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Architecture, Restoration, and Imaging
of the Maya Cities of
UXMAL, KABAH, SAYIL, AND LABNÁ
The Puuc Region, Yucatán, México

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Annotated Bibliography
Yucatán

This is not a general bibliography on the Yucatán. This section includes publications on the Yucatán that deal extensively with the Puuc Region. Because these often give attention to individual sites, some of these publications are listed also in the sections on Uxmal, Kabah, Sayil, or Labná. Most publications on larger topics, such as Maya art or architecture, are listed only in those sections of the subject matter bibliography.

A

Álvarez, María C.

Textos coloniales del Libro de Chilam Balam de Chumayel y textos glíficos del Códice Dresden. México: Universidad Nacional Autónoma de México-Centro de Estudios Mayas, Book 10, 1972.

Andrews, Anthony P.

“El ‘guerrero’ de Loltún: comentario analítico”. *Boletín de la Escuela de Ciencias Antropológicas de la Universidad de Yucatán.* 48/49: 36-50, 1981.

Andrews, Anthony P.

“Late Postclassic Lowland Maya Archaeology”, *Journal of World Prehistory*, 7:1 (1993), 35-69.

Andrews, Anthony P., E. Wyllys Andrews V, and Fernando Robles Castellanos

“The Northern Maya Collapse and its Aftermath”. Paper presented at the 65th Annual Meeting of the Society of American Archaeology, Philadelphia, 2000.

Andrews, E. Wyllys, IV

Archaeological Investigations on the Yucatan Peninsula. New Orleans: Tulane University, Middle American Research Institute (MARI), Pub. 31, 1975.

Andrews, E. Wyllys, IV

“Archaeology and Prehistory in the Northern Maya Lowlands: An Introduction”. *Archaeology of Southern Mesoamerica: Part One*, ed. Gordon R. Willey: 288-330. Vol. 2 of *Handbook of Middle American Indians*, general ed. Robert Wauchope. Austin, Texas: University of Texas Press, 1965.

A comprehensive review of the settlement and development of the Northern Lowlands including the Yucatan, from 1500 B.C. to A.D. 1200. This is described chronologically by periods instead of by areas, with emphasis on changes in the succession of periods. A few pages of text deal to some extent with the Pure Florescent Period of the Puuc region. There are two excellent but standard photos of the Nunnery Quadrangle, Uxmal, and one exceptional, full-page photograph, by the author, of the House of the Turtles, clearly showing the concrete and so-called “veneer” construction. The author writes that “The architects of the Florescent reached a stage of perfection in their craft which was probably not attained anywhere else in the New World” (p. 307).

Andrews, E. Wyllys, IV

“The Development of Maya Civilization after Abandonment of the Southern Cities,” in T. Patrick Culbert, ed., *The Classic Maya Collapse*. Albuquerque: University of New Mexico Press, 1973: 243-265.

Andrews, E. Wyllys, IV

“Yucatan: Architecture”. *Carnegie Institution of America, Year Book 41*: 257-263.

Andrews, E. Wyllys, IV, and E. Wyllys Andrews V.

Excavations at Dzibilchaltun, Yucatan, Mexico. Middle American Research Institute Publication 48. New Orleans: Tulane University, 1980.

Although this 339 page books reports on excavations at Dzibilchaltun, a site considerably north of the Puuc Hills with a much more extensive occupation history, the authors make regular analogies to Puuc architecture and indeed much is directly applicable. This book includes a remarkably informative, detailed explication of the architectural components at Dzibilchaltun, many of which are applicable to Puuc structures: materials and tools, masonry, substructures, superstructures, platforms, unvaulted structures, vaulted structures, specialized structures, building platforms, stairways, walls, doorways, wall sections and piers, wall openings, wall depressions, altars and benches, vaults, roofs, and roof structures, moldings, exterior decoration,

interior decoration, raised causeways, cenotes and wells. There are excellent diagrams and photographic details.

Because no Pure Florescent vaults remain standing at Dzibilchaltun, the authors provide a detailed description of standing Puuc architecture. Most valuable is their **description of the (partly problematic) 3 stages in which these vaulted structures were constructed** (p.299).

Andrews, E. Wyllys, IV, et al.

Architectural investigation on the Yucatán Península. Middle American Research Institute Publication 31. New Orleans: Middle American Research Institute, Tulane University, 1975.

Andrews, E. Wyllys, V

“Comments on the Archaeological Sequence in the Northern Maya Lowlands”. Paper presented at the annual meeting of the American Association for the Advancement of Science, 1972.

Andrews, E. Wyllys, V, and Anthony P. Andrews

“Northern Maya Lowlands”. *The Oxford Encyclopedia of Mesoamerican Cultures: The Civilizations of Mexico and Central America*. Vol. 2: 378-385. Ed. David Carrasco. 3 vols. Oxford University Press, 2001.

This is **the best brief, up-to-date introduction to the Northern Maya Lowlands**. In their first paragraph, the authors note that “there are several geographic and cultural subdivisions, including the Northern Plains, the East Coast, and, north to south, the Puuc, Chenes, and Rio Bec, the last three of which are defined largely by architectural styles” (p. 378). They trace the history of the Northern Maya Lowlands through 5 historical stages. They write that “the most important difference in the timing of the decline between the Maya north and south is not when it ended but when it began – or became visible in the archaeological record’ . . . The rough contemporaneity of the decay of elite centers and complex political organization in both the Maya north and south is strong evidence that the same stresses were present in both areas” (p. 382).

Along the way, the authors describe the characteristics of Northern lowland architecture, with attention to the Puuc architectural style. Regarding the importance of the Puuc region in the Northern Lowlands, they write that **the intensive horticulture in the deep, rich soil of the Puuc region must have served to provide food for a large area of the Northern Lowlands, in most of which agriculture was difficult**. They also write that “the Puuc architectural style . . . spread north and east . . . across much of the Northern Lowlands in the last century of so of the Classic period . . . [lending] unity to areas that had become increasingly regionalized” (p. 381).

Andrews, George F.

“Architectural Survey of the Rio Bec, Chenes, and Puuc Regions: Progress and Problems”. *Hidden among the Hills: Maya Archaeology of the Northwest Yucatan Peninsula; Acta*

Mesoamericana. Vol.7, ed. Hanns J. Prem: 247-288. First Maler Symposium, Bonn. Möckmühl, Germany: Verlag von Flemming, 1994 (2nd ed. 1999).

The result of years of careful study of the architecture of the Rio Bec, Chenes, and Puuc regions, this is **an extraordinarily detailed and systematic report of the basic architectural, construction, and decorative features**. Andrews first review previous research on the subject. He provides maps identifying the areas studied with their archaeological sites. He notes that “the density of sites for the Puuc region as a whole exceeds the density in any other lowland Maya region” and that the Puuc heartland (around Kabah, Sayil, and Labná) was the most densely populated of all (p. 253). Andrews then provides a chart of structural types and 2 charts of individual architectural features, divided by the regions listed above. He divides the Puuc into early and late to facilitate analysis of chronological change. This is a unique list of 34 individual architectural features, such as “large, $\frac{3}{4}$ round corner columns”, “stone lintels over doorways”, etc.

Based on this comparative information Andrews concludes that (p. 260):

- (1). “Each region has one or more architectural forms which are unique to that region.” “In the Puuc region we find both free-standing portal vaults and portal vaults through buildings, as well as large palace structures in which a series of rooms are arranged around all four sides of a solid central core, and large (range)-type buildings with 10 or more rooms.”
- (2). “Some regions have decorative features which are essential unique.” “In the Puuc region, both Mosaic and Late Uxmal style buildings carry mosaic type, geometric façade sculpture of a kind that is not found in Chenes or Rio Bec buildings.”
- (3). “Some building forms . . . occur frequently in all four regions under consideration.”
- (4). Where “features . . . occur in varying numbers in all four regions . . . these overlaps suggest trends of developmental sequence.”
- (5). “Some indication of the direction of flow of influence (or lack of flow) can be gleaned from the charts.”
- (6). “The charts emphasize the great differences between the diagnostic features of the three early Puuc styles and those of the late styles. **The differences are so great that the change appears to be the result of influences from outside the Puuc region itself**. While many of the basic features of the classic Puuc Colonnade and Mosaic styles appear to be derived from Chenes and Rio Bec models, the Late Uxmal style shows influences which appear to come from either Central Mexico or Chichen Itza.”

Andrews also concludes that **“This level of consistency suggests an accompanying social order and political structure, at a regional scale, with the capacity of determining what is built, as well as where and how it is built.”** He writes that the data also “suggests that there is a south to north stylistic sequence” among the regions in his study. He specifies a number of current problems in understanding the chronological and regional relationships among these zones and between these zones and other Maya regions. Andrews provides 25 pages of lists identifying basic features of regional and period styles for the regions studied. The final list describes 12 “Basic Architectural, Construction, and Decorative Features of Late Uxmal Style” (p. 287).

Andrews, George F.

Architecture of the Puuc Region and Northern Plains Areas. Vol. 1 of *Pyramids and Palaces, Monsters and Masks: The Golden Age of Maya Architecture. The Collected Works of George F. Andrews* (3 vols.). Lancaster, CA: Labyrinthos, 1995.

For any study of Puuc Region architecture, this is **one of the essential books**. It contains 7 papers by George Andrews, written between 1982 and 1993, arranged largely in chronological order. **Approximately half of the 350 pages are devoted to Andrews' informative photographs, line drawings, and diagrammatic maps**. Given the quality of the author's photographs, it is unfortunate that they are here reproduced so weakly, sacrificing much of the clarity and detail of the architecture. On the other hand, the author's important line drawings come through clearly. These include many diagrams of entire facades with overall outlines and primary shapes, knowledgeably reconstructed. These papers demonstrate how extensive on-site observations, carefully recorded and compared, lead to important architectural groupings and distinctions, **allowing more complex and more convincing hypotheses regarding chronology, relationships among cities and districts, and nature of culture and society**.

Chapter 1, "The Puuc Region and Architectural Styles: A Reassessment". At 131 pages, this is the longest paper in the book. Andrews **distinguishes 7 styles**, which he discusses in chronological order: Early Oxkintok Style, Proto-Puuc Style, Early Puuc Style, Classic Puuc Architectural Styles, Mosaic Style, Late Uxmal Style, and Intermediate Style (non-conforming buildings). The architectural data presented leads Andrews to several tentative conclusions, some of which significantly revise and extend previous attempts to understand Puuc architecture, affecting origins, dating, influences, and relations with adjacent regions. There is an important 14-page appendix on 4 phases of Puuc construction technology.

Chapter 2, "Early Puuc Architecture: Buildings with 'Broken' Medial Moldings", is **a 28 page paper on one architectural detail** found almost entirely on early Puuc buildings: medial moldings that rise above doorways. These include some buildings with roofcombs and some range-type buildings. Andrews also discusses some of the unusual geometric details used. In one of his few interpretive statements regarding visual effects, Andrews writes: "the broken medial moldings are extremely effective architectural devices in terms of drawing attention to the doorways below, indicating that the rooms behind had some special significance beyond that associated with any adjacent rooms" (p. 159).

Chapter 3, "Architectural Survey of the Puuc Archaeological Region: 1984 Field Season Preliminary Report". This 7-page paper **reports on the study of 66 sites or parts of sites investigated in 1984**. As an addendum, the author describes "10 to 12 archaeological site . . . where important or unique examples of Puuc architecture are in imminent danger of immediate collapse" (p. 166).

Chapter 4, "Classic Puuc Mosaic Style Architecture and Geometric Masks". This is a fascinating 29-page description of the decorative motifs employed in the most famous Puuc style, with special attention to geometric Masks. Andrews describes the various mask types, based on 19 examples found at 15 different sites. He notes the **flexibility**

of the basic mask form and that the most simplified, geometric masks “have the advantage that they can be elongated or shortened to fill the available space” (p. 196).

Chapter 5, “Ranking Puuc Sites”. Andrews reviews the bases on which previous experts have ranked the importance of Puuc archaeological sites and proposes, with explanations, a revised series of bases for ranking. One-third of this 38-page paper consists of lists of some 170 sites in the Puuc “heartland”, listed under categories such as “Sites with large pyramidal temples” or “Sites with small ‘Palace’ buildings”. Rank 1 consists of only Oxkintok and Uxmal. A special category, Rank 1a, consist only of Kabah. Rank 2 consists of 10 sites including Sayil. Rank 3 consists of 18 sites including Labná. Ranks 4, 5, and 6 include some 17 lesser sites. There are 3 important pages of conclusions resulting from this study, regarding such things as hierarchy of residential types and political structure within the Puuc.

Chapter 6, “Architecture in the Northern Plains Areas”. Andrews first distinguishes three physiographic subdivisions of the Northern Plains: “Coastal Beach and Supra Zone”, “Northwestern Coastal Plain”, and “Northeastern Coastal Plain”. Reviewing previous publications dealing with this area, Andrews proposes and describes the following five periods: “Early Period I (Early Classic Period)”, Early Period II) Late Classic Period)”, “Pure Florescent Period (Terminal Classic Period)”, Modified Florescent Period”, and “Decadent Period (Late Postclassic Period)”. He deals separately with radially symmetrical pyramids and megalithic architecture. These are followed by a section comparing Puuc and Pure Florescent Architecture, in which he makes important distinctions among types that have often been treated together. In a final section on Culture Periods and Culture Areas, Andrews again makes distinctions among areas that he argues have too often been homogenized.

Chapter 7, “Architecture at Chichen Itza: Cultural Spheres and regional Styles”, deals primarily with Chichen Itza, but approximately half of the chapter takes up “Regional Cultural Spheres”, “Maya-Chichen vs. Puuc Architecture”, and “The Chichen Itza-Uxmal Connection”. In both chapter 6 and 7, Andrews, successfully it seems to me, draws important distinctions between Puuc architecture the architecture of the northwestern and north-central plains areas.

“Summary”. In his summary, Andrews points out several of the important conclusions from his study. Most importantly, he draws an important distinction between an earlier and a later group of building in the Puuc region, based on style and constructions technology. He dates the change about A.D. 830, accepting a short transitional period just proceeding. He write that “the traditional image of a single, coherent classic style as delineating the entire Puuc architectural scene is clearly at odds with the data now available” (p. 111). He writes that “two distinctly different construction technologies were employed in Puuc architecture. . . These two generic systems are separated in time by a transitional construction phase that coincides with the Early Puuc architectural style” (p. 104). Andrews also writes: “The marked differences between the three earlier Puuc styles and the later classic styles is so great that the change must be the result of influences emanating from external sources” (p. 104).

Appendix I: “Puuc Construction Technology—Early to Late”. In an appendix, Andrews describes the different construction technologies for each of his building phases, with diagrams for each. Every distinction is important, but the most definitive again is the change from Early Puuc to Classic Puuc construction technology. He describes the Early Puuc system as “block wall and slab vaults” and the Classic Puuc system as “concrete walls faced with small, squared blocks and concrete vaults faced with wedge-shaped stones tenoned into the concrete behind” (p. 113). Quite properly, he objects to the frequent description of Classic Puuc vaults as “veneer-over-concrete”, whereas “the outer wall facing stones . . . are completely integrated with the wall hearting and can be thought of as a kind of permanent “formwork” that retains the concrete core while it hardens” (p. 131). Unfortunately, like others, Andrews does not provide a convincing description of the way the impressive Classic and late Classic Puuc vaults were constructed.

Andrews, George F., Gerrie Andrews, Lourdes Toscano H., and Carlos Pérez A.

“Estudio arquitectónico de sitios de Yucatán y Campeche: Informe del trabajo de la temporada 1984”. Manuscript in the archive of the Sección de Arqueología del Centro INAH Yucatán, 1985.

Ashmore, Wendy, ed.

Lowland Maya Settlement patterns. Albuquerque: University of New Mexico, 1980.

B

Ball, Joseph W.

“A Coordinate Approach to Northern Maya Prehistory; A.D. 700-1200”. *American Antiquity*, Vol.39, No.1 (1974): 85-93.

A review of the results of recent archaeological and ethnographic studies in order to suggest **an overall framework for the historical evolution of Northern Maya culture in the “pre-Late Postclassic”**. Ball suggests a late eighth-early ninth century appearance of the Puuc architectural tradition (p.86), a possible “far earlier significant Mexican influence on the peninsula than is now generally accepted”, and the Oaxaca area as a possible source for Puuc architectural characteristics (p.87) Ball’s is one of the early statements that “the aggregate style which resulted – the Puuc – represents Mesoamerican architecture’s finest moment” (p.86).

Ball, Joseph W.

“Northern Maya Archaeology: Some Observation of an Emerging Paradigm”. *Hidden among the Hills: Maya Archaeology of the Northwest Yucatan Peninsula; Acta Mesoamericana*, Vol.7, ed. Hanns J. Prem: 385-402. First Maler Symposium, Bonn, 1990. Möckmühl, Germany: Verlag von Flemming, 1999 (1st ed. 1994).

Referring to presentations at the symposium and to other publications and fieldwork, Burns presents **an impressive, critical overview of archaeological study of the Northern Yucatan from 1970 to 1990**. From time to time, he contrasts the stage of scholarship in the northern lowlands with that in the southern lowlands, which he considers more advanced. Throughout he stresses “what we do not yet know, and what questions we should be asking” (p. 401). Among the questions Burns considers primary are the origins of Puuc cities, the establishment of Uxmal, and the chronology of fluorescent Puuc architecture. “I strongly urge those now collecting data or readying themselves to do so to reconsider **the matter of Puuc origins as a fundamental and to date not yet satisfactorily addressed question for the region**” (p. 400). He also emphasizes the importance of in-depth field studies as a way of testing hypotheses about the socio-economic-political structure of individual Puuc cities. Based on current information, he (in consort with others) describes Uxmal as a “regal-ritual” city type in contrast to Chichen-Itzá, which he describes as an “administrative” city type.

Burns puts the essential questions for exploring different types of cities and relationships among them as follows: “is there a structural and so implicit functional redundancy in these elements [‘buildings and formally defined openspaces’] from site to site regardless of size and elaboration? Is there a limited number of recognizable units which characterize and reappear at each center? Are differences among centers involving size and supposed ‘complexity’ in fact merely reflective of greater multiples of the same basic set: a situation most likely indicative of a need for increased facilities to handle more activities to integrate larger populations drawn from larger territories?” (p. 397).

Ball, Joseph W.

“A Summary View”. *Arquitectura y arqueología. Metodologías en la cronología de Yucatán. Études Mésoaméricaines* Vol. 2, No. 8, 1985: 85-88. México, D.F.”.

Barrera Marín, Alfredo, Alfredo Barrera Vásquez, and Rosa Mariá Lopez Franco

“Nomenclatura etnobotánica Maya: una interpretación taxonómica.” *Instituto Nacional de Antropología e Historia, Colección Científica 36 (Ethnología)*. Mexico, 1976.

Barrera Rubio, Alfredo

“1987 Archaeological Work in Yucatán”. *Mexicon*, Vol. 10: 48-49. 1988.

Barrera Rubio, Alfredo

“La arqueología en Yucatán en la última década del siglo XX”. *Escondido en la Selva: Arqueología en el norte de Yucatán*. Segundo Simposio Teoberto Maler, Bonn 2000. Ed. Hanns J. Prem. Bonn: Universidad de Bonn; and Instituto Nacional de Antropología e Historia, México, D.F., 2003: 15-35.

Authoritative review of research and archaeological work in the Yucatán during the ten years, ca. 1900-2000, since the first Maler symposium. Throughout the article, the author describes the importance of research on Puuc region ceramics, begun in 1977

and still in process, which has been essential in establishing the chronology of sites in the Yucatan and the overlap between Uxmal and Chichen Itzá.

In contrast to other sites, and because of its importance, Uxmal has undergone nearly continuous archaeological investigation. The author describes the important work under the charge of José Huchim Herrera, especially from 1992-1994 and in 1996, with **the objective of achieving (in translation) “the integral architectonic restoration** of the Quadrangle of the Birds, the plinth of the Nunnery Quadrangle, the structure of the Building of the Iguana, the Postclassic residential grouping; in which are found the Building of the Bird God, the extreme west of the north side of the Governor’s Platform, the west side of this last Building, and also the labors of the maintenance of the Pyramid of the Magician” (pp. 21-22). A plan of the areas discussed (figure 3) distinguishes the archaeological interventions of 1982-1994, 1996-1997, and 1998. The author notes that the design of the South Building of the Quadrangle of the Birds is unusual in the Puuc region and may indicate some connection with Chichen Itzá.

There are also sections on the Northcentral Yucatán, Yucatán coast, and Northeast and East Yucatán. In his final section, Barrera Rubio diagrams recurrent themes in the archaeological investigation of the Yucatán in the last ten years and those of related disciplines.

Barrera Rubio, Alfredo

“La Arqueología en Yucatán”. No date of publication. *Diario Yucatán: El Periodico de la Vida Peninsular*.

On the web at:

<http://www.yucatan.com.mx/especiales/arqueologia/003.asp>

(accessed 2006 Nov. 25)

The author, previously the Director of the Centro INAH Yucatán, located in Mérida, **describes the Centro INAH Yucatan and its many projects**. At the time of writing, he noted that the Centro INAH Yucatán had 20 archaeologists, 50% of whom were drawn from the Faculty of Anthropological Sciences of the University of Yucatán, also in Mérida. Barrera Rubio notes that some 1800 pre-Hispanic remains are located in the territory for which the Centro is responsible. He describes briefly the relationship of archaeology in Yucatán to the federal government.

Barrera Rubio, Alfredo

“Balance de 12 años de labores del INAH en el Estado: Ayer y hoy del trabajo arqueológico en Yucatán”. *Diario Yucatán, el periodico de la vida peninsular*. No date.

On the web at:

<http://www.yucatan.com.mx/especiales/arqueologia/010.asp>

(accessed 2007 April 18)

An interview with Archaeologist Alfredo Barrera Rubio, at that time Director of the Centro INAH Yucatán (written by an unnamed reporter). In the interview, Barrera describes the growth of archaeology, state support, and tourism in the Yucatán during his tenure as director. He notes that the number of visitors at Uxmal grew from

187,566 people in 1992 to 383,523 in the year 2000. He states that Uxmal has been considered one of the archaeological zones of high priority and that work has been taking place there almost continuously since 1995.

Barrera Rubio, Alfredo

“Escuela de ciencias antropológicas de la Universidad Autónoma de Yucatán”. *La antropología en México: Panorama histórico, 7. Las instituciones*. Volume Coordinator, Mercedes Mejía Sánchez, with collaboration of Martín Villalobos Salgado: **357-370**. Coordinator General Carlos García Mora. Colección Biblioteca del INAH. México, D.F.: Instituto Nacional de Antropología e Historia, 1988.

A chronological survey of the Autonomous University of the Yucatan. Barrera Rubio describes the early and continuing importance of the Yucatan in Meso-America studies, the initial lack of any local academic institution to provide for such studies, and the gradual creation and evolving relationships among various institutions serving these needs. These include the Museo Yucateco, founded in 1871; Museo Arqueológico e Histórico de Yucatán, which replaced the Museo Yucateco in 1923; Instituto de Etnografía, Historia y Bibliografía de Yucatán of the Universidad de Yucatán, created in 1941; Escuela de Ciencias Antropológicas de la Universidad Autónoma de Yucatán; Academia de la Lengua Maya; Instituto Yucateco de Antropología e Historia (IYAH), Centro de Estudios Mayas (CEM); Centro de Estudios Antropológicos (CEA); and the Estatuto Universitario por el Congreso del Estado de Yucatán. The author describes various obstacles, but asserts the importance of the University remaining autonomous, scientific, critical, and linked to the major sectors (p. 367). There is a basic bibliography on the history of the institution.

Barrera Rubio, Alfredo

“Las pinturas murales del area Maya del Norte”. *Enciclopedia Yucatanense*. Vol. 10: 189-222. Edición Oficial del Gobierno de Yucatán, Merida, 1979.

Barrera Rubio, Alfredo

“Settlement Patterns in the Uxmal Area, Yucatan, Mexico”. Paper presented at the 53rd Annual Meeting of the Society for American Archaeology, Tucson, 1978.

Barrera Vásquez, Alfredo

“El estudio del hombre y la cultura en Yucatán”. Diario del surest. Mérida, 1959.

Describes the beginnings of anthropological studies, libraries, and museums in the Yucatán and the foundation of the Centro de Estudios Mayas.

Barrera Vásquez, Alfredo

“Four Centuries of Archaeology in Yucatan: A Bibliographical Essay”. *Yucatan, A World Apart*. Eds. Edward H. Moseley and Edward D. Terry. University of Alabama Press, 1980.

In thirteen pages of text, the author presents **an impressive review of publications and unpublished studies on the archaeology of the Yucatan**, including many not noted

elsewhere. These are presented in a deeply informed text following the history of archaeological study in the Yucatan.

Barrera Vásquez, Alfredo, and Silvia Rendón

El Libro de los libros de Chilam Balam. Fondo de Cultura Económica. México, 1948 and 1965.

Benavides Castillo, Antonio

“La Arqueología en la Península de Yucatán”. *La antropología en México: Panorama histórico, 15. La antropología en el sur de México*. Volume Coordinator, Mercedes Mejía Sánchez, with collaboration of Martín Villalobos Salgado: 257-266. Coordinator General Carlos García Mora. Colección Biblioteca del INAH. México, D.F.: Instituto Nacional de Antropología e Historia, 1988.

A brief history of archaeology in the Yucatán, organized chronologically. After mention of 19th century explorers, work conducted under the auspices of the Carnegie Institution of Washington in conjunction with the Mexican government, beginning in the 1920s, is described. The major role of the Instituto Nacional de Antropología e Historia (INAH), created in 1939, included work at Uxmal, Kabah, Sayil and Labná during the 1940s and 1950s. The work of the Middle American Research Institute of Tulane University, beginning in 1955, included investigations in the Puuc. At the end of 1973, regional INAH centers were created, decentralizing the work of the national organization. For the Yucatán, the Centro Regional del Sueste was created, with headquarters in Mérida. Research for the major *Atlas arqueológico del estado de Yucatán* began in 1974 and various research and restoration projects were carried out at Uxmal, Kabah, Sayil and Labná. Includes a select bibliography.

Bennett, Robert R.

“The Ancient Maya Causeway in Yucatan”. *Indian Notes*, Vol. 7, No. 3. New York, 1930.

Blom, Frans

The Conquest of Yucatan. Boston: Houghton Mifflin Co., Riverside Press, Cambridge, 1936.

A popular and engagingly told, but authoritative account of the 16th century Spanish conquest of the Yucatan, early history of occupation, and of pre-conquest Maya civilization. Chapter 28 describes ancient Maya architecture. There are 2 photographs of Labná and 4 of Uxmal, plus a photo of the Kramer-Fair model of the Nunnery.

In describing Uxmal, Blom makes the claim for conscious perspective adjustments by Maya architects for visual effect. He writes: “The chief engineer, Mr. Robert H. Merrill, made a careful survey of the ground plan, which disclosed the astounding fact that the Maya about the year A.D. 1000 were conversant with the rules of false perspective. As one ascends the great stairway leading up to the arched entrance of the Nunnery courtyard, and enters the court, one receives the impression that the court is rectangular, but the survey showed that the east and west buildings, which form the two sides of the court, had their north ends closer together than their south ends, and

furthermore, it was found that the floor of these two temples lies three and a half feet higher toward the north than toward the south. . . It is evident that the Maya architects and engineers laid out their buildings in this way in order to center the attention of those who entered the court upon the mighty temple lying in front of them on the north terrace and to give the general impression that the courtyard looked deeper than it really was” (pp. 180-181).

Blom also provides a description and interpretation of the so-called “negative batter” in Puuc region architecture. “It was found that the elaborately carved facades had a negative batter; that is to say, were leaning slightly outward. The Maya architect undoubtedly used this little trick in order to make the different planes of his carving throw deeper shadows than if he had built the wall vertical, and these deep shadows made the figure carved in relief stand out more sharply in strong sunlight” (p. 181).

Some of the illustrations in this book are reproduced on this web site.
<http://academic.reed.edu/uxmal/galleries/thumbnails/drawings/Drawings-Leyrer-Blom.htm>

Blom, Frans Ferdinand and Oliver La Farge

Tribes and Temples: A Record of the Middle American Expedition Conducted by Tulane University in 1925. New Orleans: Tulane University Middle American Research Papers, No.1, 1926-27.

The Books of Chilam Balam

This title refers to a group of Colonial Period manuscript chronicles, written in the Yucatecan Mayan dialect using European script, adapted to the native language by 16th century Spanish missionaries. These manuscripts include information of pre-Hispanic origin concerning such things as medicinal recipes, calendar concepts, traditions and myths. Among these manuscripts, *The Book of Chilam Balam of Chumayel* provides the most reliable information because, although it dates from 1782, it is less flawed by European material than the other Books of Chilam Balam. For purposes of this web site, it is especially valuable, because it originated in a village near Uxmal, Kabah, Sayil and Labná.

The classic translation and commentary was made by Ralph L. Roy, separately listed (under Roy) and annotated in this web bibliography.

Brainerd, George W.

“The Archaeological Ceramics of Yucatán”. *University of California Anthropological Records*, No.19. Berkeley and Los Angeles: University of California Press, 1958 (reprinted Krauss Reprint Co., Millwood, New York, 1976).

Based on stratigraphic excavations, this paper was the first to provide a ceramic chronology for the Northern Lowlands.

Brainerd, George W.

“Changing Living Patterns of the Yucatan Maya”. *American Antiquity*. Vol. 22, No. 2 (Oct. 1956): 162-164.

Based on information available at the time, Brainerd **proposes important concepts regarding population density, concentrated and dispersed habitation patterns, food supplies, and leisure time**. He calls attention to characteristics that make the Puuc area especially favorable for the study of settlement patterns: “ceremonial architecture is extremely common and well preserved there; preservation is good because the region has been lightly inhabited for the last thousand years” (p. 163). He notes that “the ceramic evidence . . . suggests that the Maya camped on the main plazas as well as in the surrounding area” (p.163). More broadly, he makes the important observation that “the amassing of temple substructures . . . requires only unskilled labor. The architectural elaboration of Maya structures argues for a larger proportion of far more specialized craftsmen than does the architecture of Central Mexico – a matter of qualitative rather than quantitative strength” (p. 162).

Brainerd, George W.

“Yucatan Pottery”. *Carnegie Institutio of Washington, Yearbook No. 41: 253-257*. Washington, D.C.: Carnegie Institution of Washington, 1942.

Brasseur de Bourbourg, Charles-Étienne

“Rapport sur les ruines de Mayapan et d’Uxmal au Yucatan (Mexique)”. *Archives de la Commission Scientifique du Mexique*. Vol. 1: 234-288. Paris: Imprimerie Impériale, 1865

The drawings and double-page map of the ruins of Uxmal that illustrate this article are reproduced on this web site:

<http://academic.reed.edu/uxmal/galleries/thumbnails/drawings/Drawings-Bourbourg.htm>

This is one of the important mid-19th century publications for the study of Uxmal, including the only detailed account of the Uxmal aguadas and the largest, most detailed map of the ruins and surrounding area. Following a 15-page description of Mayapan, and an account of his trip to the hacienda at Uxmal, the author presents a 35-page report on his study of Uxmal. **Most unique is his double-page map of the ruins of Uxmal, including topography**, extending to the north temples and beyond to the hacienda of Uxmal. Most importantly, this map **includes specific shapes for 6 aguadas north and west of the main ruins, each numbered and named**. 3 bridges just north of the Nunnery are also indicated on the map and 1, titled “Natural and artificial bridge at Uxmal”, is illustrated (fig. 6). The drawing in this section are initialed “HB” and attributed by the author to a “M. Bourgeois”.

Brasseur de Bourbourg comments that, because he lacks the means to make architectural drawings like Catherwood or to take photograph like Charnay, he will apply himself to determining the original layout of Uxmal, which they had not. **His most original contribution is his description of the hydraulic system at Uxmal**. He writes that the aguadas are vast artificial basins cemented with rock and lime, the work of men, though resembling ordinary pools of the natural world. Small streams spread out from these aguadas, circulating around in deep ravines.

He then provides a remarkably detailed description of how the basins in the bottom of the aguadas were created (fig. 5 is an approximate copy of the illustration of these basins in Stephens and Catherwood). Brasseur de Bourbourg's description is based on an account from "one of the principal inhabitants of the village of Noyaxché", who had discovered one of the aguadas and wanted to clear it to provide water for the local people. He reasoned that the unhealthy environment around the aguadas was the result of the decomposition of vegetable matter that had accumulated over several centuries, because the aguadas had been abandoned by the inhabitants and neglected by the landowners, who had not had them cleared. Brasseur de Bourbourg reports in detail the clearing of several aguadas, and the number, size, shape and composition of the artificial cisterns formed in the bottom of the aguadas. His informant also reported that (in translation): "All the length of the sides of the aguadas one discovered on the far side more than 400 *casimbas*, a sort of hole pierced in the rock, into which water filtered and which were, in the same way as the cisterns, destined to give something to drink in case the aguadas were dry" (pp. 259-260).

These aguadas have been thoroughly studied for the first time by José Huchim Herrera in his thesis, *Introducción al Estudio del Sistema de Aguadas de Uxmal, Yucatán*. Tesis Profesional que para optar al título de Licenciado en Ciencias Antropológicas en la Especialidad de Arqueología. Facultas de Ciencias Antropologicas, Universidad Autónoma de Yucatán. Merida, 1991.

Brasseur de Bourbourg also describes the bridges indicated north of the Nunnery on his map, one illustrated in fig. 6. He writes that the calcium rocks now spanning the ravines has existed before the rivers were formed, as part of the hydraulic system, and that the inhabitants dug out the openings under the natural rock, thus turning them into bridges, about 6 meters long and 3 meters wide.

The author then describes the area of the Pyramid of the Magician illustrated in fig. 7, about which he writes that when the area was cleared of rocks, the column (in translation), "covered as they were in a soft layer of plaster, seemed that they had been cast just the day before, **proof that the rooms that are hidden behind rest intact and have not been profaned by any hand since they had been walled in in this way**" (pp. 274-275).

In his book, *The House of the Governor*, Jeff Kowalski provides a description of Brasseur de Bourbourg's observations regarding the Governor's Palace. "He postulated that the stone rings inside of the doorways of the House of the Governor were used to support wooden poles, from which hung fabric or mat-weave curtains. He also believed that the holes in the walls beneath the eaves served as ventilator, suggesting that the building was a habitation. . . . Brasseur was the first investigator to mention the fact that the large platform of the House of the Governor partly covers the remains of small vaulted apartments on the west side (Structures 1 and 2). He also mentions the presence of a stairway ascending to the House of the Turtles from the courtyard of these buildings (Kowalski, 1987: 20-21).

Brasseur de Bourbourg, Charles Etienne

Relation des choses de Yucatan de Diego de Landa. Paris, 1864.

Bricker, Victoria

A Morpheme Concordance to the Book of Chilam Balam of Chumayel. Middle American Research Institute, Publications 58 and 59. New Orleans: Tulane University, 1990.

Brown, Clifford T. and Walter R. T. Witschey

"Results of Survey in Central Yucatán, México". Presented at the symposium "Regional and Community Organization in the Northern Lowlands: Papers in Honor of the Life and Legacy of Ed Kurjack", at the annual meeting of the Society for American Archaeology, San Juan, Puerto Rico, April 29, 2006.

On the web at:

<http://mayagis.smv.org/papers.htm>

(accessed 2008 March 13)

The authors describe a survey they conducted July-August 1005 in the central portion of the State of Yucatán that "generally represents the eastern part of Mayapan's hinterland". They "systematically surveyed approximately 10km of transects, finding a relatively high density of rural settlement". They located about 24 "previously unreported" sites and visited a dozen "previously reported sites".

Their survey area did not include the Puuc Region, but it helps to understand "the complex boundary between Puuc and Northern Petan architectural spheres (and possibly the Chichén Itzá sphere as well)". Brown and Witschey also note that they "observed Puuc style architecture at sites like Hunactí, Cacalchen, and San Francisco (Figure 21-22) which are relatively far east". The web site includes the PowerPoint presentation from their 2006 presentation, including 11 maps and 19 photographs of structures and objects.

C

Caballero, J.

Excursion aux villes mortes du Yucatán. Chalons-sur-Saone, 1911.

Capitán, M. L.

"Modern Maya Homegardens of the Yucatan Peninsula". Paper presented at the 54th Annual Meeting of the Society for American Archaeology, April 1989. Atlanta, 1989.

Casares, D.

"A Notice on Yucatan with Some Remarks on its Water Supply". *Proceedings of the American Antiquarian Society*, n.s., Vol. 17 (1907): 207-230."

Case, Henry A.

Views on and of Yucatan; besides Notes upon Parts of the State of Campeche and the Territory of Quintana Roo; collected during a long residence in the Peninsula, by Henry A. Case. Mérida: Henry A. Case, 1911.

This book resulted from the author's 25 years residence in Mexico, during nearly 5 of which he lived in the Yucatan. Case provides useful up-to-the-date travel information for tourists, which allows us to understand the situation in the early 20th century. Nevertheless, the book is largely derivative, and the author gives full credit to previous authors, especially John L. Stephens.

In his review of previous publications, Case calls attention to the seemingly deliberate misrepresentations by Le Plongeon.

"We read that, if we may believe the reported statements [as reported by Le Plongeon] of some Central American newspapers, the names of which journals, unfortunately are not given, the truth of Dr. Le Plongeon's assertions, regarding the lost continent, have recently been, to an extent, attested by a fortunate discovery, of which the Caribbean Coast (this is decidedly vague) was the scene. In excavating a deep hole, some workmen came upon a large rock, forty feet below the surface. This huge stone was covered with hieroglyphics and engravings, which it said, gives a brief account of the sudden submergence of the vast territory, which was once situated in the wide expanse, this is now covered by a great portion of the Atlantic Ocean, the name of this gifted reader of the glyphs, is unfortunately withheld" (pp. 128-129).

Unfortunately, in his otherwise careful book, Case includes one fantastic statement of his own, without support: "the . . . archaeological treasures . . . in Yucatan, treasures which for beauty and antiquity are positively without a peer, which date back hundreds of years before the Christian era, and unquestionably before the pyramids of Egypt were built".

Nevertheless, the book is **valuable for several up-to-the-date descriptions of specific Maya architecture in the Yucatan**, and to a lesser extent for the photographs, though those of Uxmal, Kabah, Sayil, and Labná are small and contribute almost nothing new. For Uxmal there are 31 pages of text, for Kabah 12 pages, for Sayil 3, and for Labná 7. There are 18 illustrations for Uxmal, 1 for Kabah, 3 for Sayil, and 3 for Labná, none adding to already published views, especially as for none is the date or photographer identified.

The author's comments on Labná are potentially the most valuable. Confirming our present view, he writes: "The result of our researches, clearly shows that prior to the year 1834, nothing was known about this beautiful collection of ruins, the inhabitants of the nearest village having no idea of their existence, no native authority makes any allusion to them, nor can any light from any possible local source be thrown upon the group" (pp. 100-101).

Given his generally reliable descriptions of buildings in their present state, we wonder how much basis there is when he writes: "Above the cornice of the buildings, rises a gigantic wall, to the height of 30 feet, once ornamented from top to bottom, and from

one side to the other with colossal figures and other designs in stucco, now broken and in fragments, but still presenting a remarkable and unique appearance such as is safe to say the art of no other people ever produced. Along the top, standing out on the wall, was a row of death's heads, underneath were two lines of human figures in alto relief, of which scattered arms and legs only now remain" (p. 102). We easily accept his further description that "the signs are so pronounced that no doubt can possible exist, that in a year or two the remaining parts will have fallen, the wall was in our time tottering and ready to collapse, one portion had already come down, and what remained was cracked, and the fissure, more than a foot wide ran all the way to the top, its doom was sealed . . . The figures and ornaments on this wall, were panted, the remains of bright colours were still to be seen. . . ." (p. 102-103).

Castellanos, Fernando Robles, and Anthony P. Andrews

"A Review and Synthesis of Recent Postclassic Archaeology in Northern Yucatan". *Late Lowland Maya Civilization: Classic to Postclassic*, ed. Jeremy A. Sabloff and E. Wyllys Andrews V: 53-98. A School of American Research Book. Albuquerque, University of New Mexico Press, 1986.

An extensive review of its subject, including a two page summary of recent research in the Puuc region under three categories: "architectural studies, settlement pattern and ecological studies, and reports of work at Uxmal." Research in the Puuc region is also mentioned in various sections under "Topical Research."

Charnay, Claude Joseph Désiré

"Expedition au Yucatan". *Bulletin de la Société d'Anthropologie de Paris*, Vol. 10 (1887): 65-78.

Charnay, Claude Joseph Désiré

"Ma dernière expédition au Yucatan". *Le Tour du Monde*, Vol. 53 (1887): 273-320.

Charnay, Claude Joseph Désiré

Viaje a Yucatán a fines de 1886. México: Fondo Editorial de Yucatán (Ser. Cuadernos 4), 1978.

Charnay, Claude Joseph Désiré

"Voyage du Yucatan et au pays des Lacandons". *Tour du Monde*. Vol. 47-48. Paris, 1884 (Spanish translation published in *America Pintoresco*, 1884).

This series of articles includes a description of Uxmal in chapter 14.

Chase, Arlen F., and Prudence M. Rice, eds.

The Lowland Maya Postclassic. Austin: University of Texas, 1985.

Ciudad Real, Fr. Antonio.

"Relacion breve y verdadera de algunas cosas de las muchas que sucedieron al Padre Fray Alonso Ponce en las provincias de la Nueva España, siendo Comisario General de aquellas partes. Trátanse algunas particularidades de aquella tierra, y dícese su ida á ella y

vuela á España, con algo de lo que en el viaje le aconteció hasta volver á su Provincia de Castilla. Escrita por des Religiosos, sus compañeros, el uno de los cuales le acompañó desde España á Mexico, y el otro en todos los demas caminos que hizo y rabajos que pasó. Ahora por primera vez impresa. Vol. 2, pp. 455-461. *Colección de Documentos Inéditos para la Historia de España*, LVIII. 2 vols. Madrid, 1875 (2nd ed. México: UNAM, 1976).

This is **the publication of a 1588 report** by Fray Alonso de San Juan and Fray Antonio de Ciudad Real, written for the Ecclesiastical Commissary General to new Spain, Father Alonso Ponce. Saville (1921) states that “Fr. Ciudad Real unquestionably wrote the account of their travels in Yucatan, and he is unquestionably one of the great figures in the literary and ecclesiastical history of Yucatan”. **Saville also states that “The description of the buildings of Uxmal contained in this record of the travels of Ponce is one of the few sixteenth-century accounts of Mayan cities that have come down to us, and it is by far the most important and extensive”** (1921, p.70).

Saville then reprints 8 pages of the English translation published by Spinden in his *Study of Maya Art*, 1913. These **remarkable pages** include specific observations such as “on the top [of a vaulted room] one wall is separated from the other by about two feet and there they place a layer, which extends inwards four or five inches on each side, and over this they place flags or thin flat stones in a level position, and with these the arch is closed, so that there is no key to the arch”; “At the door of each of the rooms of this building [the South Building of the Nunnery] on the inside, there are four rings of stone, two on one side and two on the other,--two of them being high and two lower down and all coming out of the same wall. The Indians say that from these rings those who lived in these buildings hung curtains and portieres”; “The high lintels of all these doors were made of wood of the chico zapote, which is very strong and slow to decay, as could well be seen, since most of them were whole and sound”; “this entrance [archway in the center of the South Building] had been plastered and that on the plaster paintings had been made in blue, red and yellow color, since even now some of them remain and can be seen. Nearly all the rest of the stones had been plastered but not painted”; “There is no well there [at Uxmal], and the farmers of the vicinity carry their drinking water from some little polls of rain-water where there are in that region” (Saville, 1921, pp. 70-78).

Cogolludo, Diego López

Historia de Yucathan. Sacala a luz Francisco de Ayeta. Madrid: Juan Garcia Infanzon, 1688 (2nd and 3rd editions were published in the 19th century under other titles. An edition was published in 1954 by the Comision de Historia; Campeche, Mexico. The most recent is *Los tres siglos de la dominación Española en Yucatan o sea Historia de esta Provincia*, Graz, Austria, 1971).

This 17th century account includes brief descriptions of Uxmal, in which López de Cogolludo writes that “there was made of the same stone and remained in it [the wall] a ring as thin and handsome as can be made of gold worked in the most beautiful manner: absolute proof that they were made by perfect artists”. He provides also a description of the chapels and frighteningly steep steps of the Pyramid of the Magician.

Cohodas, M.

“Diverse Architectural Styles and the Ball Game Cult: the Late Middle Classic in Yucatan”. *Middle Classic Mesoamerica: A.D. 400-700*, ed. E. Pasztory: 86-107. New York: Columbia University, 1978.

Craine, Eugene R. and Reginald C. Reindrop.

The Codex Pérez and the Book of Chilam Balam of Mani. Norman: University of Oklahoma Press, 1979.

D

Dahlin, Bruce H.

“Climate and Prehistory on the Yucatan Peninsula”. *Climate Change*, Vol. 5 (1983): 245-263.

Dahlin, Bruce H.

“Climate Change and the End of the Classic Period in Yucatan: Resolving a Paradox”. *Ancient Mesoamerica*, Vol.13, No. 2 (2002): 327-340.

de la Garza, Mercedes, Ann Luisa Izquierdo, María del Carmen León, and Tolito Fugueroa, eds. *Relaciones histórico-geográficas de la gobernación de Yucatzán: Mérida, Valladolid y Tabasco*. 2 vols. Instituto de Investigaciones Filológicas, Centro de Estudios Mayas, Universidad Nacional Autónoma de México, D.F., 1983.

Duch Gary, Jorge

La conformación territorial del estado de Yucatán. México: Universidad Autónoma Chapingo, Centro Regional de la Península de Yucatán, Mérida, 1988.

Dunning, Nicholas P.

“Twisted Ropes: Rulership, Geomancy, and Territory in Prehispanic Yucatan”. Paper presented at the Annual Meeting of the Association of American Geographers, March 1989. Baltimore, 1989.

E

Echánove Trujillo, Carlos A., ed.; Ernesto Novelo Torres, Gobierno del Estado

Enciclopedia Yucatanense. Vol. 2, Época Maya. Mexico, D.F.: Edición Oficial del Gobierno de Yucatán, 1945.

A comprehensive, 575 page volume, including sections on the history of the ancient Maya; their social, religious, political, and economic organization, music, literature and medicine; hieroglyphic writing, arithmetic, and astronomy; and on ceramics. There are also two sections by Enrique Juan Palacios; one section on architecture, sculpture, painting, goldsmith and lapidary work; the other section an archaeological guide to Chacmultun, Labna, Sayil, Kabah, Uxmal, Chichen-Itza and Tulum. The caption to a photograph of a sculpture (which I have not seen illustrated elsewhere) describes it as a plaster reproduction of a sculpture fitted into the Palace of the Governor.

The following two sections are separately listed and annotated in this web bibliography:

Palacios, Enrique Juan, "Arquitectura, Escultura, Pintura, Orfebrería y Lapidaria".

Palacios, Enrique Juan, "Guía arqueológica de Chacmultún, Labná, Sayil, Kabah, Uxmal, Chichén-itzá y Tulum"

Edmonson, Munro S.

Heaven Born Merida and its Destiny: the Book of Chilam Balam of Chumayel. Austin: University of Texas, 1986.

Erosa Peniche, Jose

Guía de Uxmal. Mérida, Yucatán, 1942.

F

Finch, W. A., Jr.

The Karst Landscape of Yucatan. Unpublished Ph.D. dissertation. Champaign-Urbana: University of Illinois.

Freidel, David A.

"Children of Father's First Skull: Terminal Classic Warfare in the Northern Maya Lowlands and the Transformation of Kingship and Elite Hierarchies". Diane Z. Chase and Arlen F. Chase, *Mesoamerican Elites: An Archaeological Assessment*, Norman: University of Oklahoma Press, 1992: 99-117.

Freidel, David A.

"Continuity and Disjunction: Late Postclassic Settlement Patterns in Northern Yucatan". *Lowland Maya Settlement Patterns*, ed. Wendy Ashmore: 311-332. Albuquerque, 1981.

Friedrichstal, Emmanuel de

Les monuments de Yucatan. 1841.

G

Gallareta Negrón, and William Ringle

“Sociedad, agua y tierra en el norte de Yucatán: Ek Balam, Labná, Kiuic y Komchén, del Preclásico al Clásico”. Invited paper, *Naturaleza, Naturaleza y Sociedad en el Área Maya*. CICY/ Academia Mexicana de Ciencias, Mérida, Yucatán, México, 2002.

García Campillo, José Miguel

“Antroponimia y Toponimia en las Inscripciones Mayas Clásicas de Yucatán”. Ph.D. dissertation, Universidad Complutense de Madrid.

García Campillo, José Miguel

El modelo de gravedad en arqueología especial: problemas y resultados de su aplicación al periodo clásico maya del norte de Yucatán. Manuscript on file, Departamento de América, Universidad Complutense de Madrid, Madrid.

Garza Tarazona de González, Silvia, and Edward Barna Kurjack Bacso

Atlas Arqueológico del Estado de Yucatán. 2 vols. México, D.F.: Instituto Nacional de Antropología e Historia, Centro Regional del Sureste, 1980.

The result of a landmark, large scale, multi-year project, this study attempts, for the first time, to find and locate all archaeological remains in the Yucatan, some previously unknown to archaeologists or local inhabitant.

In **Vol. 1**, the three procedures used are described in detail: (1) a review of all previous literature on the subject; (2) aerial photography, especially useful in the Yucatan because of the low vegetation; (3) on site consultation with local residents and site caretakers. The sites were plotted on eighteen maps at a scale of 1 to 100,000 and were rated four, three, two, or one star, depending on the area taken up by each site. All known references to each site are listed in the site catalogue. In addition, there are three chapter of text on aspects of settlement patterns. The first deals with forms such as platforms, construction techniques and procedures, rubble-core construction, pyramids, property walls, internal roads, intersite roads, fortifications. The second, the most central to the text, deals with the forms and extent of the communities, emphasizing the regional level and proposing that political boundaries of the ancient Maya in the Yucatan were probably more subtle and complex than in 20th century nation states. The third provides an integrated summary. There are twenty-six photographs, nearly all aerial views, full-page, grey scale, and four diagrams. Many of these are highly informative. It is rare to find so many different types of usefully organized indexes. Of the 26 photographs, 2 are of Uxmal (fig. 6a of Uxmal is reversed right-left), 1 of Kabah, 1 of Sayil, and 3 of Labná.

Vol. 2 is a horizontal, large format, softbound volume, 12 ¾ x 17 ¾ inches, to permit **large maps**. There are 18 pages of maps (Uxmal, Kabah, Sayil, and Labná are

included on no. 11), reproduced at a scale of 1: 100 000. Symbols indicate rank 1, 2, 3, and 4 sites, and sacbe.

Garza Tarazona de González, Silvia, and Edward Barna Kurjack

“Organización territorial de los antiguos mayas peninsulares,” a paper presented at the XVII Mesa Redonda de la Sociedad Mexicana de Antropología held at San Cristobal de las Casas, Chiapas, Mexico.

Gendrop, Paul

“Algunos aspectos sintéticos del libro “Los estilos Río Bec, Chenes y Puuc en la arquitectura Maya”. *Arquitectura y arqueología: Metodologías en la cronología de Yucatán*, Vol. 2, No. 8 (1985): 41-50. Mexico, D.F., 1985.

Gendrop, Paul

“Dragon-Mouth Entrances: Zoomorphic Portals in the Architecture of Central Yucatán”. *Third Palenque Round Table, 1978*, Part 2: 138-150. Merle Greene Robertson, ed. Austin: University of Texas Press, 1980.

Detailed study of the famous zoomorphic portals so prevalent in the central Yucatán. Gendrop describes them in detail and reviews the considerable range of these portals by types of buildings on which they appear, regional location, etc. He argues that these portals, traditionally considered Chenes, may instead have originated in the Río Bec region. Of special importance for the Puuc region is his discussion of the “Masks of Chaac” (pp.146-147). He writes that “in no other region has the mask been so intimately associated with Maya architecture as in the central Yucatán Peninsula. . . . Such is the case, in particular, of the mask which has been traditionally identified as representative of the god Chaac, the large-nosed Maya god of rain.” In this discussion he mentions the Great Pyramid, House of the Governor, and Quadrangle of the Nuns, Uxmal, the Codz Poop, Kabah, and the Western Group of the Palace of Labná.

Gendrop, Paul

Los Estilos Río Bec, Chenes y Puuc en la arquitectura Maya. México: Universidad Nacional Autónoma de México; Facultad de Arquitectura-Division de Estudios de Posgrado, 1983. (Published in English as *Río Bec, Chenes, and Puuc Styles in Maya Architecture*, trans. Robert D. Wood. Lancaster, California: Labyrinthos, 1998.)

The emphasis throughout the book is on the chronological and regional progression of stylistic characteristics. Gendrop’s reconstruction of this development is based on detailed identification of stylistic characteristics and the assumption that they were developed in more or less rational order: simpler to more complex, tentative origins to more fully developed examples. Through this time-tested art historical method, Gendrop presents convincing evidence to support his belief that many architectural forms and motifs that characterize Puuc style originated in the Río Bec region, arriving in the Puuc by way of the Chenes region. Because he had studied these closely related styles, he was able to identify, as no other author had, what is distinctive and especially what is innovative and unique about Puuc architecture. Four of the book’s fourteen sections are devoted to stages of Puuc style development. Because he is

meticulous in his descriptions, the writing is dense but well worth the effort to read carefully.

The book is notable for its detailed observations with accompanying drawings and photographs. **Of special note are the author's splendid descriptions of the aesthetic quality of Puuc architecture as part of the structure's historical context.** Note this brief excerpt from his three paragraph description of the famous Kabah arch: "the principle of the corbelled vault was conceived only as a system of construction for roofing interior spaces Here, on the other hand, the vault is used intentionally as a powerful formal resource penetrating the façade from one side to the other and opening plainly to the outside" (p.190). Or note this comment on the East Building of the Nunnery Quadrangle: "As seems to be the rule in the majority of the large buildings of this late phase at Uxmal, the square doorways have a recessed frame, an element that gives both a touch of lightness and a distinctive appearance to the architecture of this city" (p.197). **These formal observations, which can successfully stand on their own, are sometimes connected to interpretations of social use and meaning,** as here: "We should likewise note the especially elaborate volumetric concept of the access stairway to this building, which suggests the existence of ceremonies that required an extremely complex protocol" (p.187). There is a brief glossary and an excellent bibliography, including many references not mentioned in other publications.

Gendrop, Paul

Río Bec, Chenes, and Puuc Styles in Maya Architecture. Translated by Robert D. Wood. Edited with a foreword by George F. Andrews. Lancaster, CA: Labyrinthos, 1998.

A translation of Gendrop's 1983 volume *Los Estilos Río Bec, Chenes y Puuc en la arquitectura Maya* (México: Universidad Nacional Autónoma de México; Facultad de Arquitectura-Division de Estudios de Posgrado), separately listed and annotated in this web bibliography. In this new publication, the photographs are reproduced less clearly. In his foreword, George Andrews writes that Gendrop's work "still stands as the most comprehensive effort to date to reveal those cultural interactions that culminated in the development of the Chenes and later Puuc architectural style . . . from their beginnings in the earlier Río Bec region" (p. viii).

Gonzales Licón, Ernesto

Los Mayas de la Gruta de Loltun, Yucatán. México, D.F., 1986.

Greene Robertson, Edward B. Kurjack, and Ruben Maldonado C.

"Ballcourts of the Northern Maya Lowlands". *The Mesoamerican Ballgame*, ed. Vernon Scasborough and David Wilcox. 1991.

Grube, Nikolai

"Hieroglyphic Inscriptions from Northwest Yucatán: An Update of Recent Research". *Escondido en la Selva: Arqueología en el norte de Yucatán.* Segundo Simposia Teoberto Maler, Bonn 2000. Ed. Hanns J. Prem. Bonn: Universidad de Bonn; and Instituto Nacional de Antropología e Historia, México, D.F., 2003: 339-370.

Grube, Nikolai

“Hieroglyphic Sources for the History of Northwest Yucatan”. *Hidden among the Hills: Maya Archaeology of the Northwest Yucatan Peninsula*, ed. Hanns J. Prem. Möckmühl, Germany, 1994: 316-358.

Gubler, Ruth, ed.

Land of the Turkey and the Deer: Recent Research in Yucatan. Lancaster, CA: Labyrinthos, 1999.

Ten papers from the Fourth Miami Conference, November 1995, focusing on the Yucatan. In his paper “The Palace at Santa Rosa Xtampak, George Andrews points out that this remarkable palace “appears to have been conceived as a three-story structure right at the outset” and that “the architectural, construction, and decorative features of the rooms on all levels are remarkably consistent and there are no significant stylistic differences of any kind”. Andrews contrast this with the Palace at Sayil, only 40 km. to the north, which “is the result of at least five separate additions and/or superimpositions, involving three different architectural styles” (p.21).

The following paper is separately listed and annotated in this web bibliography:
Gallareta Negrón, Tomás, Lourdes Toscano Hernández, Carlos Pérez Alvarez, and Carlos Peraza L., “Proyecto Labná, Yucatán, México“

H

Harrison, A. L., and Robert Wauchope, eds.

Archaeological Investigations on the Yucatan Peninsula. Middle American Research Institute, Publication 31. New Orleans: Tulane University, 1974.

Herrmann, Andreas

Auf den Spuren der Maya: Eine Fotodokumentation von Teobert Maler (1842-1917). Foreword Rainer Springhorn, publisher, 1989. Graz: Akademische Druck-und Verlagsanstalt, 1992.

In his forward, Rainer Springhorn, Director of the Museum, describes the important, previously little-known, collection of Maler material in the Lippischen Landsmuseum, Detmold, Germany. He provides a detailed account of the origin of the collection, resulting from the association of Maler with Otto Rosenkranz, the German consul in Merida, where he met Maler. They became hunting companions and friends, and Rosenkranz began collecting Maler’s photographs and other material, most acquired after Maler’s return to German. In 1926 Rosenkranz founded the ethnographic collection at Detmold, including the material collected from Maler. 321 of these photographs have inscriptions in Maler’s distinctive hand. Springhorn selected 169 of

these for publication in this volume. The text, by Andreas Herrmann, describes Maler's significance as discoverer, photographer, and draughtsman, including his important 3 volume manuscript which Maler titled *Península Yucatán*. There are extensive quotes from Maler's letters. The photographs reproduced are of exceptionally high quality; 9 of Uxmal, 4 of Kabah, 2 of Sayil, and 3 of Labná.

Hissink, Karin

Masken als Fassadenschmuck: Untersucht an den alten Bauten der Halbinsel Yukatan. Akademische Abhandlungen zur Kulturgeschichte Vol. 3, No. 2. Strasbourg: Sammlung Heitz, 1934.

Holmes, William Henry

Archaeological Studies among the Ancient Cities of Mexico, Publication 8, Anthropological Series, Vol.1 of 2, No.1. Part I, *Monuments of Yucatan*. Chicago: Field Columbian Museum, 1895.

[Holmes' images of Uxmal and closely related comparative images are reproduced on this web site.](#)

Based partly on visits in 1884 and in 1894-95, this booklet publishes Holmes' description of the "Ruins of Eastern Yucatan" and "Ruins of Middle Northern Yucatan" including Uxmal. The Introduction consists of a pioneering and still valuable description of Maya construction and physical remains including: function of buildings; architect and his plan; instruments of precision; orientation and assemblage; building materials; transportation; stone cutting and sculpture; masonry, stucco work and painting; substructures; stairways; superstructures; wall surfaces; ceilings, roofs, etc.; doorways and other wall openings; columns and pillars; the arch; ornament; and hieroglyphs. As part of this description, Holmes provides his own diagrams of terraces and pyramids; ground plans of Maya temples; examples of Maya buildings; cord holders and dumb sheaves; transverse section of an ordinary Yucatec building; interior doorways; exterior doorways; minor wall openings; and examples of Maya arches. These have been regularly reproduced in 20th century publications on the Maya.

His relatively brief descriptions of the major buildings at Uxmal include his own diagrams of cross-sections of Temples IV and V of the Pyramid of the Magician and of the Governor's Palace, and a "sketch-map" of Uxmal. Most valuable, Holmes provides a 67.3 cm. (26 1/2 inch) foldout drawing of a panorama of the major structures of Uxmal as if seen from slightly above and behind the North Building of the Nunnery Quadrangle. Based on his own sketches on site, this drawing still provides an exceptionally useful panorama of the Uxmal landscape and 1895 condition of the major buildings. There are three photographs taken by his expedition of the central frieze of the Governor's Palace, the Dovecote, and plaster cast of an inscribed column.

I

Ispording, Wayne C.

“The Physical Geology of Yucatan”. *Gulf Coast Association of Geological Societies, Transaction*, Vol. 25 (1975): 231-62.

K

Kelly, Joyce

An Archaeological Guide to Mexico's Yucatán Peninsula. Photographs by Jerry Kelly and the Author. Norman and London: University of Oklahoma Press, 1993.

By far **the most comprehensive and informative guidebook to Maya sites in the Yucatan**, describing 91 sites and 8 archaeological museums, all of which the author had visited. Although intended for the public and including some practical information, the book is **primarily an archaeological guide, not limited to the few well-known structures**. The information has been well researched and was up-to-date when published. Unlike the diagrammatic maps in most guides, these are accurate. About 19 Puuc Region sites are described. For Uxmal there are 15 pages, for Kabah 8, for Sayil 12, and 8 for Labná; in each case about 1/3 text.

Kowalski, Jeffrey Karl

“Collaboration and Conflict: An Interpretation of the Relationship between Uxmal and Chichen Itza during the Terminal Classic / Early Postclassic Periods”. Paper presented in the Second Maler Symposium on the Archaeology of Northwestern Yucatan, 3-8 July 2000, Bonn, Germany. Organized by Hanns J. Prem. Published in *Escondido en la selva arqueología en el norte de Yucatan*, ed. Hanns J. Prem. Mexico, D.F.: Instituto Nacional de Antropología e Historia; Universidad de Bonn, 2003: 235-272.

Kowalski provides a thorough review of alternative theories in previous scholarship about the Uxmal-Chichén Itzá relationship, describing the evidence in detail. He writes that “Nicholas Dunning and I have proposed that Uxmal’s ruler “Lord Chaak” established a formal military alliance with the Itzá during the Terminal Classic period” (p. 243). Then, importantly, he writes that “it seems much less plausible that the feathered serpents on the West Structure [of the Nunnery] represent ‘late additions’, but rather than they formed part of the original conception for the façade sculpture” (p. 245). Kowalski writes that “I basically agree with Reindel’s [1998] interpretation of the processes involved in the disruption of centralized power in the Puuc region”, however claiming that, most likely, “the dissolution of local political authority at these major Puuc cities . . . involved at least some military encounters that effectively resulted in the conquest of these sites’ (p. 271). **The article is filled with specific details, carefully described and interpreted.**

Kowalski, Jeff Karl

“Evidence for the Functions and Meanings of Some Northern Maya Palaces”. *Maya Palaces and Elite Residences: An Interdisciplinary Approach*, ed. Jessica Joyce Christie: Chapter 8: 204-252. Austin: University of Texas Press, 2003.

Kowalski discusses “evidence regarding the possible uses, symbolic significance, and sociocultural roles of palace architecture at several sites in the northern Maya area” (p.204). These include 11 pages on Uxmal, 4 on Sayil, and 2 on Labná. Kowalski notes the evidence for thinking that the **House of the Governor at Uxmal** was used for multiple functions. “The existence of several collapsed *chultunes* on its terrace, support the idea that some of its chambers were occupied by members of the royal family on a continuous basis. However, it should also be noted that the scale and formality of the structure, coupled with its placement on a broad platform that could have accommodated thousands of people, would support the idea that it had a predominantly public, nonresidential function. An argument can be made that the building also may have been a local version of a Popol Nah, where the ruler met in council with his subordinate lords to discuss affairs of state and plan community festivals” (p.214). He notes that “the exceptionally formal character of the **Nunnery Quadrangle**, the abundance of its architectural sculpture, and the fact that no *chultunes* have been located within or nearby support the idea that this was a nonresidential courtyard. . . .” (pp.218-219), agreeing with Ringle and Bey (2001, p.281) that the Nunnery Quadrangle was “the primary meeting place for the Uxmal court; [and] by extension, certain quadrangles probably played a similar function at other sites” (p.220). Correspondingly, he concludes that **the large, multiroom palaces at Sayil and Labná** “were probably residences for extended elite families and their retainers, while other multiroom vaulted buildings [at these two sites, that are more comparable to the Uxmal Nunnery] may have served more public administrative purposes or meeting places for local councils” (p.239).

Kowalski, Jeff Karl

“Painted Architecture in the Northern Maya Area”. *Painted Architecture and Polychrome Monumental Sculpture in Mesoamerica. A Symposium at Dumbarton Oaks, 10th to 11th October 1981*: 51-90, color plates 3-5. Washington, D.C.: Dumbarton Oaks Research Library and Collection, 1985.

Kowalski reviews the evidence for paint on buildings in the Central and Northern Yucatan, from the Preclassic to the Terminal Classic periods. He examines evidence from “statements of early Spanish historians, records of early explorers, archaeological site reports, and a detailed examination of preserved paint on facades” (p.51). These different sources provide extensive evidence not only that many of these buildings were painted with a wide range of colors, but also for the range of treatments. **Especially instructive evidence is provided by a mural painting at Chacmultun, including a detail of a building façade painted brilliant red and green** (fig. 13, unfortunately grey-scale). For the Puuc Region, Kowalski specifies all or nearly all of the most notable color remains, with 6 illustrations from Uxmal, 1 from Sayil, and 1 from Labná. Most notable, perhaps, is the color photograph (plate 5) of the stucco head in the collection of the National Museum of the American Indian (Heye

Collection), said to have come from the House of the Governor, Uxmal. This high quality, portrait-like head with modulated color suggests that our view of Puuc sculpture is severely limited by the tragic loss of nearly all stucco sculpture, much of which may have been figurative, realistic, and painted.

Photographs of “Paint and Plaster Remains” are reproduced on this web site:
<http://academic.reed.edu/uxmal/galleries/thumbnails/other/Other-PP.htm>

Kowalski, Jeff Karl

“The Relationship between Chichen Itzá, Uxmal, and the Puuc Area”. Paper given at the 47th International Congress of Americanists, New Orleans, 1991. Brief summary in session report by Edward B. Kurjack, in *Five Hundred Years after Columbus: Proceedings of the 47th International Congress of Americanists*, compiled E. Wyllys Andrews V and Elizabeth Oster Mozillo; New Orleans: Tulane University, Publication 63 (1994): 66.

Kowalski, Jeffrey Karl

“What’s Toltec and What’s Maya at Uxmal and Chichén Itzá? Merging Mayan and Mesoamerican Worldviews and World Systems in Terminal Classic / Early Postclassic Yucatán”. Paper presented at the colloquium “Rethinking Chichen Itzá, Tula, and Tollan”, February 19-20, 2000, Dumbarton Oaks Research Library and Collections, Washington, D.C. Organized by Charles Kriistan-Graham and Jeff K. Kowalski.

Kowalski, Jeff Karl

“Who Am I Among the Itza?: Links Between Northern Yucatan and the Western Maya Lowlands and Highlands”. *Mesoamerica After the Decline of Teotihuacan, A.D. 700-900*, ed. Richard Diehl and Janet Catherine. Washington, D. C.: Dumbarton Oaks Research Library and Collections, 1989: 183-185.

Kurjack, Edward B.

“Distribution of pre-Columbian architecture in North-western Yucatan, Mexico.” Paper presented at the 41st International Congress of Americanists, Mexico, D.F., 1974.

Kurjack, Edward B.

“Palace and Society in the Northern Lowlands”. *Maya Palaces and Elite Residences: An Interdisciplinary Approach*, ed. Jessica Joyce Christie: 274-290. Austin: University of Texas Press, 2003.

Kurjack compares the “material, social, and ideological patterns” of elite with commoner dwellings. Based on his extensive understanding of stratified societies and their architecture, the author presents carefully reasoned, specific observations based on the physical remains of Maya sites in the Northern Lowlands. For the most part the article does not deal with individual sites, but there is one page in which Kurjack describes Labná as an example. He provides important warnings about the inadequacy of evidence, the collapse of so many buildings, the fact that buildings were regularly constructed on top of previous buildings so that our evidence is largely confined to the last stage of each building, and the fact that so little research has been carried out on “where people cooked, bathed, and disposed of wastes” (p.278). His

conclusion notes that we will better understand “the substance of pre-Columbian Maya life” when “the combination of endeavors carried out in these elite dwellings” has been more adequately researched (p.288).

Kurjack, Edward B.

Political Geography of the Yucatecan Hill Country”. *Hidden among the Hills: Maya Archaeology of the Northwest Yucatan Peninsula; Acta Mesoamericana*, Vol.7, ed. Hanns J. Prem: 308-315. First Maler Symposium, Bonn, 1990. Möckmühl, Germany: Verlag von Flemming, 1994 (2nd ed. 1999).

between human behavior and the design of individual buildings, groupings, and overall design of communities, the author suggests conclusions regarding the social and political organization of Puuc society. **Kurjack is especially interested in ways in which the archaeological remains of Puuc sites indicate different types of social and political organization than those of other Maya groups.** For example, he writes that “two prominent features at Puuc archaeological sites – large, multi-chambered ‘palaces’ and the causeways (*sacbeob*) that often link these buildings – suggest a distinctive type of lowland Maya societal arrangement’ (p. 308). Especially interesting is Kurjack’s description of basic characteristics of Puuc domestic huts and their groupings and what these indicate regarding Puuc societal relationships. About Puuc elite palaces he asks “Why did the Maya elite concentrate their relatives in the exaggerated manner indicated by buildings such as the Sayil palace?” (p. 313). He suggests possible answers to some of these questions.

Kurjack, Edward B.

“Pre-Columbian polities and communities in northwest Yucatan, Mexico”. Paper presented at the 41st annual meeting of the Society for American Archaeology, St Louis, 1976.

Kurjack, Edward B. and E. Wyllys Andrews V.

“Early Boundary Maintenance in Northwest Yucatán, Mexico”. *American Antiquity*, Vol. 41, No. 3 (July 1976): 310—325.

A thorough, revealing **study of causeways and defensive walls at Maya sites in Northwest Yucatan.** Using new, early 1970s, aerial photograph, the authors discovered walls surrounding 3 sites: Cucá, where they are best preserved, Aké and Muna. In addition, **causeways were discovered connecting satellite communities with major centers.** The causeways are interpreted as dating from the Classic Period and the walls from the Terminal Classic (Pure Florescent) Period, indicating **an increase in the severity of boundary maintenance.** The authors provide persuasive interpretations of the social and ecological changes these indicate.

Kurjack, Edward B., and Silvia Garza T. de González

“Pre-Columbian Community Form and Distribution in the Northern Maya Area”. *Lowland Maya Settlement Patterns*, ed. Wendy Ashmore: 287-309. Albuquerque: University of New Mexico Press, School of American Research Seminar Series, 1981.

Kurjack, Edward B., and Silvia Garza T. de González

“Una vision de la geografía humana en la región serrana de Yucatán”. *Memoria del Congreso Interno 1979*: 39-54. Centro Regional del Sureste Mexico, D.F.: Instituto Nacional de Antropología e Historia, 1981.

Kurjack, Edward B., Silvia Garza T. de González, and Jerry Lucas

“Archaeological Settlement Patterns and Modern Geography in the Hill Region of Yucatan”. *The Puuc: New Perspectives*, ed. Lawrence Mills. Scholarly Studies in the Liberal Arts, No.1: 36-45. Pella, Iowa: Central College, 1979.

Kurjack, Edward B., Ruben Maldonado C., and Merle Greene Robertson

“Ballcourts of the Northern Maya Lowlands”. *The Mesoamerican Ballgame*, ed. Vernon Scarborough and David R. Wilcox: 145-159. Tucson: University of Arizona Press, 1991.

Images of the Ballcourt at Uxmal are reproduced on this web site.

<http://academic.reed.edu/uxmal/galleries/thumbnails/uxmal/uxmal-ballcourt.htm>

After reviewing the evolution of various, partially conflicting, scholarly theories about the Pre-Columbian ball game, the authors **survey northern Maya ballcourts, describing those at Chichén Itzá and Uxmal in detail**. For Uxmal, they provide a detailed chronology of excavation discoveries and scholarly interpretations, aimed especially at examining the role of diffusion in Mesoamerica and “to elucidate the chronological position of the ballcourt at Uxmal” in relation to those at other near-by sites, especially the Great Ball Court at Chichén Itzá. They conclude that “Seriation of form, dimension, and height of these Puuc ballcourts suggests a sequence that approaches the characteristics of the Great Ball Court at Chichen Itzá. The Uxmal court appears transitional between the high-walled Great Court and lower structures at Sayil, Oxkintok, Tzum, and Xculoc’ (p. 157).

L

Landa, Diego de

Relación de las cosas de Yucatán, México. Texte Espagnol & Traduction Francaise en Regard, Comprenant les Signes du Calendrier et de l’Alphabet Hieroglyphique de lan Langue Maya . . . Avec une Grammaire & Vocabulaire . . . par Brasseur de Bourbourg. Paris: Auguste Durand, 1864.

This was **the first publication of a manuscript written in 1566, by Fray Diego de Landa**. This first publication appeared also as a French translation. Landa was a disastrously overzealous Franciscan missionary, with authority in the Yucatan, who was recalled to Spain and wrote this account while there. After years of obscurity, a copy of a portion of the manuscript was rediscovered by Brasseur de Bourbourg in the archives of the Academia de la Historie, the Royal Library of Madrid, and published as here listed in

1864. It is the classic source of information about many aspects of Maya society and culture. There have been several later translations, a few listed below.

Landa, Diego de

Landa's Relación de las Cosas de Yucatean. Trans. and ed. Alfred M. Tozzer. Papers of the Peabody Museum of Archaeology and Ethnology, Vol. 18. Cambridge, Mass.: Harvard University, 1941 (reprinted by Kraus Reprint, New York, 1966).

This is one of the most extraordinary publications in all of Maya studies, the landmark scholarly publication of Landa's *Relación*, joined with in-depth analysis and commentary by Alfred Tozzer.

Landa's text is here translated into English by a combination of scholars. Landa's original manuscript is unknown to have survived. A copy by at least three different hands was discovered by Abbé Brasseur de Bourbourg and published in 1864. Although uneven, the copy is the most informative account of the pre-colonial Maya that has survived.

Landa's text provides information on nearly all aspect of Maya society and culture. About architecture he writes: "there are in Yucatan many edifices of great beauty, this being the most outstanding of all things in the Indies". Unfortunately only five pages deal at all with architecture and no Puuc building is mentioned. Landa does provide a plan of the "principal edifice" at Chichen Itzá.

This is an approximately 400 page volume, each page with 2 columns of detailed information. There are "eleven hundred fifty odd notes . . . [some being] short essays on subjects touched upon by Landa". There is also a remarkable 91 page "Syllabus", a "catalogue raisonne of all the wide range of topics considered either in Landa or in the comments by the author" (p. ix).

Landa, Diego de

Relación de las cosas de Yucatán. Intro. and notes, Miguel Rivera Dorado. *Cronicas de America* 7. Madrid: Historia 16, 1985 (paperback).

This editor provides a 28 page introduction and extensive notes throughout.

Landa, Diego de

The Maya: Diego de Landa's Account of the Affairs of Yucatán. Ed. and trans. A. R. Pagden. Chicago: J. Philip O'Hare, Inc., 1975.

Pagden provides a 16 page introduction, endnotes and bibliography. The introduction includes a survey of Landa's life (1524-1579), a description of the inquisition he conducted in the Yucatán to stamp out "idolatry", and a description of Landa's writing of the original *Relación de las cosas de Yucatán* in Spain, presumably based on notes brought back from the Yucatán. Pagden describes several previous translations, noting the stylistic and linguistic aberrations that make all translations partly problematic.

Landa, Diego de

Yucatan before and after the Conquest, by Friar Diego de Landa, with other related documents, maps and illustrations. Trans. with notes, William Gates. Baltimore: The Maya Society, Pub. No. 20, 1937 (reprinted by Dover, paperback, 1978).

Available on the web at:

<http://www.sacred-texts.com/nam/maya/ybac/index.htm>
accessed 2007 Nov. 27).

Convenient, inexpensive paperback. The section on “Provinces of Yucatan: Its Principal Ancient Structures” is on pages 8-11; the section on “Construction of Houses of the Yucatan” is on page 32; but neither mention any Puuc cities.

Le Plongeon, Alice Dixon

Dr. Le Plongeon’s latest and most important discoveries among the ruined cities of Yucatan”. *Scientific American*. Supplement 448 (3 August 1884): 7143-7144.

Le Plongeon, Alice Dixon

“Here and There in Yucatan: Miscellanies.” New York: J. W. Bolton, 1886

(Spanish translation by Stella Mastrangelo. *Aquí y Allá en Yucatán*. Prologue by Lawrence G. Desmond and Jaime Litvak King. México: Mirada Viajera, 2001.

This 2001 prologue is on the web at:

<http://maya.csuhayward.edu/archaeoplanet/LgdPage/HereThereIntro.htm>
(accessed 2007 May 22).

Le Plongeon, Alice Dixon

“The Old and the New in Yucatan”. *Harper’s Monthly* (Feb. 1885): pp. 372-386. New York, 1885.

Includes a description and 3 photographs of Uxmal.

Le Plongeon, Alice Dixon

“Ruined Uxmal” *The World* (N.Y.), June 27, 1881: 1- 2; July 18, 1881: 2.

Le Plongeon, Alice Dixon

A manuscript journal in English, carefully handwritten in ink, by Alice Dixon Le Plongeon, acquired in 2004 by the Getty Research Institute (2004.17.18; Box 6, F.10). There are 336 numbered pages, the first dated “July 1873”. The journal was acquired by the GRI from Leigh J. McCloskey.

This journal was never published. A scholarly edition, with major commentary, is being prepared by Lawrence Desmond, forthcoming from the University of New Mexico Press.

The journal is an impressively informative account of her travels and explorations with her husband, Augustus Le Plongeon. It includes descriptions of practical details of their travels and of the Indians with whom they came in contact, showing the Le Plongeon to have been impressively aware of and attentive to local customs. For

purposes of this web site, the journal is especially important for information about the ruins visited, their surveying and photography of them.

There are 36 pages of text on Uxmal (pp. 218-255), page 222 dated "Uxmal 1876 May", page 255 dated "Uxmal 1876 August".

Le Plongeon, Alice Dixon

Yucatan. Its Ancient Palaces and Modern Cities. Life and Customs of the Aborigines by Alice D. Le Plongeon. New York.

"Entered according to an act of Congress the 18th of June in the year 1884, by Alice D. le Plongeon, in the office of the Librarian of Congress at Washington, D.C."

A typed manuscript in English, by Alice Dixon Le Plongeon, acquired in 2004 by the Getty Research Institute (2004.17.18; Box 6, F.19). The typed manuscript was acquired by the GRI from Leigh J. McCloskey. There are 535 pages; pages 370-458 are on Uxmal.

This typed manuscript, based on Alice Dixon Le Plongeon's handwritten journal, was never published. A scholarly edition of the journal, with major commentary, is being prepared by Lawrence Desmond, forthcoming from the University of New Mexico Press.

A selection of photographs by Augustus and Alice Dixon LePlongeon, taken 1873-1881, in the collection of the Getty Research Institute, are reproduced on this web site.
<http://academic.reed.edu/uxmal/galleries/thumbnails/drawings/Drawings-LePlongeon.htm>

Le Plongeon, Augustus

"Archaeological Communication on Yucatan". *Proceedings of the American Antiquarian Society*, No. 72: 65-75.

Le Plongeon, Augustus

"Dry Plates in Yucatan". *Photographic Times and American Photographer*. Vol. 12, No. 37 (1882): 143.

Lizana, Bernardo de

Historia de Yucatan. Ed. Félix Jiménez Villalba. Madrid: Historia 16, 1988 (paperback).

The editor provides a 21 page introduction and notes throughout.

Lizana, Bernardo de

Historia de Yucatan. Devocionario de Nuestra Señora de Izamal y conquista espiritual. México: Museo Nacional de México, 1893 (orig. pub. 1633).

M

Maler, Teobert

Album fotográfico. 3 vols. Mérida: Biblioteca Carrillo y Ancona, n.d.

Maler, Teobert

Península Yucatán: Aus dem Nachlass Herausgegeben, ed. Hanns J. Prem, with contributions by Ian Graham. Monumenta Americana Herausgegeben vom Ibero-Amerikanischen Institut Preussischer Kulturbesitz Schriftleitung: Peter Masson, Vol. V. Berlin: Gebr. Mann Verlag, 1997.

A monumental, landmark study of Maya sites in the Yucatán by the great German-Austrian scholar, Teobert Maler (1842-1917). This is a superbly produced, four hundred page volume, published in its original German. The **previously unpublished material** includes Maler's manuscript papers, with diagrams and sketches, housed in the Ibero-Amerikanischen Institut, Berlin, and Maler's previously unpublished photographs, housed in the Museum für Völkerkunde, Hamburg (significant collections of his photographs are also at the Ibero-Amerikanischen Institut, Berlin; Peabody Museum of Archaeology & Ethnology, Harvard University, Cambridge, Massachusetts; and the Bibliothèque Nationale, Paris). Maler had given his important collection of negatives to the INAH [the 1980 *Atlas Arqueológico del Estado de Yucatán*, vol.1, p.238, lists "Album fotográfico (3 volumen) en la Biblioteca Carrillo y Ancona. Merida"]].

Maler's notes and photographs for Kabah, Labná, and Sayil are based on a visit between December 1886 and February 1887. His notes and photographs for Uxmal derive from a visit in March 1893. For each site, Maler includes a brief diary of his travels, descriptions of individual buildings with detailed ground plans of major structures, and sketches of architectural and sculptural details. The Uxmal text describes only 4 buildings with 3 ground plans and none of his Uxmal photographs are included. Maler's extensive studies of Uxmal have been published elsewhere and many of his Uxmal photographs were reproduced in Eduard Seler's 1917 publication. For Kabah there are 23 photographs, descriptions of 24 structures with 8 ground plans. For Labná, there are 29 photographs, descriptions of 5 structures with 6 ground plans. For Sayil there are 18 photographs, descriptions of 5 structures with 2 ground plans. The photographs include views and details not photographed by other nineteenth century photographers, expertly taken and here clearly reproduced.

In addition to Maler's materials, the editor, Hanns Prem, has provided a brief critical commentary for each site, including various categories of information, importantly **the current state of buildings where this diverges from Maler's descriptions**. Overall, **Maler's information was verified by the editor and changes noted through research in the Yucatán**. This publication also includes a long introduction by the editor recounting the history of Maler's Yucatan expeditions, photographs and writings, and the diverse, uncoordinated nature of the materials. Prem recounts Maler's largely unrealized plans for publication, including a large Archaeological Atlas. Only small portions of Maler's writings, sketches, and photographs were known even to the academic community previous to this 1997 publication of this volume.

In his introduction, Prem discussed Maler's concept of his photographs as art and his desire to have his photographs published without text. This volume also includes a detailed explication of Maler's photographic studies in various countries he visited and

the fortuitous development of industrially produced dry gelatin plates, vastly improving the possibility of photography in the tropics. In an especially valuable section, Ian Graham describes **Maler's photographic equipment and technique** and, most revealingly, his use of people in his photographs for scale and a sense of depth and lateral extension. Graham describes Maler's awareness of raking light for sculptural relief, difficulty of obtaining detail in both shadow and sun, and his method of collaging in the studio two or more photos of separated sections of a sculpture into a single overall image.

Maler, Teobert

"Yukatekische Forschungen". *Globus*. Vol. 68: 247-260, 277-292. Braunschweig, 1895.

Maler, Teobert

"Yukatekische Forschungen". *Globus*. Vol. 82, Nos. 13 and 14: 197-230. Braunschweig, 2 October 1902.

Dated descriptions, with **outstanding photographs, of some 20 Maya sites in the Yucatan, many discovered first by Maler**. In discussing "Maler-Xlabpak" he writes that he was accompanied by 2 helpful Indians and, after discovering a large, magnificent building, they spent the next 2 days at the palace, which (in translation) "in the meantime, I had given my own name". Uxmal, Kabah, Sayil and Labná are not mentioned in this article.

Marcus, Joyce

"Lowland Maya Archaeology at the Crossroads," in *American Antiquity*. Vol. 48, no.3 (1983): 454-488.

Mariscal, Fererico E.

Estudio Arquitectónico de las Ruinas Mayas: Yucatán y Campeche. Contribucion de Mexico al XXIII Congreso de Americanistas. Secretaría de Educación Pública. México: Talleres Graficos de la Nacion, 1928.

This was **the first publication explicitly arguing the importance of detailed studies of a wide range of Maya architecture, carefully measured and drawn to exact scale, in order to make possible comparison among similar features at different sites, thereby establishing a common ground for analysis**. Mariscal reviews the significant contributions of previous scholars, especially those who have carried out detailed measurements and drawings, most notably Charles Holmes, whom he credits with establishing the basis for such research. However, Mariscal states that they and others have not had a sufficient body of this type of comparative information on which to base their theories.

He argues for continuing studies of this type each year, by Mexican architects and architectural students, to build a continually expanding body of such information for the pre-Hispanic architecture of their country, which at one point he praises as (in translation) "not only the most important in America, but also the most notable in the history of the world" (p. 4).

Mariscal then presents descriptions and photographs of 9 Maya sites in the Yucatan and Campeche, with text description, photographs and architectural elevations, cross-sections, and plans, with measurements, all by the author. A most unusual detail is that, for each site, he includes the day and time at which he arrived and left the site; all in March 1927. No doubt many scholars and nearly all editors will consider this excessive, but the information can be instructive and indicates the specificity of his recording. For Uxmal there are 11 photographs and 1 page of measured drawing (photograph 51 is mislabeled Chichén Itza); for Kabah 4 photographs and 2 pages of measured drawing; for Sayil 6 photographs and 1 page of measured drawings; for Labná there are 14 photographs and 2 pages of measured drawings. The text descriptions include occasional astute observations.

There are 2 brief but especially important final sections, exemplifying the type of comparative study the author proposes. One section compares doorways, the other porticos and columns. For each Mariscal provides a page of drawings from various sites, drawn to scale with measurements, providing comparison of (in translation) “above all the proportions of these elements that are fundamental in architecture” (p.101). The page of text accompanying each of these sections presents specific observations resulting from this comparison.

Regarding doorways, he concludes that (in translation): “it can be noted that, against what has been affirmed, there is a great variety in the proportions of the Mayan doors: there are those like that of the Adivino, that form a very beautiful rectangle; there are those almost square, like that of the Codz-Poop of Kabah; there are those extremely long, like the interior of Etzna, in Tixmucuy, and simply slim, like that of the exterior of Chacbolay and one in Chacmultun; lastly, there are some with inclined jambs, forming a trapezoidal opening, like those of Labná, in the Arch and in the Temple, but the majority have vertical jambs”.

Regarding porticos and series of openings separated by columns and pillars, he concludes that (in translation) “from the most grandiose that corresponds to the Building Number 1 of Chacmultun, to the smallest and most robust of the lower floor of the Palace of Zayil, one can note that there is a delicacy of proportions and a great harmony in the disposition of the horizontal bands in which the whole building is divided, in relation with the inner-columns”.

Marquina, Ignacio

“Relaciones entre los monumentos del norte de Yucatán y centro de México”. *Revistia mexicana de Estudios Antropológicos*. Vol. 5, Nos. 2-3. México, 1941.

Mason, Gregory

Silver Cities of Yucatán. New York and London, 1927.

Masson, Marilyn A. and Jeremy A. Sabloff

“Developments in Northern Yucatán Archaeology”. *Escondido en la Selva: Arqueología en el norte de Yucatán*. Segundo Simposia Teoberto Maler, Bonn 2000. Ed. Hanns J. Prem.

Bonn: Universidad de Bonn; and Instituto Nacional de Antropología e Historia, México, D.F., 2003: 417-424.

A **summary of the symposium papers** with comments, emphasizing patterns of social development during the Classic/Terminal Classic Period in the Yucatan. The authors call attention to the fluid nature of these developments and the interaction of the Northern Yucatan with other areas of Mesoamerica. They describe 5 themes recurring in the symposium papers: the Nature of Empire Interaction, Community Organization, Economy, Concepts of Region, and Elite Symbolism. They briefly mention the Origins of the Puuc Architectural and Ceramic Styles and the Nature of the Terminal Classic/Postclassic Transition.

Matheny, Ray T.

“Northern Maya Lowland Water-Control Systems”. *Pre-Hispanic Maya Agriculture*, ed. Peter D. Harrison and B. L. Turner II: 185-210. Albuquerque: University of New Mexico Press, 1978.

The author presents **an introduction to the ways in which “the peoples of the northern lowlands were skilled in hydraulic engineering”** (p.185). Matheny state that “The Maya controlled water in at least three ways: (1) by draining excess water from inundated lands; (2) by conserving soil moisture; and (3) by collecting and storing water” (p.191). Among the means of collecting and storing water, he quotes from Stephens’ 1843 publication on the Yucatan, describing deep wells, water sources at the bottom of deep, circuitous caves, aquadas with constructed stone embankments, and the ever present chultunes. He reproduces Catherwood's drawings, from the same publication, showing a vertical cross-sections of the astonishing cavern at Xtacumbi Xuman and the aguada at Rancho Jalal, showing wells and chultunes constructed at the bottom. The central section of the article is an extended description of canals and of the hydraulic system at Edzna. Matheny also describes the “intricately constructed, large-volume hydraulic system” at Uxmal” (pp.209-210).

Memoria del Congreso Interno 1979

Instituto Nacional de Antropología e Historia: Centro Regional del Sureste. México, D.F.: Centro Regional del Sureste, 1981.

29 papers by members of the Centro Regional del Sureste, INAH, given at the Feb. 26 – March 2 1979 congress held at Mérida. A few of the articles were not presented at the congress but added for this publication. There is an introduction by Peter J. Schmidt and Antonio Benavidas C. More than half of the articles are based in archaeology and are organized into 6 categories:

1. Zones and regions: settlements distribution
2. Preliminary studies of sites
3. Studies of archaeological materials
4. Restoration and conservation
5. Social history and economics
6. Linguistics

The following articles are separately listed and annotated in this web bibliography:

Barrera Rubio, Alfredo, "Patron de asentamiento en el area de Uxmal, Yucatan, Mexico

González Fernández, Baltazar, "Depositos subterranos en Uxmal, Yucatan"

Melconado C., Rubén, "Intervencion de restauracion en el juego de pelota de Uxmal, Yuc."

Menendez, Oscar

Observaciones Arqueográficas sobre la Cultura Maya (particularmente Chichen-Itza y Uxmal) Guía de las 200 proyecciones-dibujos y fotografías-que ilustran el ciclo de conferencias. Mexico: Talleres Graficos de la Nacion, 1936.

This 75 page booklet is primarily a list of images to accompany presentations given at conferences. For Uxmal 7 images are listed showing the geographic situation of Uxmal and some 40 showing individual buildings and their details.

Mercer, Henry C.

The Hill-Caves of Yucatan: A Search for Evidence of Man's Antiquity in the Caverns of Central America; being an account of the Corwich Expedition of the Department of Archaeology and Palaeontology of the University of Pennsylvania. New introduction by J. Eric S. Thompson. Norman: University of Oklahoma Press, 1975. Reproduced from the original 1896 edition.

Published in 1896, *The Hill-Caves of the Yucatan* is the record of an expedition sponsored by the University of Pennsylvania, led by Henry Mercer, at that time Curator of American and Prehistoric Archaeology. Mercer explored 29 caves, 13 of which he excavated for artifacts. He recognized the importance of caves in the Yucatan as accesses to pools of underground water. In the process he noted the existence of a few aguadas, surface ponds, which remain sources of water throughout the year (pp. 42-43 and note). The map facing the title page indicates three small aguadas just west of Uxmal.

The largest cave he explored was the Cavern of Loltun, about 12 miles south of Labná. His book includes 29 pages detailing this excavation, with 12 photos and 5 diagrams of Loltun.

Mercer's initial response to the Nunnery Quadrangle at Uxmal conveys the dramatic moment of discovery: "the surprise was reserved till we passed a narrow arch through a wall overgrown with bushes. Then as the outside of the structure had seemed plain, the most remarkable monument in America broke upon us unexpectedly" (p.86).

Regarding the deteriorating fabric of Kabah he wrote: "The more we examined the walls the more we wondered not so much at their antiquity as at the fact that they had not already crumbled to the ground. A facing of blocks, shaped like the letter V, pushed mosaic-fashion into a central pudding-like concrete of stones and mortar (see Fig. 36) was a weak form of construction. Neither were the face-stones interlocked

systematically, so as to 'bind the joints.' Everything was slipping out of place. No wonder there were fresh cracks in the walls, that whole facades had tumbled, and that overseers had spoken of structures losing their identity in twenty years" (p.95).

There is a new 38 page introduction by Eric Thompson, describing especially the Maya's various uses of the Yucatan caves.

Merrill, Robert H.

Map of the State of Yucatan, Mexico (Uxmal, Mun, Ticul, Sta. Elena). Scale: 1: 48,000. New Orleans: Tulane University, 1930.

Merrill, Robert H.

"Mapping Maya Cities in Yucatan". *The Military Engineer*. Journal of the Society of American Military Engineers (Sept.-Oct. 1930): 421-422.

Some of Merrill's maps of Uxmal are reproduced on this web site.

<http://academic.reed.edu/uxmal/galleries/thumbnails/drawings/Drawings-Leyrer-Blom-3.htm>

A detailed account of the techniques and equipment used in mapping, by the participant-surveyor of the 1930 expedition to Uxmal, by the Department of Middle American Research of Tulane University, under the direction of Frans Blom. The main purpose of the expedition was to record the Nunnery Quadrangle at Uxmal, in preparation for the creation of a full-size reproduction at the Chicago World's Fair of 1933. The article suggests that originally the intention was to produce a full-size reproduction of all 4 buildings of the Nunnery, though eventually only a reproduction of the North Building appeared at the Fair.

Merrill provides detailed information about the physical conditions under which the study of the Nunnery was conducted and the surveying and recording techniques used. In addition to study of the Nunnery, extensive surveying of a large area of the archaeological site was conducted and "a reconnaissance trip to neighboring ruined cities".

Mesoamerica Foundation

"The Yucatan after Hurricane Gilbert", MS. 1988.

Michelet, Dominique (ed.)

Arquitectura y arqueología: Metodologías en la cronología de Yucatán: México, D.F.: Centre d'Études Mexicaines et Centraméricaines, 1985.

Miller, Virginia

"The Palace of the Stuccoes at Acanceh: Style and Iconography". Paper presented at the Quinta Mesa Redonda de Palenque, 1983.

Miller, Virginia

"Teotihuacan Influence at the Palace of the Stuccoes, Acanceh, Yucatan, Mexico". Paper presented at the 44th International Congress of Americanists, Manchester, 1982.

Morley, Sylvanus G.

“The Historical Value of the Books of Chilan Balam”. *American Journal of Archaeology*. Second Series. *Journal of the Archaeological Institute of America*. Vol. 15, No. 2 (April 1911): 195-214.

An exceptionally clear **description of the various Books of Chilan Balam**, their names, types of content, and similarities and differences. Morley attempts to reconcile seeming defects in the record and disagreements between the texts of the different chronicles. He gives the founding of Uxmal as an example of how these differences can be resolved, though more recent scholarship considers that these descriptions of the founding of Uxmal derive from early fabrications.

Moseley, Edward H., and Edward D. Terry

Yucatan, A World Apart. Tuscaloosa: University of Alabama Press, 1980.

The editors write that “No other part of Mexico represents better the strong elements of regionalism and separatism” (p. ix). This is **an anthology including an introduction and eleven articles by eleven authors**, some in-depth. The subjects range from the physical geography, relation between social organization and monument building, on the social, political and economic history of the region, the relations of the state to the federal government, the literature and archaeology.

The following two chapters are separately indexed and annotated in this web bibliography:

Wilson, Eugene M. Wilson, “Physical Geography of the Yucatan Peninsula”

Barrera Vásquez, Alfredo, “Four Centuries of Archaeology in Yucatan: A Bibliographical Essay”

Morsley, Sylvanus G.

“Yucatan: Home of the Gifted Maya” (with photographs by Luis Marden and Charles Lindberg). *National Geographic*, Vol. 70, No. 5 (November 1936):

Moseley, Edward H., and Edward D. Terry

“Introduction”. *Yucatan, A World Apart*. University of Alabama Press, 1980: 1-4.

An impressively informative three page introduction to the Yucatecan Maya, stressing the distinctive character of their social history from pre-Hispanic times to the present day.

Murphy, Francis S.

Dragon Mask Temples in Central Yucatan (1952-1972). Hong Kong: Scribe Ltd., 1988.

Murray, George E., and A. E. Weidie, Jr.

“Regional geologic summary of Yucatan Peninsula,” in *Guidebook, field trip to Peninsula Yucatan*. 2nd ed. New Orleans Geological Society, 1967: 5-51.

N

Norman, B. M.

Rambles in Yucatan including A Visit to the Remarkable Ruins of Chi-Chen, Kabah, Zayi, Uxmal &c. New York: J. & H. G. Langley, 1843.

Various images from this volume are reproduced on this web site.

<http://academic.reed.edu/uxmal/galleries/thumbnails/drawings/Drawings-Norman.htm>

Understandably, **this amateurish effort is almost never mentioned in later publications.** The frontispiece, is given the caption "Moon Light Uxmal Ruins", but only with considerable effort can one see that it is intended to suggest a view of the major structures looking north from behind the Pyramid of the Old Woman. There are 4 prints of Uxmal, 1 of Sayil, and 1 of a local Indian house, none of which could serve as evidence. All prints are identified as drawn by the author. There is a schematic "Plan of the Ruins of Uxmal" and a map of the Yucatan "Shewing the geographical position of the Ruins", which is more accurate than any of the author's drawings.

Nevertheless, because this publication is so little referenced in publications on Puuc sites, **a few of his observations are worth noting.** At Kabah, on the "west side" of the "main road"; "in the building farthest from the road, (which is in the best preservation of any on the west side,) we observed two square pillars, which had been taken from the door-way, and placed against the ceiling of the room, by some travelers, no doubt, who intended to present them to the world. They are about six feet high and two wide; the front facings of which are deeply cut, representing a cacique, or other dignitary, in full dress, (apparently a rich Indian costume,) with a profusion of feathers in his head-dress. He is represented with his arms uplifted, holding a whip; a boy before him in a kneeling position, with his hands extended in supplication; underneath are hieroglyphics" (pp. 148-149). These are surely the relief panels carried off by Stephens in 1841-42, indicating that Norman's visit to Uxmal must have taken place by then.

These doorjambs had been drawn by Catherwood in 1841-42, illustrated in Stephens and Catherwood, *Incidents of Travel in Yucatan*, 1843 (Vol. 1, facing p. 412); and are now in the collection of the American Museum of Natural History, New York.

The print in Catherwood's 1844 publication, *Views of Ancient Monuments in Central America, Chiapas, and Yucatan*, based on his on-site drawings, shows one or both of the panels being carried down the hill by local laborers, supervised by Stephens, who holds a gun.

About the interior rooms of the Governor's House, Uxmal, Norman writes: "the interior of these rooms is sometimes covered with a beautiful hard finish, and at other times presents a surface of uniform square blocks of smooth stone. The floors are of stone,

covered with a hard composition, which, together with the stone, is now much broken . . . there were no fresco, or other painting or decorations of any kind in the interior of the building to be discerned” (p. 158).

About the “edifice” at the “summit” of the Pyramid of the Magician, Norman writes: “The western façade is ornamented with human figures similar to *caryatides*, finely sculptured in stone with great art. Their heads are covered with a casque, and ear ornaments similar to those work by the Egyptians. They have girdles around their bodies’ (p.164). These are the figures recorded by Waldeck, and Norman’s description of these figures may have been based on Waldeck’s prints instead of on his onsite observation.

P

Palacios, Enrique Juan

“Arquitectura, Escultura, Pintura, Orfebrería y Lapidaria”. *Enciclopedia Yucatanense*, Vol. 2, *Epoca Maya*: 343-404, ed. Carlos A. Echánove Trujillo. Oficial del Gobierno de Yucatán, México, 1945.

Unusually **comprehensive survey** organized under a series of small topics. There is a 3 page section on Puuc art, and aspects of structures at Uxmal, Kabah, Sayil and Labná are mentioned under sections on facades, architectural orders, style, etc. Sparsely illustrated with small, grainy, brown-tone photographs, but these include a rare photograph which the caption describes as a plaster reproduction of a sculpture built into the Governor’s House, Uxmal (p. 384).

Palacios, Enrique Juan

“Guía arqueológica de Chacmultún, Labná, Sayil, Kabah, Uxmal, Chichén-itzá y Tulum”. *Enciclopedia Yucatanense*, Vol. 2, *Epoca Maya*, ed. Carlos A. Echánove Trujillo: 405-553. Oficial del Gobierno de Yucatán, México, 1945.

A series of 8 sections on individual sites. There are 32 pages on Uxmal, 5 on Kabah, 7 on Sayil, and 13 on Labná. These are illustrated, though mostly with small, weak, brown-tone photographs. Of special importance are photographs of models (at that time in various museums in the United States)of the Nunnery Quadrangle, Pyramid of the Magician, and Governor’s House at Uxmal; the Palace at Kabah; and Arch at Labná,

Piña Chán, Román

Los antiguos mayas de Yucatán. México: INAH, Gobierno del estado de Yucatán.

Pollock, H. E. D.

“Architecture of the Maya Lowlands”. *Archaeology of Southern Mesoamerica: Part One*, ed. Gordon R. Willey: 378-440. Vol. 2 of *Handbook of Middle American Indians*, general ed. Robert Wauchope. Austin, Texas: University of Texas Press, 1965.

A comprehensive review of the various aspects of architecture in the Maya Lowlands, dealing almost exclusively with major civic and ceremonial architecture. Although only about two pages of text are given to the Puuc region, the major divisions of the chapter provide basic context for understanding the architecture of all areas in the Lowlands (Nature; Size and Limits; Civic Planning; Building Plans and Building Instruments; Building Materials; Quarrying, Stonecutting, and Transportation; Construction and Masonry; Types and Functions of Buildings; and Architectural Style).

Pollock, H. E. D.

“The Architectural Survey of Yucatan,” *Carnegie Institution of Washington Year Book*, No. 39 (1940): 265-267.

Potter, David F.

Maya Architecture of the Central Yucatan Peninsula, Mexico. Middle American Research Institute Pub. 44. National Geographic Society-Tulane University Program of Research in Campeche. New Orleans, Tulane University, 1977.

An attempt to “define the Maya architectural style of central Yucatan and to demonstrate its internal coherence and its characteristic differences from other regional styles of the Maya lowlands” (p.1), based on a detailed examination of the architecture of two central Yucatan cities, Becan and Chicanna. The author describes Puuc style as “largely subsequent to the Central Yucatan style and . . . for the most part a stylistic development from it” (p.8). Potter notes that the new form of vaults was the most important new Puuc feature, surfaced by smoothly finished, non-structural veneer stones instead of the rough-surfaced corbelled vaults of the Central Yucatan. Because of their stylistic affinities with Central Yucatan architecture, three of the earliest buildings at Uxmal are briefly described: Buildings 1 and 2, partly buried by the west side of the great Governor’s Palace platform, and the North Building at Group 23.

Potter, David Farington

Maya Architectural Style in Central Yucatan. Ph.D. Dissertation, 1973. Department of Anthropology, Tulane University, New Orleans. Ann Arbor, Michigan: University Microfilms, 1973.

A study of the architectural style of the Central Yucatan, arguing for its “internal coherence and its characteristic differences from other regional styles” (p. 1). The study focuses especially on Becan, where the author worked during the 1970 and 1971 field seasons. The portions especially relevant to this web site are sections on Uxmal (pp. 256-260) and the Puuc architectural style (pp. 298-310). The descriptions of buildings at Uxmal are brief and based almost entirely on Pollock. In the section on Puuc style, Potter reviews previous publications on the Puuc region, noting the difficulties posed by terminology and lack of systematic study.

Potter writes that “the most obvious distinction between the Puuc and Central Yucatan styles is in the character of the masonry. Puuc buildings are essential concrete construction faced with a veneer of ‘thin, beautifully dressed and perfectly squared blocks of stone’ (E. W. Andrews, IV, 1965), (p. 307). In the final analysis, the function of this facing was not at all structural, but it provided a form for the concrete during the construction period and a serviceable and decorative surface thereafter”. This common, oversimplified concept, and several overgeneralized sentences that follow are not surprising for a 1973 thesis. Potter then considers the geographical range of Puuc style buildings, “Derivations of the Puuc style”, and “Stylistic comparison with Central Yucatan”.

Prem, Hanns J., ed.

Escondido en la Selva: Arqueología en el norte de Yucatán. Segundo Simposio Teoberto Maler, Bonn 2000. Bonn: Universidad de Bonn; and Instituto Nacional de Antropología e Historia, México, D.F., 2003.

This publication of papers from the 2000 Maler conference is outstanding in many ways but most notably for the in-depth review of scholarship since the first Maler symposium in 1990, emphasizing the evolving interests revealed in this scholarship and questions that are raised for future research.

The 3-page, double-column prologue by the editor, Hanns Prem, is the most insightful review available of recent scholarship on the Northern Maya up to the time of publication. Prem notes that the early explorers, like Maler, stimulated the first works of consolidation and reconstruction, but that, these were only partly accompanied by scientific research and, in many cases, accurate reconstruction of the monumental architecture was replaced by speculative interpretation. He provides an unusually clear description of the institutional setting for Maya archaeology, including the division between Mexican and international archaeological projects. Prem writes that Mexican projects were devoted more to the (in translation) “urgent and inevitable intervention of large sites” and to recording, whereas international projects could be aimed more on resolving essential questions, because “foreign institutions” were “not subject to the multifaceted compromises of the INAH” (p. 12). Prem praises those who have systematically collected information on the Yucatán, without which it would have been impossible to pursue answers to questions such as the overlap between the Puuc and Chichen Itzá or to “distinguish the cultural phases with more refinement” (p. 12). He writes that in the 80’s many studies of cities, such as Sayil and Uxmal, “included their area of influence [and explored] ecological factors, spatial distribution inside and between the sites to detect political structures (p. 12).

At the same time, Prem is careful to point out that “virtually all the data represents tentative work with problems that have not been resolved” and that recent studies have served to refocus questions and approaches providing only tentative answers (p. 13).

The following articles are individually listed and annotated in this web bibliography:

Barrera Rubio, Alfredo, “La arqueología en Yucatán en la última

- década del siglo XX”
 Gallareta Negrón, Tomás, “Análisis de un centro Puuc: el caso de Labná”
 Kowalski, Jeff Karl, “Collaboration and Conflict: An Interpretation of the Relationship between Uxmal and Chichén Itzá during the Terminal Classic/Early Postclassic Periods”
 Masson, Marilyn A. and Jeremy A. Sabloff, “Developments in Northern Yucatán Archaeology”
 Prem, Hanns J., “Aspectos de los patrones de asentamiento en la región Puuc central”
 Smyth, Michael P., “Early Maya Urbanism in the Puuc Region: Archaeological Research at Chac II (1995-2000)”

Prem, Hanns J., ed.

Hidden among the Hills: Maya Archaeology of the Northwest Yucatan Peninsula; Acta Mesoamericana, Vol.7. First Maler Symposium, Bonn, 1990, Möckmühl, Germany: Verlag von Flemming, 1999 (the paper by Peter Schmidt was added and the bibliography updated after the publication of the 1st edition of 1994).

The papers given at the 1990 First Maler Symposium, held in Bonn. However, in contrast to most anthologies of papers given at conferences and symposia, this publication includes extensive data on which the papers, as presented, were based. Authors were encouraged to submit papers of whatever length they felt suitable. Thus, there are extremely informative charts and tables, providing the evidence on which the texts were based. There is an especially valuable, up-to-date, 42 page bibliography, including publications and papers rarely referenced elsewhere.

The following articles are separately listed and annotated in this web bibliography:

- Andrews, George F., “Architectural Survey of the Rio Bec, Chenes, and Puuc Regions: Progress and Problems”
 Ball, Joseph W., “Northern Maya Archaeology: Some Observations on an Emerging Paradigm”
 Dunning, Nicholas P., “Puuc Ecology and Settlement Patterns”
 Kowalski, Jeff Karl, “The Puuc as Seen from Uxmal”
 Kurjack, Edward B., “Political Geography of the Yucatecan Hill Country”
 Robertson, Merle Greene, “The iconography of ‘Isolated Art Styles that are ‘Group Supported’ and ‘Individual Supported’ occurring at Chichen Itza and Uxmal”
 Tourtellot, Gair and Jeremy A. Sabloff, “Community Structure at Sayil: A Case Study of Puuc Settlement”

Proskouriakoff, Tatiana

“Some Non-classic Traits in the Sculpture of Yucatan”. *The Civilization of Ancient America: Selected Papers from the XXIXth International Congress of Americanists*, ed. Sol Tax. Vol. 1: 108-118. Chicago: University of Chicago Press, 1951.

A concise presentation of sculptural evidence to argue that “in Yucatan, sculpture is essentially heterogeneous and seems to represent an imperfect fusion of several independence styles” (p. 108). Proskouriakoff claims that in the Yucatan there was “a wider range of influences than is usually given consideration” and that “even before the period of Toltec dominance Yucatan was culturally less stable than the southern Lowlands and was probably subjected to more than one significant wave of immigration” (p. 118).

In this she emphasizes a contrast between the essentially single, coherent development of the Classic Maya and that of the Yucatan. She also argues that the Yucatan style, with its diverse characteristics, cannot be considered derived from the Old Empire. Thus, she urges that “we disassociate the term “Classic Maya” from the Puuc, Chenes, and Rio-Bec remains” (p. 108).

R

Relaciones histórico-geográficas de la Gobernación de Yucatán Edición preparada por Mercedes de la Garza, Ana Luisa Izquierdo, Ma. del Carmen León y Tolita Figueroa. 2 vols. Centro de Estudios Mayas. Fuentes para el Estudio de la Cultura Maya 1. México: UNAM, 1983.

Ringle, William M., and George Bey III

“Post Classic and Terminal Classic Courts of the Northern Lowlands”. *Royal Courts of the Maya*. Vol. 2. *Data and Case Studies*, ed. T. Inomata and S. D. Houston: 266-307. Boulder, CO: Westview Press, 2001.

Ríos Meneses, Miriam Beatriz

“Museo Regional de Antropología de Yucatán”. *La antropología en México: Panorama historic, 7. Las instituciones*. Vol. Coordinator, Mercedes Mejía Sánchez, with collaboration of Martín Villalobos Salgado: **600-612**. Coordinator General Carlos García Mora. Colección Biblioteca del INAH. México, D.F.: Instituto Nacional de Antropología e Historia, 1988.

A chronological history of the Museo Regional de Antropología de Yucatán, tracing its origins, changes in name and structure, relations to state government and other institutions, and major individuals involved.

Rivera Dorado, Miquel

“La ceiba y la luz: el estilo artistico y el pasisaje de los mayas de Yucatan”. *Revista española de antropología Americana*, Vol. 32 (2002): 69-85.

Robles C., José Fernando, and Anthony P. Andrews

“A Review and Synthesis of Recent Postclassic Archaeology in Northern Yucatan”. *Late Lowland Maya Civilization: Classic to Postclassic*, ed. Jeremy A. Sabloff and E. Wyllys

Andrews V: 53-98. Albuquerque, N.M.: School of American Research, University of New Mexico Press, 1986.

The authors conduct a thorough review of recent research, with extensive references, in an attempt to arrive at a revised view of Post-Classic Maya civilization in Northern Yucatan. They raise questions about the dating and relationship of the Puuc region, the Itza polity, Coba, Chichen Itza, and Mayapan. For the Puuc, they describe recent research on architectural studies, settlement pattern, and ecological studies.

Roys, Ralph L.

The Book of Chilam Balam of Chumayel. Washington: Carnegie Institution of Washington, Publication 438. Washington: Carnegie Institution of Washington, 1933 (reprinted as *The Chilam Balam of Chumayel*, by the University of Oklahoma, Norman; Vol. 87 of the series *The Civilization of the American Indian*, with a new introduction by J. Eric Thompson, 1967)

On the web at:

<http://www.sacred-texts.com/nam/maya/cbc/index.htm>

(accessed 2007 Nov. 27)

This is the classic publication of the *Book of Chilam Balam of Chumayel*. Among the various Books of Chilam Balam, *The Book of Chilam Balam of Chumayel* provides the most reliable information because, although it dates from 1782, it is less flawed by European material than the other Books of Chilam Balam. For purposes of this web site, it is especially valuable, because it originated in a village near Uxmal, Kabah, Sayil and Labná and includes a number of references to Uxmal.

Roys wrote a descriptive introduction with prefatory note to the Maya text; edited the Maya text; produced an English translation with extensive, detailed footnotes; and wrote 8 major appendices presenting the author's interpretation of Maya propheses, reconstruction of Yucatecan Maya history during the contact period, etc.

Roys, Ralph L.

"Conquest Sites and the Subsequent Destruction of Maya Architecture in the Interior of Northern Yucatan". *Contributions to American Anthropology and History*, Vol.11, No. 54, pp. 129-185. Washington, D.C.: Carnegie Institution of Washington, 1952.

Roys, Ralph L.

The Indian Background of Colonial Yucatan. Carnegie Institution of Washington, Pub. 548. Washington, D.C., 1943.

A classic publication. Includes a 6 page section, titled "Towns and Buildings", briefly describing the character of the buildings and spaces of Maya towns at the time of the Spanish conquest.

Roys, Ralph L.

The Political Geography of the Yucatan Maya. Washington, D.C.: Carnegie Institution of Washington, Pub. 613, 1957.

Rugeley, Terry.

Yucatan's Maya peasantry and the Origins of the Caste War. Austin: University of Texas Press, 1966.

Ruppert, Karl, and Alfred L. Smith

"House Types in the Environs of Mayapan and at Uxmal, Kabah, Sayil, Chichen Itza and Chac-chob". *Carnegie Institution of Washington, Current Reports*. No. 39. Cambridge, M.A.: Carnegie Institution of Washington, 1957.

S

Sabloff, Jeremy A. and E. Wyllys Andrews V, eds.

Late Lowland Maya Civilization: Classic to Postclassic. A School of American Research Book. Albuquerque, University of New Mexico Press, 1986.

Papers given at an advanced seminar, "After the Fall: New Perspectives on the Postclassic Period in the Maya Lowlands", held at the School of American Research in Santa Fe, 18-22 October 1982. Most papers were slightly revised for publication in 1986. Purpose of the seminar was to reexamine, on the basis of recent archaeological research, the previously neglected Post-A.D.800 period, especially the Postclassic renaissance in the northern Yucatan Peninsula. The volume includes an Introduction and concluding summary discussion by the editors.

In their summary discussion, the editors write that the two major themes emerging from the papers and discussion were "the extent of the overlap among the Terminal Classic occupations in the Southern Lowlands, the Puuc region sites, and Toltec Chichen Itza" and "the time of the Classic-Postclassic transition in the Maya Lowlands" (p. 434). A major conclusion of the seminar was that "the Puuc and Toltec architectural and ceramic traditions of northern Yucatan overlapped in time" (p.434). The editors reaffirm the "beginning date for early Puuc architecture somewhere is the second half of the eighth century, perhaps about A.D. 770". They note that "the traditional date for the end of the Puuc tradition is ca. A.D. 1000" but that scholarly opinions regarding the end of the Puuc architectural tradition vary from ca. 900 to ca. 1100 (pp. 444-445).

There is an important 58-page bibliography.

The following article is separately listed and annotated in this web bibliography.

Robles C., Fernando, and Anthony P. Andrews, "A Review and Synthesis of Recent Postclassic Archaeology in Northern Yucatan"

Sáenz, César A.

"Exploraciones y restauración en Yucatán". *Boletín del INAH*, No. 31: 17-23. México, D.F.: Instituto Nacional de Antropología e Historia, 1968.

A report of the archaeological work carried out at Uxmal and Xlapak in 1965, written by the director of the project. As one of the very few early published reports of conservation, restoration and reconstruction in the Puuc region, it is especially valuable. The first third of the article (1 page of text and 5 photographs) describes work carried out on the House of the Doves, Uxmal. The principle aim was to save the roofcomb from further collapse. As the author states, it had almost miraculously survived, especially given the progressive collapse of the building beneath. Exploration of the stone debris on either side of the central wall supporting the roofcomb revealed 10 rooms on the north side facing the Quadrangle on the north side and 8 rooms on the south side facing the Quadrangle on the south side. These rooms were cleaned and partly reconstructed, most importantly providing a wider roof to support the roofcomb above. The director notes that the roofcomb “[in translation] was decorated with figures made of colorful painted stucco, which has become a famous part of the building”. Only a few remnants of these have survived into the 21st century. The photographs show before and after views of the north and south sides of the roofcomb and buildings below.

Most of the article describes the discovery, exploration, and reconstruction of the Palace at Xlapak. There are 2 full pages of text, a ground plan and cross-section, 3 drawings of masks on the frieze, and 3 photographs of the east façade of the Palace, taken before, during, and after consolidation and reconstruction. The extensive reconstruction of the frieze included both replacement of fallen stones and reproduction [“reproducias (esculpidas)”] of portions of the masks. To prevent further deterioration of vaults, the director emphasizes the necessity of waterproofing the roofs of all Maya buildings with a mixture of cement and stone dust, as he has done at this palace. Some ceramic evidence was found.

Salisbury, Stephen Jr.

“Dr. Le Plongeon in Yucatan”. *Proceedings of the American Antiquarian Society*, No. 69: 70-119.

Sánchez de Aguilar, Pedro

Informe contra idolorum cultores del Obispado de Yucatan. Madrid, 1639 (2nd ed. Mexico, 1892).

This mid-17th century publication includes brief references to Uxmal, including “the great, famous, and astounding edifices of stone and mortar, and hewn stone, figures and statues of carved stone left in *Oxumal* [Uxmal] and Chichiniza, which may be seen today, and [the buildings] may be lived in” (Saville, p.80).

Sanders, William T.

“The Cultural Ecology of the Maya Lowlands: A Reevaluation”. *The Classic Maya Collapse*, ed. T. Patrick Culbert: 325-366. Albuquerque, 1973.

Saville, Marshall H.

“Vandalism among the Antiquities of Yucatan and Central America”. *Proceedings of the American Association for the Advancement of Science*. (Rochester, 1892), Vol. 41, p. 276; *Science* (New York, 1892), Vol. 20, p. 365.

Saville “spent several weeks at Uxmal during the winter of 1891” and here “calls attention to the painting of names on the buildings, and the breaking of sculptures with machetes” (Saville 1921, p.114).

Schmidt, Peter J.

“El Puuc y la secundencia de Chichén Itzá”. *Hidden among the Hills: Maya Archaeology of the Northwest Yucatan Peninsula, Acta Mesoamericana*. Vol.7, ed. Hanns J. Prem: 389-394. First Maler Symposium, Bonn. Möckmühl, Germany: Verlag von Flemming, 1999 (not in the 1st ed. of 1994).

Seler, Eduard.

“Studien in den Ruinen von Yucatan,” in *Papers of The German Society for Anthropology, Ethnology, and Prehistory, Newsletter*, Vol. 34 (1903), pp.114-116; XV International Congress of Americanists (Quebec, 1906), *Comptes rendus*, Vol. II, pp.414-422. Translated as “Studies on the Ruins of Yucatan,” in Eduard Seler, *Collected Works in Mesoamerican Linguistics and Archaeology*, supervised by Charles P. Bowditch, Vol. IV; Culver City, California: Labyrinthos, 1993: 346 –350.

Most of the article deals with Uxmal, including brief descriptions of the Pyramid of the Magicians, Nunnery Quadrangle, Ballcourt, and Governor’s Palace. An important early article but completely superceded by the same author’s monumental “Die Ruinen von Uxmal, 1917.

Sharp, Rosemary

“Chacs and Chiefs: The Iconology of Mosaic Stone Sculpture in Pre-Conquest Yucatán, Mexico”. *Studies in Pre-Columbian Art and Archaeology*, No.24. Washington, D.C.: Dumbarton Oaks, 1981.

A detailed **examination of three motifs in Yucatán stone mosaic sculpture: the T, step-fret, and composite mask**, including examples from Uxmal and Labná. Sharp writes that these are “particularly important for understanding the iconography of power . . . in the Northern Yucatán (p.4). This study is grounded in her basic observation that the relationship of “artistic systems” to “other cultural systems” requires “consideration of critical motifs and patterns, their visual and archaeological contexts, the manner in which these elements cluster in time and space, and their meanings in specific historical situations” (p.3).

Sharp, Rosemary

“Trading Chiefs and Waring Kings: the Political Nexus of Symbolic Forms during the Pure Florescent Period in Northern Yucatan”. *Codex Wauchope: A Tribute Roll*, ed. M. Giardino, B. Edmunson, and W. Creamer: 89-100. New Orleans: Tulane University, 1978.

Shattuck, George C., and collaborators

The Peninsula of Yucatan: medical, biological, meteorological, and sociological studies. Carnegie Institution of Washington, pub. 431. 1933.

Shook, Edwin M., and Tatiana Proskouriakoff.

Yucatan. Carnegie Institution of Washington, Year Book, Vol. 50 (1951): 236-241.

Smith, Robert E.

"The Pottery of Mayapan, including Studies of Ceramic Material from Uxmal, Kabah, and Chichen Itza". *Papers of the Peabody Museum of Archaeology and Ethnology*, Vol. 66. 2 vols. Cambridge, Mass.: Harvard University, 1971.

The definitive publication on the ceramic material of the Yucatan. Although the most extensive reporting is on the pottery of Mayapan, the ceramic material of Uxmal and Kabah are included. Moreover, the extensive descriptions of ceramic types, forms, types of designs, modes of finishing, etc, apply to all. Volume 2 includes 8 lists and diagrams of various types of Puuc ceramic ware found at Uxmal and Kabah.

Sosa, John Robert

The Maya Sky, the Maya World: A Symbolic Analysis of Yucatan Maya Cosmology. Ph.D. dissertation. AUNY Albany, 1985.

Spinden, Herbert Joseph and Mrs. Ellen S. Spinden

"An Archeological Junket in Yucatan". *Brooklyn Museum Quarterly*, 19 (1932): 133-138.

Standley, Paul C.

"La Flora". *Enciclopedia Yucatanense.* 1945. Vol.1: 273-523.

Stephens, John Lloyd

Incidents of Travel in Yucatan, illustrated by 120 engraving. 2 vols. New York: Harper & Brothers, 1843 (many later reprintings and editions: the first Spanish edition includes annotations by the translator, Don Juan Sierra, vol. 1 1848, vol. 2 1850; first German edition 1853; Dover paperback, English, 2 vols., 1963).

All of the prints of Uxmal, Kabah, Sayil, and Labná that appear in this publication are reproduced in this web site.

<http://academic.reed.edu/uxmal/galleries/thumbnails/drawings/Drawings-Stephens.htm>

Two years after the successful 1841 publication of his two volume *Incidents of Travel in Central America, Chiapas, and Yucatan*, Stephens returned to the Yucatan and again immediately authored this 2-volume publication. As on his previous expedition, he was accompanied by the draughtsman, Frederick Catherwood. The earlier publication on Central America included only 4 illustrations of Puuc region sites, all of Uxmal. This later publication on the Yucatan was illustrated by 120 engravings (47 of Uxmal, Kabah, Sayil, and Labná), including ground plans based on measurements by Stephens, and two spectacular fold-out panoramas of the facades of the Governor's House, Uxmal, and the Great Palace, Labná by Catherwood. As has been noted by

many authors, these prints are **remarkable for their coverage and accuracy**, far in advance of most other graphic recording at the time and still of use in the study of these sites. **Nevertheless, it cannot be assumed that Catherwood's drawings were always accurate.** For example, in the print of the main façade of the East Building of the Nunnery (Vol. I, facing p. 306), most of the doorways are clearly too narrow (cf. Charnay's photograph taken ca. 17 years later).

In an extended **description of their recording procedure**, Stephens writes: "Mr. Catherwood made minute architectural drawings of the whole [of the House of the Governor, Uxmal], and has in his possession the materials for erecting a building exactly like it; and I would remark that, as on our former expedition, he made all his drawings with the camera lucida, for the purpose of obtaining the utmost accuracy of proportion and detail. Besides which, we had with us a Daguerreotype apparatus, the best that could be procured in New-York, with which, immediately on our arrival at Uxmal, Mr., Catherwood began taking views; but the results were not sufficiently perfect to suit his ideas. At times the projecting cornices and ornaments threw parts of the subject in shade, while others were in broad sunshine; so that, which parts were brought out well, other parts required pencil drawings to supply their defects. They gave a general idea of the character of the buildings, but would not do to put into the hands of the engraver without copying the views on paper, and introducing the defective parts, which would require more labour than that of making at once complete drawings. **He therefore completed everything with his pencil and camera lucida**, while Doctor Cabot and myself took up the Daguerreotype; and, in order to ensure the utmost accuracy, the Daguerreotype views were placed with the drawings in the hands of the engravers for their guidance" (Vol. I, pp.174-175).

Correspondingly, **Stephens' text is straightforward, detailed and accurate, with little attempt at imaginative interpretation.** He includes not only his own descriptions of the ruins and their surroundings but also reports of local people regarding such things as portions of buildings that had collapsed in the recent past and the recent rediscovery, clearing out and repair of the largest aguada near Uxmal. **Their four volumes immediately became best sellers and have gone through many editions and reprintings, helping to develop a broad audience for archaeology.** Moreover, the straightforward, detailed and accurate descriptions of sites in Stephens' text and Catherwood's drawings compare favorably with the finest archeological studies at the time anywhere in the world and are universally credited with laying the foundation for Maya archaeology. Theirs was an altogether remarkable achievement.

On their 1843 trip, Catherwood **used a camera lucida** as an aid in delineating the architecture. When using a camera lucida, the draftsman looks through a prism at the subject in front of him, which he wishes to draw. The prism casts a virtual image of the subject downward onto a sheet of paper, which the draftsman attempts to trace. The purpose is to achieve an exact delineation. In practice, this requires a very steady eye and precise hand.

George Kubler reports that: "Stephens's role was to prepare the objects for 'Mr. C' to draw by 'scrubbing and cleaning, and erecting the scaffold for the camera lucida' (reducing prism). Catherwood 'made the outline of all the drawings on paper divided in

regular sections, to preserve the utmost accuracy of proportion.’ For publication those engraved on wood were eventually discarded as unsatisfactory and reengaged on steel with corrections by Catherwood” (Kubler, pp. 127-128).

One of the important illustrations in this publication is [an 1842 copy of a map of Mani, dated 1557](#). In the map, Mani is in the center, with over 15 other communities radiating out on all sides. All of these communities are indicated by buildings with crosses, except for Uxmal, near the bottom, indicated by a Maya façade (Vol. 2, opp. p. 264). This shows that Uxmal was well known at the time but was not a Spanish community.

Suárez, Luis

El Yucatán de los Mayas: Uxmal, Chichén Itza, Sayil, Kabah, Labna, Dzibilchaltun, Mérida. Madrid; Everest, 1980.

T

Taladoire, Eric

“Los juegos de pelota del norte de Yucatán: una revisión de los datos”. *Perspectivas antropológicas en el mundo maya*. Sociedad Española de Estudios Mayas, Pub. 2. Ed. Josefa Iglesias Ponce de León, and Francesc Ligorred Perramon. Madrid: Departamento de Historia de América II, Facultad de Geografía e Historia, Universidad Complutense; Instituto de Cooperación Iberoamericana, 1993: 163-179.

Making use of recent studies, including the continuing discovery of new ball courts, the author presents a survey of previous ideas concerning the ball game and present revised information and ideas. In contrast to previous publications, **he argues that the number of ball courts in the Northern Yucatan does not indicate a reduced number in comparison to the number at other Maya sites.** He also presents the fascinating hypothesis that there is (in translation) “an inverse relationship between the iconographic richness of the game and the abundance of the courts” at Maya sites, and that this might be more pronounced in periphery zones such as the Puuc.

Tarazona de González, Silvia Garza, and Edward Barna Kurjack Basco

Atlas Arqueológico del Estado de Yucatán, 2 vols. Centro Regional del Sureste, Instituto Nacional de Antropología e Historia. México, D.F.: INAH, 1980.

A landmark 7-year study that attempted to locate all archaeological sites in the Yucatan and to analyze their characteristics. The search involved study of all the known literature, extensive **new aerial photography**, and consultation with site caretakers and local residents. The entire publication is highly systematic, describing the basis for all data and providing highly organized finding lists. Each site is designated 1 star, 2 stars, 3 stars, or 4 stars, depending on the size of its area, size of monumental architecture, and historical descriptions. Within the Puuc Region, Uxmal receives 4 stars. There is an important chapter describing the forms and types of

structures, construction techniques, internal and intersite roads, fortifications, etc. Another chapter describes the pattern of settlements locally and at a regional level. Only a few of the photographs taken are reproduced in this publication, but **locations of the photographic archives are given**. For Uxmal, two aerial photographs are reproduced, one (fig. 6a) reversed right-left. For Kabah there is one aerial photo; for Sayil one aerial photo of the Great Palace; for Labná one aerial photo and two of the little-visited South Group (*Las Gemelas*). There are **4 appendices**: (1) catalogue of sites, (2) alphabetical index of sites with page references, (3) index of sites with list of publications and page references for each, (4) index of authors, with references to sites each has discussed. **Volume 2 provides an index of the sheets of the Atlas** and Declinacion de la Cuadrícula of each sheet of the Atlas.

Taube, Karl A.

The Major Gods of Ancient Yucatan. Studies in Pre-Columbian Art and Architecture, 32. Washington, D.C.: Dumbarton Oaks Research Library and Collections, 1992.

Terazona de Gonzalez, S. and E. B. Kurjack

Atlas Arqueológico del Estado de Yucatán. México, D.F.: Instituto Nacional de Antropología e Historia, 1980.

Thompson, Edward H.

"The Ancient Structures of Yucatan not Communal Dwelling". *Proceedings of the American Antiquities Society*, Vol. 8 (1892): 262-269.

Thompson, Edward H.

"Archaeological Research in Yucatan". *Proceedings of the American Antiquarian Society*, Vol. 4 (1886): 248-254.

Thompson, Edward H.

"Archaeological Research in Yucatan (1888-1891): Reports of Explorations for the Museum". *Memoirs of the Peabody Museum of American Archaeology and Ethnology, Harvard University*. Vol. 3, No.1 (1904): 3-20. Cambridge, Mass: Harvard University, 1904.

Thompson, Edward H.

Cave of Loltun, Yucatan. Report of Explorations by the Museum, 1888-'89 and 1890-'91. Memoirs Peabody Museum of American Archaeology and Ethnology, Harvard University. Cambridge: Printed by the Museum, 1897.

Thompson, Edward H.

"Explorations in Yucatan". *Proceedings of the American Antiquarian Society*, N.S., Vol. 4 (1897 [1888?]): 379-385.

Thompson, Edward H.

"Recent Excavations in Northern Yucatan". *Proceedings of the XIX International Congress of Americanists, 1915*: 202-205. Washington, 1911.

Thompson, J. Eric S.

“A Survey of the Northern Maya Area”. *American Antiquity*. Vol. 11, No. 1 (July 1945): 2-24.

The author proposes a detailed chronology of 4 main divisions of Maya history: Formative Period (prior to A.D. 325); Transition (A.D. 900 to A.D. 987); Mexican Period (A.D. 987 to A.D. 1204); and Mexican Absorption Period (A.D. 1204 to A.D. 1540). Following a brief description of Uxmal, he writes: “The dating of Puuc architecture is of some importance because for many years it has been assigned a much later date as a Maya renaissance. It is now amply clear that this style does not represent a renaissance of Maya culture but is contemporaneous with the great buildings of the central area which flourished in the classical age” (p. 8).

Tozzer, Alfred M., comp.

Landa's relación de las cosas de Yucatán. Edited with notes by Alfred M. Tozzer. Papers of the Peabody Museum of Archaeology and Ethnology, Harvard University, Vol. 18. Cambridge, Mass: Peabody Museum of Archaeology and Ethnology, 1941.

Tozzer, Alfred M., and Grover M. Allen

Landa's relación de las cosas de Yucatán. Papers of the Peabody Museum of Archaeology and Ethnology, Harvard University, Vol. 4, No. 3. Cambridge, Mass: Peabody Museum of Archaeology and Ethnology, 1910.

Tozzer, Alfred M.

“The Chilam Balam Books and the Possibility of their Translation”. *Proceedings, 19th International Congress of Americanists*: 178-186.

V

Valiente Cánovas, Santiago

“Parques y excavaciones arqueológicas: experiencias en el Yucatán, México. *Cuadernos: Conservación Arqueológica: Reflexión y debate sobre teoría y práctica*, Contenido del Curso-Debate realizado en Sevilla del 30 de noviembre al 4 de diciembre de 1992. Instituto Andaluz del Patrimonio Histórico; 50-57. Sevilla: Junta de Andalucía; Consejería de Cultura y Medio Ambiente, 1994.

A survey of archaeology in the Yucatan. Following brief sections on general characteristics of the Yucatan and the study of its structures, the author provides a list of general theoretical bases for treatment of archaeological sites, stressing absolute fidelity. He then describes current problems. Strangely, the only examples of specific sites are a few of the captions to the 10 small reproductions of photographs.

Velázquez Morlet, Adriana; Edmund López de la Rosa; Ma. del Pilar Casado López; and Margarita Gaxiola

Zonas Arqueológicas Yucatán. México, D.F.: Instituto Nacional de Antropología e Historia, 1988.

An authoritative, 132 pages book, published by the Instituto Nacional de Antropología e Historia, presenting the only comprehensive account of the An authoritative, 132 pages book, published by the Instituto Nacional de Antropología e Historia, presenting **the only comprehensive account of the archaeology of the Yucatan through 1988**. In her prologue, Margarita Gaxiola González writes that the goal of the *Atlas Arqueológico de Yucatán* is to **establish a link between archaeology and conservation**. She describes the establishment of a new mentality involving the local communities, and notes that beginning in 1984, INAH rules, for the first time, established a regular registration system.

Chapter 1 provides a comprehensive, **chronological review of archaeological studies of the Yucatan, noting correlations with various national agendas**. Attention is called to the establishment in the 1970s of the Southeast Branch of the INAH, an important event for the archaeology of the Yucatan. New forms of study such as correlation of astronomy with urban design, study of domestic structures and settlement patterns are described.

Chapter 2 describes **the pre-Hispanic history of the Yucatan**, charting the development of the Yucatan in relation to the entire Maya area and Mesoamerica. Migration routes, establishment of civic spaces, trade routes, the dominance of Chichen Itzá and Mayapán and their eventual dissolution are described. A two-page table charts the evolution of the Puuc architectural styles and their characteristics. The authors distinguish the Yucatan from other Maya areas; also arguing that there was more diversity within the Yucatan than in other Maya areas.

Chapter 3 **presents the results** of the *Atlas Arqueológico de Yucatán*, which aimed to integrate sites previously not recognized and to link policies to data, providing for a conservation program. The authors describe the systematic methods used, wide range of characteristics discovered, presented in clear diagrams, and distinguish 4 levels of sites by importance.

Chapter 4 **examines the conservation** of the archaeological patrimony of the Yucatan. The various types of destruction and looting of archaeological material are described. The authors note that recently, unlike in other Maya areas, the Yucatan has generally been able to stop looting by international rings. They call attention to the new federal laws of 1972 and signing of international documents setting forth agreed upon standards.

The volume is also exceptionally **well illustrated**, with over a hundred photograph, drawings, maps, diagrams, and charts, with a large, loose, color map of the Yucatan, from the *Atlas Arqueológico de Yucatán*, showing all the archaeological sites and other features identified (the aerial view of Uxmal on page 48 is reversed right-left). There is an important 18 page bibliography.

W

Waldeck, Frédéric de

Voyage pittoresque et archéologique dan la province d'Yucatan (Amérique Centrale), pendant les années 1834 et 1836, par Frédéric de Waldeck, dédié a la Mémoire de Le Vicomte de Kingsborough. Paris: Bellizard Dufour et Co; Londres, J. et W. Boone, Bossages Barthes et Lowell, 1838 (for description of the two 1838 versions, see annotation below)

1930 Spanish edition: *Viaje pintoresco y arqueológico a la provincia de Yucatán (América Central) durante los años 1834 y 1836, por Federico de Waldeck ... Traducción y prólogo del dr. Manuel Mestre Ghigliazza; editor, Carlos R. Menéndez, Merida: Compañía tipográfica yucateca, s.a., 1930.*

1930 Italian edition.

1996 Spanish edition: *Viaje pintoresco y arqueológico a la Provincia de Yucatán, 1834 y 1836.* Trans. Manuel Mestre Ghigliazza. "Presentation" Hernán Menéndez Rodríguez. México, D.F.: Consejo Nacional para la Cultura y las Artes, 1996.

1997 Spanish edition: *Viaje pintoresco y arqueológico a la Provincia de Yucatán, 1834 y 1836.* "Prologo" Miguel Leon-Portilla. México: Servicios Condumex, S.A. de C.V., Centro de Estudios de Historia de México Condumex, Núm. 186.

Waldeck's prints of Uxmal are reproduced on this web site.

<http://academic.reed.edu/uxmal/galleries/thumbnails/drawings/Drawings-Waldeck.htm>

The original 1838 French edition was published in two slightly different forms, with the same text and illustrations. One form, an extremely elegant version, had a slightly larger binding, making it possible for the fold-out plates to be folded once instead of with two folds as in the slightly smaller version. In both versions, the Yucatan map plate includes some color, but 4 of the plates in the more elegant version were in rich color whereas the same 4 plates were without color in the slightly smaller binding.

The plates constitute by far the most important section of this lavishly produced folio volume. There are 22 large prints on pages 22-1/32 x ca. 16 inches. Three of the pages are 22 1/32 x ca. 32 inch foldouts. Accompanying the plates are 18 pages of text identifying and describing the images. A number of the plates represent Yucatan men and women. All but one of the architectural plates are of Uxmal, representing the Pyramid of the Magician and the Nunnery Quadrangle (the other plate represents Palenque). The Turtles, a portion of the Governor's Palace and other structures are noted on Waldeck's Uxmal map. This was the first publication to include illustrations of Maya architecture and sculpture, and as such served as an impetus for the pursuit of

Maya culture until the vastly more informative and accurate publications by Stephens and Catherwood 3 and 5 years later.

Waldeck's publication is **a mixed bag**. Because he often presented false information about his own life, and because his interpretations of archaeological evidence in both text and illustrations are often speculative, scholars have largely criticized the accuracy of Waldeck's prints and his descriptions of them. For examples, in his excellent *History of Mexican Archaeology*, Ignacio Bernal, then Director of the National Museum of Anthropology, wrote: "his book had its part to play in the general flow of interest towards the Maya remains, along with his very beautiful drawings which were yet, archaeology speaking, so highly inaccurate" (p. 119).

But many of Waldeck's drawings are quite accurate and, in a few cases, provide more informative details of the Nunnery than in any of Catherwood's prints. Comparing his recreation of a section of the façade of the West Building of the Nunnery (plate 13) with the 1843 world-class print after Catherwood, representing the small, then existing portion (Vol. 1, p. 302), Waldeck's print appears reasonably accurate for the portions still existing when Catherwood drew them. His drawing of a large portion of this façade is especially important because Stephens reported that he was told by the proprietor of the local hacienda "that in 1835 the whole front stood, and the two serpents were seen encircling every ornament in the buildings" (Vol. 1, p. 198). We cannot assume that his drawing of the portions that had fallen were accurate, but the areas that remained when photographed by Charnay in 1859-60 are reasonably accurate in Waldeck's print. Likewise, his drawings of the courtyard facades of the East and South Buildings, which were relatively well preserved and therefore did not require much imaginative reconstruction, are reasonably accurate. His detail of a section of the courtyard façade of the East Building, which has been well preserved, is an impressive print and the most informative until Le Plongeon's photograph 25 years later.

The generalized contrast made by Bernal and other scholars between archaeology and art is oversimplified and misunderstands Waldeck's intentions. He was not attempting primarily to make beautiful drawings. Two distinctions must be made about the text and images in Waldeck's volume. First, it is **important to distinguish between the descriptive aspects of Waldeck's text and images of Uxmal and, on the other hand, his interpretations of this evidence.** In describing each of the prints, he often provides detailed information, including measurements, and comments such as (in translation) "The colors that the buildings were painted, in the past, are blue, red, yellow, and white. There can be found in some places visible traces of these different shades; especially in the back of the carvings where the rain has not been able to penetrate, they are perfectly apparent" (p. 223).

Most importantly, in evaluating Waldeck's images, it is **important to distinguish between drawings that are intended primarily to record visible evidence of buildings as they appeared when Waldeck drew them, comparable to the drawings of Catherwood, and, on the otherhand, drawings which are intended to suggest how they might have looked when new.** Where facades were well preserved, Waldeck had sufficient evidence and his drawings and detailed descriptions are reasonably accurate. But

where parts of facades had collapsed, details are missing, and stone carvings badly worn, he has attempted to suggest how they might have looked. Thus, he speculated that the tumbled down pile of the Pyramid of the Magician originally had four sloping sides, comparable to Egyptian pyramids. He drew carvings with the sharp edges more representative of newly carved stone, and, in his few color plates, filled in the largely missing color.

Some of these, such as his famous drawings and descriptions of caryatids on Temple V of the Pyramid of the Magician, are not only highly speculative, but **seem deliberately falsified**. The remaining fragments of these figure as they exist today, which were seen by Waldeck, though small, clearly disagree with his imaginative reconstructions of them. Yet Waldeck writes: "I was very surprised to find in these caryatid figures a drawing so correct, especially in the lower part, that after having recomposed and drawn one of the statues . . ." (p. 222). These and a few other of Waldeck's drawings are not justified even as speculative reconstructions, and warn us to view all of his drawings with caution. But they do not justify wholesale rejection of the information recorded in his drawings and descriptions of them.

We should note also that he demonstrates an early concern for preservation. About several masks fallen from the façade of the Nunnery's East Building, he wrote (in translation): "the masks will not be lost for travelers who come to visit these ruins after me. They will be found in a pile and covered with earth in the second room of the north side where I had the precaution to deposit them" (p. 244, 246).

The excellent prologue, by Miguel Leon-Portilla, to the 1997 Spanish translation, is separately listed and annotated in this web bibliography.

Webster, David L.

"Three Walled Sites of the Northern Maya Lowlands". *Journal of Field Archaeology*. Vol. 5 (1978): 375-390.

Weidie, A. E. and William C. Ward, eds.

Carbonate Rocks and Hydrogeology of the Yucatan Peninsula, Mexico. New Orleans Geological Society, 1976.

Wiley, Gordon R.

"The Postclassic of the Maya Lowlands: A Preliminary Overview" *Late Lowland Maya Civilization: Classic to Postclassic*, ed. Jeremy A. Sabloff and E. Wyllys Andrews V. A School of American Research Book. Albuquerque, University of New Mexico Press, 1986: 17-51.

A comprehensive survey of archaeological research for the Maya Lowlands, divided into three periods: Terminal Classic, Early Postclassic, and Late Postclassic. No separate attention to the Puuc region.

Willey, Gordon R.

“Summary review”. *Lowland Maya Settlement Patterns*, ed. Wendy Ashmore: Albuquerque: University of New Mexico Press, 1977.

Willey, Gordon R.

“Tozzer, Alfred Marston”. *The Oxford Encyclopedia of Mesoamerican Cultures: The Civilizations of Mexico and Central America*. Vol. 1: 253-254, ed. David Carrasco. 3 vols. Oxford University Press, 2001.

A brief history of Tozzer’s career, noting that “above all, Tozzer is remembered as a teacher. . . . It is no exaggeration to say that virtually all American-trained Mayanists of the first half of the twentieth century were Tozzer students”. Willey notes that one of Tozzer’s major publications “was his edition of *Landa’s Relación de La Cosas de Yucatan* (1941) with its extensive annotations” (p. 253).

Wilson, Eugene M.

“Physical Geography of the Yucatan Peninsula”. *Yucatan: A World Apart*, ed. E. H. Moseley and E. D. Terry: 5-40. Mobile: University of Alabama Press, 1980.

Informative survey of the geology and physiography of the Yucatan Peninsula, including its landforms, water, climate, soil, and vegetation. **The author divides the Yucatan Peninsula into 14 identifiable regions, of which the smallest is the Puuc region**, about which he writes: “The Puuc or Sierrita de Ticul is a northwest-to-southeast trending linear ridge with relief reaching approximately 100 meters” (p. 7). Of special interest for the architecture of the Puuc region are his descriptions of hardened surface limestone, softer sascab, sinkholes, caves, ground water, water and settlement, and soils and agriculture.

Winemiller, Terance Lynn

Water Resource Management by the Ancient Maya of Yucatan, Mexico. Doctoral thesis, Department of Geography and Anthropology, Louisiana State University, 2003. Published by University of Michigan Dissertation Services: UMI 3161967.

and settlement location” in the Yucatan, especially the role that “control of water resources and the development of hydrological management systems played in centralization of power and the rise of complex civilization in the Central and Northern Maya Lowlands” (p. 358). Previous studies and publications are thoroughly reviewed and there is a 64 page bibliography.

In his 11 pages on “Puuc or Serrita de Tical District”, Winemiller surveys past studies and provides **the most informed brief survey of the water at Uxmal**. Concerning the importance of the aguadas at Uxmal, Winemiller writes: “As Barrera Rubio (1978) pointed out, the water in aguadas represented a source of water for construction purposes but not a major source of water for human consumption. In light of the account in the Chilam Balam and problems with water in the peninsula, Barrera Rubio might have a point. However, surface water might have been safer for consumption than water derived from subterranean sources” (p. 285).

The author studied the frequency and distribution of chultunes at Uxmal and Sayil, concluding that chultunes as well as architecture are much more dense within the central precinct at Uxmal: 71 of 92 known chultunes are within the walled central area. Winemiller describes Huchim Herrera's study of the 12 *aquadas* at Uxmal, especially his excavation of the major *aguada*, Chen-Chan. Winemiller summarizes: "Huchim Herrera (1991) excavated a *bukte* in *Aguada* Chen-Chan at Uxmal, Yucatan. The innovation permitted ground water to filter through permeable walls into a cavity, effectively extending the depth of *aquadas* to the level of the base of the *bukte*. 1991: 130-42." (p. 288). Importantly, Winemiller notes that "evidence of significant architectural groups situated within the survey zone around the five *aquadas* was not found" (p. 288) and that the use of the water from the Uxmal *aquadas* is still uncertain.

Witschey, Walter R. T. and Clifford T. Brown

"Building a GIS System of Ancient Lowland Maya Settlement". A paper presented at the annual meeting of the Society for American Archaeology, April 2000.

On the web at:

<http://mayagis.smv.org/papers.htm>

(accessed 2008 March 13)

The PowerPoint presentation, included on this web site, from the authors' 2000 paper includes 4 maps of the Northwest Yucatan, including the Puuc Region, showing the increased density and location of Rank 1, Rank 1 and 2, Rank 1, 2, and 3, and Rank 1, 2, 3, and 4 sites.

Y

Young, W. P., compiler

In Mayaland Yucatan. A folder. The Yucatan Merchants ("Issues by a representative group of Yucatecan planters and merchants"). No date (1910?).

"It is copiously illustrated, and contains 18 beautiful illustrations of Uxmal, 9 of which were made by Teobert Maler. The copy in the collection of the compiler has been annotated by Maler" (Saville 1921, p. 121).

Z

Zapata Alonzo, Gualberto

Guide to Puuc Region: Uxmal, Kabah, Xlapak, Sayil, Labna. Mérida: Producción Editorial Dante, S.A., no date.

Zapata Peraza, Renee L.

"*Los chultunes de la region serrana de Yucatán*". *Cuadernos ded la Arquitectura Mesoamericana*. Vol. 8 (1876): 17-24.

