Bat” Glyph and Its Bearing on the Primary Standard Sequence. Paper presented at the First World Conference for Maya Epigraphy, Guatemala City, Guatemala.  
1988 Blood Symbolism in Maya Iconography. In *Maya Iconography*, edited by Elizabeth P. Benson and Gillett G. Griffin, pp. 175–221. Princeton: Princeton University Press.
- Stuart, David, and Nikolai Grube  
1986 A Reading for the Affix T110. MS.
- Stuart, George  
1975 The Maya: Riddle of the Glyphs. *National Geographic Magazine* 148(6):768–791.
- Stuart, George E., and S. Jeffrey K. Wilkerson  
1985 *Las Figuras de Planchon de las Figuras, Chiapas*. Album Fotográfico. Instituto Nacional de Antropología e Historia (INAH), Mexico.
- Sullivan, Paul R.  
1983 Contemporary Yucatec Maya Apocalyptic Prophecy: The Ethnographic and Historical Context. Ph.D. diss., Johns Hopkins University.
- Tate, Carolyn  
1980 The Maya Cauac Monster: Formal Development and Dynastic Implications. Master’s thesis, University of Texas at Austin.  
1985 The Carved Ceramics Called Chochola. In *Fifth Palenque Round Table, 1983*, edited by Virginia M. Fields (Merle Greene Robertson, General Editor), pp. 123–133. San Francisco: Pre-Columbian Art Research Institute.  
1986 The Language of Symbols in the Ritual Landscape at Yaxchilan, Chiapas. Ph.D. diss., University of Texas at Austin.
- Taube, Karl  
1985 The Classic Maya Maize God: A Reappraisal. In *Fifth Palenque Round Table, 1983*, edited by Virginia M. Fields (Merle Greene Robertson, General Editor), pp. 171–181. San Francisco: Pre-Columbian Art Research Institute.  
1988 A Prehispanic Maya Katun Wheel. *Journal of Anthropological Research* 44(2):183–203.

- 1989 The Maize Tamale in Classic Maya Diet, Epigraphy, and Art. *American Antiquity* 54(1):31–51.
- Taylor, Dacey  
1978 The Cauac Monster. In *Tercera Mesa Redonda de Palenque*, edited by Merle Greene Robertson and Donnan Call Jeffers, pp. 79–89. Palenque: Pre-Columbian Art Research Center.
- Tedlock, Dennis  
1985 *Popol Vuh: The Definitive Edition of the Mayan Book of the Dawn of Life and the Glories of Gods and Kings*. New York: Simon and Schuster.
- Thomas, Cyrus  
1882 A Study of the Manuscript Troano. *Contributions to North American Ethnology* (U.S. Department of the Interior) 5:1–237.
- Thompson, Edward H.  
1895 Ancient Tombs of Palenque. *Proceedings of the American Antiquarian Society* 10:418–442.  
1938 The High Priest's Grave, Chichén Itzá, Yucatan, Mexico. *Field Museum of Natural History* 27(1).
- Thompson, J. Eric S.  
1927 The Civilization of the Mayas. *Field Museum of Natural History Anthropology Leaflet* no. 25. Chicago.  
1930 *Ethnology of the Mayas of Southern and Central British Honduras*. Field Museum of Natural History Publication no. 274 (Anthropological Series). Chicago.  
1937 *A New Method of Deciphering Yucatecan Dates, with Special Reference to Chichén Itzá*. Carnegie Institution of Washington Publication no. 483 (Contributions to American Archaeology and History, no. 22). Washington, D.C.  
1943 *Maya Epigraphy: Directional Glyphs in Counting*. Carnegie Institution of Washington, Division of Historical Research, Notes on Middle American Archaeology and Ethnology, no. 20. Washington, D.C.  
1944 *The Fish as a Symbol for Maya Counting and Further Discussion of Directional Glyphs*. Carnegie Institution of Washington Theoretical Approaches to Problems, no. 2. Washington, D.C.  
1950 *Maya Hieroglyphic Writing: An Introduction*. Carnegie Institution of Washington Publication no. 589. 2d ed. Norman: University of Oklahoma Press, 1960.  
1954 *The Rise and Fall of Maya Civilization*. 2d ed. Norman: University of Oklahoma Press, 1966.  
1958 (editor) *Thomas Gage's Travels in the New World*. Norman: University of Oklahoma Press.  
1962 *A Catalog of Maya Hieroglyphs*. Norman: University of Oklahoma Press.  
1970 *Maya History and Religion*. Norman: University of Oklahoma Press.  
1972 *A Commentary on the Dresden Codex, a Maya Hieroglyphic Book*. *Memoirs of the American Philosophical Society*, no. 93. Philadelphia.  
1977 The Hieroglyphic Texts of Las Monjas and their Bearing on Building Activities. In *Las Monjas*, by John Bolles. Norman: University of Oklahoma Press.
- Thompson, Philip C.  
1982 Dynastic Marriage and Succession at Tikal. *Estudios de Cultura Maya* 14:261–287.
- Toops, Connie M.  
1979 *The Alligator: Monarch of the Everglades*. Homestead, Fla.: The Everglades Natural History Association.
- Torquemada, Fray Juan  
1969 *Monarquía Indiana*. Biblioteca Porrúa 42, vol. 2. Mexico: Editorial Porrúa.
- Townsend, Paul G.  
1980 Couplets in Ixil Maya Poetic Genre. In *Ritual Rhetoric from Cotzal*, compiled by Paul G. Townsend et al., pp. 49–62. Guatemala: Instituto de Lingüístico de Verano.
- Townsend, Paul G., with Te'c Cham and Po'x Ich' (compilers)  
1980 *Ritual Rhetoric from Cotzal*. Guatemala: Instituto de Lingüístico de Verano.
- Townsend, Richard  
1979 *State and Cosmos in the Art of Tenochtitlan*. *Studies in Pre-Columbian Art and Archaeology*, no. 20. Washington, D.C.: Dumbarton Oaks.
- Tozzer, Alfred M.  
1930 Maya and Toltec Figures at Chichén Itzá. In *Proceedings of the 23rd International Congress of Americanists*, pp. 155–164. New York.  
1941 *Landa's Relación de las Cosas de Yucatan: A Translation*. Papers of the Peabody Museum of American Archaeology and Ethnology 18. Cambridge, Mass.: Harvard University.  
1957 *Chichén Itzá and Its Cenote of Sacrifice: A Comparative Study of Contemporaneous Maya and Toltec*. *Memoirs of the Peabody Museum of Archaeology and Ethnology*, nos. 11 and 12. Cambridge, Mass.: Harvard University.
- Tozzer, Alfred M., and G. M. Allen  
1910 *Animal Figures in the Maya Codices*. Papers of the Peabody Museum of American Archaeology and Ethnology 4(3). Cambridge, Mass.: Harvard University.
- Trik, Aubrey S.  
1939 *Temple XXII at Copan*. Carnegie Institution of Washington Publication no. 509 (Contributions to American Archaeology and History, no. 27). Washington, D.C.  
1963 The Splendid Tomb of Temple I at Tikal, Guatemala. *Expedition* 6(1):2–18.
- Ulrich, Mateo, and Rosemary de Ulrich  
1976 *Diccionario Bilingüe: Mopan y Español*. Guatemala: Summer Institute of Linguistics.
- Vienna Dictionary  
1972 *Bocabulario de Mayathan*. Graz, Austria: Akademische Druck- und Verlagsanstalt.
- Villacorta C., J. Antonio, and Carlos A. Villacorta R.  
1930 *Codices Mayas* (2d ed. published in 1976). Guatemala: Tipografía Nacional.
- Villa Rojas, Alfonso  
1945 *The Maya of East Central Quintana Roo*. Carnegie Institution of Washington Publication no. 559. Washington, D.C.
- Vogt, Evon Z.  
1966 H?iloletik: The Organization and Function of Shamanism in Zinacantan. In *Summa Antropologica en Homenaje a Roberto J. Weitlaner*. Mexico: D.F.: Instituto Nacional de Antropología e Historia.  
1969 *Zinacantan: A Maya Community in the Highlands of Chiapas*. Cambridge: Belknap Press.  
1981 Some Aspects of the Sacred Geography of Highland Chiapas. In *Mesoamerican Sites and World Views*, edited by Elizabeth P. Benson, pp. 119–142. Washington, D.C.: Dumbarton Oaks.  
1985 Cardinal Directions and Ceremonial Circuits in

- Mayan and Southwestern Cosmology. *National Geographic Society Research Reports* 21:487–496.
- Walker, Debra S.  
1986 A Context for Maya Ritual at Cerros, Belize. Paper presented at the Maya Hieroglyphic Workshop, March 21, 1986, University of Texas at Austin.
- Waltz, David  
1972 Generating Semantic Descriptions from Drawings of Scenes with Shadows. Technical Report 271. Massachusetts Institute of Technology AI Lab. Cambridge, Mass.
- Watanabe, John  
1983 In the World of the Sun: A Cognitive Model of Mayan Cosmology. *Man* 18(4).
- Webster, David L.  
1977 Warfare and the Evolution of Maya Civilization. In *The Origins of Maya Civilization*, edited by R. E. W. Adams, pp. 335–372. Albuquerque: University of New Mexico Press.
- Webster, David, ed.  
1989 *The House of the Bacabs*. Washington, D.C.: Dumbarton Oaks.
- Webster, David, and Elliott M. Abrams  
1983 An Elite Compound at Copan, Honduras. *Journal of Field Archaeology* 10:285–296.
- Webster, David, William L. Fash, and Elliot M. Abrams  
1986 Excavations en Conjunto 9N-8, Patio A (Operacion VIII). In *Excavaciones en el Area Urbana de Copan*, edited by William T. Sanders, pp. 156–315. Tegucigalpa: Instituto Hondureño de Antropología e Historia.
- Welsh, W. B. M.  
1988 *An Analysis of Classic Lowland Maya Burials*. British Archaeological Reports International Series, no. 409. Oxford.
- Whittaker, Arabelle, and Viola Warkentin  
1965 *Chol Texts on the Supernatural*. Norman: Summer Institute of Linguistics, University of Oklahoma.
- Wicke, Charles R.  
1971 *Olmec: An Early Art Style of Pre-Columbian Mexico*. Tucson: University of Arizona Press.
- Wilkerson, S. Jeffrey K.  
1983 *Archaeological and Ecological Implications in Guatemala and Mexico of Proposed Hydroelectric Projects on the Rio Usumacinta*. Papers and Report Series, no. 1. Tampa: Institute for Cultural Ecology of the Tropics.
- 1985 The Usumacinta River, Troubles on a Wild Frontier. *National Geographic Magazine* (October): 514–543.
- 1986 Exploring the Usumacinta Wilderness. *Panorama* (July). Milan.
- Willey, Gordon R.  
1974 The Classic Maya Hiatus: A Rehearsal for the Collapse. In *Mesoamerican Archaeology: New Approaches*, edited by Norman Hammond, pp. 417–444. Austin: University of Texas Press.
- 1977 The Rise of Maya Civilization: A Summary View. In *The Origins of Maya Civilization*, edited by R. E. W. Adams, pp. 383–423. Albuquerque: University of New Mexico Press.
- Willey, Gordon R., Richard M. Leventhal, and William L. Fash  
1978 Maya Settlement in the Copan Valley. *Archaeology* 31(4):32–43.
- Willey, Gordon, A. Ledyard Smith, Gair Tourtellot III, and Ian Graham  
1975 *Excavations at Seibal: Introduction*. Memoirs of the Peabody Museum of Archaeology and Ethnology 13(1). Cambridge, Mass.: Harvard University.
- Winston, Patrick H.  
1970 Learning Structural Descriptions from Examples. Technical Report 231. Massachusetts Institute of Technology AI Lab. Cambridge, Mass.
- Winston, Patrick H., and Karen Prendergast, eds.  
1984 *The AI Business: Commercial Uses of Artificial Intelligence*. Cambridge: The MIT Press.
- Wisdom, Charles  
1940 *The Chorti Indians of Guatemala*. Chicago: University of Chicago Press.
- Wright, Henry T.  
1977 Recent Research on the Origin of the State. *Annual Review of Anthropology* 6:379–397.
- Zavala, Lauro Jose  
n.d. Informe personal exploraciones arqueologica segunda temporada 1950. MS. Centro de Estudios Maya. Mexico, D.F.
- Zimmerman, Gunter  
1956 *Die Hieroglyphen de Maya-Handschriften*. Hamburg: Cram, de Gruyter.

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