

---

# Notes on the Chol Dugout Canoe

NICHOLAS A. HOPKINS, J. KATHRYN JOSSELAND, and  
AUSENCIO CRUZ GUZMÁN

There is a natural tendency for the modern visitor to the Palenque area to think of access to sites and towns as a matter of roads. Since we travel by car, bus, or truck, we think of places that are not easily reached by road as isolated, cut off from outside contact. What we tend to forget, if indeed it ever occurred to us, is that until very recently roads were almost nonexistent here, and the main routes of passenger and cargo transportation were water routes. Goods and people moved by boat along the extensive waterways that closely connect villages inaccessible by road; thus places we consider marginal and isolated are, in fact, central and well integrated into local networks of interaction.

Increasingly, especially in the last decade, roads and trucks have replaced rivers and boats as the major means of transport. Changes in the population of the Palenque area, with the immigration of nonlocal mestizos on the one hand and of highland Chols on the other, have shifted the cultural focus away from the rivers and toward overland routes and modes of transportation. What we hope to accomplish in this brief presentation is to turn our attention back to the riverine adaptation of the lowland Chols, since this is obviously relevant to understanding the Classic Maya. The area within which navigable streams were probably favored routes, where overland travel is difficult, includes one of the most important subregions of the Classic Maya: from the highlands of Chiapas to the Gulf coast of Tabasco and Campeche on the north, east to the Petén, and southeast of the Chiapas highlands to the Cuchumatanes of Guatemala.

J. E. S. Thompson (1970) has reminded us of the importance of the Postclassic Chontal-managed sea routes around the Yucatán Peninsula and into Central America. Indeed, the name Yucatan is taken from Chontal *yuca t'an*, the native name for the Chontal language, recorded by Columbus in an encounter with Indians in a large trading canoe off the coast of Honduras. Another group of Chontals apparently managed the trade routes up the Usumacinta. The tradition we will discuss here is not Chontal but Chol, and our sources come not from the Usumacinta but from the Tulijá, which drains the valleys between Palenque and the Tzeltal areas of the Chiapas highlands; the Tulijá is a tributary of the Grijalva (before

the Grijalva joins the Usumacinta). But, since in Classic times there was effectively no (linguistic) difference between Chontal and Chol, this should be simply a variety of the same riverine tradition. The information related here comes from Ausencio Cruz Guzmán, who was raised in a Chol-speaking village along the Tulijá, in the municipio of Salto de Agua, west of Palenque. We think of the town of Salto de Agua, the cabecera of its municipio, as isolated and remote, since no transitable road connects it to major highways. Nonetheless, Salto de Agua is an active port, serving not only the Tulijá drainage upstream but also freighters from Villahermosa, which transship goods from the ocean ports to the Mexico City-Mérida railroad, which crosses the Tulijá at Salto de Agua.

With the introduction of roads to most of the Palenque area and with the replacement of lowland Palenque Chols by highland Chols with no particular riverine orientation, boat travel is diminishing but has by no means disappeared. The number of dugout canoes still operating along the rivers is impressive, the master canoe makers still work on their production, and private individuals still make their own canoes for fishing or transport to their milpas. However, one can foresee the day when all cargo will move by truck and only factory-built motor launches will be found on the rivers.

While there is no doubt a considerable amount of ethnographic information on the riverine traditions scattered throughout the literature, there are no in-depth studies; we hope to awaken additional interest in the role of the rivers before this tradition disappears completely. This essay will concentrate on the single-log dugout canoe (Spanish *cayuco*, Chol *hukub*, 'dugout'), its construction, and its use. We are still collecting material on the riverine traditions of the Salto de Agua Chol.

## Making a Dugout

A dugout may be made by individuals for their own use, by a group for collective use, or by a maestro and his assistants under contract to a third party. A few years back, all the larger dugouts were commissioned by and made for fincas (large cattle ranches and agricultural establishments), to transport their products downriver and their supplies upriver. Now most dugouts are smaller,

Table 1 The Most Salient Trees for Dugout Construction

Local Spanish Name	Chol Name	Comments
<i>Maca</i> ( <i>chontal</i> )	<i>mankohte'</i>	good durability (30 years), the best all-around wood
<i>Cedro</i>	<i>ch'uhte'</i>	good durability but many are hollow, second-best
<i>Caoba</i>	<i>sutz'ul</i>	good durability but many are hollow, and if there are knots the wood will rot around them
<i>Maca blanca</i>	<i>ha'te'</i>	good durability
<i>Laurel</i>	<i>'unte'</i>	good durability
<i>Tinco</i> (= <i>amargoso</i> )	<i>'ik'xi'</i>	good durability, swells in water
<i>Barí</i>	<i>sik balun te'</i>	good durability
<i>Lacté</i>	<i>'ulmo'</i>	not so durable
<i>Caracolillo</i> (= <i>guasibán</i> )	<i>karakol</i>	not so durable
<i>Guanacaste</i>	<i>k'uk' te'</i>	not so durable
<i>Ceibo</i>	<i>yix te'</i>	low durability (2 years), easy to work when green, hardens later

built for individual use. (A large dugout runs to thirteen meters in length and a meter in width; a small dugout, for individual use, runs to about four meters in length.)

When a dugout is to be built, an obvious first step is to locate an appropriate tree and secure whatever permission may be necessary to cut it (from Forestry officials, from the owner of the land, etc.). At least ten species of rainforest trees are considered adequate, all having long, straight trunks without lower branches that might cause knots. The best (i.e., most favored) woods are the longest-lasting, resulting in a dugout that may give as many as thirty years of river service. Ease of working the wood is a secondary consideration, and the location of the tree is almost irrelevant – it is not uncommon to select a tree that is twenty kilometers from the nearest stream. The most salient trees for dugout construction are listed in Table 1, with brief comments (and considerable lacunae in the data); the order of presentation is related to preference, but only in the most general manner.

The tree is felled carefully, so as not to split the wood. First cuts (called *camas* in Spanish and *pam* in Chol) are placed to control splitting and the direction of fall of the tree. Since these are rainforest species, they often have buttress roots, and a platform must be built so that the trunk can be cut above the buttresses.

After felling, the trunk is examined for defects; knots and hollows are sounded with rods to determine their extent. The maestro then decides how the log is to be cut to insure maximum use in relation to the defects present. Major sections to be cut away are not lost but are made into troughs and other artifacts. (It is interesting to note that, in local Spanish, the troughs used for feeding

and watering animals, as well as for washing clothes, are called *canoas* or *bateas*, both terms related to types of canoes.)

The felled trunk is cut to length, the root end and the too small upper sections where branching begins are taken off, and the log is then laid out as the maestro directs. The maestro cuts deep grooves across the log, near each end, to the level at which he wants the wood to be cut away (Fig. 1a). He levels these transverse cuts, squares them perpendicular to the length of the log, and then runs a string from the base of the grooves along each side of the log. The wood will be cut away down to this mark (Fig. 1b, c). Cutting is done with axes; some trimming (especially on the ends) is done with a machete; and two kinds of adzes are used for finish work. The adzes have a flat cutting blade (Spanish *suela* or *plana*) or a curved cutting blade (*gurbia*); they are used mainly for finish work on inside surfaces.

Lines are now drawn to indicate how the outside curves of the sides will be cut. A series of marks are drawn at right angles to the trunk, at regular intervals, using a carpenter's square (Fig. 1d). The width of the log at these marks is measured, and nails are tapped into the wood at the appropriate points to give a slight mid-to-end taper to the log. The ends may be different widths, and midships-to-stern or midships-to-bow symmetry is not a concern. A string is loosely laid along the line of nails, and contours are penciled in along the string. Both inside and outside contours are marked, about an inch apart at their closest.

A centerline is marked with string, special attention being given to the ends of the log, where the stern and bow will be shaped. The outside curves of bow and stern are drawn in, centered along this line. A more traditional technique for drawing these curves involves using a large leaf, folded and cut to the contour of one side; it is unfolded to give the contour of the other side, insuring symmetry. A more modern technique involves the use of plastic yardsticks, which can be bent to the desired curve. At any rate symmetry around the centerline, in bow and stern cuts, is mainly for aesthetics and not for performance. The canoe ends are shaped by the maestro, using a machete according to the lines traced.

The sides of the log are now cut away with axes, working from amidships toward the ends, so as not to split the wood along the grain. For the time being, the outside contours are cut straight down, perpendicular to the ground, and not tapered toward the bottom of the dugout. (Judging from photographs of some Lacandón jungle dugouts, the sides may be left this way and not tapered.)

The inside contour is now cut out. The maestro makes a series of cuts to mark the depth of hollowing and the angle to be given to the sides. The inside opening of the dugout will be narrower at the bottom and wider at the top. The assistants cut away the wood to the contours indicated. The hollowing is done with an ax but will be finished later with curved and plane adzes.

After the log has been cut down to the proper height of the gunwales, the outside contours have been cut

square, the interior has been hollowed out, and the bow and stern contours have been cut (Fig. 1e), the log is turned so that the bottom may be shaped and the outsides may be sloped in to the proper angle. Before the log is turned, three sets of one-inch holes are drilled through the bottom of the dugout: three holes in a line across each end and three in a line across the middle of the interior bottom of the hollowed-out log. These will be used to set the thickness of the bottom.

A stand, made of poles, is set up to receive the log as it is turned (Fig. 1f). A pole is tied across the thwarts, flush to the near side of the dugout and extending from the far side for a couple of meters. This pole will be used as a lever to turn the heavy log. Vines are the traditional tying materials.

A winch is made opposite the log, across the receiving platform. The winch consists of two sets of poles, each set bound together with vines in the middle. A pole is laid between these pairs of poles, between the vine ties, to serve as the axle of the winch. A vine is wound on the axle and tied to the lever lashed to the thwarts. Another pole is used as a lever to turn the winch. The log is winched up and over onto the receiving platform.

Once on its stand, the log is again leveled; blocks and wedges are used to hold it in its proper position. The holes drilled through the hull are consulted to set the thickness of the bottom. The maestro makes guide cuts to indicate the proper thickness, and the assistants cut away the bottom to his marks. The bottom is cut flat, perpendicular to the sides of the dugout at this time. The maestro also cuts guide wedges along the sides to indicate the slope to which the sides are to be trimmed, leaving the wood slightly thicker toward the bottom of the dugout and slightly thinner along the gunwales (Fig. 1g). Again, the assistants follow the maestro's guide cuts to remove the excess wood.

The holes through the hull are now plugged, using wood from the same tree. (Knots and splits are plugged in the same way.) Finishing touches include a line of holes drilled along each side, just under the gunwales (Fig. 1h). These will be used to tie poles or lengths of cane across the dugout to cover cargo space, to attach oarlocks, and so on.

The construction of a dugout, from felling the tree to finishing the final details, normally takes about two weeks in the case of a large dugout built by a maestro and some six assistants. When the dugout is finished, a meal is organized in which the maestro and all his assistants participate. This ceremonial meal may be sponsored and organized by the owner of the new canoe or, in his default, by the maestro himself. The dugout is then transported to the nearest stream; this may be undertaken as part of the same contract by the maestro or as an independent job arranged by the owner.

Transport is effected by tying poles across the body of the dugout, using the holes drilled along the sides. On either side of the dugout, at either end of the poles, a man takes a position. The number of poles and pairs of men depends on the size of the canoe. Another man takes a position at the rear of the dugout to guide it. The

dugout is then slid along on small logs and poles laid under it transversely. In brush, men go ahead cutting and trimming branches and poles to be placed under the dugout; others move forward to carry the poles that have been passed over, to reposition them. One case has been reported to us in which thirty men took four days to transport a twelve-meter canoe to the nearest water. When the dugout is launched, a celebration is organized by the new owner. As many people as possible pile into the canoe to test its carrying capacity.

### Using the Dugout

The crew that manages a large cargo canoe is headed by a *patrón* (not the owner, necessarily, but a professional canoe master) and includes his *bogas* (oarsmen). The *patrón* stands at the rear, facing forward, and guides the dugout with a long, wide oar, which he rests on the gunwales near the stern in wedge-shaped cuts made for this purpose. The *bogas*, sitting in front of him on alternating sides on sacks of cargo, face backward and row with oars placed in oarlocks. The oarlocks are made of forked sticks tied to transverse poles secured by vines to the holes drilled along the sides. The *bogas'* oars (in local Spanish, *remos de tira*) are two and a half to three meters in length; the *patrón's* long oar (*remo largo*) is about four meters long. The technique of rowing is probably a European introduction, as the Classic depictions that we are aware of show dugouts being paddled rather than rowed. Indeed, except for the large cargo canoes, dugouts today are usually paddled by a man or men standing upright.

The cargo carried can be virtually anything. Cargo in bundles or sacks is stacked in the bottom of the dugout and serves as seats for the oarsmen. Poles tied across the thwarts form a framework for cane coverings that create closed compartments for transporting such small livestock as pigs and chickens. Large dugouts can carry cattle and other large livestock. Payloads run up to three thousand kilos on a downstream run, half that on an upstream run, when the dugout may have to be towed from the bank in strong currents.

A downstream run on the Tulijá from Agua Clara, just below the falls at Agua Azul, to Paso Naranjo, just above the falls at Salto de Agua, takes about twelve hours. Cruz' father worked as a canoe master on this run for several years, contracted to the fincas to bring down chicle. On the return trips, which took about three days, he carried merchandise, food, and other supplies for the *chicleros*. The fincas supplied the dugouts and paid the *patrón* and the *bogas* by the day.

Dugouts are also used for fishing, either sporadically or as a more or less systematic complement to agricultural production. Besides numerous varieties of fish (for which we are collecting extensive Chol terminology), turtles, alligators, and freshwater lobsters (local Spanish *pigua*) are exploited for food and other uses. Some villages fish more than others, which in turn are more agricultural. Fish is sometimes traded for agricultural products; for example, a fisherman may trade a few fish for tortillas, roasted ears of corn, chiles, or bananas to complete his meal.

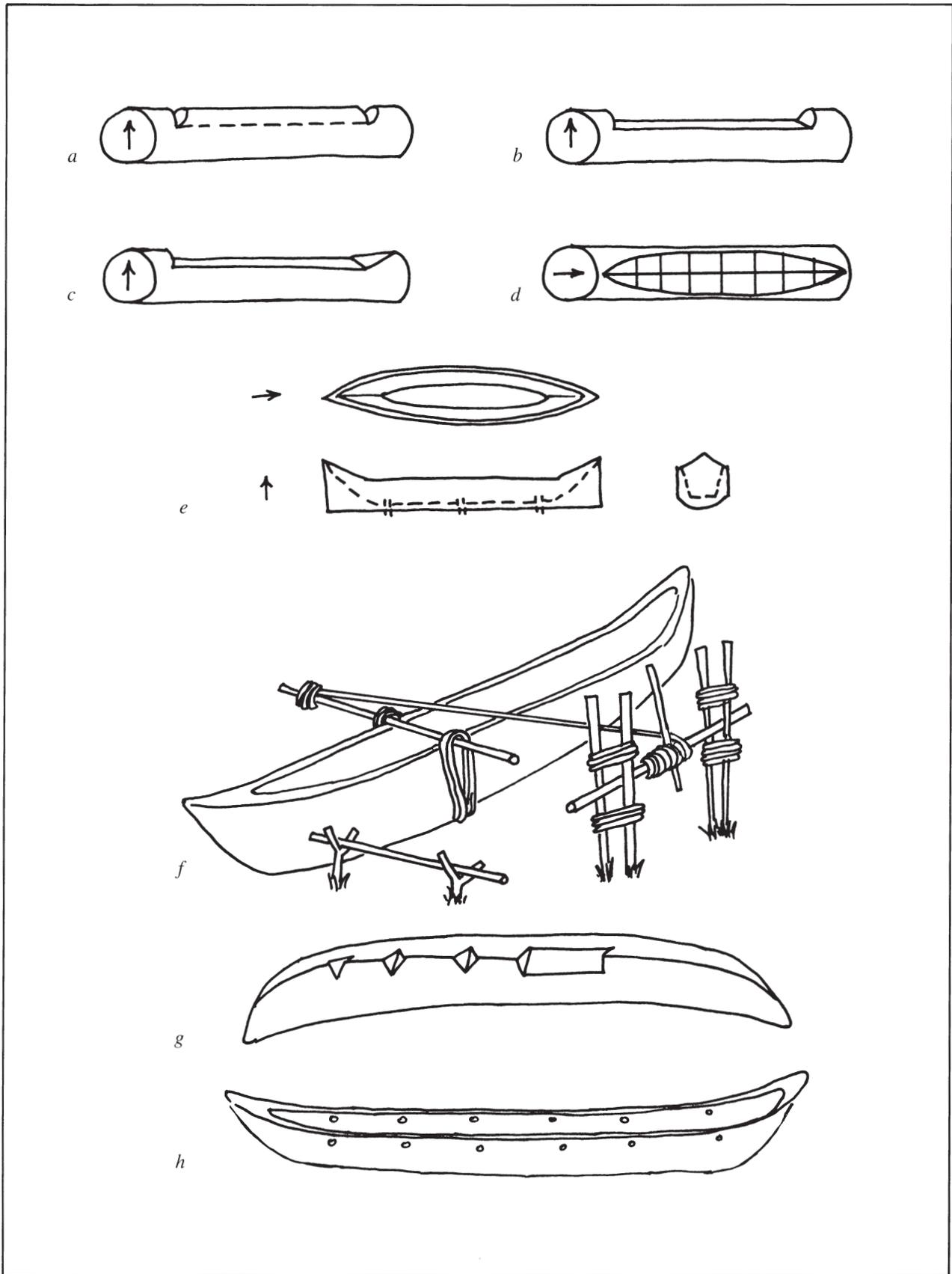


Fig. 1 Stages in the making of a dugout canoe.

### Other Lore

Dugouts are more than a means of transport for people, animals, and goods, more than vehicles for fishing and hunting turtles. They are not just economic devices. Dugout canoes play a role in mythology: we have recorded a story about three fishermen in a dugout who encounter Lightning (*lak mam*, 'our grandfather') and his wife, a huge toad (*lah ko*, 'our grandmother'), as Lightning is gathering wild plant food along the banks of the river. Dugouts are involved in family feuds: we have been told a tale of a rancher and his son whose rivalry was played out in a competition to build the largest and most elegant dugout and to name the dugouts in the most antagonistic way. Countless stories are told and retold about incidents

of river travel, in which dugouts, canoe makers, canoe masters, the rivers, and their peculiarities figure prominently. Other kinds of vessels also occur in the riverine culture of the lowland Chol: rafts are made, and we have been told of three-log canoes over two meters in width.

This technology and its associated lore form a rich source of Maya ethnographic information that we are only beginning to record. We hope that this essay will call attention to a much neglected area whose investigation would go a long way toward balancing our knowledge of Mayan cultures, now known almost exclusively from the highlands or from agriculturally oriented lowland areas.

---

## Bibliography

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

---

# **Fourth Palenque Round Table, 1980**

**General Editor  
Volume Editor**

**Merle Greene Robertson  
Elizabeth P. Benson**

The Pre-Columbian Art Research Institute  
San Francisco

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

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

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

*Cover illustration:*

LADY BEASTIE

Birth: 12.19.13.4.0 8 Ahau 18 Zec

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

Drawings courtesy of Merle Greene Robertson