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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  
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This is **not a general Maya bibliography**. Like this web site as a whole, it focuses on the architecture of Uxmal, Kabah, Sayil, and Labná, and on their restoration and graphic imaging.

Where a publication has more than one author or editor, it is listed only under the name of the author or editor listed first on the title page. Ideally, I believe that a full, scholarly bibliography should list every publication separately under the name of every author and/or editor on the title page, even though this would include duplication. Unfortunately, given the many multiple-authored publications in this bibliography, this would swell this pdf file to two or three times its current length. Where a book contains chapters on different subjects by different authors, one or more of these chapters may be listed separately under its author's name, with its own annotation.

A

**Abrams, Elliot Marc**

How the Maya Built Their World: Energetics and Ancient Architecture. Austin: University of Texas Press, 1994.

Based on a study of the residential architecture at Copán, the author attempts to demonstrate the usefulness of “architectural energetics” in understanding ancient civilizations. As the author writes: “By converting buildings into the energy and labor expended in their construction, a series of reconstructions concerning social power, labor organization, and economics can be generated.” Thus, the book includes 12 tables with titles such as “Operations, Tasks, and Costs per Task in Construction”, “Cumulative Energy Cost per Major Construction Episode”, and Hierarchic Social structure based on Residential Cost”. The few conclusions reached regarding the Maya at Copán do not seem to need the elaborate structure of the book. For example, the first conclusion states that “in addition to their greater symbolic value, improved residential structures provided their occupants with an enhanced biopsychological quality of life, particularly in terms of health and comfort. Commoners viewing these elite structure saw more than symbols of power; they saw better housing and better living conditions” (p.127). Although no new ideas are described, the book is **useful in reviewing some of the details of construction, division of labor, etc.**

**Abrams, H. Leon, Jr.**

“Justin Kerr’s Innovative Contribution to Maya Archaeology”. *Katunob: A Newsletter-Bulletin on Meso-American Anthropology*. Vol. 10, No. 2 (1977): 19-22. Greeley, Colorado: University of Northern Colorado.

**Acosta, Jorge R.**

*Nuevos ensayos de restauración en Uxmal, Yuc.* Dirección de Monumentos Prehispánicos, Informes 9. México, D.F.: Instituto Nacional de Antropología e Historia, 1958.

The author first discusses how to tell original material from later restoration and reconstruction, pointing out that it is generally impossible to distinguish restoration except where masonry is recent and therefore lighter rock and where relatively fresh concrete is present. He then provides **a detailed account of his procedure at Uxmal** for reconstructing the lintels and areas above doorways, many of which had already or were near collapse. His method, clearly illustrated with excellent detailed photographs and a superb seven step diagram, involved removing the original wood lintels and masonry above, adding a new reinforced concrete lintel masked with shaped stones, and replacing the original wooden lintel, which no longer needed to provide support. He discusses the approach he took at Uxmal, including the rebuilding of collapsing interior walls, recessing slightly new cement between stones to distinguish it from original cement. He found that the space between stones in the original walls was between one and three centimeters. This is a most impressive and somewhat **exceptional publication in that the author evaluates alternative approaches and describes why the final approaches were chosen at Uxmal.**

**Adam, Lucien**

“Du Fou-Sang”. *Proceedings of the International Congress of Americanists* (1 session, Nancy, 1875), Vol. 1: 144-163.

**Adam, R. E. W.**

"Maya Archaeology 1958-1968, a Review". *Latin American Research Review*, Vol. 4 (1969): 3-45.

**Adams, R. E. W.**

*Prehistoric Mesoamerica*. University of Oklahoma Press, 1991.

**Adams, R. E. W., and Jane J. Adams**

"Volumetric and Stylistic Reassessment of Classic Maya Sites in the Peten, Rio Bec, Chenes, and Puuc Hills". *Ancient Mesoamerica*, Vol. 14, No. 1 (2003): 139-150.

**Adams, Richard E. W., W. E. Brown Jr., and T. Patrick Culbert.**

"Radar Mapping, Archaeology, and Ancient Maya Land Use". *Scientific American*, Vol. 213, No. 4515 (1981): 1457-1463.

**Adkins, Lesley, and Roy A. Adkins**

*Archaeological illustration*. Cambridge Manuals in Archaeology. Cambridge University Press, 1989.

A clearly presented manual describing the various purposes, approaches, conventions, and techniques for archaeological drawings. **The number of different types of drawings explained is impressive** and necessary for anyone attempting to understand such drawings, especially if attempting to use such drawings as evidence. For each chapter there is a useful annotated list of recommended sources. Photographic documentation is not discussed.

**Agnew, Neville**

"Of the Past, for the Future: A Coalition for Change at the Fifth World Archaeological Congress". *GCI Newsletter*, Vol. 18. No. 1 (Spring 2003).

On the web at:

[http://www.getty.edu/conservation/publications/newsletters/18\\_1/news\\_in\\_cons2.html](http://www.getty.edu/conservation/publications/newsletters/18_1/news_in_cons2.html)

(accessed 2007 May 21)

**Agnew, Neville**

"Preservation of Archaeological Sites: A Holistic Perspective". *GCI Newsletter*, Vol. 2, No. 2 (Summer 1997).

On the web at:

[http://www.getty.edu/conservation/publications/newsletters/12\\_2/feature1.html](http://www.getty.edu/conservation/publications/newsletters/12_2/feature1.html)

(accessed 2007 May 21)

**Agnew, Neville and Janet Bridgland, eds.**

*Of the Past, for the Future: Integrating Archaeology and Conservation*. Proceedings of the Conservation Theme at the 5<sup>th</sup> World Archaeological Congress, Washington, D.C., 22-26 June 2003. Los Angeles: Getty Conservation Institute, 2006.

This impressive 361 page, double-columned volume publishes no fewer than **52 papers, responses, etc.** given at the 2003 World Archaeology Congress in

Washington, D.C. The theme of the congress, as described in the foreword by Timothy Whalen and introduction by Neville Agnew, was the conservation and management of archaeological sites. **The purpose was to further cooperation between conservators and archaeologists worldwide.** Agnew writes that “Preservation of the archaeological heritage has always been the concern of archaeology and practicing archaeologists, but it has not truly been integral to the theory and practice of the discipline”. However, “the interface between archaeology and conservation has been growing stronger . . . particularly as a holistic approach to decision making . . . has become more the norm . . . but much progress has yet to be made”. Quite properly, many of the papers dealt with specific examples, but they were chosen because of their importance in exploring global issues, important for conservation of the cultural heritage worldwide. Following the introduction and plenary presentations, the volume is divided into 9 additional sections, with brief instructive introductions.

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

Corruchaga, José Antonio Lasheras, and Pilar Fatás Monforte, “The New Museum of Altamira: Finding Solutions to Tourism Pressure”  
 Cunliff, Scott, “Tourism and Cultural Risk Management”  
 Robles Garcia, Nelly, “Social Landscapes and Archaeological Heritage in Latin America”  
 Silberman, Neil, and Dirk Callebaut, “Interpretation as Preservation: Rationale, Tools, and Challenges”  
 Wurster, Wolfgang, “Maya Cities and Tourism”

### **Alonso Olvera, A., and P. Meehan Hermanson**

“Conservation and Research in the Archaeological Maya Site of Ek’ Balam at the Yucatan Peninsula: An Extensive Project on Stucco Decor and Mural Painting Preservation”. *14<sup>th</sup> Triennial Meeting The Hague, 12-16 September 2005, Preprints*, Vol.1: 402-408. ICOM Committee for Conservation, 2005

Although this paper deals exclusively with Ek’ Balam, it provides **one of the clearest, most comprehensive, and up-to-date statement of the conservation approach appropriate for all Maya archaeological sites in the Yucatan and perhaps elsewhere.** Because remarkably well preserved stone, stucco, and painting remains were uncovered as recently as 2001, Ek’ Balam provided an unusual opportunity for formulating a balanced, highly professional approach making use of local skills and conditions. This report is essential reading for everyone involved in or studying the conservation of Maya archaeological sites.

### **Alvarado, Rafael**

“Institutions, Projects, and Meetings”. *The Oxford Encyclopedia of Mesoamerican Cultures: The Civilizations of Mexico and Central America*. Vol. 1: 49-54. Ed. David Carrasco. 3 vols. Oxford University Press, 2001.

An informative historical review of the major institutions, projects, meetings, and individuals that have contributed significantly to the development of Mesoamerican archaeology. There are useful comments about changing attitudes in the field.

**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.

**Amábilis Dominguez, Manuel**

*Arquitectura Precolombian de México*.

**Amrhein, Laura M.**

"An Iconographic and Historic Analysis of Terminal Classic Maya Phallic Imagery". Report to the Foundation for the Advancement of Mesoamerican Studies, Inc. (FAMSI), submitted 2002 July 30.

On the web at

<http://www.famsi.org/reports/20001/index.html>

(accessed 2007 Nov. 3)

This is an abstract of the author's dissertation, "An Iconographic and Historic Analysis of Terminal Classic Maya Phallic Imagery", and summary of the types of phallic imagery discussed in the dissertation. This was submitted as a report on research funded by FAMSI during May 2000 at 3 locations: Mérida, Chichén Itza, and Uxmal.

Amrhein documents a large number of phallic images, primarily sculptural, suggesting that it evolved directly out of earlier traditions and was a major art form, "a significant part of ancient Maya spiritual life, cosmology, rulership, and lineage". *She states that in her dissertation she has documented "over 130 phalli" "from various contexts from over forty sites"*. There are 10 photographs of phallic sculpture, 4 of which are from Uxmal (fig. 10, identified only as "Late Classic/Terminal Classic", shows the figure at far right of the main façade of the West Building, Nunnery Quadrangle, Uxmal).

**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 65<sup>th</sup> Annual Meeting of the Society of American Archaeology, Philadelphia, 2000.

**Andrews, E. Wyllys, IV**

"Annual Report 1941-1942". *Year Book No. 41*. Carnegie Institution

**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**

"Explorations in the Gruta de Chac, Yucatan, Mexico". *Middle American Research Institute*, Pub. 31: 1-22. New Orleans: Tulane University, 1965.

**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, and Jeremy A. Sabloff**

“Classic to Postclassic: A Summary Discussion”. Sabloff and Andrews, *Late Lowland Maya Civilization: Classic to Postclassic*. SAR and University of New Mexico Press, Albuquerque, 1986: 433-456.

**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**

“Some comments on Puuc Architecture of the Northern Yucatan Peninsula”. *The Puuc: New Perspectives: Papers Presented at the Puuc Symposium, Central College, May 1977*, ed. Lawrence Mills: 1-17. Scholarly Studies in the Liberal Arts, Vol.1. Pella, Iowa: Central College, 1979.

Andrews first calls attention to the nature of recent research in the Puuc region. He writes that Puuc architecture has by then been extensively studied “with regard to style, distribution in space and time, construction techniques, formal arrangements, and possible external relationships” He adds that “studies have usually emphasized the architecture itself and its consolidation or restoration, rather than the broad stratigraphic excavations, settlement pattern studies, detailed analysis of artifact classes, and other facets of the prehistoric record that are usually incorporated in most modern archaeological field work”. His article is **prophetic in calling for the need for “a settlement pattern study of one or more of the large sites** that seem to pertain wholly or at least in large part to the period of the Puuc architectural style” (p. 1).

He then describes the ways in which the Puuc architectural style and technique of the Pure Florescent or Terminal Classic period differ from those of neighboring regions. Here he corrects a common error in publications by authors not familiar the Puuc architecture, noting that **Puuc vaults are not corbelled** and that this change in construction technique [we could add here Puuc improvement in the quality of concrete] permitted wider rooms. Importantly, he suggests that this may indicate that

the width of Maya rooms had been constrained by their knowledge of structure rather than by convention.

The body of the article examines in detail the various types of evidence for the dating of Puuc style architecture and the relationship of Puuc culture to the culture of related regions. This is an exceptionally informed, critical review, frequently emphasizing conflicting or insufficient evidence. Two especially important questions reviewed in the body of the article are **the origins of the Puuc style and the relationship of Puuc sites to Chichen Itza**. Andrews concludes with a section on Coluba, a site about 85 km northeast of Chichen Itza, which he believes is already providing important evidence about the Puuc-Toltec relationship. Illustrating his points with 11 excellent detail photographs of Coluba, Andrews points out many typically Puuc features. The strong similarity between one long, largely intact Puuc range-type structure at Coluba and the Nunnery at Uxmal argues strongly, in his view, that they are contemporary.

**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**

*The Architectural Survey at Sayil: A Report of the 1985 Season*. Unpublished manuscript. Eugene: University of Oregon, 1985.



**Andrews, George**

“Architectural Survey at Sayil: 1985 Field Season”. “The Mapping of Community Patterns at Sayil, Yucatan, Mexico. The 1985 Season”. *Journal of New World Archaeology*, 1986.

**Andrews, George F.**

“Architectural Survey of the Puuc Archaeological Region, 1984 Field Season, Preliminary Report”. *Arquitectura y arqueología / Architecture and Archaeology, Methodological Approaches in Yucatan Chronology*. Collection Etudes Mésoaméricaines, Ser. 2, Vol. 8. México: Centre d’Etudes Mexicaines et Centraméricaines, 1985: 5-11.

**Andrews, George F.**

“Architectural Survey of the Puuc Region: 1984 Field Season”. Report on file at Centro Regional de Yucatán, Instituto Nacional de Antropología e Historia, Mérida, 1986.

**Andrews, George F.**

“Architectural Survey of the Puuc Region: 1985 Field Season”. Report on file at Centro Regional de Yucatán, Instituto Nacional de Antropología e Historia, Mérida, 1986.

**Andrews, George F.**

“Architectural Survey of the Puuc Region: 1986 Field Season”. Report on file at Centro Regional de Yucatán, Instituto Nacional de Antropología e Historia, Mérida, 1987.

**Andrews, George F.**

“Architectural Survey of the Puuc Region: 1987 Field Season”. Report on file at Centro Regional de Yucatán, Instituto Nacional de Antropología e Historia, Mérida, 1988.

**Andrews, George F.**

“Architectural Survey of the Puuc Region: 1988 Field Season”. Report on file at Centro Regional de Yucatán, Instituto Nacional de Antropología e Historia, Mérida, 1989.

**Andrews, George F.**

“Architectural Survey of the Puuc Region: 1989 Field Season”. Report on file at Centro Regional de Yucatán, Instituto Nacional de Antropología e Historia, Mérida, 1990.

**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 (2<sup>nd</sup> 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.**

“Arquitectura maya”. *Arqueología Mexicana*. México: INAH-Raíces, Vol. II, No.11 (Jan.-Feb. 1995): 4-15.

**Andrews, George F.**

“Chenes-Puuc Architecture: Chronology and Cultural Interaction”. *Arquitectura y Arqueología: Metodologías en la Cronología de Yucatán*. CEMCA Etudes Mesoamericaines 2: 11-40. México, D.F.: Centro de Estudios Mexicanos y Central Americanos, 1985.

**Andrews, George F.**

“Classic Puuc Mosaic Style Architecture and Geometric Masks”. *Memorias del Primer Coloquio Internacional de Mayistas* (5-10 August 1985), ed. Mercedes de la Garza, et al. Instituto de Investigaciones Filológicas, Centro de Estudios Mayas: 403-426. México, D.F.: Universidad Nicaional Autónoma de México, 1987.

A fascinating description of the varying forms of masks in Classic Puuc mosaic architecture. The author’s thesis is that “the geometric masks . . . were derived from the typical long-nosed mask panel through the process of simplification, elimination and substitution” (p.404). Andrews describes a progression of 18 buildings carrying geometric mask panels (including one each from Uxmal and Kabah and three from Labná) from the most recognizable to the most geometric and most variant. He notes that it would be convenient if these indicated a chronological development but that the existence of “both long-nosed and geometric masks . . . on the same building [demonstrates] that both forms are contemporary” (p.425). He indicates that “**the limited geographical distribution of geometric masks does suggest special political or family ties among the elite groups controlling these sites**” (p.425). The clarity of presentation, writing and illustration is exemplary.

In addition to **providing a schema for analyzing and understanding these mask forms**, Andrews notes which designs are most “effective” and “elegant,” not the type of statement anthropologists usually allow themselves. He even expresses one clear, though widely shared, value judgment: “the main façade of the Codz-poop at Kabah . . . has merely been covered with a kind of wallpaper; the repetitive [sic.] pattern may be decorative but the message is lost” (p.425).

**Andrews, George F.**

“Early Puuc Architecture”. Paper presented at the 43<sup>rd</sup> International Congress of Americanists. Vancouver, British Columbia, 1979.

**Andrews, George F.**

“Early Puuc Architecture: Buildings with “Broken Medial Mouldings”. *Cuadernos de Arquitectura Mesoamericana*, Vol. 5 (1985): 59-74.

**Andrews, George F.**

*Los estilos arquitectónicos del Puuc: Una nueva apreciación.* Colección Científica No. 131. Serie Arqueología. México, D.F.: Instituto Nacional de Antropología e Historia, 1986.

**Andrews, George F.**

*Maya Cities: Placemaking and Urbanization.* Norman: University of Oklahoma Press, 1975.

This is an extensive, pioneering analysis of Maya civic planning, of the “spatial concepts evident in the positioning and siting of Maya buildings and building groupings, and in the planning and physical organization of the ‘city’ or ‘ceremonial center’ as a whole” (p.4). Along the way, Andrews relates these spatial concepts to characteristics of the society. Note, for instance, his comparison of Uxmal and Kabah: “The essential difference between [Kabah and Uxmal] lies in the degree to which large-scale space-ordering ideas are present. Uxmal exhibits a clear visual order which is based on formal geometric configurations at the largest possible scale, while Kabah seems disjointed and no central organizing concept is observable. On this basis, Uxmal can be assigned a dominant role in relation to Kabah only to the extent that this large-scale ordering is indicative of a more highly organizing power group at work” (p.327).

The grey-scale photographs, many taken by the author between 1958 and 1964, are especially important for three reasons. First, there are a sufficient number of photographs to record more than the standard views. Second, they record the structures and open spaces before recent restoration and growth of trees. Most importantly, **the photographs were taken by a knowledgeable scholar-photographer** and therefore are not merely pictorial but record important aspects of the architecture which the author discusses in the accompanying text.

Chapter 5, of special importance, includes **separate descriptions of: Basic Elements** (Plaza, Terrace, Platform, Courtyard, Causeway, and Ball Court); Building Types (Temple, Palace, Altar and Ceremonial Platform, Shrines or Sanctuaries, Ball Courts, Dwelling, and Stelae); and **Basic Building Groupings** (Temple Groups, Palace Groups, Quadrangle Groups, Acropolis Groups, and Special Astronomical Assemblages). Chapter Six provides an informed review of Maya building technology. The chapter on individual cities includes Uxmal (8 pages text, 7 reconstruction drawings, and 31 photographs), Kabah (4 pages text, 1 reconstruction drawing, and 16 photographs), Sayil (4 pages text, 2 reconstruction drawings, and 7 photographs [the photograph and restoration drawing of the northwest corner of the Great Palace is incorrectly captioned northeast corner] ), and Labná (4 pages text, 1 reconstruction drawing, and 12 photographs). Andrews’ epilogue is a moving reflection on the character and meaning of Maya architecture, concluding with the sentence: “The development of a truly monumental architecture, and in turn large urban communities, starting with only a thatched-roof hut as a model, was surely the most remarkable architectural accomplishment of the New World” (p.456).

**Andrews, George F.**

“Puuc Architecture: 1985 Field Season”. Report on file at the Centro Regional de Yucatán, Instituto Nacional de Antropología e Historia, Mérida, 1986.

**Andrews, George F.**

“Puuc Architectural Styles: A Reassessment”. Paper presented at the Symposium on The Northern Maya Lowlands: New Data, Syntheses and Problems, held June 1982. Mexico, D.F.: Universidad Nacional Autónoma de México, 1982 (published in *Architecture of the Puuc Region and the Northern Plains Areas*, Vol. 1 of *Pyramids and Palaces, Monsters and Masks: The Golden Age of Maya Architecture*, 3 vols., 1995: 3-132).

In the 1995 published version, 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.

**Andrews, George F.**

*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, 1997, and 1999.

**The collected writings and lecture papers of George Andrews** on the architecture and culture of lowland Maya civilization. These are based on detailed, on-site observations, documenting “nearly 1000 buildings at 242 sites”. 145 of these sites are from the Puuc and Chenes-Puuc regions (Vol. 1, p. v). The study is focused on buildings, superstructures, not on “free-standing platforms, stepped podium (pyramids), ballcourts, altars, or building platforms”, though he notes that his approach to style could also be applied to these (Vol. 1, p. 5). Volume 1 deals with Puuc and Northern Plains region of the Yucatan. Volume 2 deals with the Chenes and Rio Bec regions. Volume 3 deals with the southern regions and pan-maya topics. The volumes are illustrated with **a remarkable archive of photographs, line drawings, maps, and charts** almost entirely by the author. These include some 70-100 photographs and nearly 200 line drawings for each volume. Based on this documentation, Andrews proposes various conclusions regarding patterns, styles, and overall characteristics, and on functions, origins, and influences.

In a remarkably systematic introduction to his study, Andrews **lists the stylistic attributes of Maya buildings**, broken down under the categories of architectural, constructional, and decorative features. He provides a list of the features for each of these three categories and notes the ways in which they can best be analyzed (Vol. 1, pp. 3-4). He then writes: “When it can be demonstrated that a particular constellation of architectural, construction, and decorative features has become so standardized that the same constellation appears over and over again in a large number of buildings, this combination of features becomes diagnostic for a specific style. It must

be emphasized that a single category of features is not sufficient to describe a building in terms of style, even though the literature is filled with references to Puuc style buildings solely on the basis of their construction features alone. . . As a final point, floor plans, room arrangements, and building size cannot be considered as stylistic attributes of buildings; a small one-room building or a large, multi-room structure can be executed in any architectural style” (p. 5).

Volume 1 is separately listed and annotated in Puuc and Yucatan sections of this web bibliography.

**Andrews, George F.**

“Xkichmook Revisited: Puuc vs. Chenes Architecture”. *Cuadernos de arquitectura mesoamericana*, Vol. 1 (1984): 49-63.

**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.

**Andrews, George F., Paul Gendrop, and Juan A. Siller**

“Elementos arquitectónicos del Puuc Floreciente”. *Cuadernos de arquitectura mesoamericana*, Vol. 5 (1985): 47-50.

**Antochiw, Michel**

*Historia cartográfica de la península de Yucatan*. Ed. Comunicación y Ediciones Tlacuilo, S.A. de C.V. Centro Investigación y de Estudios Avanzados del I.P.N., 1994.

Comprehensive study of maps of the Yucatan from 16<sup>th</sup> to late 20<sup>th</sup> centuries. Oversize volume, extensively illustrated, including 6 high quality foldout color maps. The important 1557 Mani map is illustrated and described on pages 35-36, showing that Uxmal was known at the time and was the only location identified with a symbol of an ancient ruin instead of a Christian church.

**Araoz, Gustavo, MargaretLacLean, and Lara Day Kozak.**

*Proceedings of an International Symposium on Authenticity in the Conservation and Management of Cultural Heritage in the Americas*. San Antonio, Texas, March 1996. Washington, D.C.: US/ICOMOS, and Los Angeles: Getty Conservation Institute, 1999

**Arnauld, Marie-Charlotte, Pierre Bequelin, and Dominique Michelet**

“Fiabilidad de las observaciones de superficie en un sector del Puuc occidental?” *Memorias del II Coloquio Internacional de Mayistas*, Vol.1, ed. Alain Breton: 377-389. Mexico, D.F.: Centro de Estudios Mayas, Universidad Nacional Autónoma de México, Instituto de investigaciones Filológicas, 1989.

**Arnellano Hernández, M. Ayala Falcón, B. De La Fuente, M. De La Garza, L. Staines Cicero, B. Olmedo Vera.**



*The Mayas of the Classical Period* Milano: Jaca Books (Antique Collectors' Club), 1999.

Includes fourteen color photos of the most famous structures at Uxmal, Kabah, Sayil, and Labná, a few of which are stunning full and double-page illustrations. The brief text section dealing with art and architecture presents general Maya characteristics.

### **ARTstor**

Available on the web through ARTstor subscription at:  
<http://www.artstor.org/index.shtml>

(accessed 2007 Dec. 8)

This is one of the two most extensive, publically available collections of early photographs of Uxmal, Kabah, Sayil, and Labná, either in print or on the web. The other equally large collection, also on the web, is hosted by the Peabody Museum of Archeology and Ethnography, Harvard University (which see). The photographs on the ARTstor website are from the Carnegie Institution of Washington Maya Excavations, and are also housed at the Peabody.

Some of the same photographs appear on both web sites. The photographs include distant views, views of individual buildings, including lesser known structures, interiors, many details of collapsing sections and individual pieces of fallen architectural sculpture, reliefs, etc. Both sets of photographs show some structures as discovered, some uncovered, and some at various early stages of restoration.

The main differences are that the ARTstor images can be opened larger and at higher resolution, allowing viewers to examine the images in greater detail, a significant advantage for photographs of these elaborate and much restored Maya sites. Also, as of December 2007, the catalogue information posted with the ARTstor images is much more extensive than that on the Peabody site. However, ARTstor images are only available at subscribing institutions, whereas the Peabody images can be viewed by anyone with Internet connection anywhere in the world.

The Carnegie Institution of America photographs were taken between 1913 and 1957 during the Maya expeditions sponsored by the CIW.

On the ARTstor web site, there are 462 images of Uxmal, 330 of Kabah, 235 of Sayil, and 193 of Labná. The images can be opened full screen-size and larger. Most are magnificent, grey-scale photographs, highly professional and superbly lit for maximum detail and legibility.

### **Ashmore, Wendy**

"Deciphering Ancient Maya Site Plans". *New Theories of the Ancient Maya*, ed. Elin Danien and Robert J. Sharer: 173-184. Philadelphia, PA: University of Pennsylvania Museum of Archaeology and Anthropology, 1992.

### **Ashmore, Wendy**

“The Idea of A Maya Town”. *Structure and Meaning in Human Settlement*, ed. Tony Atkin and Joseph Rykwert: 35-54. Philadelphia: University of Pennsylvania Museum of Archaeology and Anthropology, 2005.

A review of previous publications on the structure and meaning of Pre-Columbian Maya settlements. Ashmore then follows recent research in describing how the Maya imbued their built environment with even more intricate spatial structure and meanings than earlier scholarship had recognized. She argues that “**both similarities and differences among recorded towns and cities express shared worldviews as shaped by local political history**” (p. 35). Ashmore describes how astronomy, landscape mimicry, and cosmology have served to determine the form and layout of Maya towns and cities. She argues that “establishing a town or civic precinct with a dominant north-south axis mapped this central creation act on the ground. He who literally commanded construction of the civic complex could be equated with First Father, he who ordered the entire cosmos” (p. 44). Ashmore finds that many of the differences in local civic plans resulted from the length of occupation and from “political motives of those directing planning and construction” (p.49). Although relevant, her examples do not include any Puuc cities.

### **Ashmore, Wendy, ed.**

*Lowland Maya Settlement Patterns*. A School of American Research Book. Albuquerque: University of New Mexico Press, 1981.

**Papers developed from a 1977 seminar at the School of American Research at the University of New Mexico.** Although research on settlement pattern has been one of the dominant fields of Maya research in the two-and-a-half decades following this publication, these papers provide **an invaluable foundation for the study of important aspect of all Maya architecture.**

None of the papers deal directly with the Puuc region. In the only extended description of Uxmal, Kabah, Sayil or Labná, Edward B. Kurjack and Silvia Garza T. write: “The famous causeway joining Uxmal and Kabah described by Stephens (1843) is very low and narrow, some 30 centimeters high, four meters wide, and 18 kilometers long. Halfway between Uxmal and Kabah the causeway passes Nohpat, a site that is almost as big as Kabah. Indeed, aerial photographs indicate Uxmal does not contain much more substantial architecture than either Kabah or Nohpat though recent fieldwork (Alfred Barrera R. and Baltaza Gonzales F., personal communication) indicates the concentration of smaller ruins in the vicinity of Uxmal is very extensive. Still, this system seems to have included two secondary centers that were almost as massive as the site presumed to have been the primary settlement” (p.306).

### **Ashmore, Wendy**

“Site-planning Principles and Concepts of Directionality among the Ancient Maya”. *Latin American Antiquity*, Vol. 2, No. 3 (1991): 199-226.

**Ashmore, Wendy and Jeremy A. Sabloff**

“El orden del espacio en los planes cívicos mayas”. *Arquitectura e ideología de los antiguos mayas*, ed. Silvia Trejo. Memoria de la Segunda Mesa Redonda de Palenque. México: Conaculta-INAH: 15-34.

**Ashmore, Wendy and Jeremy A. Sabloff**

“Spatial Orders in Maya Civic Plans”. *Latin American Antiquity*, Vol. 13, No. 2 (Jan. 2002): 201-215.

The authors describe the contrast between the clarity of spatial order in civic plans of cities with relatively short and simple political histories and, on the other hand, the partially blurred spatial order in cities with longer and more turbulent political histories. In both cases they reaffirm that **the city layout and the position and arrangement of Maya buildings and open spaces express ideas of cosmology and political order**. The authors review various scholar’s proposals about the ways in which astronomical phenomena served as the basis for civic design. They write that the plan of Labná seems to have been copied from the plan of the slightly larger, near-by, city Sayil; and that “the civic plans of both Sayil and Labná resemble those of major Classic centers of the Southern Lowlands” (p. 208).

**Ashmore, Wendy and Richard R. Wilk**

“Household and Community in the Mesoamerican Past”. *Household and Community in the Mesoamerican Past*: 1-28. Ed. Richard Wilk and Wendy Ashmore. University of New Mexico Press, 1988.

***Atlas Arqueológico de la República Mexicana: formado por el Instituto Nacional de Antropología é Historia de la Secretaría de Educación Pública***. Instituto Panamericano de Geografía e Historia, Publicación No. 41. México, 1939.

This substantial publication consists of black of white maps of the Mexican states with **names and locations of each of the then known archaeological sites**, with the main railroad lines indicated. Each of these state maps is accompanied by a list of the sites indicated, with their locations, routes from major cities to the sites, identification of type of remains, and brief bibliography. Map No. 30 represents the state of Yucatan, in which Uxmal, Kabah, Sayil, and Labná are indicated. There is a general introduction **surveying the history of study of these ruins, the creation of national agencies for their protection and conservation, and the formation of the archaeological chart and catalogue**.

**Atwood, Roger**

“Deconstructing a Maya Pyramid: El Salvador Rediscovered its Past Beneath a Layer of Concrete”. *Archaeology*, Vol. 59, No. 5 (Sept.-Oct. 2006): 30-35.

Although an account of the Maya site of Tazumal in El Salvador, this article provides an **up-to-date review of current attitudes toward conservation of all Maya archaeological sites**. The author mentions Uxmal as “among the other sites [that]

have been criticized as examples of too much “restoration” based on too little knowledge about what the site looked like in antiquity” (p.32). In the 1950s, the larger and smaller pyramids at Tazumal were covered with concrete slabs to protect them from further deterioration and to show an idea of what the then archaeologist in charge, Stanley Boggs, thought the original design would have looked like. In Oct. 2004, torrential rains caused the partial collapse of the smaller pyramid with its slabs. The new archaeologist in charge, Fabrizio Valdivieso, had the remaining slabs removed, with the exception of one corner, where the slabs were retained “as part of the history of Salvadorean archaeology” (p.34).

Valdivieso, is quoted as saying: “People like Stanley Boggs were putting cement on structures all over Mesoamerica, and by doing that, they made people think it was the last word, as if underneath the cement there was nothing left to study. . . . Visitors would come to Tazumal with these flights of imagination, walk up to touch the cement as if they were touching the original structure, and what they were touching was Stanley Boggs’ cement. It was a farce.” (p.32) Wayne Andrews is reported as saying: “I’ve seen some restorations in Mexico that are outrageous. They’re like Coney Island . . . . The archaeologists are under pressure from the state governors to make tourist attractions. They have to do it, and they’ve been doing it for so long that they think it’s the proper way to proceed” (p.32).

### **Atwood, Roger**

*Stealing History: Tomb Raiders, Smugglers, and the Looting of the Ancient World.* New York: St. Martin’s Press, 2004.

An extraordinarily vivid, first-hand account, by an investigative reporter, of looting, smuggling and the market for archaeological artifacts world-wide. The limited effect of national and international laws and treaties is explained, and recent instances of repatriation are recounted. This is a comprehensive, thoroughly researched study of the subject. In a few places, the Maya situation is described in the context of the situation worldwide. For example, Atwood writes: “In Central America, where the Maya devised writing and a sophisticated knowledge of astronomy six centuries before Galileo, looters are gradually obliterating all traces of that civilization, save for two dozen or so sites under active archaeological excavation, to supply the market for gold, jade, and stone artifacts. . . . Thomas Killion, an archaeologist at Smithsonian’s National Museum of Natural History, has seen evidence that looters use bulldozers, backhoes, and chain saws at Mayan sites. In one case they used a chain saw to strip off the carved front of a Mayan limestone monument known as a stele, leaving the mangled rest of the stone standing. It would have been too heavy to haul out whole” (p. 28). Uxmal, Kabah, Sayil and Labná are fortunate to be among the protected sites.

### **Aveni, Anthony**

“The Real Venus-Kukulcan in the Maya Inscriptions and Alignments”. *Sixth Palenque Round Table, 1986*. Merle Greene Robertson, gen. ed., Virginia M. Fields, vol. ed.: 309-321. Norman: University of Oklahoma Press, 1991.

**Aveni, A.F. and Hamilton Hurst Hartung.**

“Archaeoastronomy and the Puuc Sites”. *Arqueoastonomía y etnoastronomía en Mesoamérica*, ed. Johanna Broda, Stanislaw Iwaniszewski, and Lucrecia Maupomé. Chapter 7: 65-95. Based on a symposium held 24-28 Sept. 1984. México: Universidad Nacional Autónoma de México, 1991.

This volume publishes papers from a 1984 symposium organized by the Instituto de Investigacione Antropológicas, Instituto de Investigaciones Históricas, and Instituto de Astronomía. The chapter by Aveni and Hartung is an update of his definitive *Skywatchers of Ancient Mexico* (1980) and his 1986 article, *Maya City Planning and the Calendar*, both separately listed and annotated in this web bibliography. The argument is carefully reasoned and presented with histograms, charts, and ground plans of sites. Further investigating his observation that “all over Mesoamerica the axes that define the general alignment of ceremonial centers possess a clockwise (E of N) skew from the direction of astronomical north” (p.65), the author **notes three additional characteristics from studies of Puuc sites**. “Buildings often are grouped about a N-S axis;” “buildings in a given complex often face inward toward the center of that complex; and (quoted from Pollock 1980, p.652) “there is a tendency ‘for single structures and larger archiectural complexes to face toward the ceremonial or civic center of the site’ (p.71). He notes that **these alignments must be deliberate and based on “astronomical causes, for there is no conceivable way of establishing identical absolute directions in space over so wide an area.”** (p.84). Aveni examines this phenomenon in detail in relation to the chronology of Puuc site development and in relation to the agrarian calendar.

**Aveni, Anthony F.**

*Skywatchers*. Austin: University of Texas Press, 2001 (1<sup>st</sup> ed., *Skywatchers of Ancient Mexico*, 1980).

The **classic study of the pervasive role of astronomy in Pre-Columbian culture**. Aveni distinguishes between two closely related academic disciplines: “archaeoastronomy. . . the study of the extent and practice of astronomy among ancient culture” and “astroarchaeology . . . the study of astronomical principles employed in ancient works of architecture and the elaboration of a methodology for the retrieval and quantitative analysis of astronomical alignment data.”

Chapter Five deals with astronomy and architecture, including a section on “Maya Cities: Architecture and Sacred Landscape,” with brief discussions of the Puuc and Uxmal. Aveni argues that “the architecturally replicative nature of Maya, and particularly Puuc, centers argues for an all-pervasive ideology (and rules for its practice) that tied people together regardless of how dispersed the social order had become. In the terminal Classic Puuc sites, **the separateness . . . [of] individual complexes . . . is counterbalanced by the overall unity of the site displayed in the careful and deliberate planning and orientation of these complexes about a basic axis. . . . we find nearly identical plans and orientations over a range of widely separated cities**. My conviction is that a state calendar . . . played a role in certain stages of site planning.’ (p. 250).

The author's long-term study of the **astronomical placement, orientation and intersite alignment of Uxmal buildings**, especially the Palace of the Governor (pp.283-288) has provided one of his most detailed and convincing demonstrations. He diagrams the astronomical placement of Uxmal buildings radiating from the commanding doorway of Uxmal's primary temple, the Pyramid of the Magician (fig.106). He reproduces a telephoto photograph showing the precise alignment of the central doorway of the Palace of the Governor, aligned perpendicularly to the façade, to the double-headed Jaguar Throne on a platform before the Palace, and, in the distance, an artificial at Cehtzuc. This alignment marks the southern extreme of Venus, "the place on the eastern horizon where Venus would have risen at the time of its maximum southerly eight-year excursion about A.D. 800 (p.288). Joined with the uniquely pervasive Venus imagery on the Governor's Palace and the otherwise inexplicable orientation of the façade in relation to other Uxmal buildings, Aveni's argument is convincing, providing one of his many examples of the astronomical alignment of Mesoamerican temples to the sun, stars and planets.

### **Aveni, Anthony F. and Sharon Gibbs**

"On the Orientation of Pre-Columbian Buildings in Central Mexico". *American Antiquity*. Salt Lake City: Society for American Archaeology. Vol. 4, No. 4 (1976): 510-517.

### **Aveni, A. and H. Hartung**

*Maya City Planning and the Calendar*. Transactions of the American Philosophical Society, Held at Philadelphia for Promoting Useful Knowledge. Vol. 76, Part 7. Philadelphia: American Philosophical Society, 1986.

Aveni, sometimes jointly with other authors, has written more than 15 articles and 1 book on the astronomical orientation of Pre-Columbian, especially Maya, cities. *Maya City Planning and the Calendar* is a major, detailed study of architectural alignments in the Puuc region and what they reveal of the Maya solar year. The authors point out that, in comparison with other Maya sites, the Puuc region provides especially favorable conditions for such a study, because Puuc cities rose to prominence at approximately the same time over a relatively short period, are clustered geographically and share a unique artistic style. The authors provide a detailed, complex **astronomical argument for the similarity in alignment at most Puuc sites** (median 14 degrees east of true North). In addition to a description of the characteristic of Maya site planning and of Puuc site planning, the article **includes descriptions of some 10 individual site plans**, including those of Uxmal, Sayil, Kabah, and Labna. Each of these includes a full-page map and detailed description.

These are followed by sections on "The Question of Site Chronology", "Calendrical Implications of Astronomical orientation Hypotheses", and "A recapitulation: The Orientation Calendar in a Cultural Context". There is an appendix of 3 tables: "Alignments of Major Maya Structures"; "Astronomical Alignments Marking the Solar Year at Uxmal"; and "Hypothetical Solar Orientation Calendar Centered about Zenith Passage Dates". Includes an extensive list of references, happily focused on the subject of their article, also a geographical index.

**Aymé, Louis**

"Letter to Stephen Salisbury, Jr." *American Antiquarian Society* (11 June 1884). Worcester, Massachusetts.

## B

**Bacquelin, Pierre, and Dominique Michelet**

"En busca el contexto de florecimiento de la región de Puuc". *Cuadernos de arquitectura Mesoamericana*, Vol. 10 (1987): 14-15.

**Bacquelin, Pierre, and Dominique Michelet**

"La civilization Puuc du Yucatán". *Les Dossiers de l'Archéologie*, Vol. 145 (1990): 8-10.

**Bacquelin, Pierre, and Dominique Michelet**

"Introducción". *Mayas del Puuc: Arqueología de la region de Xculoc, Campeche*, ed. Dominique Michelet, Pierre Becquelin, and Marie-Charlotte Arnaud: 13-24. México: Gobierno del Estado de Campeche, Centre Francais d'Études Mexicaines et Centraméricaines, 2000.

The authors describe **the advantages of studying the organizing unities of the Puuc Region**, in contrast to attempted studies of other Maya areas. First, occupation was concentrated between 700 and 1000 A.D. and dating therefore less problematic. Second, the climate restricted vegetation so that the structures remained more visible. Third, the region was more abandoned than others during the colonial period and therefore fewer stones were removed from the sites and less looting took place. Fourth, the characteristics of Puuc architecture facilitated the identification of its structural parts. The authors state that their study focuses on the small town of Xculoc, Campeche, studying the (in translation) "demographic, economic, social, and political conditions" (p.14).

**Ball, Joseph W.**

"Ceramics, Culture History, and the Puuc Tradition: Some Alternative Possibilities". *The Puuc: New Perspectives: Papers Presented at the Puuc Symposium, Central College, May, 1977*, ed. Lawrence Mills: 18-35. Scholarly Studies in the Liberal Arts, Vol.1. Pella, Iowa: Central College, 1979.

Ball opens his article with a claim, shared by many, that "one of the New World's great architectural traditions, the Puuc . . . has been considered by many to represent the peak of architectural development in Pre-Columbian Mesoamerica". Because of this recognition, he considers that "the morphological characteristics of the Puuc architectural tradition have been adequately examined and described". On the other hand, he finds that the Puuc ceramic tradition and that of closely related regions has been inadequately and often defectively studied. **What most non-Northern Maya specialists still take for granted concerning the ceramic history of the Puuc in fact**

consists of little more than assumptions, speculation, and just plain guesswork” (p. 18).

The body of the paper consists of a review of what is actually known about the ceramic history of the Puuc region, followed by the **presentation of 2 alternatives to the traditional reconstruction** of the Terminal Classic to Late Postclassic ceramic transition. Ball names these two alternatives a “partial overlap model” and a “total overlap model”, both of which he presents as preferable to the traditional formulation. His paper includes 16 small, high quality, gray scale photographs of ceramics, 2 maps of the Yucatan diagramming lines of influence, and 1 chart comparing the traditional model with his two alternatives.

**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.**

“The 1977 Central College Symposium on Puuc Archaeology: A Summary View”. *The Puuc: New Perspectives: Papers Presented at the Puuc Symposium, Central College, May, 1977*, ed Lawrence Mills. Scholarly Studies in the Liberal Arts, No. 1: 46-51. Pella, Iowa: Central College, 1979.

In **summarizing “the data, deliberations, and conclusions of the . . . Symposium”**, Ball writes that “no true synthesis or outline presentation of these will be attempted in view of our inability to achieve consensus on a number of fundamental issues, among them the date of the eastern Puuc collapse; the temporal placement of northern plains wall-fortified Puuc centers; and the role played by the latter vis—-a-vis Chichen Itza and the indigenous northern plains Yucatec population” (p. 46).

He then proceeds to organize his comments around 3 chronological problems: the “Origin and Derivation of The Puuc Culture Tradition”; the “Termination of the Puuc Culture Tradition”, and “The Relationship of the Eastern Puuc Centers to Chichen Itza”. He reviews each of these in detail, noting areas of agreement but also areas where the evidence is inconclusive or contradictory. Along the way, he occasionally expresses his own preferences, as when he writes: “My own belief is that the walled strongholds appeared as a relatively late response by the Puuc centers to the competitive expansion of Chichen Itza” (p. 50).



**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 (1<sup>st</sup> 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.**

“Puuc”. *Archaeology of Ancient Mexico and Central America: An Encyclopedia*. Ed. Susan Toby Evans and David L. Webster: 437-438. N.Y.: Garland Pub. Inc., 2001.

**The most up-to-date two-page summary of the Puuc Region**, in a long article on the “Maya Lowlands: North,” pointing out that “Classic Puuc architecture is regarded by many authorities as the finest of all the ancient Mesoamerican architectural traditions.”

**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.”.

**Banta, Melissa and Curtis M. Hinsley, assisted by Joan Kathryn O'Donnell**

*From Site to Sight: Anthropology, Photography, and the Power of Imagery.* Peabody Museum of Archaeology and Ethnology and the Department of Anthropology, Harvard University. Cambridge, MA: Peabody Museum Press, 1986.

An **impressively rich, diverse collection of 127 photographs** dating from the beginning of photography to the present day, taken to assist many different types of scientific enquiry. The book was published in connection with an exhibition at the Peabody Museum, Harvard, from which collection the photographs were drawn. The 8 chapters **explore a wide range of approaches to scientific photography** with highly informative examples, clearly described. One page illustrates a gelatin dry-plate negative and positive print, by an unknown photographer, showing Edward H. Thomson in his room at Labná, 1888-1889, fitted out for photography (illustration 10).

**Baradere, De St Priest**

“Notice sur Les Monuments Antiques d’Ushmal, dans la Province de Yucatan”. *Antiquités Mexicaines Relation des Trois Expéditions du Capitaine Dupain, ordonnées en 1805, 1806, et 1807, pour la Recherche des Antiquités du Pays, notamment Celles de Mitla et de Palenque; accompagnée des Dessins de Castañeda. . . et des notes explicatives, et autres documents, par Mm. Baradere, de St Priest, et plusieurs voyageurs qui ont parcouru l’Amérique.* Tome I, Première Partie, “Notes et Documents Divers”. Paris: Bureau des Antiquités Mexicaines, 1834.

**Barber, D.**

“Geomatics for heritage recording: Initial report”. Unpublished report. Newcastle upon Tyne: Department of Geomatics, University of Newcastle upon Tyne, 2000.

**Barnet-Sanchez, Holly**

“Museums and Exhibitions”. *The Oxford Encyclopedia of Mesoamerican Cultures: The Civilizations of Mexico and Central America.* Vol. 1: 351-356. Ed. David Carrasco. 3 vols. Oxford University Press, 2001.

In this all-to-rare survey of the history of collection and exhibitions of ancient Mesoamerican objects, the author **integrates the physical building of collections and staging of exhibitions with underlying values**, the meaning of pre-Hispanic culture and its relevance for Mexico and European Western culture, indeed for societies worldwide. In addition to a chronological account of collections and exhibition, Barnet-Sanchez writes that “the public debates about the validity and the relevance of art historical or other categories for understanding pre-Hispanic objects within twentieth-century structures of analysis and consumption have taken place predominantly through – and as a result of – the collection and exhibition of Mesoamerican art and archaeological artifacts, rather than at the initiative of academe” (p. 352). Importantly, she notes that “aesthetic properties had been considered and either acknowledged or dismissed since the days of the Spanish conquest, but **the apprehension of these**

objects as works of art, as defined within the Western European tradition of connoisseurship and the discipline of art history – or their conceptual transformation into this category – is a phenomenon of the twentieth century” (p. 352).

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

“Nomenclatura etnobotánica Maya: una interpretación taxonómica.” *Institute 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**

“Arqueología de Asentamiento en Uxmal: Nuevos Datos y Síntesis”. Paper presented at the 21<sup>st</sup> Mesa Redonda de la Sociedad Mexicana de Antropología, Oct. 1989. Mérida, 1989

**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 Simposia 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**

“La gran pataforma del Palacio del Gobernador de Uxmal”. *Cuadernos de Arquitectura Mesoamericana*, Vol. 12 (1991): 41-56.

Images of the Great Platform and of the Governor’s House Platform are reproduced on this web site.

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

**Barrera Rubio, Alfredo**

*Guia oficial: Uxmal*. Salvat Editores de México, for the Instituto Nacional de Antropología e Historia, Mexico City, 1987 (published also in English as *Uxmal: Official Guide*, 1990).

Published as one of the INAH official guidebooks, this 128-page handbook presented, at the time, the most comprehensive, scholarly, brief introduction to Uxmal. Exceptional for a guidebook, this authoritative introduction includes a description of early publications on Uxmal and **an account of archaeological explorations and restoration at Uxmal from the 1930s through 1970s**, essential for viewers to understand what they are looking at. In addition to descriptions for each structure, the book introduces domestic architecture outside the ceremonial center and the history of the site and its study. The 71 small, color illustrations are especially useful for showing the condition of many Uxmal structures before recent restorations. (The photo on page 112 is reversed left-right and misidentified as the northeast corner, whereas it is the northwest corner.)

**Barrera Rubio, Alfredo**

“Introducción a la Arqueología de Asentamiento de Uxmal, Yucatán (una propuesta teórica-metodológica)”. Thesis presented to the Facultad de Ciencias Antropológicas, Universidad Autónoma de Yucatan. Mérida, Yucatan. 1989.

**Barrera Rubio, Alfredo**

“Mural Paintings of the Puuc Region in Yucatán”. *Third Palenque Round Table, 1978*. Part 2, ed. Merle G. Robertson and Donnan C. Jeffers: 172-182. Austin: University of Texas Press, 1980.

Detailed study of the remains of ancient Maya paintings on interior surfaces of buildings in the Puuc region, suggesting “generalizations concerning content, function, and . . . ideology.” Barrera Rubio writes that “the Puuc paintings exhibit features characteristic of the more widespread Classic Maya art tradition.” The remains of such paintings are very rare at Uxmal, Kabah, Sayil, and Labná. The author mentions only the paintings on vault capstones at Uxmal.

**Barrera Rubio, Alfredo**

“La obra fotográfica de Teobert Maler en la Península de Yucatán”. *Indiana, Gedenkschrift Walter Lehmann*. Vol. 1, No. 6 (1980), 107-124.

This meticulous, scholarly article provides **detailed information about the photographs and other materials of Teobert Maler housed in collections in Mérida**, capital of the State of the Yuactán, **and elsewhere**. These include 189 photographic prints representing 56 Pre-Columbian sites. Barrera Rubio first describes Maler material in other collections, in Hamburg, Berlin, Paris, Casasola in the State of Hidalgo, and Tulane University. He then analyses 3 albums of Maler photographs, housed in the Biblioteca Central del Estado de Yucatán, deteriorated photographs now housed in the Palacio Cantón, and in private collections. There is then a description of Maler manuscript maps, plans, and drawings in the Yucatán. Detailed information is provided regarding condition, provenance, etc. Altogether there are 5 photographs of Uxmal, 3 of Kabah, 4 of Sayil, and 2 of Labná.

**Barrera Rubio, Alfredo**

“Obras hidráulicos en la región Puuc, Yucatán, México”. *Boletín de la Escuela de Ciencias Antropológicas de la Universidad de Yucatán*, Vol. 15, No. 87: 3-19. Mérida, Yucatan, 1990 (first presented as a paper in the symposium, “Area Maya del Norte, nueve datos, síntesis y problemas”, 28-30 June 1982. Universidad Nacional Autónoma de México.

**Barrera Rubio, Alfredo**

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

**Barrera Rubio, Alfredo**

“Patrón de asentamiento en el área de Uxmal, Yucatán”. *XVI Reunion de Mesa Redonda de la Sociedad Mexicana de Antropología*, held at Saltillo, Coahuila, 9-14 Sept. 1979. Vol.2: 389-398. Saltillo, 1980 (published also in *Memoria del Congreso Interno 1979*, ed. Peter J. Schmidt and C, Benavidas: 71-82; México, D.F.: Centro Regional del Sureste, INAH, 1981).

A report on the then current INAH investigation of **the settlement pattern of the Uxmal area**. Previous studies are mentioned, including the sampling of thirty-three houses south of Uxmal, reported by Ledyard Smith and Karl Rupert in 1957. However, these studies, like others, were done in isolation of connections with the ecology, hydraulic systems, and social structure. The project here described rediscovered the boundary wall, mentioned by Catherwood, the west and south portions of which are best preserved. The author notes thirteen satellite communities, most in the northern section which was mapped. In these, the investigators found that habitation groups favored family forms, with water tanks situated near the center of groups. Locations were conditioned by the topography. Of special importance, through communication with local inhabitants, the report names, locates and describes four types of soil in the area: Pusluum, Kakab, Kankab, and Akalché, each with its agricultural characteristics. The claim is made that this **variety of soils allowed the ancient Maya to diversity their**

crops and timing and thus extend their agricultural production. Ceramics retrieved in thirteen excavations call into question previous chronologies for the Uxmal area.

**Barrera Rubio, Alfredo**

“El Puuc”. *Arqueología Mexicana*, Vol. 2, No. 11 (Feb. 1995): 18-25.

Discusses the various meanings of the word “Puuc”, the features of the region, cultural connotations, and style. There is a brief description of Uxmal as the primary site of the region. The author notes that the primary cultural significance of the region has been based on the architectural development of the grand edifices, but that major aspects of the social structure of the region are still unknown.

**Barrera Rubio, Alfredo**

“Rain Cult of the Puuc Area”. *Fourth Palenque Round Table*, held at Chiapas, Mexico, 1980. Vol. 6, ed. Elizabeth P. Benson; gen. ed. Merle Greene Robertson. San Francisco: Pre-Columbian Art Research Institute, 1985: 249-260.

After a brief description of the importance of water in the practical and symbolic lives of cultures throughout the world, the author points out **the special situation in the Puuc region**. He notes that in contrast to chultunes in the southern lowlands, which were lateral chambers often without stucco facing and which seem to have served multiple purposes, chultunes in the Puuc region were vertical, stuccoed inside, and served primarily to collect and store water.

Barrera Rubio presents a careful review of the evidence from **images of animals represented inside Puuc chultunes, the most common being toads**, which are directly associated with water, also noting that the toad “emits a distinctive sound, which Maya farmers still believe attracts the rain” (p. 253). He writes that “the fact that, to date, these representations have not been reported outside the Puuc area is indicative of a localized tradition” (p. 251). He concludes that there was an aquatic cult in the Puuc region that “not only produced traditional rain symbols in architecture and art, such as a profusion of Chaac (rain deity) masks, but also developed a unique sculptural symbolism inside the chultunes” (p. 250).

Importantly, the author distinguished between **chultunes**, which require little effort and could therefore have been created earlier by individuals and, on the other hand, artificial **aguadas** which require organized, communal labor and therefore more centralized control. The article is clearly illustrated with 7 photographs and 11 line drawings.

**Barrera Rubio, Alfredo**

“Un religioso, el primer arqueólogo de Yucatán”. *Diario Yucatán, el periódico de la vida peninsular*. 2000.

On the web at:

<http://www.yucatan.com.mx/especiales/arqueologia/004.asp>

(accessed 2007 April 18)

Report of a presentation by Barrera Rubio as part of a conference of the Centro INAH Yucatán. Barrera's presentation was titled "Fray Estanislao Carrillo, primer arqueólogo yucateco". He described Fray Estanislao as a Franciscan priest, born in 1798 in Teabo, Yucatán, who served as the guide for Stephens and Catherwood during their exploration of the Yucatan in 1839 and 1840. Fray Estanislao published various articles in the *Registro Yucateco*.

**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 Rubio, Alfredo**

"Tierra y productividad agrícola en la región Puuc". *Anales de Antropología*, Vol. 24 (1986): 127-142 (also published in *Mayab*, Vol. 6 [1990]: 29-37).

**Barrera Rubio, Alfredo**

*Uxmal: Official Guide*. Salvat Editores de México, for the Instituto Nacional de Antropología e Historia, Mexico City, 1990 (translated from *Guía oficial: Uxmal*, 1987).

Published as one of the INAH official guidebooks, this 128-page handbook presented, at the time, the most comprehensive, scholarly, brief introduction to Uxmal. Exceptional for a guidebook, this authoritative introduction includes a description of early publications on Uxmal and an account of archaeological explorations and restoration at Uxmal from the 1930s through 1970s, essential for viewers to understand what they are looking at. In addition to descriptions for each structure, the book introduces domestic architecture outside the ceremonial center and the history of the site and its study. The 71 small, color illustrations are especially useful for showing the condition of many Uxmal structures before recent restorations. (The photo on page 112 is reversed left-right and misidentified as the northeast corner, whereas it is the northwest corner.)

**Barrera Rubio, Alfredo**

"Uxmal: pasado y presente de un sitio maya". *Cuadernos de Arquitectura Mesoamericana*. Vol.19 (Vol. 20) (1992): 77-89.

**Barrera Rubio, Alfredo, and José Huchím Herrera**

*Architectural Restoration at Uxmal, 1986-1987; Restauración Arquitectónica en Uxmal, 1986-1987*. Translated from Spanish by Carlos A. Uribe. University of Pittsburgh Latin American Archaeology Reports No.1. Pittsburgh, PA: University of Pittsburgh, Department of Anthropology, 1990.

Apart from the detailed information on specific structures, this publication provides **the most systematic account of the methods used by the Yucatan regional center of the INAH** in the clearing, excavation, study, and restoration of archaeological sites. As such, this book is essential reading for anyone wishing to understand current approaches to restoration and the complexities of the archaeological remains at which they are looking. **A detailed report is provided of the 1986-1987 work** on the complex



northern portions of the Great Platform and of the staircases from the ballcourt plaza up to the terrace south of the Nunnery Quadrangle and from that terrace up to the platform on which the southern building of the Quadrangle stands. Also described is the ecological preservation of the ballcourt plaza and adjacent areas. The introduction states that “the report describes the historical background and previous archaeological work in the architectural complexes in question. Then the various methodological techniques are discussed and new architectural and map data are disclosed. Also included is a description of the archaeological materials discovered (ceramics, artifacts, sculpture, and so on), as well as cultural and chronological inferences.”

There are 84 moderate size, gray scale photographs of restoration work in progress, **the type of photo recording rarely available to the public**. These are professionally taken but so soft in reproduction that much important detail is lost. There are invaluable new ground plans and cross sections and archaeological drawings of miscellaneous sculpture found. The bibliography of twenty-five items includes items not listed elsewhere.

**Barrera Rubio, Alfredo, and José Huchím Herrera**

“Exploraciones recientes en Uxmal (1996-1987)”. *Memorias del Segundo Coloquio Internacional de Mayistas*. Vol. I, ed. Alain Breton: 265-286. UNAM. México, D.F.: Centro de Estudios Mayas, 1989.

**Barrera Rubio, Alfredo, and José Huchím Herrera**

“La Gran Plataforma del Palacio del Gobernador de Uxmal”. *Cuadernos de arquitectura mesoamericana*. México, D.F.: División de estudios de postgrado, Facultad de Arquitectura.

Images of the Great Platform and of the Governor’s Palace Platform are reproduced on this web site.

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

**Barrera Rubio, Alfredo, and Jeff Kowalski**

“Una estructura circular en Uxmal, Yucatán”. Paper presented at the Second International Congress of Mayanists, Mérida, Yucatán, August 20-24, 1994.

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

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

**Barrera Rubio, Alfredo, Tomás Gallareta Negrón, Carlos Pérez Alvarez, Lourdes Toscano Hernández, and José G. Huchím Herrera**

“Restauración e investigación arqueológica en Uxmal (1986-1987)”. *Mexicon*, Vol.10, No.2 (1988): 37-40 (published also in *Mayab*, Vol. 4 (1988): 22-27).

**Barrera Vázquez, Alfredo**

*Arte Maya: Uxmal, Sayil, Labná, Kabah y región Puuc*. México, D.F.: Editora del Sureste, 1981

**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 A., and S. G. Morley**

*The Maya Chronicles*. Carnegie Institute of Washington, Pub. 585, Contrib. 48  
Washington, D.C., 1949

**Barrera Vásquez, Alfredo, and Silvia Rendón**

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

**Barrera Vázquez, Alfredo, et. al**

“Restauración e investigación arqueológica en Uxmal (1987-1987)”. *Mayab*, Vol. 4 (1988): 22-27.

**Barrera Rubio, Alfredo, et al.**

“Salvamento arqueológico y preservación arquitectónica en Sayil, Yucatan”, *Boletín de la Escuela de Ciencias Antropológicas de la Universidad de Yucatan*, Vol. 11, No. 63: 21-30. Mérida: Universidad de Yucatan, 1983

**Barrera Y Álvarez, Gabriel De La**

*Chichen Itzá, Uxmal, y Kabah en el arte Maya*. Mexico, D.F.: Talleres Gráficos de la Nación; Secretaria de Educación Pública, 1950.

**Batres, Leopoldo**

*Inspección y conservación de monumentos arqueológicos de la República Mexicana*. México, 1903.

**Baudez, Claude-François**

*Jean-Frédéric Waldeck, peintre: le premier explorateur des ruines mayas*. Paris: Editions Hazan, 1993.

Waldeck's images of Uxmal are reproduced on this web site:

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

A 200-page survey of Waldeck's career, with many personal episodes from his life. Baudez calls attention to the theoretical basis of Waldeck's Maya adventures. About his 1835 arrival at Uxmal, he writes (in translation) "that which interests him above all is to determine the degree of analogy that the art of Uxmal is going to present to that of Palenque and Tonina" (p. 148).

Baudex accurately notes that (in translation), "The merit of the book resides in the lithographs", but his statement that "The text on the other hand is deceiving and does not distinguish itself from the notes and journals that Waldeck had not intended for publication" (p. 158) minimizes the importance of some of those observations.

Baudez's justifiable admiration for Waldeck sometimes distorts his account. For example, in his caption to the Waldeck's famous reconstruction drawing of a classical-type standing male nude on the façade of Temple 5 of the Pyramid of the Magician, Baudez writes (in translation): "The colossal statues are considered by most Mayanists as the invention of the artist" adding that "fragments of the colossal statues have been since recovered in the zone of Uxmal" (caption to fig. 26, p.150). Although not explicitly stated, Baudez's wording clearly implies that these fragments vindicated Waldeck's reconstruction. In fact, no fragments found anywhere at Uxmal lend any support to Waldeck's imaginary drawing. No sculpture of any standing figure in Maya art stands naturalistically, touching the back wall at only buttocks and shoulders, as in Waldeck's profile drawing.

Includes 34 color plates and 31 grey-scale figures, all of good quality. There is an important 2-page bibliography, with separate listings for publications by Waldeck and the locations for his manuscripts and drawings. Chapter 3 on the Yucatan includes only 2 pages on Uxmal and 1 illustration from Waldeck's landmark volume (pp. 148-149 and fig. 26). Arches at Kabah, Uxmal, and Labna, are included in a drawing comparing 8 Maya arches (fig. 29).

### **Baudez, Claude and Sydney Picasso**

*Lost Cities of the Maya*. New York: Harry N. Abrams, 1992.

### **Becker, Marshall J.**

"Priests, Peasants, and Ceremonial Centers: The Intellectual History of a Model". *Maya Archaeology and Ethnohistory*, Ed. N. Hammond and G. R. Wiley. Austin, Texas, 1979.

### **Becquelin, Pierre**

"La Civilization Puuc vista desde la región de Xculoc". *Hidden Among the Hills: Maya Archaeology of the Northwest Yucatan Peninsula, Acta Mesoamericana*, Vol. 7, ed. Hans Prem: 59-70. First Maler Symposium, Bonn, 1990. Mókmúhl: Verlag von Fleming, 1994 and 1999.

**Becquelin, Pierre, and Dominique Michelet**

“En busca del contexto de florecimiento de la region Puuc”. *Cuadernos de arquitectura mesoamericana*, Vol. 10 (1988): 14-15

**Becquelin, Pierre, and Dominique Michelet**

“La Civilization Puuc du Yucatán”. *Les Dossiers d’Archeologie*. Dijon, 1990. Vol. 145: 8-11.

**Becquelin, Pierre, and Dominique Michelet**

“Demografía en la zona Puuc: el recurso del método”. *Latin American Antiquity*, Vol. 5, No. 4 (1994): 289-311.

**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 19<sup>th</sup> 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.

**Benavidas Castillo, Antonio**

“Sacbé para llegar a Labná”. *Antropología*. Vol. 1 (1985): 19-20

**Benavidas Castillo, Antonio**

“Teobert Maler”. *La antropología en México: Panorama histórico. 10. Los protagonistas (Díaz-Murillo)*, 469-476. Ed. Lina Odena Güemes and Carlos García Mora. Mexico City, D.F.: Colección Biblioteca del INAH; Instituto Nacional de Antropología e Historia, 1987.

A 5-page review of the life and work of Teobert Maler (1842-1917). There is a useful 4-page bibliography.

**Bennett, Robert R.**

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

**Benson, Elizabeth P., ed.**

*City-States of the Maya: Art and Architecture*. Rocky Mountain Institute for Pre-Columbian Studies. 1986.

The papers from a January 1986 conference, organized by the Rocky Mountain Institute for Pre-Columbian Studies and held at the Denver Museum of Natural History. The papers present recent information and interpretations on the art and architecture of 5 Maya cities: Copan, Edzna and El Mirador, Palenque, Tikal, Uxmal.

The following paper is separately listed and annotated in this web bibliography:  
Kowalski, Jeff Karl, "Uxmal: A Terminal Classic Maya Capital in Northern Yucatan"

**Benson, Elizabeth H., organizer, Elizabeth H. Boone, ed.**

*Falsifications and Misreconstructions of Pre-Columbian Art*. A Conference at Dumbarton Oaks, October 14<sup>th</sup> and 15<sup>th</sup>, 1978. Washington, D.C.: Dumbarton Oaks, Trustees of Harvard University, 1982.

In her "Preface", Elizabeth Boone writes that "the papers in this volume note the range of 'antiquities' produced in relatively modern times, suggest why these were and still are being created, and show how such forgeries can be detected" (p. v).

The following paper is separately listed and annotated in this web bibliography:  
Molina-Montes, Augusto, "Archaeological Buildings: Restoration or Misrepresentation"

**Benson, Elizabeth P., ed.**

*Mesoamerican Sites and World Views*. Washington, D.C.: Dumbarton Oaks, 1980.

**Berlo, Janet Catherine**

*The Art of Pre-Hispanic Mesoamerica: an Annotated Bibliography*. Reference Publications in Art History. Boston: G. K. Hall & Co., 1985.

The body of this publication consists of a bibliography of more than 1500 publications on Pre-Columbian art. These are listed in alphabetical order by the last name of the lead author or, in some cases, by title. Nearly all publications receive informative, one or two sentence annotations, transforming the bibliography from a mere list. This is followed by an 18-page index by subject.

Because of the limited size of the volume and broad-ranging nature of the bibliography, there are relatively few listings for any of the specific subjects of this web bibliography. There are 5 listings for Uxmal, plus 1 additional reference in the historiographic review. There are no references for Kabah, Sayil, or Labná, 4 listings for the Puuc region. Two listings for restoration are included under "technical studies" and "architecture"; there are no listings for conservation or preservation. There are 5 listings for aspects of photography.

The bibliography proper is preceded by a 32 page “review of the major trends since the colonial era in the study of pre-Hispanic art”. This is divided into “1520-1840: Discovery and Early Writings”, “1841-1913: Exploration and Documentation”, “1913-1955: Gradual Acceptance and Popularization”, and “1956 to the Present: The Coming of Age of Mesoamerican Art History” (p. ix). This is a highly informative presentation of **evolving western concepts of what constitutes “art” in Pre-Columbian Mesoamerica** and how it can best be studied.

**Berlo, Janet Catherine**

*Text and Image in Pre-Columbian Art: Essays on the Interrelationship of the Verbal and the Visual Arts.* Oxford, 1983.

**Berman, Daniel**

*The Middle American Research Institute: Seventy Years of Middle American Research at Tulane University.* M.A. Thesis, Department of Latin American Studies, Graduate School, Tulane University. April 1995.

This is a 123-page thesis covering the founding of the Department of Middle American Research at Tulane University in 1924 until the mid-1990s. Because of the wide range of years and described and the institutional focus, less than 3 pages are devoted to the Department’s landmark 1930 expedition to Uxmal, in preparation for the 1933-1934 Chicago “Century of Progress” World’s Fair, which resulted in the construction of a partial replica of the North Building of the Nunnery Quadrangle, Uxmal (pp. 18-20). Berman emphasizes the role of the Director, Frans Blom, and the institutional importance of this project, without describing the major mapping, photography, drawings, cast-making, undertaken, and publications resulting.

**Bernal, Ignacio**

*Bibliografía de Arqueología y Etnografía: Mesoamerica y Norte de Mexico, 1514-1960.* Mexico, D.F.: Instituto Nacional de Antropología e Historia, 1962.

**A massive 644-page bibliography with 13,990 items listed.** Organized by references to geographic areas; first references to the entire area studied, then (the major section of the volume) by references to each geographical area. For each of these there are subdivisions by topics such as: archaeological sites and objects, ethnography, political and social organization, religion, war, history, knowledge, indigenous chronicles, plastic arts, literature, music and dance, metal, mosaics, and textiles. There are 4 indices. The Yucatan is included in a 34-page section on The North.

**Bernal, Ignacio**

*Historia de la arqueología en México.* México: Porrúa, 1979 (also published as *A History of Mexican Archaeology: The Vanished Civilizations of Meso-America.* London and New York: Thames and Hudson, 1980.

A remarkably comprehensive, erudite book, providing **essential context for understanding the history of restoration of all pre-Columbian sites.** In addition to a theoretical chapter on the nature of archaeology and one on “Museums and the

Protection of Antiquities,” the text is organized chronologically in seven chapters from 1520 to 1950, tracing “the nature of the interest shown by each period in archaeology or allied subjects.” There are occasional quotes and other references to Uxmal and descriptions of early explorers and photographers and later scholars who worked there. The review of various archaeological institutions and publications is useful. The author is not well served by the 114 illustrations, not referred to in the text, which are scattered randomly throughout the book.

### **Bernal, Ignacio**

*A History of Mexican Archaeology: The Vanished Civilizations of Meso-America*. London and New York: Thames and Hudson, 1980 (first published as *Historia de la arqueología en México*. México: Porrúa, 1979). Listed and annotated above under the 1979 Spanish title.

### **Bernal, Ignac**

“Maya Antiquaries”. *Social Process in Maya Prehistory: Studies in Honour of Sir Eric Thompson*, ed. Norman Hammond: 19-43. London: Academic Press, 1977.

This essay was written just before the author’s longer and more broadly encompassing book, *A History of Mexican Archaeology: The Vanished Civilizations of Middle America* (London: Thames and Hudson, 1980). Like it, this essay is uniquely informed. The essay **surveys the entire history of western antiquarians, writers who were interested in varying ways and degrees in Maya ruins**. Writing from the perspective of his own people, Bernal’s descriptions of some of the western writers are fair but less flattering than in other publications.

Bernal divides Maya research into 2 broad stages. “The first begins in the sixteenth century and goes on to the middle of the eighteenth century . . . .” (p.20). He writes: “although for more than 200 years not one single excavation seeking knowledge took place, a series of often very intelligent descriptions of places, monuments and objects were set down. There was the idea of using these material remains as documents to investigate the origins and the history of the Maya. We also notice great admiration for architecture and sculpture” (p. 25). Bernal notes that “there was no move towards preservation or desire to collect objects. The first signs of any such activity only appear in the second half of the eighteenth century” (p. 24). Bernal writes that “the second great period of interest in ruins began toward the middle of the eighteenth century and extended as far as the eighth decade of the nineteenth century’ (p. 25). He describes this much more complex period comprehensively and in considerable detail. I know of nothing else comparable to this essay and especially to the author’s book mentioned above.

### **Beyer, Hermann**

“Über das Datum auf der Ruesselmaske von Labná, Yucatán”. *El México antiguo*, Vol. 3, Nos. 3-4 (1934): 9-1

### **Beyer, Hermann**

“The Date on the Long-Nosed Mask of Labna”. *Maya Research*, Vol. 2 (1935): 184-190.

Images of the date glyph on the upturned snout of the largest mask at Labná are reproduced on this web site:

<http://academic.reed.edu/uxmal/galleries/thumbnails/labna/Labna-Palace-3.htm>

### **"Bibliographia Mesoamerica"**

Supervised by John weeks and Sandra Noble.

On the web site of the Foundation for the Advancement of Mesoamerican Studies (FAMSI) at:

<http://www.famsi.org/research/bibliography.htm>

(accessed 2006 Nov. 25)

This is an invaluable bibliography, listing many rarely referenced sources and taking advantage of the web's facility for regular updates. The web also makes possible bibliographic searches for various authors, archaeological sites, etc. The web site notes that "the coverage includes books, edited volumes, festschriften, journal articles, essays in collected works, dissertations and theses, obituaries (2 pages +), CD-ROMs, audio and video tapes, and films pertaining to Mesoamerica. It will not include book reviews, sheet maps, working papers and other gray literature, juvenile literature, newspapers, unpublished manuscripts, and other unpublished materials"

### **Blankholm, Hans Peter**

*Intrasite Spatial Analysis in Theory and Practice*. Aarhus, Denmark: University Press, 1990

### **Blom, Frans Ferdinand**

"Archaeological and Other Maps of Middle America". *Ibero-Amerikanisches Archiv*, Vol. 6, No. 3: 1-5. Berlin and Bonn, 1932.

### **Blom, Frans**

*The Art of the Maya*. Baltimore: Baltimore Museum of Art, 1937.

### **Blom, Frans**

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

A popular and engagingly told, but authoritative account of the 16<sup>th</sup> 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**

“A Hitherto unreported building at Labna, Yucatan”. *Maya Research*, Vol. 2 (1935): 189-190. New Orleans.

### **Blom, Frans Ferdinand**

*Illustrated London News*. August 23, 1930: 338-339 + photos on p. 340.

12 high quality gray-scale photographs of Uxmal with captions and brief text. The text notes “Photographs and descriptions supplied by Mr. Frans Blom, leader of the Tulane Expedition to Uxmal, Yucatan”.

### **Blom, Frans Ferdinand**

*The Maya Ball Game: Pok-ta-pok*. New Orleans: Tulane University Middle American Research Papers, no.4, 1932.

### **Blom, Frans**

“Maya Calculation and Construction”. *The Military Engineer*. Vol. 27, Nos. 1-5. Washington, 1935.

### **Blom, Frans Ferdinand**

“The ‘Negative Batter’ at Uxmal”. *Middle American Research Series*. Pub. No.4. “Middle American Papers”: 557-565. New Orleans: Department of Middle American Research, Tulane University, 1932.

In preparation for the 1933 Chicago World’s Fair, detailed on-site research at Uxmal was conducted in 1930 by J. Herndon Thomson for architecture, Robert H. Merrill for surveying, Enrique Alferez for casting, Dan Leyrer for photography, with assistants, directed by archaeologist Frans Blom. Noticing that the west façade of the East

Building of the Nunnery was leaning forward, they used a plumbline to check the facades of all four buildings of the Nunnery (for which they produced more than 100 cross-sections showing negative batter). They also used a plumbline at the Governor's Palace, House of the Turtles, the two upper temples of the Pyramid of the Magician, and several other structures at Uxmal, finding that they also had negative batter to both the upper and lower walls. Blom reports that they also conducted about 40 tests at Kabah, Sayil, Labna, and Xlabpak-Dzalbay, where they also found the walls with negative batter. **They concluded that the negative batter must have been a conscious choice and propose that this was done in order that "the edges of the undercut places throw a heavy and solid shadow, thus making a contrast between the outer and the deeper planes"** (p.565). Blom even suggests that "the small projection on the lower edges of their scale-like eyelids . . . throws a sharp shadow into the eye-pit, and the spectator . . . gets the impression that the monster is staring at him. The shadow of the projection creates the impression that one is seeing the black pupil of the eye" (p. 565). Noting that he had observed the conscious use of shadow to throw relief at Comalcalco, built some 500 years before Uxmal, Blom concludes that "the skillful use of light and shadow was nothing new to the Uxmal architects, and . . . the 'negative batter' simply was a natural evolution" (p. 565). The author reproduces two informative diagrams of vertical cross sections of the East Building of the Nunnery, including drawn lines representing the plumb lines. Unfortunately, neither of the two otherwise instructive photographs show plumbines in place.

**Blom, Frans Ferdinand**

*Ruins in the Maya Area. After Blom and Ricketson, with some additions by Herbert J. Spinden, 1928, and revised by Blom (New Orleans, 1928).*

**Blom, Frans Ferdinand**

"A Short Summary of Recent Explorations in the Ruins of Uxmal, Yucatán". *Proceedings, 24<sup>th</sup> International Congress of Americanists (Verhandlungen des XXIV Internationalen Amerikanisten Kongresses Hamburg)*: 55-59. Hamburg, 1934.

**Blom, Frans Ferdinand**

"Uxmal Expedition". *Tulane News Bulletin*, Vol. 10, No. 7 (1930): 111-114.

**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.

**Blom, Frans and Oliver LaFargue**

*Tribes and Temples: A Record of the Middle American Expedition conducted by the Tulane University in 1925*. New Orleans: Tulane University, 1926-27.

**Blom, Frans Ferdinand, photography by Dan Leyrer**

"Uxmal: the Great Capital of the Xiu Dynasty of the Maya". *Art and Archaeology*, Vol. 30, No. 6 (Dec. 1930): 198-209. Washington, D.C.: Archaeological Society of Washington.

This is a general description of the discovery experiences of the 1930 Tulane University expedition, carrying out research, photography, and making casts of the Nunnery Quadrangle for the 1933 Chicago World's Fair. Understandably, the article includes a number of fictitious stories and chronological miscalculations, but it is **a most important account, with photographs, of the physical condition of the major buildings of Uxmal previous to their restoration**. There is a ground plan of the Nunnery - Pyramid of the Magician area, drawn by the expedition staff. There are 19 photographs, showing the central ceremonial area thoroughly cleared, revealing specific areas of collapse and survival. Blum reports that they found stela 20 in front of the North Building of the Nunnery, in 20 pieces, which they reassembled with cement binding. He notes "the faint outlines of a frescoe painting" surviving on the inside walls of the entry arch of the Nunnery (p.202), and "brilliant remains of polychrome" in nooks and corners of various buildings (p.207). In a show of enthusiasm (which I believe supported by the evidence now 75 years later) Blum writes: "No building on this continent of the Americas surpasses the Governor's Palace at Uxmal in magnificence and beauty" (p.199). Although their main purpose was to document a few major buildings, the expeditionary group conducted an introductory survey of the area. In an **early recognition of the density of habitation in the area**, they reported that there were "twenty-three groups of hitherto unexplored buildings" and that "we went to the buildings in the distance, two to five miles away, located on hilltops, and found that they too, belonged to the culture of Uxmal" (p.208).

[A commemorative volume of this expedition, put together by Blom, and other photographs, drawings, and models resulting from this expedition are reproduced on this web site:](http://academic.reed.edu/uxmal/galleries/thumbnails/drawings/Drawings-Leyrer-Blom.htm)

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

### **Blom, Frans Ferdinand**

"Uxmal Expedition". *Tulane News Bulletin*, Vol. 10, No. 7 (1930): 111-114.

### **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.

### **Bolaños, Q., J. Javier**

"Civilización maya: Uxmal, Chichén Itzá". *Anuario de estudios centroamericanos*, Vol. 2 (1975): 403-406.

### **Bonaccorsi-Hild, Doris**

*Teobert Maler: Soldat, Abenteurer, Gelehrter auf den Spuren der Maya*. Wien: Ibero Verlag, 2001.

**An excellent 245-page biography on Maler**, the best overall introduction to his life. Written clearly for a general readership, the book includes details from archives and

from conversations with a few of those still living who remember him. There are a few references to Uxmal, Kabah, Sayil and Labná.

### ***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 16<sup>th</sup> 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.

### **Boone, Elizabeth Hill, ed.**

*Collecting the Pre-Columbian Past; A Symposium at Dumbarton Oaks, 6<sup>th</sup> and 7<sup>th</sup> October 1990*. Washington, D.C: Dumbarton Oaks Research Library and Collection, 1993.

Although no essay in the publication is directed to the Northern Yucatan, the volume as a whole provides such essential material for understanding the history of preservation, and lack thereof, of Pre-Columbian art and architecture, that it must be included here. The now well-known role of museums, research centers, collectors, and the market place in removing integral parts of pre-Columbian buildings and sites is here explored by twelve leading experts. The bibliographies direct one to much of the related publications on the subject.

### **Boone, Elizabeth Hill**

"The Color of Mesoamerican Architecture and Sculpture". *Painted Architecture and Polychrome Monumental Sculpture in Mesoamerica. A Symposium at Dumbarton Oaks, 10<sup>th</sup> to 11<sup>th</sup> October 1981*: 173-187. Ed. Elizabeth Hill Boone. Washington, D.C.: Dumbarton Oaks Research Library and Collection, 1985.

In her summary paper, Boone writes that "Although not all buildings and sculptures were painted, a sufficient number were colored red, or with a rich polychrome, to suggest that most Mesoamerican ceremonial and political centers were either entirely painted in brilliant hues or were highlighted with color". She adds that "Buildings and sculptures in Mesoamerica seem not to have been painted as an afterthought, rather, paint was an integral part of the creative process and was probably carefully considered before and during construction and the carving of monuments" (p.173).

**Benson, Elizabeth H., org. and ed.**

*Falsifications and Misreconstructions of Pre-Columbian Art. A Conference at Dumbarton Oaks, October 14<sup>th</sup> and 15<sup>th</sup>, 1978. Washington, D.C.: Dumbarton Oaks, Trustees of Harvard university, 1982.*

In her "Preface", Elizabeth Boone writes that "the papers in this volume note **the range of 'antiquities' produced in relatively modern times, suggest why these were and still are being created, and show how such forgeries can be detected**" (p.v).

The paper by Augusto Molina-Montes, "Archaeological Buildings: Restoration or Misrepresentation", is separately listed and annotated in this web bibliography.

**Boone, Elizabeth Hill**

"The Color of Mesoamerican Architecture and Sculpture". *Painted Architecture and Polychrome Monumental Sculpture in Mesoamerica. A Symposium at Dumbarton Oaks, 10<sup>th</sup> to 11<sup>th</sup> October 1981: 173-187.* Ed. Elizabeth Hill Boone. Washington, D.C.: Dumbarton Oaks Research Library and Collection, 1985.

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**Boone, Elizabeth Hill, ed.**

*Painted Architecture and Polychrome Monumental Sculpture in Mesoamerica. A Symposium at Dumbarton Oaks, 10<sup>th</sup> to 11<sup>th</sup> October 1981.* Washington, D.C.: Dumbarton Oaks Research Library and Collection, 1985

Seven papers, **the only wide-ranging review of evidence for painting on architecture and sculpture in Mesoamerica.** The two following papers are separately listed and annotated in this web bibliography:

Kowalski, Jess Karl, "Painted Architecture in the Northern Maya Area", pp. 51-90, color plates 3-5.

Boone, Elizabeth Hill, "The Color of Meosamerican Architecture and Sculpture", pp. 173-186.

**Bosch, D. C.**

"Die Mayastadt Uxmal, Mexiko". *Internationale Lichtrundschau*, Vol. 29, No. 3 (1979): 87-91.

**Bote, Juan**

"Relación de Teav-Y-Tec y Tiscolum". Colección de Documentos Inéditos Relativos al Descubrimiento, Conquista y Organización de las Antiguas Posesiones Españoles de

Ultramar. Segunda Serie, Vol. XI. Relaciones de Yucatan, I, Relacion XXIV, p. 287. Madrid, 1894.

This is the publication of a 1581 report with brief mention of “Uxmal, a very ancient settlement, very remarkable in edifices usual in Mexico”.

### **Boucher, Sylviane**

*Sayil, Yucatán*. México: Instituto Nacional de Antropología e Historia, 1992.

### **Boucher, Sylviane**

“Una revision de la sequencia de cerámica preclásica en las regiones Chenes y Puuc”. Paper presented at the First Maler Symposium on the Archaeology of Northwest Yucatán, Bonn

### **Boundary End Archaeology Research Center (BEARC)**

Founded by George Stuart in 1984 as the Center for Maya Research (CMR), a name no longer used. This is a **non-profit study facility near Ashville, North Carolina**. “The purposes of the organization are (1) to promote research in Native American study in the fields of anthropology, archaeology, art history, iconography, epigraphy, ethnology, and linguistics, and (2) to conduct small-scale projects related to these areas.” The Library consists of about 12,000 volumes. The BEARC web site includes a detailed description of the manuscript, drawing, photograph, and other holdings, and of the facilities and publication program.

On the web at:

<http://www.precolumbia.com/bearc/index.html>

(accessed 2008 Jan. 13)

### **Bourbon, Fabio**

*Le città perdute dei Maya: La vita, l'arte e le scoperte di Frederick Catherwood*. Valeria Manfredi De Fabianis and Fabio Bourbon, eds; Paola Piacco, graphics. Vercelli, Italy: Edizioni White Star, 1999.

Also published in English as *The Lost Cities of the Mayas: The Life, Art, and Discoveries of Frederick Catherwood*. New York: Abbeville Press Pub., 1999.

A glossy, large format, 200 page volume, every page including at least one illustration, all but a few in vivid color. The first 30 pages or so survey Catherwood's life previous to his first visit to Mexico. Most of the rest is devoted to Catherwood's published prints of Central America and the Yucatán.

All of Catherwood's color lithographs from his major 1844 publication, *Views of Ancient Monuments in Central America, Chiapas, and Yucatan*, are reproduced. They are somewhat cropped and with color and sharpness intensified. Nevertheless, they are immensely valuable, **the only post-1844 reproductions in print that I know from these famous and rare multicolored prints**. Because they are reproduced large, a great deal of detail can be seen. In addition to the cover and map from the 1844 volume, the 8 prints of Uxmal, 2 of Kabah, and 1 of Labná are reproduced.

There are also reproductions of the prints from Stephens and Catherwood's 1841 and 1843 publications. Here, the originals are black line etchings, but these have been artificially colored for this 1999 book. Where the prints are landscape views without color detail in the architecture, the added color in these 1999 reproductions is not seriously misleading. However, where the original prints are close-ups of sculpted mask and carvings, the added color is hypothetical and sometimes peculiar in the extreme (esp. pp. 169-171). Many of these later reproductions are larger than the original prints and cropped where they overrun the edges of the pages. From these 1841 and 1843 black etchings, there are 14 of Uxmal, 8 of Kabah, 2 of Sayil, and 4 of Labná.

Much smaller, but more accurate, reproductions of the 1844 color lithographs are available on the web at:

<http://www.smith.edu/library/libs/rarebook/exhibitions/catherwood/index.htm>

(accessed 2008 Jan. 13)

Larger and more accurate reproductions of the brown-toned edition of these same 1844 lithographs are reproduced on this web site:

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

Large, accurate images of the 1841 and 1843 black-line etchings are also reproduced on this web site:

<http://academic.reed.edu/uxmal/galleries/thumbnails/drawings/Drawings-41Stephens.htm>

and

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

**Bowditch, Charles P.**

"On the Age of Maya Ruins". *American Anthropologist*, n.s (1901): 697-700.

**Boynton, Robert**

*Chemistry and Technology of Lime and Limestone*. New York: Interscience Publishers, John Wiley and Sons., 1966.

**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 Institution of Washington, Yearbook No. 41: 253-257.* Washington, D.C.: Carnegie Institution of Washington, 1942.

**Brasseur de Bourbourg, Charles-Étienne**

“Essai Historique sur le Yucatan et Description ds Ruines de Ti-Hoo (Mérida) et d’Izamal, etc.” *Archives de la Commission Scientifique du Mexique.* Vol. 1: 18-64. Paris: Imprimerie Impériale, 1865.

The drawings of Uxmal that illustrate this publication are reproduced on this web site.  
<http://academic.reed.edu/uxmal/galleries/thumbnails/drawings/Drawings-Bourbourg.htm>

An account of the history of the Yucatan based on documents and other sources. There are a few pages, with simplified plan, of Itzamal. Figure 2 illustrates the types of habitations of the common people of the Yucatan, similar to those from long ago. The author writes that these were “well constructed and convenient for the country”, constructed 1 or 2 steps above the street, with only one door (p. 43). Based partly on fig. 3, a detail of one of the reliefs of typical Yucatec huts on the façade of the South Building of the Nunnery, Brasseur de Bourbourg writes about the Nunnery that (in translation) “This palace is in reality only an artistic combination of ordinary houses” (p. 44).

**Brasseur de Bourbourg, Charles-Etienne.**

“Informe acerca de las ruinas de Mayapan y Uxmal”. *Yikal maya than,* Vol. 8 (1952): selected pages 91-220.

**Brasseur de Bourbourg, Charles-Etienne.**

“Informe acerca de las ruinas de Mayapan y Uxmal; introducción y notes de Yoly Palomo C.”. *Boletín de la Escuela de Ciencias Antropológicas de la Universidad de Yucatán,* Vol. 11, No. 65 (1984): 3-41.



### **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-19<sup>th</sup> 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 Antropológicas, 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.

### **Braun, Barbara**

*Pre-Columbian Art and the Post-Columbian World: Ancient American Sources of Modern Art*. New York: Harry N. Abrams, Inc., 1993.

This book provides **examples of the multifaceted influences of Pre-Columbian art on artists from Gauguin to American artists of the 1970s**. In her first chapter, Braun traces the history of pre-Hispanic objects in Europe and Mexico in the context of changing concepts of history and culture. She examines the choices made by individuals and institutions in deciding which objects to collect, exchange, display, and preserve, how and why. This chapter provides an orderly, chronological survey of the major figures, institutions, and events.

The 4<sup>th</sup> of the 7 chapters is titled “Frank Lloyd Wright: A Vision of Maya Temples”, **tracing Wright’s contract with and influence of Pre-Columbian architecture on his work**. In addition to Wright’s interest in early publications and photographs of pre-Columbian architecture, his most direct and deepest contact took place at the 1893 World’s Columbian Exposition in Chicago, where he lived, and thereafter in the new Field Columbian Museum, which acquired and displayed artifacts, photographs

(including photographs of Sayil and Labná by Maler) and the large casts from the Exposition Including casts of the Labná arch, 2 details of the Nunnery Quadrangle, and 1 section of the Governor's Palace at Uxmal. Among the many large, high quality reproduction are 4 photographs of Uxmal, 1 of the Palace at Labná (reversed left-right, p.173), and 3 of the plaster copies.

**Bravo A., Humberto, Ma. Isabel Saavedra R., Pablo A. Sánchez A., Rodolfo Sosa E., and Ricardo Torres J.**

*Impact of Acid Deposition in the Decay of Mexican Mayan Monuments (Preliminary Study); for presentation at the 84<sup>th</sup> annual meeting & exhibition, Vancouver, British Columbia, June 16-21, 1991.* Pittsburg: Air & Waste Management Association, 1991.

This pamphlet describes a study recently begun to determine the influence of industrial emissions from the petroleum industry on the decay of Maya monuments. There are brief descriptions of the purpose of the study, its methods, and preliminary results. These already show that "there is a great possibility of long range transport from several potential emitting areas either Mexico or the United States even the possibility of air mass transport from other areas such as the island of Cuba" (p. 4). The authors also state "field studies on the stone itself will help determine the best methodology for protecting the Mayan monuments from different kinds of weathering" (p. 5).

**Breton, Adela**

"Archaeology in Mexico." *Man*, Vol. 8 (17): 34-37, 1908.

**Bricker, Harvey M., and Victoria R. Bricker**

"Astronomical References in the Throne Inscription of the Palace of the Governor at Uxmal". *Cambridge Archaeological Journal*, Vol. 6, No. 2 (1996): 191-229.

**Bricker, Harvey M., and Victoria R. Bricker**

"La inscripcion del trono del palacio del gobernador en Uxmal". *Memoria de la Mesa Redonda de Palenque; arquitectura e ideologia de los antiguos mayas*, ed. Silvia Trejo: 213-230. Mexico, D.F.: Instituto Nacional de Antropologia y Historia, 2000.

**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.

**Briggs, Peter, ed.**

*The Maya Image in the Western World: A Catalogue to an Exhibition at the University of New Mexico.* Albuquerque, NM: University of New Mexico Press, 1986.

Although titled as a catalogue, this publication does not include a catalogue of the works exhibited in the exhibition held at the University of New Mexico Art Museum and Maxwell Museum of Anthropology. It does illustrate some of the works in the exhibition and provides a rich context for their understanding.

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

Harrison, Peter, "Carlos Vierra: His Role and Influence on the Maya"

Paxton, Merideth, "Frederick Catherwood and the Maya"

Sabloff, Jeremy A., and Kelli Carmean, "Archaeologists' Images of the Ancient Maya"

### **Brine, Lindesay**

*The Ancient Earthworks and Temples of the American Indians*. Royston, Hertfordshire: Oracle Pub., Ltd., 1996 (reprinted from the first edition, Farmer and Sons, London, 1894; listed and annotated below).

### **Brine, Lindesay**

*Travel Amongst American Indians, Their Ancient Earthworks and Temples; including a journey in Guatemala, Mexico and Yucatan, and a visit to the Ruins of Patinamit, Utatlan, Palenque and Uxmal*. London: Sampson Low, Marston & Co., 1894 (republished by Oracle Pub., Ltd., Royston, Hertfordshire, 1996).

The 10 images of Uxmal and map of the author's travels in this volume are reproduced on this web site.

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

As indicated by the title, this book deals with an area even broader than Pre-Columbian Mesoamerica. In fact, the first 8 1/2 of the 20 chapters are devoted to the United States. As usual, the text chronicles the author's travels and the lives and customs of the Indians, in addition to the landscape and ruins.

There is one chapter on Uxmal, nothing on other Puuc cities. For the most part, the Uxmal chapter consists of typical, straightforward description. However, several specific observations about construction and state of preservation are worth noting. Among these, Brine writes that "the well preserved state of portions of the buildings is, at the present time, nearly four centuries after the arrival of the Spaniards, especially noticeable. I observed that **the wooden lintel over the door of my room in the Casa del Gobernador was in perfect condition**. The edges or corners were still sharp and unworn. It was also evident that, although the great weight of the masonry above must have exerted a heavy pressure upon the centre of the lintel, there were **no signs of the slightest deflection**. . . . Many of the stone carvings on the exterior were also apparently uninjured by their exposure to the weather" (p. 347).

The author also wonders about the tools used in carving, though it is surprising to see that he discounts the usefulness of obsidian for carving freshly quarried limestone. "There is, throughout, a wealth of sculpture which is astonishing when it is remembered that the sculptors, as far as we know, had no proper implements to work with. Stone chisels and obsidian scrapers appear to be inadequate for the purpose. . . . The walls of the Nunnery and the Casa del Gobernador are covered with designs deeply cut and perfectly joined. Thus it is proved that the sculptors had not only much capacity as workmen, but they **must have been able to chisel hard limestone with**

ease and facility of execution” (pp. 351-352). In this chapter there are 9 gray-scale illustrations of photographs and one small sketch.

**Brinton, D. G.**

*The Maya Chronicles*. Library of Aboriginal American Literature. No. 1. 1882.

**Broda, Johanna, Stanislaw Iwaniszewski, and Lucrecia Maupomé, eds.**

*Arqueoastonomía y etnoastronomía en Mesoamérica*. México: Universidad Nacional Autónoma de México, 1991. Based on a symposium held 24-28 Sept. 1984.

This volume publishes papers from a 1984 symposium organized by the Instituto de Investigaciones Antropológicas, Instituto de Investigaciones Históricas, and Instituto de Astronomía.

The following two papers are separately listed and annotated in this web bibliography:  
 Segovia, Victor, “La Astronomía en Uxmal”  
 Aveni, Anthony F. and Hamilton Hurst Hartung, “Archaeoastronomy and the Puuc Sites”

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

“The Electronic Atlas of Ancient Maya Settlements: a Geographic Information System (GIS)”. “Copyright 2001, 2002, 2005, 2008”.

On the web at:

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

(accessed 2008 March 13)

The purpose and uses of the Atlas are described. The site includes information on “The Maya Area”, “Using a GIS System”, 6 papers on the subject by the authors, and a group of informative “Maps of the Maya Area”. Research and additions to the site are ongoing.

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

“The fractal geometry of ancient Maya settlement”. *Journal of Archaeological Science*, Vol. 30 (2003), 1619-1632.

On the web at:

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

(accessed 2008 March 13)

The authors describe the nature of fractals and fractal geometry and its uses in archaeological analysis. Using Mayapan as an example, they describe the fractal nature of Maya settlement patterns. They “show that the fractal dimensions calculated for some Maya settlement patterns are similar to those produced by warfare, supporting recent claims that warfare is a significant factor in Maya settlement patterning.”

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

“The Geographic Analysis of Ancient Maya Polity and Settlement”. A paper presented at the Electronic Cultural Atlas Initiative Conference, City University, Hong Kong, January 2001. Published in the ECAI CD-ROM, *Proceedings of the 2001 Pacific Neighborhood Consortium and Electronic Cultural Atlas initiative Conference*, Academic Sinica, Taiwan.

On the web at:

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

(accessed 2008 March 13)

The authors describe their development of “a geographic information system (GIS) for the purpose of studying prehistoric Maya settlement and society.” They write that “The GIS is composed of archaeological, epigraphic, and locational data. It includes the whole Maya area and is designed for the study of regional issues, such as political organization, dialectology, and material culture.”

Brown and Witschey first briefly describe the ancient Maya and note that “Most of the problems and analyses that we discuss below concern lowland Maya culture, although the GIS includes data from the Maya highlands, too.” Next, they provide an excellent review of theories regarding “the scale and character of Maya political organization.” There is an excellent description of the methods used to collect, map, and analyse all data relevant to these questions. To date, they have concentrated their study on some 1197 archaeological sites in the state of Yucatán. There is a bibliography of sources especially relevant to their paper. The PowerPoint presentation from their 2001 paper is included.

**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.

**Brown, Gordon**

*Analysis and History of Cements*. Ontario: Gordon Brown Pub., 1996

**Brown, Susan F., and John J. Koran**

"Learning from Ruins: a Visitor Study of Uxmal". *Curator*, Vol. 41, No. 2 (1998): 121-131.

**Brunhouse, Robert L.**

*Frans Blom, Maya Explorer*. Albuquerque: University of New Mexico Press, 1976.

A rich study of the life of Frans Blom, based primarily on his professional career, including his involvement with the Department of Middle American Research/Middle American Research Institute, Tulane University. Pages 114-119 describe the 1930 Tulane expedition to Uxmal, directed by Blom, for the purpose of producing casts for the World's Fair at Chicago in 1933, but resulting also in extensive documentation and important discoveries.

**Brunhouse, Robert L.**

*In Search of the Ancient Maya: the First Archaeologists*. Albuquerque: University of New Mexico Press, 1973 (a paperback edition, with different pagination, was published by Ballantine Books, New York, in 1974).

This is one of a pair of books by Brunhouse describing the life stories of 15 Maya explorers and archaeologists who worked from the late 18<sup>th</sup> to early 20<sup>th</sup> centuries, their adventures in the Americas and their approaches in Maya studies. This volume, dealing with the early years, describes the lives of Antonio del Rio and Guillermo Dupaix, Juan Galindo, Jean Frédéric Waldeck, John Lloyd Stephens, Charles Étienne Brasseur de Bourbourg, Augustus Le Plongeon, and Edward H. Thompson. The introduction is a thoughtful reminder that there was no professional training available in archaeology at the time and that all of these individuals were amateurs, however remarkable. Brunhouse also provides a description of the physical and intellectual conditions under which they worked. There are only occasional references to the Puuc region, but there are two pages describe Thompson's commission to prepare molds of Puuc buildings for the 1893 Chicago World's Fair, requiring 14 months and producing 10,000 square feet of molds (pp.177-178). There is an important bibliography listing separately works by and about each of the 8 individuals, with brief, valuable critical comments.

The same author's book, *Pursuit of the Ancient Maya: Some Archaeologists of Yesterday*, published two years later by the same press, describes the lives and careers of 7 later explorer-archaeologists: Teobert Maler, Alfred P. Maudslay, Sylvanus G. Morley, Frederick A. Michell-Hedges, Herbert J. Spinden, William E. Gates, and Frans Blom.

**Brunhouse, Robert L.**

*Pursuit of the Ancient Maya: Some Archaeologists of Yesterday*. Albuquerque: University of New Mexico Press, 1975

This is one of a pair of books by Brunhouse describing the life stories of 15 Maya explorers and archaeologists who worked from the late 18<sup>th</sup> to early 20<sup>th</sup> centuries, their adventures in the Americas and their approaches in Maya studies. This volume, *dealing with the later years*, describes the lives of Teobert Maler, Alfred P. Maudslay, Sylvanus G. Morley, Frederick A. Michell-Hedges, Herbert J. Spinden, William E. Gates, and Frás Blom.

Relatively little attention is given to the Puuc region. An account is given of the important discoveries made at Uxmal by Blom and his party in 1930 when carrying out research and making casts for the 1933 Century of Progress Exposition in Chicago (p.196). Brunhouse notes that Morley “considered the Governor’s Palace at Uxmal the finest building in prehispanic America, a view shared by many other people” (p.60). In the chapter on Spinden, more attention is given to theoretical concepts than in chapters on the other archaeologists, describing Spinden’s extensive system of correlation. Brunhouse writes that “he produced a brilliant analysis of the evolution of styles in *A Study of Maya Art* which remains a landmark on the subject” (p.95). In the chapter on Morley, Brunhouse *describes the advanced conservation practices of the Carnegie Institution of Washington (C.I.W.)*; its “refusal to ask for artifacts which might be found in the course of excavation”, insisting instead that the C.I.W. “must restrict its work to excavation and scholarly reports of the result.” “The other policy of the C.I.W. required faithful restoration of the ancient structures . . . the C.I.W. followed the rigid policy of utilizing only stones which had fallen from a structure and adding no others. If modern materials like steel supports were used to preserve a building, they were hidden from view” (p.67). There is an important bibliography; selective and critical, listing separately works by and about each of the 7 figures.

The same author’s book, *In Search of the Ancient Maya: the First Archaeologists*, published two years before by the same press, describes the lives and careers of 8 different explorer-archaeologists: Antonio del Rio and Guillermo Dupaix, Juan Galindo, Jean Frédéric Waldeck, John Lloyd Stephens, Charles Étienne Brasseur de Bourbourg, Augustus Le Plongeon, and Edward H. Thompson.

### **Brunhouse, Robert L.**

*Sylvanus G. Morley and the World of the Ancient Mayas*. Norman: University of Oklahoma Press, 1971.

An account of the adventurous life of Sylvanus Morley, his enthusiasm for people and life. He is credited with “the inauguration of the vast program of Maya research that centered in Chichen Itzá” (p.12) and with major contributions to Maya epigraphy. His publications and lectures are described in a separate chapter, including his now classic survey, *The Ancient Maya*, published in 1946, which has served as the basis for later editions and major rewritings. Regarding the Puuc region, Brunhouse describes the early importance of Morley’s 2-week exploration of Uxmal, Kabah, Sayil, and Labná in 1907, return visit to Uxmal and Kabah two years later, and extensive study during 1941-1942. The book includes a complete bibliography of Morley’s writings, including manuscripts and location of letters.



## **"Building Consensus, Creating a Vision: A Discussion about Site Management Planning"**

*GCI Newsletter*, Vol. 16, No. 3 (Fall 2001).

On the web at:

[http://www.getty.edu/conservation/publications/newsletters/16\\_3/dialogue.html](http://www.getty.edu/conservation/publications/newsletters/16_3/dialogue.html)

(accessed 2007 May 21)

## C

### **Caballero, J.**

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

### **Calero, V.**

"La Estatua de Kabah". *El Registro Yucateco. Periodico literario, redactado por una Secoiedad de Amigos*. Vol. 4, 16-18. Mérida: imprenta de Castillo y Compañía, 1846.

The author claims that the name "Kabah" must derive from the colossal stone statue with a cobra in its hand, found in a noble place in the city of Kabah. There is a discussion of related Maya terms.

### **Capitán, M. L.**

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

### **Capitan,**

"Quelques Caractéristiques de l'Architecture Maya." *International Congress of Americanists. Proceedings of the XVIII. Session, London, 1912*. 216-219. Kraus Reprint, 1968.

### **Carlson, John B.**

"Maya city planning and archaeoastronomy," in *Archaeoastronomy Bulletin* 1(3). Center for Archaeoastronomy. College Park: University of Maryland: 4-5.

### **Carmean, Kelli Cummins**

*The Ancient Households of Sayil: A Study of Wealth in Terminal Classic Maya Society*. Ph.D. dissertation, Department of Anthropology, University of Pittsburgh, 1990.

Carmean set out to examine "whether wealth within Sayil society was produced through mechanisms external or internal to the local community". She based her study on a comparison of 2 models. As a possible external mechanism, she studied evidence for long distance trade. As a possible type of internal mechanism, she studied evidence for feudalism. The primary material studied was "the patterning of [Sayil's] architecture and ceramic assemblages" (p. ii). Carmean concludes that "neither model was recognized in Sayil's archaeological record" (p. 224). Nevertheless, this study was carefully organized and conducted and the thesis

provides information about wealth and household organization in Sayil. There are diagrams of 8 different platforms with their structures and a high quality, selective bibliography.

**Carmean, Kelli**

“Architectural Labor Investment and Social Stratification at Sayil, Yucatan, Mexico”. *Latin American Antiquity*, Vol. 2, No. 2 (1991): 151-165.

This paper is based on a 1990 Ph. D. dissertation, listed above, for the Department of Anthropology, University of Pittsburgh, *The Ancient Household of Sayil: A Study of Wealth in Terminal Classic Maya Society*.

This paper describes an architectural wealth hierarchy for the residential area of Sayil. Using the vault area and per-capita labor investment as guides, Carmean attempts to determine the architectural variability of households and, through this, the social stratification. Because her study does not include the ceremonial center or outlying chich mounds of the poorest inhabitants, the author points out that the study concerns mainly the middle rank of Sayil society. Nevertheless, within this middle rank, the study defines 6 ranks of households indicating a range of social prestige. She concludes that “the Conquest period assertion that land was communally owned by the Maya does not negate the possibility that other mechanisms limiting access to land may have produced social structures similar to those resulting from private land tenure” (p.152).

Of equal importance to the social stratification are the highly detailed ground-plans presented of domestic architecture at Sayil, indicating a surprising range in design and providing important information not discussed in the article. They indicate the varying size and shape of the basal platforms on which the discreet residential units were constructed, the size, divisions, and interrelationships of the buildings, chultunes, and communal spaces, and their relationships to the platform edges. All these provide important comparisons with the individual buildings and communal design in the ceremonial center.

**Carmean, Kelli**

“Leadership at Sayil: A Study of Political and Religious Decentralization”. *Ancient Mesoamerica*, Vol. 9, No. 2 (1998): 259-270.

**Carmean, Kelli, and Jeremy Sabloff**

“Political Decentralization in the Puuc Region, Yucatan, Mexico”. *Journal of Anthropological Research*, Vol. 52, No. 3 (1996): 317-330.

Based primarily on the authors’ separate studies of Sayil (with a population possibly as large as 16,000) Carmean and Sabloff describe the reasons for concluding that habitation and power within the Puuc was decentralized. Most revealingly, Carmean has argued that the physical remains at Sayil indicate that “political leadership is distributed to a rather limited extent within the community. Religious leadership appears more widely distributed than political leadership, but it remains in the elite

stratum. Social leadership is very widely distributed, with potential intercommunity leaders existing at various ranks, even stretching into the commoner stratum. Economic leadership—in the form of wealth influence—is the most widely distributed of all” (pp. 320-321).

Referring to detailed studies of feudal societies in Europe and Japan, they point to the success of feudal societies in developing small scale social, political, and economic relationships of interdependence among individual, between lord and vassal, not primarily larger scale relationships of ruler to people. They note that “these relationships may be replicated at many hierarchical levels within the community, not only among elite and commoner, but also among elite of various rank” (p. 324).

The authors suggest that “detailed settlement mapping, like that undertaken at Sayil, might illuminated relations among elite in local settings” (p. 327). This article by Carmean and Sabloff is a model of the orderly presentation of a theoretical argument based on detailed study of various types of relevant evidence.

### **Carmean, Kelli, Nicholas Dunning, and Jeff Karl Kowalski**

“High Times in the Hill Country: A Perspective from the Terminal Classic Puuc Region”. *The Terminal Classic in the Maya Lowlands: Collapse, Transitions, and Transformation*, ed. Arthur A. Demarest, Prudence M. Rice, and Don S. Rice: 424-449. Boulder, Colorado: University of Colorado Press, 2004.

An immensely valuable, up-to-date, review of evidence for the dynamic changes in the Puuc region, A.D. 770-950, stressing the complexity and uncertainty of much of the evidence and therefore the hypothetical character of many possible conclusions. **The authors separately present the chronological evidence for changes in eight Puuc cities or areas**, including Uxmal, Kabah, Sayil, and Labná. They describe “the nature of Puuc settlement” as “nucleated dispersion”, where “settlement did not simply continue to disperse across the landscape but was reined in at demarcated limits” (p. 440). They argue the important, new concept that since “95 percent of them [rural clusters] completely lack chultunes” . . . “we can only assume that these settlements . . . represent seasonally occupied farmsteads” (p. 440). Strangely they nowhere mention the major aquadas near Uxmal, which could have served significant portions of the population. The chapter is filled with perceptive observations and original suggestions on many subjects, including the changing role of Uxmal in relation to neighboring sites. The authors indicate the most promising areas for future research.

### **Carmichael, Elizabeth**

*The British and the Maya*. London: British Museum, 1973.

Although a small paperback accompanying an exhibition at the British Museum, this is a unique publication describing, with gray-scale photographs, the contributions of the British to Maya studies. This includes the following early enthusiasts and explorers and later scholars:

Edward King, Viscount Kingsborough (1795-1837)  
Juan Galindo (1802-1839)

John Herbert Caddy (1801-1883)  
 Frederick Catherwood (1799-1854)  
 Alfred Percival Maudslay (1850-1931)  
 Adela Catherine Breton (1849-1923)  
 Thomas William Francis Gann (1867-1938)  
 Thomas Athol Joyce (1879-1942)  
 John Eric Sidney Thompson (b. 1898)  
 Adrian Digby (b. 1909)  
 Ian Graham (b. 1923)  
 Norman Hammond (b. 1944)

For the Puuc region, the significant figures are Catherwood, Breton, Thompson, Digby, and Graham.

### **Carrasco, Ramón and Sylviane Boucher**

“Nuevas perspectivas para la cronología y el estudio de la arquitectura de la región central de Yucatán”. *Arquitectura y arqueología*. México: Centre d’Études Mexicaines et Centraméricaines, 1985: 57-68.

### **Carrasco Vargas, Ramón**

“Formación sociopolítica en el Puuc: El Sacbé Uxmal-Nohpat-Kabah”. A paper presented at the 3<sup>rd</sup> Mesa Redonda de la Sociedad Española de Estudios Mayas, Guiona, 1991. Published in *Memorias de la III Mesa Redonda de la SEEM*. Girona, 1991-92. Also published in: *Perspectivas antropológicas en el mundo Maya*, ed. M. Josefa Inlesias Ponce de Leona and Francesco Ligorred Perramón: 199-212. Madrid: Universidad Complutense de Madrid, Facultad de Geografía e Historia (Publicaciones de la Sociedad Española de Estudios Mayas, 2), 1993.

The author observes that the Uxmal-Nohpat-Kabah sacbé has been used to claim the position of Uxmal as regional capital. Instead he argues that the evidence from an exploration of the sacbé in 1990 demonstrates that **all three cities were part of a regional organization, based on a political agreement that allowed their autonomous populations to interact equally and to retain their own integrity**. Carrasco Vargas calls attention to the overlooked importance of Chetulix as the end of the sacbé, which never arrived at Uxmal. Based on the remaining evidence, he makes the extraordinary claim that Nohpat may have been as important as Uxmal. He describes the monumental area of Nohpat as surpassing in some ways the monuments of Uxmal. In tracing the sacbé from Kabah to Nohpat to Chetulix, the author **provides the most detailed description of various aspects of this often mentioned roadway**.

### **Carrasco Vargas, Ramón**

“Formación sociopolítica en el Puuc: El Sacbé Uxmal-Nohpat-Kabah”.

A paper presented at the 3<sup>rd</sup> Mesa Redonda de la Sociedad Española de Estudios Mayas, Guiona, 1991. Published in *Memorias de la III Mesa Redonda de la SEEM*. Girona, 1992.

Chap. XIV, pp. 59-64, with 5 ill.” (ref. Saville 1921, p. 110).

**Carrasco Vargas, Ramón**

“El gobernante des rostro escarificado de Kabah”. *Arqueologia Mexicana*, Vol. 1, No. 5 (1994): 75-77.

**Carrasco, David ed.**

*The Oxford Encyclopedia of Mesoamerican Cultures: The Civilizations of Mexico and Central America*. 3 vols. Oxford University Press, 2001.

Substantial, authoritative, up-to-date articles, with short bibliographies. For this web site, there are especially relevant articles on: Archaeology; Art History; Conservation and Restoration; Dyes and Pigments; Institutions, Projects, and Meetings; Le Plongeon, Augustus; Lithic Technology; Maler, Teobert; Maya; Museums and Exhibitions; Northern Maya Lowlands; Proskouriakoff, Tatiana; Puuc; Ruz Lhuillier, Alberto; Seler, Eduard; Stephens, John Lloyd; Stucco; Thompson, J. Eric S.; Tourism; Tozzer, Alfred Marston; Uxmal; Writing Systems: Maya Systems.

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

Alvarado, Rafael, "Institutions, Projects, and Meetings"  
 Andrews V, E. Wyllys, "Northern Maya Lowlands"  
 Barnett-Sanchez, Holly, "Museums and Exhibitions"  
 Clancy, Flora S., "Art History"  
 Coggins, Clemency C., "Proskouriakoff, Tatiana"  
 Desmond, Lawrence G., "Le Plongeon, Augustus"  
 Fash, William L., "Archaeology"  
 Fash, William L., "Maya"  
 Graham, Ian, "Maler, Teobert"  
 Graham, Ian, "Stephens, John Lloyd"  
 Kowalski, Jeff K., "Uxmal"  
 Molina-Montes, Augusto, "Conservation and Restoration"  
 Molina-Montes, Augusto, "Ruz Lhuillier, Alberto"  
 Nicholson, H. B., "Seler, Eduard"  
 Robertson, Merle Greene, "Stucco"  
 Stuart, David, "Maya [Writing] Systems"  
 Torres Montes, Luis Alejandrino, "Dyes and Pigments"  
 Tourtellot, Gair, "Puuc"  
 Willey, Gordon R., "Tozzer, Alfred Marston"

**Carrasco Vargas, Ramón**

“Proyecto Kabah, Yucatán 1990”. *Mecanoscrito del Archivo Técnico del CRY/INAH*. Mérida,” 1990.

**Carrasco Vargas, Ramón**

“El Rey de Kabah”. *Mexicon*, Vol. 14: (1992): 66-67.

### **Carrasco, Vargas Ramón**

“The Rings from the Ball Court at Uxmal”. *Seventh Palenque Round Table, 1989*. Merle Greene Robertson, general editor; Virginia M. Fields, volume editor: 49-52. San Francisco: Pre-Columbian Art Research Institute, 1994.

The two rings from the ballcourt at Uxmal are of special importance since there are very few objects at Uxmal on which calendric data is still visible. Based partly on a new examination of the fragments of these two rings, housed in the Regional Museum, Mérida, the author confirms the date previously proposed for the eastern ring, corresponding to 13 January 905 A.D. on the Gregorian calendar, the calendar now in use throughout most of the world. Carrasco proposes a slightly revised date for the western ring, almost five years later than the eastern. The author also calls attention to the appearance of the name of the Governor of Uxmal, Lord Chac, on all four sides of the two rings, and proposes slightly new meanings for the inscriptions.

### **Carrasco Vargas, Ramón, and Eduardo Pérez De Heredia Puente**

“Los últimos gobernantes de Kabah”. *Eighth Palenque Round Table, 1993*, Ed. Martha J. Marci and Jan McHarhue; Gen ed. Merle Greene Robertson. Vol. X. San Francisco: Pre-Columbian Art Research Institute, 1996: 297-307.

The authors establish an archaeological sequence for the phases of development at Kabah, describing the related structures for each phase. They then identify a sequence of 4 rulers of Kabah, each represented on a Kabah doorway lintel or jamb. One of each of the 4 rulers is illustrated. The 1st ruler was represented on a lintel (removed by Stephens, later destroyed in a fire) from the Building of the Red Hands, in the Northwest section of Kabah. The 2<sup>nd</sup> ruler is represented on a doorjamb (now in the American Museum of Natural History in New York) from structure 2A3, now largely destroyed and collapsed, in the observatory plaza. The 3<sup>rd</sup> ruler is represented on a doorjamb and monumental sculpture on the rear of the Codz Poop. The 4<sup>th</sup> ruler is also represented on a doorjamb of the Building of the Red Hands, but from a different level of the building. The authors describe and compare these representations of the 4 rulers in detail. They also illustrate and describe several glyph panels, based on data obtained in the 1990 to 1992 excavations, providing essential evidence for their chronological sequence. One important conclusion is that Kabah seems to have survived later than Uxmal, based on the latest dates at the 2 sites, 987 at Kabah, 905 at Uxmal.

### **Carrasco Vargas, Ramón, and Sylviane Boucher**

“El palacio de Sayil (Estructura 2B1): Un estudio cronológico”. *Mesoamérica y norte de México, siglos IX-XII*, ed. F. Sodi Miranda, Vol. 1: 59-85. México, D.F.: Instituto Nacional de Antropología e Historia and Museo Nacional de Antropología, 1990.

Images of the Great Palace at Sayil are reproduced on this web site.

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

**Carrasco Vargas, Ramón, Eduardo Perez Herdia. Sylvianne Boucher, Antonio Centeno, Dloroes Ballesteros and José Ligorred**

“Informe del Proyecto Kabah, Temporada 1992”. Manuscript on file at the Archivo del Centro regional de Yucatán, Instituto Nacional de Antropología e Historia (C.R.Y.-I.N.A.H.), 1993.

**Carrasco Vargas, Ramón, et al.**

“Les fouilles du site de Kabah (Yucatan): Saison 1991. *Journal de la Société des Américanistes*, Vol. 78, No. 1 (1992): 9-29.

**Carrillo, Estanislao (un Curioso)**

“Dos días en Nohpat”. *El Registro Yucateco*. Vol. I, pp.261-272. Mérida, 1845.

**Carrillo, Estanislao**

“La estatus de Kabah”. *Registro Yucateco*, Vol. IV: 16-18. Mérida, 1846.

**Carrillo, Estanislao**

“Zayil”. *Registro Yucateco*, Vol. IV: 54-61. Mérida, 1846.

**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 20<sup>th</sup> 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.”



**Castleberry, May, ed.**

*The New World's Old World: Photographic Views of Ancient America*. Published on the occasion of an exhibition held at the AXA Gallery, New York, May 8 - July 19, 2003. Albuquerque: University of New Mexico Press, 2003.

An excellent chronological survey of photographic images of pre-Hispanic architecture and man-made landscape features in North, Central, and South America. Examples include photographs dating from shortly after the invention of photography to the present day. In her "Introduction", Castleberry devotes 2 ½ pages to 19<sup>th</sup> century explorer-photographers of Pre-Columbian sites, though without specific mention of the Puuc region. The book reproduces Maler's unique 1891-1893 albumen silver prints, exceptionally wide-angle photograph of the entire façade of the Governors' Palace, Uxmal (fig. 10) and a romantic 1993 photograph of the Labná arch by Sandro Oramas (fig. 76).

The following article is separately listed and annotated in this web bibliography:  
Howe, Kathleen Stewart, "Primordial Stones: Reading Ancient Mesoamerica"

***Catalogo de la Exposicion Americanista***

Madrid, 1881.

This catalogue refers to sculptures from the Nunnery and Governor's Palace, now in the collection of the Museo Arqueológico, Madrid (pp. 230-231).

**Catherwood, Frederick**

*Views of Ancient Monuments in Central America, Chiapas, and Yucatan*. London: F. Catherwood, 1844.

The prints of Uxmal, Kabah, and Labná and map in this album are reproduced on this web site.

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

Catherwood had accompanied John Stephens on his expeditions of 1839-42 and was responsible for the illustrations in Stephens' *Incidents of Travel in Central America, Chiapas, and Yucatan* (2 vols. New York: Harper, 1841) and in Stephens' and Catherwood's *Incidents of Travel in Yucatan, illustrated by 120 engraving* (New York: Harper & Brothers, 1843). The rigor and precision of their documentation in these 4 volumes has been a model for all future Maya scholars.

The prints in this 1844 volume were based on the same on-site drawings made by Catherwood but were large and fully developed as works of art. Therefore, as has often been pointed out, in contrast to the earlier engravings, these lithographs were romanticized, some noticeably more than others. As archaeological evidence, however, it is more important to note that they were partly reconstructed, with small areas filled in and straightened. At the same time, they include information not available in the previous engravings: images of local people, of Stephens in the process of surveying the buildings, and small portions of buildings not visible in the

earlier engravings. Because only 300 deluxe copies were published, this publication circulated much less widely than the 4 previous Stephens and Catherwood publications, which were extremely popular and immediately went through many editions, continuing even today.

The 24 magnificent chromolithographs (a few copies include hand-colored prints instead) in this album include 7 of Uxmal, 2 of Kabah, 1 of Labná and a map showing the route and “the Ruined Cities and Monuments Visited by Messrs. Stephens & Catherwood in the Years 1839, 1840, 1841, 1842.” There is a 10 page introductory text.

### **Cedillo Alvarez, Luciano**

“Stucco: A Report on the Methodology Developed in Mexico”. *In Situ Archaeological Conservation: Proceedings of meetings April 6-13, 1986, Mexico*. Miquel Angel Corzo, Conference Coordinator; Henry W.M. Hodges, Senior Editor. Mexico: Instituto Nacional de Antropología e Historia de Mexico; and The Getty Conservation Institute, Los Angeles, California, 1987: 90-97.

An outstanding report on studies of stucco conservation carried out in Mexico during about 1965-85. Cedillo summarizes basic observation regarding Mesoamerican stucco, noting that the Maya used stucco in a variety of ways; as “smooth surfaces, stucco reliefs, sculptured stucco, and floors. The use of lime as a construction material marks an important step in the development of Mesoamerican architecture” (p.90). “The workmanship of stuccoed surfaces is closely linked to the development of the architecture itself – the stucco forms what we could consider the architectural skin. Only rarely are there stucco objects that do not exhibit this relationship. For this reason, to treat the problem of stucco conservation without taking into consideration those of the architectural structure to which they are applied, would lead to rather unsatisfactory results, as has happened in some cases” (p.91). Cedillo then describes “Stucco conservation problems in Mexico,” “Causes of change,” “The development of conservation processes,” “Methods of protection,” “Preparing work areas,” and “Conservation processes and material.” He concludes that “not only in Mexico, but throughout the world, no satisfactory procedure has been found for the conservation of stuccowork in situ” (p. 97).

### **Centro de Investigaciones Agrícolas de la Península de Yucatán (CIAPY)**

*Marco de referencia del cultivo de maiz en el area de influencia de campo agricola experimental de Uxmal*. Secretaria de Agricultura y Recursos Hidráulicos. Mérida, 1984.

### **Chan, Roman Pina**

*A Guide to Mexican Archaeology*. México: Editorial Minutiae Mexicana, 1998 (1<sup>st</sup> ed. 1969).

### **Charnay, Claude Joseph Désiré**

*Album fotográfico Mexicano*. Mexico City: J. Michaud e hijo Editores, 2d, calle de S. Francisco no. 10, 1860.

An edition was published in Paris in 1861.

The first publication of photographs taken by Charnay in Mexico, including the first photographs ever taken of Maya ruins. Only a few copies were published but the volume was well received. Keith David writes that “This album, very rare today, contains 25 original prints up to 34x44 cm. in size which are designated ‘Forografia de Charnay, Mexico.’ Each photograph was accompanied by a page of explanatory text by the Mexican historian Manuel Orozo y Berra (1816-1881)” (Davis 1981, p. 201).

### **Charnay, Claude Joseph Désiré**

*Les anciennes villes du nouveau monde: Voyages d'explorations du Mexique et dans l'Amérique Centrale par Désiré Charnay 1857-1882.* Paris: Hachette, 1885.

See Charnay, *The Ancient Cities of the New World*, below for the slightly compressed English translation.

The engravings of Uxmal and Kabah (there are none of Sayil or Labná) and 2 maps of Charnay's travels (1 is double-page in color) are reproduced on this web site.

<http://academic.reed.edu/uxmal/galleries/thumbnails/drawings/Drawings-85Charnay.htm>

This publication included engravings instead of original photographs and was therefore much more widely available than Charnay's lavish 1862 volume of photographs, *Cités et ruines américaines*. The engravings are powerful and very closely based on Charnay's photographs, but not all details of the buildings are exact. The excellent, two-page map of Central America includes topography and shows his routes in color. Uxmal, Kabah, and Labna are named and located but not yet Sayil. Wisely, in his preface, Charnay states that his subject is so vast that he cannot do it justice and that, although resemblances to the architecture of other cultures must strike everyone, any influences can only be conjectural.

This is a 500 page popular account of Charnay's travels, explorations, and documentation campaigns in Central America, with descriptions of the people, their costumes, customs, and behavior. Prints of the people, local environment, and archaeological sites are based primarily on Charnay's own remarkable photographs. Rejecting the various 19<sup>th</sup> century theories of the Egyptian and other ancient origins of the Maya, Charnay states that (in translation): “. . . we see that they belong, whatever the distance and time that separates them or the details that differentiate them, to one single and same civilization. We see that this civilization is relatively modern and that it is Toltec” (p.viii).

The first half of Chapter 19, titled “Kabah et Uxmal”, is a diary of Charnay's travels and the local people, with some attention to Mayapan, followed by about 7 pages of straight-forward description of the Kabah ruins. Chapter 20 titled “Uxmal” also includes description of Charnay's travel in the area, but contains his most important account of the ruins of Uxmal. He presciently opines that the Palace of the Governor (in translation) “is certainly the most grand, the most magnificent of the ancient monuments of the Americas” (p. 335). Most important is his conclusion about the method of construction at Uxmal and related sites.. He writes (in translation): “It is therefore likely that the architect first raised perpendicular to a height of two or three meters the interior wall, which constitute the rooms of the edifice. Then he bridged one

to another in a manner to form false keystones of the double rooms of the palace. He then filled the space between the keystones, reinforcing the outside walls with a block of masonry that supports itself on the two keystones. Then he pecked the exterior of the building with sculpted rocks fit with tendons that composed the décor” (p. 336).

Regarding states of preservation Charnay writes of the Palace at Kabah: “All the rooms had painted walls that were painted with figures and inscriptions, as we can judge from the small fragments that still remain. . . . There as well, the exterior decoration was of great concern to the artist, and this painting, these strikingly bright colors, distributed artfully on the large facades, in the middle of the web of monstrous figures, should great add to the savage magnificence of these edifices” (p.324). Regarding Uxmal, he writes: “At Uxmal, all the lintels are of wood, of which a large proportion is in a perfect state of preservation: clear proof of their recent period” (p. 336). Of the Governor’s Palace at Uxmal, Charnay writes: “This palace is new, despite more than three centuries of abandon; and it would be completely intact if not for the vandalism of former property owners who had stones taken from the base for the construction of their hacienda” (p.335).

### **Charnay, Claude Joseph Désiré**

*The Ancient Cities of the New World: Being Travels and Explorations in Mexico and Central America from 1857-1882.* Trans. from the French by J. Gonino and Helen S. Conant. London: Chapman and Hall, 1887.

The engravings of Uxmal Kabah (there are none of Sayil or Labná) and 2 maps of Charnay’s travels (1 double-page in color) are reproduced on this web site.  
<http://academic.reed.edu/uxmal/galleries/thumbnails/drawings/Drawings-85Charnay.htm>

This is a translation of *Les anciennes villes du nouveau monde: Voyages d’explorations du Mexique et dans l’Amérique Central, par Désire Charnay, 1857-1882* (Paris: Librairie Hachette, 1885). Published also in New York by Harper Brothers, 1888, with the title slightly reworded to read “. . . being Voyages and Explorations . . .” There is a 15-page introduction by Allen Thorndike Rice, providing a review of European explorers of Central America, writers, and theorists, with only brief mentions of Charnay.

A reprint, unchanged, using the New York title, was published in 1973 by AMS Press, Inc., New York, for the Peabody Museum of Archeology and Ethnology, Harvard University. This includes an introduction by Ian Graham, with brief summary of Charnay’s career and contributions to the understanding of Mesoamerican prehistory.

Readers should be warned that many sentences and paragraphs in this generally reliable English translation have been eliminated or compressed, deleting useful comments.

For a description of this volume, see annotation above for the French original, *Les anciennes villes du nouveau monde*.

### **Charnay, Claude Joseph Désiré**

*Cités et ruines américaines: Mitla, Palenqué, Izamal, Chichen-Itza, Uxmal, recueillies et photographiées par Désiré Charnay, avec un texte par M Viollet-le-Duc.* Paris: Gide Éditeur, A Morel et Ce, 1862-1863 (first Spanish edition, *Ciudades y ruinas americanas*, 1866; a French edition was published by the Bibliothèque Nationale de France, Paris, in 1982; a more recent Spanish edition was published in 1994 by Consejo Nacional para la Cultura y las Artes, México, D.F.).

All of Charnay's photographs of Uxmal in the lavish vol. 1 of this publication and the illustration to Viollet-le-Duc's article in vol. 2 are reproduced on this web site.

There are no photographs of Kabah, Sayil, or Labná in this publication.

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

This 2-volume publication was made up of 1 large, lavish volume of 49 plates (47 original photographic prints and 2 photo-lithographs), published 1862 (a few of Charnay's photographs published in 1862 had been published 2 years earlier) and 1 much smaller volume of text, published 1863.

Charnay's photographs were the first ever made of Maya ruins, overcoming not only the difficulties of a challenging, foreign environment, but also the demanding logistics of mid-19<sup>th</sup> century photography. He used a large camera, large glass plates which had to be prepared just before each exposure and developed on site, printed later on albumen-silver paper. Moreover, he worked systematically, documenting not only details but also the grandeur of the cities he recorded. The photographs in *Cités et ruines américaines* were taken during two seasons of fieldwork in 1859 and 1860.

The much smaller text volume contained an account by Charnay of his travels: "Le Mexique: 1858-1861: Souvenirs et Impressions de Voyage", In his preface, Charnay points out the immensity of his subject, the inadequacy of previous publications, and the necessary shortcomings of his own. On the contentious subject of foreign origins of Maya architecture, he notes similarities to the art and architecture of other cultures, but states that any conclusions are now hypothetical. Nevertheless, he introduces Viollet-le-Duc as (in translation) "a synthetic talent that can reconstruct the past on the ruins if the present" (p. vi). The text volume includes also a revealing essay by Viollet-le-Duc (pp. 3-80), based on photographs, drawings, and notes provided by Charnay. Viollet-le-Duc's essay, "Antiquités Américaines", is separately listed and annotated in this web bibliography.

Charnay's 19 chapters include one on the Yucatan and one on Uxmal, including 19 short pages on the ruins of Uxmal (pp. 362-380). This includes details of his set-up for photography at Uxmal, roles of his Maya assistants, and practical difficulties in dealing with sleeping, along with brief, straightforward descriptions of the ruins.

### **Charnay, Claude Joseph Désiré**

*Ciudades y ruinas americanas.* Translated from the French, *Cités et ruines américaines*, by Rocio Alonzo. Prologue Lorenzo Ochoa, 1993. México, F.D.: Consejo Nacional Para la Cultura y las Artes, 1994.

In his prologue, Ochoa calls attention to the lack of recognition that Charnay's publications received in many 20<sup>th</sup> century academic studies of the ancient Maya, because Charnay's writing was not sufficiently scientific. However, Ochoa points out that Charnay's accounts are valuable descriptions of the life of the Maya people and their environments during the 19<sup>th</sup> century. In his chapter on Uxmal, in addition to his description of the ruins, Charnay provides **details of the various types of assistance his local employees provided**: 40 of them clearing the site for photography, 2 others running errands for water, others protecting Charnay's photographic work station from falling debris, etc.

**Charnay, Claude Joseph Désiré**

*Ciudades y ruinas americanas: Mitla, Palenque, Izamal, Chichén Itzá, Uxmal. Reunidas y fotografiadas por Désiré Charnay.* Álbum de Fotografías. Nota introductoria de Víctor Jiménez. México, D.F.: Banco de México, 1994.

This edition is useful for **the introduction by Víctor Jiménez, which describes the location of Charnay's original photographs**, mentioning albums in Mexican, French, and United States collections. He states that some of the original negatives are in the collection of the Museum of Man, Paris.

**Charnay, Claude Joseph Désiré**

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

**Charnay, Claude Joseph Désiré**

"Les explorations de Teobert Maler". *Journal de la Société des Américanistes de Paris*, Vol. 1 (1904): 289-308.

**Charnay, Claude Joseph Désiré**

"Les explorations de Teobert Maler". *Journal de la Société des Américanistes de Paris*, Vol. 1 (1905): 1-22

**Charnay, Claude Joseph Désiré**

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

**Charnay, Claude Joseph Désiré**

*Le Mexique et ses monuments anciens, par Désiré Charnay.* Paris: Émile Bondonneau, 1864.

Includes 20 photographs from *Cités et ruines*, in a smaller format. Some copies include only 8 photographs, all of Uxmal, with 5 pages of text.

**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).

“A series of articles in 23 chapters. Uxmal is described in chap. XIV, pp. 59-64, with 5 ill.” (Saville 1921, p. 110).

**Charnay, Claude Joseph Désiré, and Viollet-le-Duc**

*Ciudades de Luz*. Introduction by Guillermo Tovar de Teresa. México: Grupo Financiero del Sureste, 1993.

This is a finely produced volume, with **Charnay’s photographs superbly reproduced** on high quality, 12 ¼ x 12 ¼ inch pages. Among the 30 plates reproduced, 14 are of Uxmal, including the two-page panorama of the Governor’s Palace. Charnay’s preface and Viollet-le-Duc’s essay, from Charnay’s 1863 *Cités et Ruines Américaines*, are reproduced in the original French with side-by-side Spanish translation. The introduction by Tovar de Teresa briefly summarizes the 18<sup>th</sup> and 19<sup>th</sup> European rediscovery of the ancient Americas. The author praises the epoch of French romanticism, represented by Charnay and Viollet-le-Duc, with no mention of the resulting misinterpretations in Viollet-le-Duc’s essay.

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

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

**Chavero, Alfredo**

*México á traves de los siglos*. Vol. 1, Preimera epoca. Historia antigua. Mexico and Barcelona, 1887.

The author states that he has based his account of Uxmal not on the publications of Stephens but on the then unpublished account of Don José Fernando Ramírez, based on his visit to Uxmal in 1865. Portions published by Chavero include descriptions of the Nunnery, Governor’s Palace, House of the Turtles, and House of the Doves.

**Christie, Jessica Joyce, ed.**

*Maya Palaces and Elite Residences: An Interdisciplinary Approach*. Austin: University of Texas Press, 2003.

**An anthology of eleven papers.** The editor writes that “the main purpose of this volume is to present an interdisciplinary approach and bring together scholars in archaeology, anthropology, art history, and epigraphy, as well as information from a number of different Maya sites, **to see what kind of formal and functional patterns in palaces and elite residences can be isolated and in what ways they reflect the structure of Maya society**” (p.9). The editor provides an introduction and conclusion, sectioned by form, location, function, and social structure. In agreement with the other authors, she writes that “the architectural space was sacred and used for ceremonies and official events, but it was also residential because the domestic, religious, and public lives of the Maya were integrated. Maya existence was not and is not divided into a public and

private life; both aspects coexist and overlap, and so do the uses of Maya houses” (p.311).

The following 2 chapters, deal with palaces in the northern Yucatan, including the Puuc region, and are separately listed and annotated in the bibliography for this web site:

Jeff Kowalski, “Evidence for the Functions and Meanings of Some Northern Maya Palaces”.

Edward B. Kurjack, “Palaces and Society in the Northern Maya Lowlands”.

### **Cirerol Sansores, Manuel**

“Informe de los trabajos desarrollados en Uxmal, hasta el 30 de abril de 1937,” in *Estado de Yucatán, Uxmal*, Tomo 1: 1913-1937. Archivo Técnico del Departamento de Monumentos Prehispánicos INAH, vol. 158. México, D.F.: INAH, 1937.

### **Cirerol Sansores, Manuel**

*Ushmal*. Mérida, Editorial Zamma, 1952.

### **Ciudad Real, Fr. Antonio, and Alonzo Real**

“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 dicese 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 trabajos 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 (2<sup>nd</sup> 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).

### **Clancy, Flora S.**

"Art History". *The Oxford Encyclopedia of Mesoamerican Cultures: The Civilizations of Mexico and Central America*. Vol. 1: 54-59. Ed. David Carrasco. 3 vols. Oxford University Press, 2001.

A valuable survey of the development of the art historical study of Mesoamerica, describing major figures, evolving concepts of what art history is, and its changing relationship to archaeology.

Clancey is unusual in describing in some detail the different types of information recorded by various forms of graphic documentation and the ways in which these reveal the intentions of the artists. About Seler she writes: "most iconographical studies produced since his time . . . are direct inheritors of his method of comparative analysis and his manner of representing his material. . . . In his article on Xochiacalo . . . [the four photographs he includes] do not illustrate the information he gathers and presents in his text; his drawings do this. His drawings are usually done as outlines, and only on occasion does he render any suggestion of three dimensions when drawing from sculpture or relief-carved pieces. . . . He has little use for relative scale, as comparable images from various objects tend to be drawn at the same scale. What is important to Seler, clearly, is the icon, not the medium in which it was rendered, nor its scale, not its context . . ." (p. 55). About Proskouriakoff's 1950 *Study of Classic Maya Sculpture*, Clancy writes: "Using the graphic outline of images as an index of stylistic change . . . Proskouriakoff was able to produce a reliable stylistic seriation and history for Maya sculpture" (p. 55).

### **Cline, Howard F.**

"The Apocryphal Early Career of J. F. Waldeck Pioneer Americanist". *Acta Americana*, Vol. 5., No. 4 (1947): 278-300.

A thorough review of the various unreliable sources of information about Waldeck's life from birth "to 1822, when the first clearly identifiable trace of him emerges" (p. 300). Cline writes that "The year 1822 tends to mark a turning point in the biography of Waldeck. Thenceforth he was indisputably an Americanist" (p. 297). In his only mention of Uxmal, Cline writes that the influence of Waldeck's theories "visibly affected the results of his field work An instance is Waldeck's drawing of non-existent

figures on the Maya ruins of Uxmal, in which they appear clothed in Phoenician costumes” (p. 280). There is no mention of Waldeck’s 1838 volume, *Voyage pittoresque et archéologique dan la province d’Yucatan (Amérique Centrale), pendant les années 1834 et 1836*. However, Cline does comment in general that “as a source of error, he filled in and ‘reconstructed’ gaps in the data solely from his fertile imagination and with skilful talent” (p. 280).

### **“Closing the Divide: A Discussion about Archaeology and Conservation”**

*GCI Newsletter*, Vol. 18, No. 1 (Spring 2003).

On the web at:

[http://www.getty.edu/conservation/publications/newsletters/18\\_1/dialogue.html](http://www.getty.edu/conservation/publications/newsletters/18_1/dialogue.html)

(accessed 2007 May 26)

### **Clark, Kate**

“Preserving What Matters: Value-Led Planning for Cultural Heritage Sites”. *GCI Newsletter*, Vol. 16, No. 3 (Fall 2001). Available on the web at

[http://www.getty.edu/conservation/publications/newsletters/16\\_3/feature.html](http://www.getty.edu/conservation/publications/newsletters/16_3/feature.html).

### **Coe, Andrew.**

*Archaeological Mexico: A Traveler’s Guide to Ancient Cities and Sacred Sites*. Avalon Travel, 2001 (first ed. 1998).

Only twenty-six pages can be devoted to the Puuc region, but this information is more up-to-date than in most other guides and includes an informative two pages on the architectural study and restoration of Uxmal. Also of special value for this web site is a two-page discussion of “The Politics of Architectural Restoration” in all of Mexico (pp.18-19).

### **Coe, Michael D.**

*Breaking the Maya Code*. New York: Thames and Hudson, 1992 (London, 1993).

### **Coe, Michael D.**

*Lords of the Underworld: Masterpieces of Classic Maya Ceramics*. Photographs by Justin Kerr. Princeton, NJ: Princeton University Press, 1978.

There are only minor remains of painted ceramics from the Puuc region, thus not included in this book. The book is listed here because it includes an illustration and description by Justin Kerr of his discovery of the photographic rollout technique, which has been so instrumental in the study of Maya imagery (pp. 138-139).

### **Coe, Michael**

“Review of Pollock, H. E. D., *The Puuc*”. *Science*, Vol. 211 (1981), pp. 572-573.

Available on the web through JSTOR subscription at:

<http://www.jstor.org/view/00368075/ap993213/99a00280/0>

Coe acknowledges Pollock’s volume as “a monumental work” containing “first-class architectural plans, sections, and elevations of individual buildings; it provides a

definitive record of much standing architecture”. At the same time, Coe calls attention to the fact that if the research had been carried out in the 1970s, instead of the 1930s and 1940s, the research aims would have been formulated differently. Research in the 1970s would have had more up-to-date information available and, most notably, would have included concern for settlement patterns. In his first paragraph, Coe writes that “The Puuc hills . . . were the locus of the finest architectural achievements of the ancient Maya”.

**Coe, Michael, and Rex Koontz**

*Mexico: From the Olmecs to the Aztecs*. London and New York: Thames and Hudson, 2002 (5th ed., revised and expanded).

**Coggins, Clemency**

“Illicit Traffic in Pre-Columbian Antiquities”. *Art Journal* (Fall 1969): 94-98.

**Coggins, Clemency**

“The Maya Scandal: How Thieves Strip Sites of Past Cultures”. *Smithsonian*. Vol.1, No. 7 (Oct. 1970): 8-17.

**Coggins, Clemency C.**

“Proskouriakoff, Tatiana”. *The Oxford Encyclopedia of Mesoamerican Cultures: The Civilizations of Mexico and Central America*. Vol. 1: 37-38. Ed. David Carrasco. 3 vols. Oxford University Press, 2001.

A review of the major accomplishments of Tatiana Proskouriakoff. Regarding graphic documentation, the author points out that Proskouriakoff’s first employment with the Carnegie Institution of Washington, D.C. was based on her “surveying, drafting, and skill in architectural reconstruction”. Coggins also calls attention to her architectural reconstruction watercolor drawings in her *Album of Maya Architecture*, published in 1946. She describes Proskouriakoff’s rigorous analysis and drawings of “bodily positions, regalia, and decorative motifs” of Classic southern lowlands monumental sculpture in her 1950 *Study of Maya Sculpture*, and her study of the monumental sculpture of the northern lowlands in her 1951 “Some Non-Classic Traits in the Sculpture of Yucatan”.

**Cogolludo, Diego López**

*Historia de Yucathan. Sacala a luz Francisco de Ayeta*. Madrid: Juan Garcia Infanzon, 1688 (2<sup>nd</sup> and 3<sup>rd</sup> editions were published in the 19<sup>th</sup> 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 17<sup>th</sup> 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. Pasztor: 86-107. New York: Columbia University, 1978.

**Conservación del patrimonio monumental 1.**

*Cuaderno de Arquitectura Mesoamerica*. No. 3 (diciembre 1984).

**Cook De Leonard, Carmen**

*Cuentos Prehispánicos. El Enano de Uxmal*. Mexico: Editorial del Valle de México, 1980.

**Corruchaga, José Antonio Lasheras, and Pilar Fatás Monforte**

“The New Museum of Altamira: Finding Solutions to Tourism **Pressure**”. *Of the Past, for the Future: Integrating Archaeology and Conservation*. Ed. Neville Agnew and Janet Bridgland. Proceedings of the Conservation Theme at the 5<sup>th</sup> World Archaeological Congress, Washington, D.C., 22-26 June 2003. Los Angeles: Getty Conservation Institute, 2006: 177-183.

The authors describe the replica of the cave of Altamira, part of the new Museum of Altamira inaugurated in 2001. The purpose of the replica is to provide as close an experience as possible to that of visiting the actual cave, while preserving the cave itself, which was deteriorating badly from the pressures of tourism. The history of tourism at the cave, the disastrous encouragement of damaging tourism until 1979 and, since then, gradual establishment of policies that preserve the cave, allowing a limited number of visitors, while providing a high quality replica in the context of a large exhibition on the Paleolithic period in the new museum. Unresolved problems are described. **The experiences of this replica at Altamira provide important lessons when considering comparable replicas at other world heritage sites.**

**Covarrubias, Miguel**

*Arte indígena de México y Centro América*. U.N.A.M. México, 1961.

**Craine, Eugene R. and Reginald C. Reindrop.**

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

***¿Credibilidad o veracidad? La autenticidad: un valor de los bienes culturales.***

Papers from an international seminar-workshop on the authenticity of movable and immovable cultural goods, held in Cajamarca, 17 to 19 October 2003. San Borja, Peru: UNESCO, 2004

Papers on the criteria for the authenticity of movable and immovable cultural goods in Peru, in the context of conservation values internationally; resulting from an

international seminar-workshop held in Cajamarca, Peru, 17 to 19 October 2003. In addition to the papers, this volume includes the program, discussion, conclusions and recommendations, and an appendix of international charters. One of the introductory papers reviewed the case of Mexico and is separately listed and annotated in this web bibliography.

Diaz-Berrio, Salvador, "El concepto de autenticidad, visión histórica y aplicación al caso mexicano.

**Culbert, T. Patrick, ed.**

*The Classic Maya Collapse*. Santa Fe, NM: School of American Research, and University of New Mexico Press, Albuquerque, 1973.

**Culbert, T. Patrick**

*Maya Civilization*. St. Remy Press and Smithsonian Institution, Washington, D.C., 1993.

**Culbert, T. Patrick and Don S. Rice, ed.**

*Pre-Columbian Population History in the Maya Lowlands*. Albuquerque: University of New Mexico Press, 1990.

An anthology of 16 articles presenting quantitative data and methods used in recent population research for lowland Maya civilization. The data and methods used are presented as a basis for later theoretical ideas. There is a 42-page bibliography.

The following 2 papers are separately listed and annotated in this web bibliography:

Tourtellot, Gair, Jeremy A. Sabloff, and Michael P. Smyth, "Room Counts and Population Estimation for Terminal Classic-Sayil in the Puuc Region, Yucatan, Mexico"

McAnany, Patricia A., "Water Storage in the Puuc Region of the Northern Maya Lowlands: A Key to Population Estimates and Architectural Variability"

**Cunliff, Scott**

"Tourism and Cultural Risk Management". *Of the Past, for the Future: Integrating Archaeology and Conservation*. Ed. Neville Agnew and Janet Bridgland. Proceedings of the Conservation Theme at the 5<sup>th</sup> World Archaeological Congress, Washington, D.C., 22-26 June 2003. Los Angeles: Getty Conservation Institute, 2006: 194-198.

An informed review of the basic conflict between tourism and preservation and the risks involved. Several related papers given at the Congress are described and recommendations for managing the risks presented.

**Cural Mena, María de Jesús**

"Informe de actividades realizadas en el campo durante la temporada de trabajo del 8 de Diciembre de 1986 al 27 de febrero de 1987, en el sitio arqueológico de Uxmal, Yucatán". Mecanoescrito en los archivos de la sección de Arqueología del Centro Regional de Yucatán del INAH. Mérida, 1987.

**Cyphers, Guillén, Ann, and Anna Di Castro**

"Frederick Catherwood y John L. Stephens". *La antropología en México: Panorama histórico. 9. Los protagonistas (Acosta-Dávila)*, 449-462. Ed. Lina Odena Güemes and Carlos García Mora. Mexico City, D.F.: Colección Biblioteca del INAH; Instituto Nacional de Antropología e Historia, 1987.

Extensive survey of the remarkably lives and work of Frederick Catherwood (1799-) and John Stephens (1805-1852), whose 1841 and 1843 publications set a standard for archaeological recording of Maya sites that continues to inspire scholars today. The author includes illustrations of two of Catherwood's prints from *Incidents of Travel in Yucatan*, 1843; one of "The Church" at Chichén Itza, the other of the "Arch at Labná". There is a very brief bibliography.

## 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.

**Damon, P. E., C. W. Ferguson, A. Long, and E. I. Wallick.**

"Dendrochronologic calibration of the radiocarbon time scale". *American Antiquity* 39: 350-366.

**Danien, Elin C. and Robert J. Sharer, eds.**

*New Theories of the Ancient Maya*, ed. Elin C. Danien and Robert J. Sharer. University Museum Monograph 77. University Museum Symposium Series Volume 3. Philadelphia: University Museum, University of Pennsylvania, 1992.

A series of important papers from a 1987 symposium at the University of Pennsylvania.

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

Jeremy A. Sabloff and Gair Tourtellot, "Beyond Temples and Palaces: Recent Settlement Pattern Research at the Ancient Maya City of Sayil (1983-1985)".

**Dautermann, Carl C.**

“The Strange Story of the Stephens Stones”. *Natural History: The Magazine of the American Museum of Natural History*. Vol. 44, No. 5 (Dec. 1939): 288-294.

A popularized account of the adventures of John Stephens. In spite of the article’s title and illustrations of 4 of the Stephens stones in the Museum, these are barely mentioned in the extensive text and no reference is given to the superbly informative article by Spinden 19 years earlier in this same magazine.

**Davis, Keith F.**

*Désiré Charnay: Expeditionary Photographer*. Albuquerque: University of New Mexico Press, 1981.

An outstanding study of Charnay’s role and importance in the history of photography. Davis writes: “Charnay was unquestionably the first important photographer in the Yucatan, and his work in 1858-59 represented the earliest systematic use of photography as a tool in Mexican archaeology. . . . Charnay overcame awesome difficulties to produce a body of photographs that, in turn, set the scientific standard for all later researchers” (p.104). Because Charnay’s most groundbreaking and influential photographs were taken on his first, 1857-1860 expedition, his 1858 photographs of Uxmal and Kabah are of special importance. Of the slightly more than 100 Charnay photographs reproduced in Davis’s book, about half are of local people, 15 are of Uxmal and 2 of Kabah. In addition to the standard bibliography, the author includes a list of publications by Charnay, helpfully presented in chronological order. There is also a condensation of the catalogue of the Charnay negatives in the collection of the Musée de L’Homme, Paris.

**Debenbach-Salazar Sáenz, Sabine, et. al., ed.**

*50 años de estudios americanistas en la Universidad de Bonn: Nuevas contribuciones a la arqueología, etnohistoria, etnolingüística y etnografía de las Américas*. Markt Schwaben: Verlag Anton Saurwein, 1998.

**Debroise, Olivier**

*Mexican Suite: A History of Photography in Mexico*. Translated and revised in collaboration with the author by Stella de Sá Rego. Austin: university of Texas Press, 2001 (translated from the Spanish, *Fuga Maxicana: Un recorrido por la fotografía en México*, Consejo Nacional para la Cultura y las Artes, 1994).

This handsome volume provides an excellent survey of photography in Mexico, from the 1840s, when the earliest daguerreotypes were made in Mexico, to the present day. The 11 chapters are organized thematically, following a general chronological order.

Only 20 of the 261 pages are devoted to a chapter on photographers of Maya ruins, 19<sup>th</sup> and 20<sup>th</sup> centuries, stressing the relationship of romanticism and scientific reporting. There is only slight mention of the Puuc region, most notably in a statement of Teobert Maler, especially appropriate for this web site:

“In the year 1888, a group of Americans – a so-called commission from Harvard College in Boston – arrived . . . . First they attacked the large pyramid that served as the base for the great temple, undermining it in the belief that the buttresses and structural elements placed by the ancient peoples in earlier times to reinforce the foundation of their temple were mere rubble. . . . the result is that today the superb temple of Labná, weakened at its base, may collapse at any moment. Not content with this feat, the ‘artists’ then directed themselves toward the great avenue of the temple, digging up an area the size of the plaza in Mérida, always in search of antiquities . . . . Having left that part of Labná in such a state that it looked as if the catastrophe that blew up the island of Krakatao . . . had been repeated there in front of the temple, they left . . . . “

### **del Mar, María del Mar de Pablo Aguilera**

“Algunas columnas antropomorfas en la mitad occidental del area Puuc: particular referencia al sitio de Oxkintok”. *Perspectivas antropológicas en el mundo maya*. Sociedad Espanola de Estudios Mayas, Pub. 2. Ed. Josefa Iglesias Ponce de León, and Francesc Ligorred Perramon: 237-252. Madrid: Departamento de Historia de América II, Facultad de Geografía e Historia, Universidad Complutense; Instituto de Cooperación Iberoamericana, 1993.

The author states that erect columns decorated in relief are a peculiarity of the Puuc region. Several groups of such columns are described including one from Sayil (p. 245).

### **de la Torre, editor**

*Assessing the Values of Cultural Heritage*. Research Report. Los Angeles: Getty Conservation Institute, 2002.

Papers from a conference at the Getty Conservation Institute, March 2000. **The conference focused on the diverse means of assessing values in heritage conservation, with attention to overlapping, sometimes conflicting social, political, and economic values.** Papers include “Assessing Values in Conservation Planning: Methodological Issues and Choices”, by Randall Mason; “Anthropological-Ethnographic Methods for the Assessment of Cultural Values in Heritage Conservation”, by Seth M. Low; “Economic Valuation of Cultural Heritage: Evidence and Prospects”, by Susana Mourato and Massimiliano Mazzanti; “Numbness and Sensitivity in the Elicitation of Environmental Values”, by Theresa Satterfield; and “Cultural Capital and Sustainability Concepts in the Economics of Cultural Heritage”, by David Throsby.

### **Demarest, Arthur A., Prudence M. Rice, and Don S. Rice**

*The Terminal Classic in the Maya Lowlands: Collapse, Transitions, and Transformation*. Boulder, Colorado: University of Colorado Press, 2004.



This anthology consists of 23 separate papers on the transitions from Classic to Postclassic-period lowland Maya civilization, sometimes named the “Terminal Classic”. The introductory and concluding chapters are by the editors.

Chapter One is the most comprehensive, up-to-date account of concepts of change in Maya lowland society approximately A.D. 750-1050. The authors note that “by the turn of the millennium, we still had not come to any agreement on what caused the Maya collapse or precisely how to integrate the vast amount of data, often contradictory, that pertain to this issue” (p.1). They conclude that “the evidence presented here largely argues against the concept of a uniform, chronologically aligned collapse or catastrophe in all regions of the lowlands or even a uniform ‘decline’ in population or political institutions . . . . In light of the data and perspectives in most of these chapters, the enigmas of the Terminal Classic become more manageable and less value-laden problems” (pp. 10-11). This book is exceptional in presenting four chapters on Terminal Classic sites in the northern Yucatan. There is an extensive bibliography alphabetized under the names of the first listed authors.

The following chapter is **separately listed and annotated in this web bibliography**:

Carmean, Kelli, Nicholas Dunning, and Jeff Karl Kowalski  
 “High Times in the Hill Country: A Perspective from the Terminal Classic Puuc Region”, chapter 19.

### **Demas, Martha, compiler**

*Conservation and Management of Archaeological Sites: A Select Annotated Bibliography*. The GCI Project Bibliography Series. Los Angeles: Getty Conservation Institute, September 2003

On the web in pdf format at:

[http://www.getty.edu/conservation/publications/pdf\\_publications/archaeology\\_bib.pdf](http://www.getty.edu/conservation/publications/pdf_publications/archaeology_bib.pdf)

(accessed 2007 May 21)

An outstanding 123-page bibliography with every entry annotated with brief identifications of the contents and occasional comments. Demas writes that “It is the aim of the bibliography to incorporate all the elements of management and conservation of archaeological sites in a format that makes the literature accessible and useable both for practitioners and those wishing to explore the parameters and breadth of the subject” (p.3). After a useful listing of 15 international and national charters and documents, the publications listed are divided into two categories: “Conservation and Management of Archaeological Sites” and “Methods and Techniques for Protection and Stabilization”. Because the bibliography was developed as a result of specific Getty conservation projects, there are in-depth listings for some areas, not for others, such as rock art, mosaics, wall paintings, etc.

### **Desmond, Lawrence G.**

“The Application of Close-Range Photogrammetry to Archaeology: Chichén Itzá and Uxmal, Yucatán, México, 1989”. *Seventh Palenque Round Table, 1989*. Virginia M. Fields,

volume editor: 43-48. Merle Greene Robertson, general editor. San Francisco: Pre-Columbian Art Research Institute, 1994.

On the web at:

<http://maya.csuhayward.edu/archaeoplanet/LgdPage/Adivino94Paper.htm>

(accessed 2008 Jan. 13)

Report on “a close-range photogrammetric field study that was carried out in March 1989 at” La Iglesia at Chichén Itzá and the Adivino Pyramid (Pyramid of the Magician) at Uxmal. **The purpose of the study** was not to learn anything new about these structures (no new information regarding the Pyramid of the Magician resulted), but rather **“to test the ability of archaeologists, only minimally trained in close-range photogrammetry, to successfully document”** archaeological structures. The study produced “accurate documentation” thus leading the author to “encourage archaeologists to apply it to projects where precise measurements and drawings are required.” Although the technique of close-range photogrammetry for archaeology and historic preservation is well established internationally, this study **provides a highly instructive, step-by step account of the photographic technique and its post-fieldwork analysis** for these two structures at Chichén Itzá and Uxmal.

### **Desmond, Lawrence G.**

“Augustus Le Plongeon (1826-1908): Early Mayanist, Archaeologist, and Photographer”. *Oxford Encyclopedia of Mesoamerican Cultures*, ed. David Carrasco. Vol. 1: 117-118. 3 vols. N.Y.: Oxford University Press, 2001.

### **Desmond, Lawrence G.**

“**Augustus Le Plongeon: A fall from archaeological grace**”. *Assembling the Past: Studies in the Professionalization of Archaeology*. Alice B. Kehoe and Mary Beth Emmerichs, eds. University of New Mexico Press, 1999: 81-90.

On the web at:

<http://maya.csuhayward.edu/archaeoplanet/LgdPage/LepKehoe.htm>

(accessed 2007 May 21)

### **Desmond, Lawrence G.**

“Augustus Le Plongeon and Alice Dixon Le Plongeon: Early Photographic Documentation at Uxmal, Yucatan, Mexico”. *Mesoamerica: The Journal of Middle America*, Vol. 2, No. 1: 27-31. Merida, Yucatan, Mexico, 1989.

On the web at:

<http://maya.csuhayward.edu/archaeoplanet/LgdPage/LepUxmal.htm>

(accessed 2008 Jan. 13)

### **Desmond, Lawrence G.**

*The Nineteenth Century Photographs of Alice Dixon Le Plongeon and Augustus Le Plongeon: A Catalogue of Collections from: American Museum of Natural History, Donald Dixon Album, Getty Research Institute, Peabody Museum at Harvard University, Philosophical Research Society*. CD-ROMs available from the author at the address below. Published by the author, 2005.

A catalogue of the photographic work and mural tracings by Alice Dixon Le Plongeon and Augustus Le Plongeon, housed in the five collections named in the title. The catalogue **lists 1,034 negatives, prints, tracings, and lantern slides** (Desmond estimates that a total of more than 2,200 are known in public and private collections). In the catalogue, these are organized within the five separate collections, then by the institution's or collector's ID number. For each item, subject, description, medium, stereo or not, type, size, are given, along with cross-references to any of the five collections that house the same or similar items. The catalogue does not include images, but the author writes: "Should a researcher need to work with the duplicated Dixon/Le Plongeon images, the Center for Maya Research at 1459 Dillingham Road, Barnardsville, North Carolina, 28709 should be contacted. A complete collection of duplicated photographs, fully catalogued, is archived at the center." (p.iv)

Preceding the catalogue, Desmond **provides an historical overview of the Le Plongeon material and its acquisition by various individuals and institutions**. He then presents a description of the Le Plongeon's photographic background, work, and technique. He notes that, although others had made drawing, prints, and photographic images of Maya architecture, the Le Plongeon were the first to make a thorough, systematic record. The Le Plongeon spend several months photographing at Uxmal in 1873, 1876 and 1881; in addition to their major photographic campaigns at Chichen Itza and work elsewhere. The digital format has the advantage of allowing search by keyword.

**Desmond, Lawrence G.**

"Le Plongeon, Augustus". *The Oxford Encyclopedia of Mesoamerican Cultures: The Civilizations of Mexico and Central America*. Vol. 1: 117-118. Ed. David Carrasco. 3 vols. Oxford University Press, 2001.

**Desmond, Lawrence G.**

"Photogrammetric Recording of the Adivino Pyramid, Uxmal, Yucatan, Mexico: Field Evaluation 1990," in Lorena Mirambell S., ed., *Consejo de Arqueologia Boletín*, Institute Nacional de Antropología e Historia, 1991. Pp.75-78.

On the web at:

<http://maya.csuhayward.edu/archaeoplanet/LgdPage/Adivino91papEg.htm>

(accessed 2007 March 1)

This is the same as the Spanish version listed below as: "Registro Fotogrametrico de La Piramide del Adivino, Uxmal, Yucatan, Mexico: Evaluation de Campo, 1990"

On the web at:

<http://maya.csuhayward.edu/archaeoplanet/LgdPage/Adivino91PapSp.htm>

(accessed 2007 May 21)

Beginning in 1991, Desmond published several reports (listed here) of his stereo-photogrammetric recording of the Pyramid of the Magician, Uxmal. These **describe the techniques of recording used, the training of archaeologists in this technique, and the results achieved**. The most extensive and informative is his 2003 article, "Recording Architecture at the Archaeological Site of Uxmal, Mexico: A Historical and Contemporary View", listed and annotated below. Desmond's articles on the web are illustrated with instructive photographs and diagrams.

**Desmond, Lawrence G.**

“Photogrammetry Survey of the Adivino Pyramid at the Maya Archaeological Site of Uxmal, Yucatan, Mexico”. H. Thwaites and A. Addison, eds., *Proceedings of the Seventh International Conference on Virtual Systems and Multimedia*: 57-64.

**Desmond, Lawrence G.**

“Registro Fotogrametrico de La Piramide del Adivino, Uxmal, Yucatan, Mexico: Evaluation de Campo, 1990”. Lorena Mirambell S., ed, *Consejo de Arqueologia Boletin*, Instituto Nacional de Antropologia e Historia, 1991: 75-78.

On the web at:

<http://maya.csuhayward.edu/archaeoplanet/LgdPage/Adivino91PapSp.htm>

(accessed 2007 May 21)

This is the same as the English version listed above as “Photogrammetric Recording of the Adivino Pyramid, Uxmal, Yucatan, Mexico: Field Evaluations 1990.”

Also on the web at:

<http://maya.csuhayward.edu/archaeoplanet/LgdPage/Adivino91papEg.htm>

(accessed 2007 May 21)

**Desmond, Lawrence G.**

“The Use of Close-Range Photogrammetry for Archaeological Documentation: Chichen Itza and Uxmal 1989”. Virginia M. Fields, ed., *Proceedings of the Seventh Palenque Roundtable Conference*, Vol. IX. San Francisco: Pre-Columbian Art Research Institute, 1994: 43-48.

**Desmond, Lawrence G. and Paul G. Bryan**

“Photogrammetric Survey of the Advino Pyramid at the Maya Archaeological Site of Uxmal, Yucatan, Mexico,” in Hal Thwaites and Lon Addison, eds., *Proceeding, Seventh International Conference on Virtual Systems and Multimedia*, 25-27 October, Berkeley, California, pp. 57-64. Los Alamitos, California: IEEE Computer Society. 2001.

On the web at:

<http://maya.csuhayward.edu/archaeoplanet/LgdPage/AdiVsmm01.htm>

(accessed 2007 May 21)

This article reports on the 1999 recording of the Pyramid of the Magician, using close-range stereo photogrammetry, following new cracks resulting from the 1988 hurricane, observed in 1997. This article also adds to previous, related articles a brief historical introduction, providing important context. There are also a few new illustrations.

**Desmond, Lawrence G., and Paul G. Bryan**

“Recording architecture at the archaeological site of Uxmal, Mexico: A historical and contemporary view”. *The Photogrammetric Record*, Vol. 18, No. 102 (June 2003): 105-130.

On the web at:

<http://maya.csuhayward.edu/archaeoplanet/LgdPage/UxDocHist.html>

(accessed 2007 March 1)

This is the most extensive, up-to-date, and informative of Desmond's various reports on the stereo-photogrammetry projects of the Pyramid of the Magician, Uxmal. In addition to the much longer text, there are 26 illustrations, including 11 related to Augustus Le Plongeon and 8 of the project at Uxmal.

Following a brief survey of the illustrators and photographers of the Pyramid of the Magician through the 1860s, with helpful information about the equipment and photographic techniques, Desmond present an extensive chronological account of the lives and photographic accomplishments of Augustus Le Plongeon and Alice Dixon Le Plongeon, and their legacy. There are then brief references to several 20<sup>th</sup> century photographers and archaeologists who documented Uxmal. He then presents the most detailed chronological account of his various articles description the stereo-photogrammetry project of the Pyramid of the Magician. This includes reasons for the project, description of the process and techniques used, and results achieved. This is an essential, first-hand account, by the scholar most continuously involved in the overall project. He relates the recent stereo-photogrammetry project to the stereo photography of the Le Plongeon.

**Desmond, Lawrence Gustave, and Phyllis Mauch Messenger, foreword by Jamie Litvak King**

*A Dream of Maya: Augustus and Alice Le Plongeon in Nineteenth-Century Yucatán.* Albuquerque: University of New Mexico Press, 1988.

Also on the web, but without the illustrations, at:

<http://maya.csuhayward.edu/archaeoplanet/LgdPage/Dream/Start.htm>

(accessed 2006 Dec. 15)

Based partly on Desmond's 1983 doctoral dissertation for the University of Colorado, Boulder, this is the only thorough study of the careers and research of Augustus Le Plongeon and his wife Alice, who in particular receives here her first scholarly recognition. There are separate, lengthy bibliography listing for Alice (23 items) and Augustus (26 items), including newspaper articles and some letters. Chapter 9, "Life in the Governor's Palace," describes their main stay to Uxmal, June and July 1881. The authors describe how, In the process of attempting to find evidence for their already discredited theories regarding Maya history, the Le Plongeon produced the best inventory to date for the buildings and sculpture at Uxmal, extensive glass-plate photography and molds of relief and high-relief sculpture to record small iconographic details not visible in their photographs. The molds included eighty-three molds of the Governor's Palace frieze and forty-three molds of the sculptured reliefs on the Pyramid of the Magician.

The Le Plongeon's photographs are especially noteworthy. The authors note that, using stereo photographs, which help to capture the 3-dimensionality of the sculpture, Augustus recorded the entire front (eastern) frieze of the Governor's Palace in sixteen sections, taken from top of a long ladder, supported by saplings, in order to capture the frieze straight on. He also took distant and close-up photographs of the Pyramid of the Magician and, from its top, an almost 180 degree panorama including the Governor's Palace and Nunnery Quadrangle. Eighteen small grey-scale illustrations

of their photographs at Uxmal are included. In a caption to the photograph of the Nunnery East Building on page 78, the authors mistakenly write that “in this straight-on treatment of the East Building of the Nunnery Quadrangle, Augustus controlled his line of sight to keep the Adivino Pyramid from looking in the background”; whereas this photograph is an early example of image manipulation, replacing the Advino Pyramid with sky.

Alice especially spoke out against the ongoing removal of the limestone blocks and finely finished stone facing of Uxmal buildings, sometimes with crowbars, by the landowners and administrators for construction of their farmhouses and haciendas.

**Desmond, Lawrence G., Patrick Collins, Tomás Gallareta Negrón, and James Callaghan**

“Gateway into the Past: Photogrammetric Documentation of the Arch, Labna, Yucatan, Mexico. *Antropología y Técnica*, IIA, ed. P. Barba. Vol. 7 ( 2003): 55-66.”.

On the web at:

<http://maya.csuhayward.edu/archaeoplanet/LgdPage/ArchPaper.htm>

(accessed 2008 Jan. 13)

**Desmond, Lawrence G., Roberto Centeno L., Paul G. Bryan, Michael Clowes, and James Callaghan.**

“Stereo-photogrammetric documentation of the Advino Pyramid at Uxmal, Yucatan”. *The PARI Journal*, a quarterly publication of the Pre-Columbian Art Research Institute, Vol. 2, No. 1 (Winter 2001): 19-22.

On the web at:

<http://maya.csuhayward.edu/archaeoplanet/LgdPage/Adivino99SumRpt.htm>

(accessed 2007 March 1)

This 2001 article includes an overall report on the instability noted in the Pyramid of the Magician, as a result of the 1988 hurricane, and on the photogrammetric recording project, with a few new photographs.

**Díaz-Berrio, Fernández, Salvador.**

*Conservación de monumentos y zonas*. Córdoba, Mexico: Instituto Nacional de Antropología e Historia, 1985.

**Díaz-Berrio, Salvador**

“El concepto de autenticidad, visión histórica y aplicación al caso mexicano”. *¿Credibilidad o veracidad? La autenticidad: un valor de los bienes culturales* : 20-24. Papers from an international seminar-workshop on the authenticity of movable and immovable cultural goods, held in Cajamarca, 17 to 19 October 2003. San Borja, Peru: UNESCO, 2004.

The clearest and most up-to-date summary of the history and application of the concept of authenticity in Mexico. After a review of the history of international standards, the author provides a substantial 2-page review of the history of standards and approaches in Mexico. This includes descriptions of specific excesses of the past,

the importance of archives and the development of site museums in the 1960s, and the increasingly careful interventions, especially in the Maya zones, beginning in the 1970s. Diaz-Berrio calls attention to the importance of the landmark 1973 Seminar on Latin America, held at Churubusco, Mexico, in which the participants condemned some of the past practices and allied themselves with the standards of the Charter of Venice. Finally, he describes and condemns the 19<sup>th</sup> century theory of Viollet-le-Duc, which argued that the restorer should become so familiar with the monument he is restoring that he is able to act like the original architect, and states that some of this approach is still followed.

**Diehl, Richard, and Janet Catherine,** eds.

*Mesoamerica After the Decline of Teotihuacan, A.D. 700-900.* Washington, D. C.: Dumbarton Oaks Research Library and Collections, 1989.

**Dillon, Brian D,** ed.

*The Student's Guide to Archaeological Illustrating.* Archaeological Research Tools, Volume 1. Los Angeles: Institute of Archaeology, University of California, 1989 (3<sup>rd</sup> revised printing of 1985 2<sup>nd</sup> edition).

An impressively **comprehensive anthology**, with 13 chapters by the author and by Douglas V. Armstong, Jane Becker, Girogio Buccellati, Wes Christensen, Jennifer Corsiglia and Martin D. Rosen, Susan M. Hector, Mark C. Johnson, Joyce Olin and Brian D. Dillon, James B. Porter, Timothy P. Seymour, and by John W. Verano and Brian D. Dillon. This book beautifully coordinates illustrations, captions, and text. Photographic documentation is not included. There are a significant number of Pre-Columbian examples.

**Domenici, David**

*The Maya: History and Treasures of an Ancient Civilization.* White Star Pub., 2006.

**Dorfman, John**

"Getting their hands dirty?" *Lingua Franca.* Vol. 8, No. 4, 1998, 28-36.

**Dorfman, John, and Andrew L. Slayman**

"Maverick Mayanist". *Archaeology* (Sept.-Oct. 1997): 50-60.

A biography of Ian Graham, **including a long, detailed description of his inventive and highly precise techniques for recording Maya relief sculpture and their inscriptions;** published since 1975 in the *Corpus of Maya Hieroglyphic Inscriptions* (Peabody Museum, Harvard University). This is a fascinatingly detailed account of a model example of graphic documentation.

**Dorrel, Peter**

*Photography in Archaeology and Conservation.* Cambridge, England: Cambridge University Press, 2<sup>nd</sup> ed.1994 (1<sup>st</sup> ed. 1989).

An excellent survey of the principals and techniques of archaeological photography, with brief chapters on “The early days of archaeological photography” and “The future”. Dorrel calls attention to the advent of digital photography, but the book is too early to incorporate this subject. There is a useful 4 page bibliography on the practical aspects of archaeological photography, listing many books not included in this web bibliography.

### **“Drawing from the Past: Maya Antiquity through the Eyes of Frederick Catherwood”**

A web site, based on an exhibition created as a project in the seminar, “Making Sense of the Pre-Columbian”, taught by Professor Dana Leibsohn. The exhibition was created by Martin Antonetti, Curator, and students in the seminar.

Northampton, Massachusetts: Smith College Libraries; Mortimer Rare Books Room, 2005.

On the web at:

<http://www.smith.edu/library/libs/rarebook/exhibitions/catherwood/index.htm>

(accessed 2007 Dec. 11)

As far as I know, these are the only accurate, color images on the web of the multicolored lithographs by Frederick Catherwood, published in his 1844 volume, *Views of Ancient Monuments in Central America, Chiapas and Yucatan*. There are brief descriptions accompanying each image, an annotated bibliography, and a list of Internet sources with links. These web images are of high quality, but their small size (575 ppi long side) makes it difficult to see details. There are 26 lithographs in all, 8 of Uxmal, 2 of Kabah, and 1 of Labná.

Much larger images of these same lithograph, though with color and line intensified, are reproduced in the 1999 book by Fabio Bourbon, *Le città perdute dei Maya: La vita, l'arte e le scoperte di Frederick Catherwood*.

Larger images of Uxmal, Kabah, and Labná, from the less rare, brown-toned lithograph edition are reproduced on this web site, at 1500 ppi long side size.

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

### **Drennen, Robert D. and Santiago Mora, compilers**

*Archaeological Research and Heritage Preservation in the Americas*. Washington, D.C.: Society for American Archaeology, 2002.

Same as Spanish edition, *Investigación arqueológica y preservación del patrimonio en las Américas*.

13 papers by 14 different archaeologists, all in English, derived from papers and discussion at a workshop held in Nashville, Tennessee, April 1997. The editors write that “The aim of the workshop was to contemplate archaeological research and the protection of the archaeological record from the varying perspectives of archaeologists with diverse experiences of research in different geographic and political settings in the Americas” (p.1). There are 3 introductory papers and 3 on different aspects of



Mexican archaeology. There is a wide-ranging 13-page bibliography through the 1990's (1 entry for the year 2000).

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

Martínez Muriel, Alejandro. "Archaeological Research in Mexico's Monumental Sites".

**Drennen, Robert D. and Santiago Mora, compilers**

*Investigación arqueológica y preservación del patrimonio en las Américas. Serie Arqueología. Mexico, D.F.: Instituto Nacional de Antropología e Historia, 2002.*

Spanish edition; same papers as English edition, *Archaeological Research and Heritage Preservation in the Americas*.

**Drew, David**

*The Lost Chronicles of the Maya Kings*. London: Weidenfeld & Nicolson, 1999.

A comprehensive, 450 page book surveying Maya civilization, based on the history of its Euroamerican rediscovery from the late 18<sup>th</sup> century to the present day. The author includes a 5-page description of "Uxmal and the Puuc Cities". Notable for its inclusion in a comprehensive survey of the Maya, Drew writes: "Maya architecture is various in its local traditions, from the stark grandeur of Tikal or Chichén Itzá to the gentler refinement of Palenque or Copán. But Uxmal, with its spacious courts and quadrangles, varied elevations and vistas and sense of proportion and balance between architectural form and ornament, displays a sophisticated aesthetic all of its own, where one directly senses the intelligence of architects at work" (p. 362).

**Duch Gary, Jorge**

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

**Dulanto Gutiérrez, Enrique**

"Uxmal: metropoli Maya de Yucatan". *Artes de México*, Vol. 21, No. 176 (1974): 82-98.

**Dunning, Nicholas P.**

*Archaeological Investigation at Sayil, Yucatan, México: Intersite Reconnaissance and Soil Studies during the 1987 Field Season*. University of Pittsburgh Anthropology Papers, No. 2. Pittsburgh: University of Pittsburgh, 1989.

**Dunning, Nicholas P.**

"Archaeological Settlement Patterns of the Northeastern Puuc Region Yucatan, Mexico". Report of the 1987 Field Season. University of Minneapolis, 1988 (also on file at the Centro Regional de Yucatán, Instituto Nacional de Antropología e Historia, Mérida, 1987).

**Dunning, Nicholas P.**

"Breve Informe sobre una Sonda del Suelo en un Terraplen de la Aguada Chenchan, Uxmal". Report on file at the Centro Regional de Yucatán, Instituto Nacional de Antropología e Historia, Mérida, 1987.

**Dunning, Nicholas P.**

“The Geography of Power in the Terminal Classic, Northern Puuc, México”. Paper presented at the Annual Meeting of the Society for American Archaeology, Atlanta, 1989.

**Dunning, Nicholas P.**

“Jerarquía de Asentamiento en la Región Puuc”. Paper presented at the 21<sup>st</sup> Mesa Redonda de la Sociedad Mexicana de Antropología, Mérida, 1989.

**Dunning, Nicholas P.**

“Langsamer Niedergang oder Neubeginn? Der Wandel der klassischen Maya-Zivilisation in der Puuc-Region”. *Maya Gottkönige im Regenwald*, ed. Nikolai Grube, Eva Eggebrecht, and Matthias Seidel: 322-337. Köln: Könemann Verlagsgesellschaft, 2000.

**Dunning, Nicholas P.**

“Long Twilight or New Dawn? Transformations of Maya Civilization in the Puuc Region”. *Maya: Divine Kings of the Rain Forest*, ed. Nikolai Grube; assisted by Eva Eggebrecht and Matthias Seidel: 322-337. Cologne: Könemann, 2001 (1<sup>st</sup> ed., *Maya; Gottkönige in Regenwald*, 2000).

This fourteen page chapter provides **an impressively clear, up-to-date, comprehensive survey of the Puuc region**. Every page includes instructive photos and/or diagrams, and there are two detailed maps. The text provides an informative account of the specific characteristics of Puuc art and culture and their relationship to those in other Maya areas. This chapter appears in a large, sumptuous volume with magnificent full-page photographs and informative chapters by twenty-six authorities covering nearly all aspects of Maya civilization. There is some attention to early explorers of the Puuc region in the chapter on “The Search for Evidence”. Otherwise, as the title of the volume suggests, Puuc sites and culture are barely mentioned in other chapters.

**Dunning, Nicholas P.**

*Lords of the Hills: Ancient Maya Settlement of the Puuc Region, Yucatán, Mexico*. Monographs in World Archaeology No. 15. Madison, Wisconsin: Prehistory Press, 1992.

This is **the most comprehensive, multi-faceted publication on the cultural ecology of the Puuc region**, based on field research in the Puuc in 1985, 1986, 1987, 1989 and 1992. In chapter 1 the author introduces the importance of such studies. In chapters 2 and 3 he presents the results of his field research in the two especially valuable, methodological chapters on “Geology, Water Resources, and Climate” and “Soils and Vegetation,” this last a highly original, in-depth study.

The distribution of water and soil resources provides the basis for the following 4 chapters, relating the physical facts of Puuc geography to the cultural history and organization of Maya society; settlement patterns; carrying capacity estimates and land use; and their relation of the distribution of water and soil resources to the rise and fall of Puuc polities. Every one of these chapters deserves its own annotation.

The amount of data presented and the amount of detailed information organized into a cohesive argument is impressive. There is a brief glossary, many of soil, landscape, and climate terms as used in the Puuc region; an appendix of soil data collected; and another with an extraordinary inventory of over one hundred archaeological sites. For most sites, the author provides location with coordinates, official INAH numbers, description of the topography and soils, water supply, size, civic plan and general description, and references. For many sites there are also maps and ground plans. For sites that have not been well published there is an inventory of individual structures and special features.

The book includes nearly two hundred diagrams, chart, and grey-scale photographs, wonderfully informative in showing the variety of Puuc landscapes. There is a valuable, in-depth, 33 page list of references cited.

**Dunning, Nicholas P.**

“News from Puuc Sites”. *Mexicon*, Vol. 9: 119-120.

**Dunning, Nicholas P.**

“Prehispanic Maya Settlement in the Puuc Region, Yucatan, Mexico: Preliminary Analysis”. Paper presented at the Annual Meeting of the Association of American Geographers, Minneapolis, 1986.

**Dunning, Nicholas P.**

“Prehispanic Settlement Patterns of the Northern Puuc Region, Yucatan”. Paper presented at the Annual Meeting of the Association of American Geographers, Phoenix, 1988.

**Dunning, Nicholas P.**

*Prehispanic Settlement Patterns of the Puuc Region, Yucatan, Mexico*. Ph. D. Dissertation, University of Minnesota, 1990. Ann Arbor: University Microfilms.

**Dunning, Nicholas P.**

“Puuc Ecology and Settlement Patterns”. *Hidden among the Hills: Maya Archaeology of the Northwest Yucatan Peninsula; Acta Mesoamericana*, Vol. 7, ed. Hanns J. Prem: 1-43. First Maler Symposium, Bonn, 1990. Möckmühl, Germany: Verlag von Flemming, 1994 (2<sup>nd</sup> ed. 1999).

The author first presents a detailed description of the natural environment of the Yucatan, reproducing Wilson’s 1980 diagram of 14 physiographic districts, of which the “Puuc Region or Sierrita de Ticul” is the smallest. He includes 9 additional diagrams of such things as “residential caprock formation”, “typographic situation of Puuc soils”, and “mean monthly rainfall at Uxmal”.

In a section titled “Population, Carrying Capacity, and Puuc Cultural History”, Dunning describes in revealing detail the methods used in previous studies, noting the difficulties involved and the frequent inconsistencies that result. He notes, for example, that “the decreasing density of large sites as one moves southward in the Puuc region

may simply be the result of poorer data” (p. 18). To investigate the topics in this section, Dunning selected a rectangular study area in the northeastern Puuc, including Kabah, Sayil, and Labná, though with Uxmal slightly outside to the northwest.

Because this is a study primarily of the geological, environmental, economic, and political context for Puuc society, there is little discussion of architecture or individual sites. Nevertheless, Dunning provides detailed charts listing individual sites and their characteristics. Also, he draws a distinction between two basic models of core organization, which he diagrams and describes: “1. the Labna Plan, with *sacbeob* linking elite residential and civic/ceremonial complexes (Fig. 18); and 2. The Nohpat/Yakalxiu Plan, with civic/ceremonial and elite residential structures surrounding a series of contiguous and semi-contiguous courtyards at the site center (Fig. 19)”. He also describes in some detail the important architectural conclusions of Tourtellot, Sabloff, Smyth, and others, from their in-depth research at Sayil (pp. 24-25).

Dunning notes the significance of the Puuc area in the late Classic-Terminal Classic transformation of Maya civilization. Based on 8 extensive tables in an appendix, **he is able to synthesize the findings of previous scholars with his own extensive research to describe the most likely interplay of the multiple forces determining the history of the Puuc region.** In a concluding page titled “Puuc Population Ecology and Political History”, Dunning relates the complexity of population dynamics in Maya civilization, to the growth, flowering, and decline of Puuc centers.

“The model of Puuc political structure, seen as consisting of a series of uneasily coexisting polities or chiefdoms, resembles similar patterns seen throughout much of the Maya Lowlands . . . the prehispanic polities of the Puuc, whether centered on a single major center, or in the regionally expanded version of Uxmal, were a series of ranked communities, themselves based on the status of ruling families or lineages” (p. 29).

**Dunning, Nicholas P.**

“Soils and Settlement in the Sayil Valley: a Preliminary Assessment”. *The Ancient Maya City of Sayil: The Mapping of a Puuc Region Center*, ed. Jeremy A. Sabloff and Gair Tourtellot: 20-27. Middle American Research Institute Publication 60. New Orleans: Tulane University, 1991.

**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.

**Dunning, Nicholas P.**

“Umwelt, Siedlungsweise, Ernährung und Lebensunterhalt im Maya-Tiefeland während der Klassik (250-900 n. Chr.)”. *Die Welt der Maya: Archäologische Schätze aus drei Jahrtausenden*, ed. Nikolai Grube and Eva and Arne Eggebrecht: 92-106, 286-287. Mainz am Rhein: Verlag Philipp von Zabern, 1992: 92-106, 286-287.

In his expert review of Classic Maya environment, settlement practices, food and livelihood, Dunning devotes three pages to the settlement history and agriculture of the Puuc region. He writes that the unusually fertile soil of the region explains the lack of terrace culture in the Puuc. He points out that most areas free from buildings were cultivated and the importance of kitchen gardens, supplying up to a quarter of the food for a typical Puuc family. He suggests that Puuc cities are properly thought of as garden cities. He discusses the definable extent of each city's area and the ability of modern chemical research to show differing levels of phosphate in the soil and therefore the progressive changes in agriculture as one moves out from the administrative-ceremonial center. Dunning includes a map distinguishing the six categories of Puuc settlements.

**Dunning, Nicholas P. and Timothy Beach**

"Stability and Instability in Pre-Hispanic Maya Landscapes". *Imperfect Balance: Landscape and Transformation in the Pre-Columbian Americas*, ed. D. Lenz. New York: Columbia University Press, 2000.

**Dunning, Nicholas P. and Jeff K. Kowalski**

"Lords of the Hills: Classic Maya Settlement Patterns and Political Iconography in the Puuc Region, Mexico". *Ancient Mesoamerica*, Vol. 5, No. 1 (1994): 63-95.

E

**"Early Photography in Yucatan"**

*Image*, Journal of Photography of the George Eastman House, Vol. II, No. 5 (May 1953): 28-29.

A description of the use of the camera lucida and daguerreotype photography by Frederick Catherwood and John Stephens in 1839 and 1841, in the Yucatan, Mexico. The key descriptions, by Stephens, of their use of these two modes of imaging are quoted. Rarely observed, the author writes that "it is not difficult to distinguish which of the engravings were made with the added aid of daguerreotypes and those copied from the less detailed drawings" (p. 28). However the most distinguishing characteristic of the images aided by daguerreotypes is not their detail but their tonal quality. There is also a description of Charnay's use of collodion, wet plate photography on his trip to the Yucatan in 1857.

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

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

This is 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, trans and ed.**

*The Book of Counsel: The Popol Vuh of the Quiche Maya of Guatemala.* Middle American Research Institute, pub. 35. New Orleans: Tulane University, 1971.

**Edmonson, Munro S.**

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

**Ekholm, Gorden**

"The Problem of Fakes in Pre-Columbian Art". *Curator*, Vol. 7 (1964): 19-32.

**Erosa Peniche, Jose**

*Guía de Uxmal.* Mérida, Yucatán, 1942.

**Erosa Peniche, José A.**

*Guide Book to the Ruins of Uxmal.* Trans. Julio Granados. Merida: Yikal Maya Than, 1948 (originally published in Spanish as *Guía para visitar las ruinas de Uxmal*, 2<sup>nd</sup> ed. 1947).

A now-standard type of guide book of approximately 50 pages with 18 small, weak photos, plus a fold-out map and long fold-out drawing of the middle section of the Governor's Palace. The unique value of the book derives from the fact that, at the time of writing, the author was head Archaeologist of the Instituto Nacional de Antropología e Historia, in charge of all archaeological work and restoration in Mexico. **Given the early date of publication, the most valuable aspect is the occasional information about the history and restoration of the buildings.** For example, about the North Building of the Nunnery, the author writes: "on the east and west fronts there is scarcely but a vestige of a once existing magnificent façade. Most of it has fallen down and is very clear to us - as judged from the crumbled sections of this building - that there existed a much older and primitive façade upon which the present one was built" (p. 31). About the Pyramid of the Magician he writes: "As a result of intensive archaeological research programs started in 1938 by the Mexican Government and carried on for several years in the House of the Magician, there was uncovered an interior stairway

running almost parallel to the main one on the east side. It was found it leads to an inner temple, a sort of substructure much older than the outside building on top of it. This substructure is composed of three chambers, of which the middle one has already been cleared from débris” (p. 18).

In his 2 page forward, Sylvanus G. Morley writes: “my valued friend Don “Pepe” [the author, José Erosa Peniche] under whose discerning eye (practically a sixth sense) and whose skillful hand the marvels of highly delicate architectural restoration at Uxmal have been so successfully carried out.”

**Erosa Peniche, José A.**

“Informe de as exploraciones y restauración en Uxmal, Yuc., durante el mes de junio de 1943”. Estado de Yucatán, Uxmal, Vol. 3: 1942-1947. *Archivo Técnico del Departamento de Monumentos Prehispánicos-INAH*, Vol. 160. México, D.F., 1943.

**Erosa Peniche, José A.**

“Informe de as exploraciones y restauraciones arqueológicas en Uxmal, Yuc. Estado de Yucatán, Uxmal”, Vol. 4: 1948-1952. *Archivo Técnico del Departamento de Monumentos Prehispánicos-INAH*, Vol. 161. México, D.F., 1948.

**Erosa Peniche, José A.**

“Informes sobre las exploraciones y restauraciones en la Zona Arqueológica de Uxmal”. *Informes inéditos en el Archivo Técnico de la Dirección de Monumentos Prehispánicos*. México, D.F., INAH, 1940-1948.

**Erosa Peniche, José A.**

“Zona Arqueológica de Uxmal: Cuadrángulo de Monjas, Edificio Poniente.” Unpublished report in the Archives of the Institute Nacional de Antropología e Historia de México, T160, No.4.

Images of the Nunnery Quadrangle West Building are reproduced on this web site.  
<http://academic.reed.edu/uxmal/galleries/thumbnails/uxmal/uxmal-NunneryWest.htm>

***Estado actual de los principales edificios arqueológicos de México.***

Contribución de México al XXVII Congreso de Americanistas. Secretaría de Educación Pública. México [D.F.]: Talleres Graficos de la Nacion, 1928.

This rarely referenced volume provides **an invaluable time capsule, describing the state of major archaeological sites in Mexico**; the types of destruction and collapse, conservation work done to date, and the most urgent work now needed. There are 24 articles on 24 different sites. At the beginning, there is a large, double-page foldout map of Mexico locating the principle archaeological sites, drawn in 1927 by Gabriel Velázquez for the Dirección de Arqueología, Secretaria de Educación Pública. **The densest area is the Puuc region.** This report of “unedited studies” was printed in preparation for the 1928 Congress of Americanists in New York.

In his introduction, the secretary states that there are a total of 1,200 archaeological locations in Mexico and that maps are needed of all the archaeological zones. He acknowledges the study of Uxmal and Chichén-Itza, by the Carnegie Institution of Washington, beginning in 1923, which judged the Castillo at Chichén-Itza and the Governor's Palace at Uxmal most necessary for conservation. He notes that a great part of the destruction of the sites has resulted from the activities of man: the work of so-called scientific explorers, looting, and the removal of stones by locals for the construction of their buildings. The taking of doorjambs and lintels left the less stable interior walls exposed, resulting in collapse and great holes over doorways. Many other parts are also coming apart. He describes the clearing of buildings and plazas in Kabah and Uxmal and construction of walkways between major buildings within sites and between Uxmal and Kabah.

For each of the 24 archaeological sites there are recent photographs and, in some cases, maps and diagrams. **The photographs are rather weekly printed but are one of the major contributions of the book, showing the state of buildings and sites at the time.** The reports on Labná, Sayil, Kabah, and Uxmal are all by José Reygadas Vértiz. The report of Labná includes a 1927 map and 13 photos, 2 showing the Palace and Arch after their recent conservation. The report on Zayi (Sayil) includes a plan and elevation diagram of the Great Palace and 7 photographs. The author states that it is essential to fix the principal staircase of the Palace, mortaring in place the many loose stones. The report of Kabah includes 5 photographs and notes that in recent years the vegetation has been entirely cleared from the Codz Poop and the plaza around. The report on Uxmal includes a map, based on Holmes, and 18 photographs. These are of high quality and especially important, in 1 case showing the same detail of the Governor's Palace before and after restoration work of 1927. Two views of the Pyramid of the Magician are shown, describing the damage in some detail and stressing that it is indispensable to put upright the hill of the Magician.

**Eúan Canul, Gabriel A.**

"Informe de actividades: Proyecto de conservación y restauración arquitectónica en Uxmal, Yuc., del 24 de nov. de 1986 al 24 de feb. de 1987. Mecanoescrito en el archivo de la sección de Arqueología del Centro Regional de Yucatán INAH, Mérida. 1948.

**Evans, R. Tripp**

*Romancing the Maya: Mexican Antiquities in the American Imagination 1820-1915.* Austin: University of Texas Press, 2004.

This book examines the nineteenth century Euroamerican rediscovered of ancient Maya ruins, examining the complex, sometimes contradictory, responses of the early explorers. The author focuses on the writings, drawing, prints, photographs, and patterns of behavior of Stephens, Catherwood, Joseph Smith, Charnay, and Le Plongeon, putting them in the context of other writers and the public. While acknowledging the scientific, archaeological achievements of the explorers, **Tripp emphasizes the national aspirations that pervaded their work,** especially their assumption that the United States could rightfully claim ancient Maya civilization, and its remains, as part of its own cultural heritage. In support of this thesis, the author describes, more perceptively than previous authors, the points of view visible in these



explorers' drawings, prints and photographs, comparing them to artistic types on which they drew for meaning. In his final chapter, Tripp contrast the presentation of Maya exhibits at the 1893 Chicago World's Columbian Exposition with the presentation at the 1915 San Diego Panama-California Exposition: **evolving from a romantic emblem of 'America's' lost architectural past, this antiquity was now perceived as a distinctly regional and foreign tradition – one that belonged to the domain of professional, institutionally supported archaeologists**" (p.5).

**Evans, Susan Toby, and David L. Webster, eds.**

*Archaeology of Ancient Mexico and Central America: An Encyclopedia*. New York and London: Garland Publishing Inc., 2001.

This is an outstanding, 948-page, up-to-date, scholarly encyclopedia. There is an over 90-page index to a large number of other articles relevant to this web site.

**"La excavación de montículos chich en Sayil, Yucatán.**

*Antropológicas*, Vol. 1 (1987): 59-62.

## F

**Fagan, Brian**

"A Responsibility for the Past: Integrating Conservation and Archeology". *GCI Newsletter*, Vol. 18, No. 1 (Spring 2003).

On the web at:

[http://www.getty.edu/conservation/publications/newsletters/18\\_1/feature.html](http://www.getty.edu/conservation/publications/newsletters/18_1/feature.html)

(accessed 2007 May 21)

**Fane,Diane**

"Reproducing the Pre-Columbian Past: Casts and Models in Exhibitions of Ancient America, 1824-1935". *Collecting the Pre-Columbian Past*, ed. Elizabeth Boone: 14-176. A symposium at Dumbarton Oaks, 6<sup>th</sup> and 7<sup>th</sup> Oct. 1990. Washington, D.C.: Dumbarton Oaks, 1993.

**Fash, Barbara W.**

"Cast Aside: Revisiting the Plaster Cast Collections from Mesoamerica". *Visual Resources*, Vol. XX, No. 1 (March 2004): 3-17.

Although mentioning only one example from the Puuc Region, this article **provides useful information regarding the deterioration and conservations of original Maya sculpture, the processes used by early explorers for creating their molds and casts, and modern reproductive techniques and display**. The one Puuc example referred to and illustrated is the "skyband text" on the bodies of the seven double-headed serpents above the central doorway of the Governor's Palace, Uxmal (p.6, fig.6).

**Fash, William L.**

“Archaeology”. *The Oxford Encyclopedia of Mesoamerican Cultures: The Civilizations of Mexico and Central America*. Vol. 1: 25-35. Ed. David Carrasco. 3 vols. Oxford University Press, 2001.

Although only two paragraphs are specific to the Puuc region, this ten-page article **provides the best brief introduction to the archaeology of Mexico**, an essential basis for studying the subject of this web site. Fash describes the history of the archaeological study of Mesoamerica, noting major persons and institutions, stressing the new focus on Mesoamerican society and new approaches to study it. The last two sections of his article deal with “The Archaeological and Epigraphic Revolution of the 1960s and 1970s”, and “Recent Directions in Mesoamerican Archaeology”.

Regarding conservation and historical restoration, Fash calls attention to the early standards set by Ignacio Marquina at Tenayuca in the Valley of Mexico. He writes that “Marquina was able to expose and meticulously restore for the public several construction stages of the twin-pyramid of Tenayuca, and he tied the ceramic of each stage into an overall pottery sequence for the Aztec period” (p. 28). In his final paragraph, Fash writes: “Happily conservation has now permeated all aspects of field research on most large-scale excavation projects, from initial conceptualization of research problem and design, to excavation and recording methods, to transport, conservation and storage (or display) of objects, to long-term regional site management planning. From the time of the earliest monumental restoration projects in Highland Mexico and the Maya area, archaeologists have concerned themselves not only with identifying and protecting the most exalted monuments of antiquity but also of protecting their meaning – both ancient and newly created – to the world at large” (p. 34).

**Fash, William L.**

“Maya”. *The Oxford Encyclopedia of Mesoamerican Cultures: The Civilizations of Mexico and Central America*. Vol. 1: 181-189. Ed. David Carrasco. 3 vols. Oxford University Press, 2001.

This is a comprehensive description of the Maya, organized under 7 headings: “Geography and Cultural Ecology”, “Languages”, “Preclassic Period”, “Classic Period (250-900 CE)”, “Postclassic period (900-1500 CE)”, “Colonial Period”, and “Nineteenth and Twentieth Century”. The author writes that “the stunning accomplishments of the pre-Hispanic Maya in the fields of art, architecture, astronomy, writing, and agriculture, as well as the religious ideology that inspired them, have made them perhaps the single most studied archaeological culture of the New World” (p. 181).

Regarding architecture, Fash importantly observes that the “intense competition between **noble families** . . . often resulted in violent conflict . . . [but that] it also led to rival artistic and architectural productions on an enormous scale. . . . Despite great similarities [among the Maya communities] in underlying belief systems, environmental adaptation and horticultural strategies, technology, and other shared material culture,

each sought to create its own distinctive style and media in its public monuments” (p. 185). The Puuc region is described briefly at the end of the section on the classic period.

**Fash, William L., Ricardo Agurcia Fasquelle, Barbara W. Fash, and Rudy Larios Villalta**

“The Future of the Maya Past: The Convergence of Conservation and Investigation”. *Eighth Palenque Round Table / La Mesa Redonda de Palenque*. Held June 6-12, 1993. Eds. Martha J. Marciri and Jan McHargue.; Gen. ed. Merle Greene Robertson. San Francisco: Pre-Columbian Art Research Institute (PARI), 1996: 203-211.

On the web at:

[http://www.mesoweb.com/pari/publications/RT10/21\\_Future.html](http://www.mesoweb.com/pari/publications/RT10/21_Future.html)

(accessed 2007 January 29)

Based entirely on Copán, this article provides the most comprehensive report available on the study and conservation approaches at any Maya site. The authors argue that “archaeologists must change the way in which they think about working in the Maya area, and put the conservation of the archaeological, biotic, and modern cultural resources as their first goal, and as the frame within which they construct their research designs” (p. 1 of electronic version). This article should be studied by anyone involved in work on any site of historic value worldwide.

**Fedick, Scott and Kasrl Taube**

“The Role of Radiocarbon Dating in Maya Archaeology: Four Decades of Research”. *Radiocarbon After Four Decades: An Interdisciplinary Perspective*, ed. R. E. Traylor, A. Long, and R. S. Kra: 403-420. New York: Springer-Verlag, 1992.

**Ferguson, William M., and John Q. Royce.**

*Maya Ruins in Central America in Color: Tikal, Copán, and Quiriguá*. Color photographs by William M. Ferguson and John Q. Royce. Albuquerque: University of New Mexico Press, 1984.

Three closely related books with color photograph by Ferguson and Royce have been published. The two other titles, *Maya Ruins of Mexico in Color* (1977) and *Mesoamerica's Ancient Cities* (1990/2001) are separately listed and annotated in this web bibliography. In all 3 titles, there are excellent, up-to-date texts, but the unique contribution of these three publications is the inclusion of aerial photographs. Because *Maya Ruins in Central America in Color* does not treat any Puuc sites, it is listed here because of its importance in photo recording.

**Ferguson, William M., in collaboration with John Q. Royce. Color photographs by William M. Ferguson and John Q. Royce.**

*Maya Ruins of Mexico in Color*. Color photographs by William M. Ferguson and John Q. Royce. Norman: University of Oklahoma Press, 1977.

Three closely related books with color photograph by Ferguson and Royce have been published. The two later titles, *Maya Ruins in Central America in Color* (1984) and

*Mesoamerica's Ancient Cities* (1990/2001) are separately listed and annotated in this web bibliography. In all 3 titles, there are excellent, up-to-date texts, but **the unique contribution of these three publications is the inclusion of aerial photographs, in color, taken by Ferguson and Royce at relatively low altitudes, showing the layout of entire ceremonial centers with some of the surrounding area.** These are taken at oblique angles, which, for most purposes, is more informative than direct overhead photographs, usually taken from higher altitudes. All 3 titles include diagrams accompanying the overall aerial photograph of sites, identifying the individual buildings.

The text material on pages 66-132 on the Puuc Area “was prepared in consultation with Jeff Kowlalski . . . and was reviewed by Arthur G. Miller. . . .” (p.66). This is the largest number of photographs of Puuc sites in the 3 titles of Ferguson and Royce photographs. There are 41 photographs of Uxmal (6 aerial), 6 photographs of Kabah (2 aerial), 5 of Sayil (1 aerial), and 9 of Labna (2 aerial).

**Ferguson, William M., and Arthur H. Rohn, photographs by John Q. Royce and William M. Ferguson**

*Mesoamerica's Ancient Cities: Aerial Views of PreColumbian Ruins in Mexico, Guatemala, Belize, and Honduras.* Niwot, Colorado: University Press of Colorado, 1990 (revised edition by William M. Ferguson and Richard E. W. Adams, University of New Mexico Press, Albuquerque, 2001).

**Three closely related books with color photograph by Ferguson and Royce have been published.** The two earliest titles *Maya Ruins of Mexico in Color* (1977) and *Maya Ruins in Central America in Color* (1984) are separately listed and annotated in this web bibliography. In all 3 titles, there are excellent, up-to-date texts, but the unique contribution of these three publications is the inclusion of aerial photographs, in color, taken by Ferguson and Royce at relatively low altitudes, showing the layout of entire ceremonial centers with some of the surrounding area. These are taken at oblique angles which, for most purposes, are more informative than direct overhead photographs, usually taken from higher altitudes. All 3 titles include diagrams accompanying the overall aerial photograph of sites, identifying the individual buildings.

**This title, *Mesoamerica's Ancient Cities*, is the latest of the 3.** This 2001 edition adds a short essay by Adams and is very slightly updated. Chapter 8, “Puuc Region, is nearly identical in the 2 editions. For Uxmal there are 11 photographs (5 aerial), for Kabah 6 (3 aerial), for Sayil 4 (1 aerial), and for Labná 6 (3 aerial). For Uxmal and Kabah, the most spacious aerial photograph is accompanied by a diagram identifying the main structures.

**Fernández Marquínez, Yolanda**

“Historia arquitectónica del Grupo May: la fase Proto-Puuc”. *Misión Arqueológica de España en México*, ed. Miguel Rivera Dorado: 47-62. Madrid: Ministerio de Cultura, 1992.

**Finch, W. A., Jr.**

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

**Finney, Ben R.**

"L'Abbé Brasseur de Bourbourg and Désiré Charnay." Unpublished paper. Cambridge, MA: Harvard university, 1960.

**Flores Guerrero, Raúl**

*Arte mexicano - Época prehispánica*. Editorial Hermes. Buenos Aires, 1962.

**Folan, William J., Joyce Marcus, and W. Frank Miller**

"Verification of a Maya Settlement Model through Remote Sensing". *Cambridge Archaeological Journal*, Vol. 5: 277-283.

**Foncerrada de Molina, Marta**

"La arquitectura Puuc dentro de los estilos de Yucatán". *Estudios de Cultura Maya*. Vol. 2: 225-238. México: Universidad Nacional Autónoma de México, 1962.

Based on stylistic similarities and differences, this is an exceptionally thorough, clear examination of the cultural relationships between the Puuc region and others areas of Pre-Columbian Mexico. Listing architectural features that the Puuc, Rio Bec, and Chenes regions have in common, the author states that the architectural style of the three regions are so similar, and so unique in relation to other styles, that it is impossible to separate them entirely. Nevertheless, she claims that **Puuc architecture achieved a unique equilibrium of architecture and sculptural decoration and represents the culmination of plastic qualities undeveloped in the southern cities**. Based on her description of Puuc characteristics, Foncerrada de Molina argues that the Puuc region probably suffered a weak Toltec occupation, but she lists relatively few stylistic similarities and thus argues for the autonomy of Puuc style in relation to Toltec culture. To examine this relationship, she recommends an especially in-depth study of the Pyramid of the Magician, Uxmal. Foncerrada de Molina calls attention to the many problems remaining in attempting to understand the relationships among the various Maya centers. For examples, she notes that both Mitla and the Puuc region possess a richness of geometric ornamental motifs, perfectly integrated to the architecture, but that the relationship between these regions remains to be established. **Since she believes that written records can be biased and are therefore unreliable, she claims that the missing relationships among Maya regions can only be established with further archaeological study of both known and previously unstudied sites.**

**Foncerrada de Molina, Marta**

*La escultura arquitectónica de Uxmal*. Estudios y fuentes del arte en México, XX. Preface by Alberto Ruz Lhuillier. México, D.F.: Instituto de Investigaciones Estéticas, Universidad Nacional Autónoma de México (UNAM). México, D.F.: Imprenta Universitaria, 1965.

This was a groundbreaking publication not only for our understanding of Uxmal but of the entire Puuc region and its relationship to Maya culture overall. Foncerrada de

Molina states that Uxmal has previously been misunderstood as a late-phase of the classic period of Central Maya areas. Instead, she proposes that Uxmal is a regional variant that developed during the same time period. She arrives at this conclusion through a stylistic analysis of the architectural sculpture of Uxmal, together with its religious and symbolic meanings. She writes that Uxmal has received relatively little attention from historians of pre-Hispanic art, especially from an aesthetic point of view.

Chapter 1 provides a valuable review of previous studies of Uxmal, calling attention to many significant contributions by previous scholars but noting the almost total disregard of specialized studies of Uxmal. Instead, in 1965, hers was a rare in-depth study. Chapter 2 relates the architecture of Uxmal to the styles of the Yucatán, calling attention to the uniqueness of the Puuc style. Moreover, she emphasizes the autonomy of Puuc culture in relation to Toltec culture, with which it has frequently been associated, seeing the Puuc style as part of the overall Maya culture. Chapter 3 situates the Puuc style chronologically. Chapter 4 discusses early Maya and Spanish sources. Chapter 5 brilliantly describes, in detail, the harmonious union of symbolic-religious meaning and decorative forms in Uxmal's architecture. Chapter 6, though only 10 pages, would constitute a significant publication on its own, a study of the stylistic evolution of Uxmal through an analysis of the sequence of construction of the Pyramid of the Magician (Adivino). Chapter 7 examines the quadrangles at Uxmal, concluding that the stylistic evidence at Uxmal indicates that the Puuc cities developed without large lapses of time between buildings, such as in the central Maya areas. To demonstrate her analyses of architectural sculpture, there are 26 pages of drawings and 34 of photographs, most high quality. These help to demonstrate how the creators of Uxmal created plastic symbols that largely take over from natural forms.

In her Conclusion, Foncerrada de Molina presents a dynamic view of the development of Puuc culture, as a vigorous expression of its Maya creators, involving the active interaction of complex forms. The creators of Uxmal absorbed influences from many areas, transforming them in original ways.

### **Foncerrada de Molina, Marta**

"Situación cronológica del estilo Puuc". *Proceedings of the International Congress of Americanists* (México, 1962), Vol. 1: 363-364. México, D.F., 1964.

### **Foncerrada de Molina, Marta**

*Uxmal, la ciudad del dios de la lluvia*. Presencia de México No. 5. México, D.F.: Fondo de Cultura Exonómica, 1968.

A small paperback, but this is **not your typical guidebook**. Instead of simply taking the reader on a stroll around the site, the author provides a **perceptive synthesis of the architectural characteristics of Uxmal and of the Puuc region**. She first summarizes the history and historiography of the Puuc region, then characterizes the city of Uxmal and of the Puuc style. In summary, she writes (in translation):

“One of the most distinctive characteristics of the architecture in Uxmal is the organization of the buildings surrounding the patios forming quadrangles. . . . . In the city there exist two types of architectonic structures:

(1) Pyramidal bases on which temples were constructed . . . .

(2) Buildings of the Paralelupipda form [6-faced polyhedron with parallel faces], rather low, with a system of proportions regimented by the horizontal line. This type of architectonic volume is that which principally distinguished the Puuc styled from others developed by Maya art” (p. 19).

Foncerrada de Molina is one of the few scholars who has been willing to see in the architecture of a Maya city overall characteristics of its society. She writes (in translation):

“The almost total absence of the human figure in the Puuc art is evidently a testament of a unique religious-esthetic vision that was radically different . . . . The religious mentality of the towns of the Puuc region was, undoubtedly, less elaborate, more attached to the natural phenomenon deified by those that received their material well-being from nature, and for that reason it was not to include the priestly figure as a guarantee of the benevolence of gods toward the humans who venerate them” (p.25).

This is followed by informative descriptions of a few of the principal buildings. There are 31 diagrams and photographs, a few showing buildings before more recent restorations.

### **Foncerrada Moreno, Marta**

*Estudio Sobre la Ornamentacion de los Monumentos Uxmal.* Tesis para optar al grado de Maestra en Historia de las Artes Plásticas, Escuela de Historia del Arte, Universidad Iberoamericana Incorporada a la U.N.A.M. Septiembre, 1963.

This excellent thesis provided the basis for the author’s (Marta Foncerrada de Molina) groundbreaking 1965 publication *La escultura arquitectónica de Uxmal*, separately listed and annotated in this web bibliography.

### **Foundation for the Advancement of Mesoamerican Studies, Inc. (FAMSI)**

On the web at:

<http://www.famsi.org/>

(accessed 2007 June 2)

An extensive, continuously upgraded, scholarly website, containing a searchable bibliography, grantee reports (many unpublished elsewhere), and archives of drawings and photographs of Maya material. This web site is clearly organized, easy to use, and highly informative in many ways – an exceptional resource.

**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 l'Yucatan." *Nouvelles Annales des Voyages*. Vol. 4, Paris, 1841: 291-314.

Saville notes that "This article is a digest of the researches of Friedrichstal, written by Eyries. Uxmal is mentioned on pp. 306-312" (Saville p. 90).

**Fuson, R.**

"On the Orientation of Mayan Ceremonial Centers". *Annals of the Association of American Geographers*. Vol. 59 (1969): 494-511.

## G

**Gallareta Negrón, Tomás**

"Análisis de un centro Puuc: el caso de Labná". *Escondido en la selva: arqueología en el norte de Yucatan*, ed Hanns J. Prem: 119-136. Mexico, D.F.: Instituto Nacional de Antropología e Historia: Universidad de Bonn, 2003.

The author first provides a review of previous studies in the Puuc region. He then **describes in detail the 7 field seasons he conducted at Labná, beginning in 1991**. He supplies a full-page map-diagram, identifying the areas restored in 1991-1992 and in 1993-1994 and the area explored in 1996-1998. There follows an historical-chronological sequence of the settlement of Labná, each of 5 phases described separately. Gallareta Negrón reviews previous scholarship on each subject he treats. The most important discovery was a group of buildings in the extreme south of the area, not previously recognized, named Xcanacruz, which he describes as a satellite of Labná. He provides 3 diagrams of Xcanacruz. The 1<sup>st</sup> is a diagram of the principal plazas, the 2<sup>nd</sup> a plan of structure no.1, and the 3<sup>rd</sup> a plan of structure no.3. Gallareta Negrón concludes that there were two principal occupational phases at Labná. He makes extensive use of ceramic evidence.



**Gallareta Negrón, Tomás**

“Informe global de avances del Proyecto Labná y propuesta de investigación para 1997”. Reporte preparado a solicitud del consejo de Arqueología del INAH, Mérida, Yucatán. October 1998.

**Gallareta Negrón, Tomás**

“Objetivos y resultados iniciales del Proyecto arqueológico Labná. Temporadas 1991 y 1992”. Paper presented at the IV Coingreso Interno del Centro INAH Yucatán.

**Gallareta Negrón, Tomás**

“Restauración e investigaciones arqueológicas en Labná: la temporada de campo de 1992,” Report on file, Centro INAH Yucatán, Mérida, 1993.

**Gallareta Negrón, Tomás, and Carlos Pérez A.**

“El asentamiento del Valle de Labná: patrones serranos en el distrito de Bolonchén, región Puuc, Yucatán”. Paper presented in the V Encuentro sobre investigaciones en Ciencias Sociales, Centro de Investigaciones Regionales Dr. Hideyo Noguchi, Unidad de Ciencias Sociales, Universidad Autónoma de Yucatán.

**Gallareta Negrón, Tomás, and Carlos Pérez A.**

“El estudio del asentamiento de Labná”. Ponencia presentada en el III Congreso Internacional de Mayistas, 9-15 July 1995. Chetumal, Quintana Roo, IIF, Centro de Estudios Mayas, UNAM.

**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.

**Gallareta Negrón, Tomás, George J. Bey III, and William M. Ringle**

“Investigaciones arqueológicas en la zona Labná-Kiuic, distrito de Bolonchén, región Puuc, México. Propuesta de investigación al Consejo de Arqueología del INAH y al Centro INAH Yucatán.

**Gallareta Negrón, Tomás, Lourdes Toscano Hernández, Carlos Pérez Alvarez, and Carlos Peraza L.**

“Investigaciones arqueológicas en Labná: nuevas perspectivas para el estudio de las comunidades del Puuc”. IV Coloquio Pedro Bosch Gimpera, ed. Ernesto Vargas Pacheco. México, D.F.: Universidad Nacional Autónoma de México, 1997.

**Gallareta Negrón, Tomás, Lourdes Toscano Hernández, and Carlos Pérez Alvarez**

*Programa de investigación del Proyecto Labná: temporada de campo 1995*. Propuesta al Consejo de Arqueología del INAH, 1995.

**Gallareta Negrón, Tomás, Lourdes Toscano Hernández, Carlos Pérez Alvarez, and Carlos Peraza L.**

“Proyecto Labná, Yucatán, México”. *Land of the Turkey and the Deer: Recent Research in Yucatan*, ed. Ruth Gubler. Lancaster, CA: Labyrinthos, 1999: 85-96.

Photographs of Labná showing restoration over the years are reproduced on this web site.  
<http://academic.reed.edu/uxmal/labnamap.html>

A report of the Labná investigation and archaeological restoration project conducted during the 1991-1994 seasons, as authorized by INAH. There is a review of the limited previous studies and restorations. The authors then present the main objectives of the 4 field-season project; to form a database about the Labná ruins, attempt to understand the form and dimension of the city, and to establish the function of the principle structures and their temporal sequence. In addition, the project attempted to understand the temporal relationship of Labná to the rest of the Puuc region.

There is a discussion of fieldwork, collecting fallen stones and conducting stratified excavations to relate the architecture to the ceramic sequence. Special attention is given to the sacbé, especially the southern terminus, which was excavated and consolidated.

There are 13 illustrations, all gray-scale photographs by Tomas Gallareta and line drawings. There is a diagram of the Puuc region, a ground plan of Labná indicating which areas were studied each year, and ground plans of the Palace and Arch-Mirador area. One photograph shows the projecting vaulted room on the main level of the Palace, uncovered and restored. Especially informative are the photographs of the sacbé and the platform at its southern end, with their form and structure revealed for the first time.

**Gallareta Negrón, Tomás, Lourdes Toscano Hernández, Carlos Pérez Alvare, Rossana May Ciau, and David Salazar Aquilar**

*Restauración e investigaciones arqueológicas en Labná; la temporada de campo de 1994.* Report of activities presented in the Consejo de Arqueología del INAH Yucatan, 1994.

**Gallareta Negrón, Tomás, et al.**

“Planteamientos y resumen de los trabajos de campo del Proyecto Arqueológico Labná”. *I'INAJ*, Vol. 1, No. 3 (1991): 30-39

**Gallareta Negrón, Tomás, et al.**

“Investigaciones arqueológicas recientes en Labná, Yucatán”. Paper presented at the XX Mesa Redonda de Palenque, Palenque, July 1993.

**Gallareta Negrón, Tomás, et. al.**

“Proyecto Labná: Conservación, Investigación y Protección del sitio arqueológico”. Paper presented at the Consejo de Arqueología del Instituto Nacional de Antropología e Historia. México, 1991.

**Gallareta Negrón, Tomás, et al.**

“Restauración e investigaciones arqueológicas en Labná: informe de la temporada de campo de 1997 y resultado de los análisis de materiales cerámicos y líticos”. Report presented at the Consejo de Arqueología del INAH, Mérida, Yucatan, 1997.

**Gallareta Negrón, Tomás, et al.**

“Restauración e investigaciones arqueológicas en Labná: la temporada de campo de 1996”. Report of activities presented at the Consejo de Arqueología del INAH, Mérida, Yucatan, 1996.

**Gallareta Negrón, Tomás, et al.**

“Restauración e investigaciones arqueológicas en Labná: la temporada de campo de 1992”. Report presented at the Consejo de Arqueología del INAH, Mérida, Yucatan, 1992.

**Gallareta Negrón, Tomás, et al.**

“Restauración e investigaciones arqueológicas en Labná: la temporada de campo de 1991”. Report presented at the Consejo de Arqueología del INAH, Mérida, Yucatan, 1991.

**Gallencamp, Charles**

*Maya: The Riddle and Rediscovery of a Lost Civilization*  
NY, 1985 (3<sup>rd</sup> ed.)

**Gallenkamp, Charles, and Regina Elise Johnson, eds.**

*Maya: Treasures of an Ancient Civilization*. Most photographs by Stuart Rome. New York: Harry N. Abrams, in association with the Albuquerque Museum, 1985.

An outstanding exhibition catalogue, handsomely produced and dense with information. There are excellent, **general introductions to 6 overall topics by 6 scholars**, but the **main contribution of the publication is the catalogue entry with text and high quality photograph for every object in the exhibition**; the entries by Flora S. Clancy, Clemency C. Coggins, and T. Patrick Culbert. The exhibits include a limestone grotesque head probably from Uxmal or Labná (cat. No. 113), a limestone skull previous tenoned into the east side of the Great Pyramid at Uxmal (cat. No. 127), and an incised fluted ceramic bowl from Sayil (cat. no. 167).

**Gamboa Carrera, Eduardo**

*Diez años de arqueología en México: 1975-1985*. México, D.F.: Instituto Nacional de Antropología e Historia (INAH), 2002.

There is **a unique, detailed, 20 page list of all the archaeological projects in Mexico 1975-1985**; giving date, name, location, author or archaeologist in charge, INAH center and/or university that conducted the work, and code type. There are several listings for the Yucatan and the following 2 each for Uxmal and Sayil.

01-01-78	Restauración Juego de P., Uxmal	Maldonado Rubén
	INAH C.R. Sureste	Restauero

01-01-78	Uxmal INAH C.R. Sureste	González Crespo Norberto Restauo
01-01-83	Patrones de Asentamiento, Univ. de Nuevo México	Sayil Jeremy A. Sabloff Investigació
01-01-84	Material de Sayil INAH C.R. Sureste	Boucher Sylina Análisis

The text consists of a 57-page review of the many aspects of archaeology. One section, “Arqueología y conservación del patrimonio cultural” reviews the general theory of conservation, the history of its charters, etc. Includes a useful 7 pages bibliography, though the most recent publication date is 1988.

### **Gamboa Cetina, José**

“La fotografía y la arqueología: una historia de convergencias”. *Revista Latina de Comunicación Social*, Vol. 6, No. 55 (April-June 2003).

### **Gámdara, Manuel**

*La arqueología oficial mexicana: casusas y efectos*. Coleccion Divulgacion. México, D.F.: Instituto Nacional de Antropología e Historia, 1992.

This small volume marked a turning point in the history of Mexican archaeology. The author writes that archaeology has always been treated as a secondary discipline in Mexico, serving the purposes of the restoration of monuments, the establishment of museums, and affirming national identity and the ideology of the Mexican revolution. He questions whether there has ever been scientific archaeology in Mexico and urges reform.

Gámdara writes that, beginning in 1968 and to some extent even before, there has been talk of a crisis in Mexican archaeology, a position which, by the time of writing, he believes to be nearly unanimous. In three chapters, he explores the theoretical, practical, and political problems involved. **He concludes that in Mexico there is no coherent, articulated position based on archaeology as a scientific discipline.** Among other things, this has led to two different archaeologies, one for the classroom and the other for excavations in the field. It has also led to the failure of Mexican archaeology to live up to international standards. **He urges the formulation of a coherent national position based on archaeology as a science.** In a postscript he describes ways in which the situation has improved since his writing of the text.

There are 16 pages of references and bibliography, more than half in English, providing a useful guide to writings on archaeology as a discipline.

### **Gann, Thomas**

*Ancient Cities and Modern Tribes: Explorations and Adventures in Maya Lands*. New York: Charles Scribner's Sons, 1926.

**Gann, Thomas**

*Maya Cities: A Record of Exploration and Adventure in Middle America.* London and New York, 1927.

**Gann, Thomas, and Eric Thompson**

*The History of the Maya.* New York: Charles Scribner's Sons, 1931.

**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.

**García Cook, Ángel**

"César Augusto Sáenz Vargas". *La antropología en México: Panorama histórico, 11. Los protagonistas (Nájera-Yurchenco).* Volume coordinator Lina Odena Güemes: 405-413. General Coordinator Carlos García Mora. Mexico City, D.F.: Colección Biblioteca del INAH; Instituto Nacional de Antropología e Historia, 1987.

A chronological survey of the life and professional accomplishments of César Sáenz. Includes a chronological list of his archaeological field work investigations, including major explorations and restorations at Uxmal and others at Kabah, Sayil and Labná, between 1951 and 1969. Also includes a bibliography of his publications.

**García Moll, Roberto**

*Índice del archivo técnico de la Dirección de Monumentos Prehispánicos del INAH.* México, D.F.: INAH (Col. Científica 120), 1982.

**García Moll, Roberto.**

*Kabah, Quintana Roo.* México: Instituto Nacional de Antropología e Historia, 1993.

**Garza, Marta de la**

"Chaac el dios que sabe muchos caminos", *Arqueología Mexicana*, Vol. 2, No. 11 (Feb. 1995): 38-43.

The author describes the different forms and media in which God Chaac has been represented symbolizing water, noting that one of water's primary characteristics is that it is in constant motion and transformation. She presents an extended description of the various types of representations of Chaac in different media and the far-reaching references associated with him. De la Garza concludes that (in translation): "the deity of water, whose principal expression is the serpent, was one of the principal deities of the Maya pantheon and was venerated in diverse maya groups since the Preclassic period" (p.43). There are 3 illustrations of Chaac images from the Puuc region, one each from Uxmal, Kabah, and Labná.

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

**Garza Terrazona de Gonzales, S. and E. B. Kurjack**

“Labná”. *Atlas arqueológico del Estado de Yucatán*, 2 vols. México: Instituto Nacional de Antropología e Historia, 1980.

**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 20<sup>th</sup> 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.

**Gebauer, Uwe**

*“Archaeological Settlement Patterns of the Eastern Puuc Region, Yucatan, Mexico. Report on 1988-1989 Field Season.* Hamburg, 1989.

**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*, ed. George F. Andrews and Paul Gendrop. Collection Etudes Mesoamericaines. Vol. 2, No. 8 (1985): 41-50. Mexico, D.F.: Centre d’Etudes Mexicaines et Centramericaines, 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**

*A Guide to Architecture in Ancient Mexico.* Toluca, Mexico: Editorial Emahaia, 1974 (4<sup>th</sup> ed. 1998).

A small 128 page paperback with only 13 pages on Uxmal, Kabah, Sayil, and Labná. However, the author’s description of the visual characteristic and details is unusually perceptive, and there is an informative 8-page account of “Construction Materials and Techniques.”

**Gendrop, Paul**

*Los Estilos Río Bec, Chenés 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 Labná 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**

"La Problemática de la Conservación". Introducción editorial in *Cuadernos de Arquitectura Mesoamericana* 3. México, D.F.: Instituto Nacional de Antropología e Historia, 1984.

### **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, Chenés 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).



**Gendrop, Paul**

“Tendencias estilísticas y secuencia evolutiva de la arquitectura Puuc Clásica”. Paper presented at the 17<sup>th</sup> Mesa Redonda, Sociedad Mexicana de Antropología. San Cristobal de las Casas, Chiapas, México, 1981.

**Gibb, Diana, et. al**

“Cities of the Maya: Palenque, Copán, Uxmal, and Chichen Itza”. *Geographical Magazine*, Vol. 8 (1938-1939): 97-104. 187-202, and 237-252.

**Gidwitz, Tom; photographs by Justin Kerr**

“Picture Perfect”. *Archaeology* (Nov.-Dec. 2003): 42-49.

An impressive article, informatively illustrated, about the development and uses of Justin Kerr’s rollout camera, which has been instrumental in reconstructing the images painted on the outside, curved surfaces of Maya vases. The context of Kerr’s career, other types of photography, and role of other scholars is well developed.

**Gill, Richardson Benedict**

*The Great Maya Drought: Water, Life, and Death*. Albuquerque: University of New Mexico Press, 2000.

A thorough examination of all aspects of the subject with a 50-some-page bibliography. The author describes the various ways in which the Maya created a civilization with a highly successful water capturing and storage system, but a system totally dependent on yearly rainfall. His comprehensive examination of all types of evidence argues that the drought leading to the Classic collapse was more severe than previous droughts, from which the Maya had recovered, and that there were repeated droughts within a few years.

Gill provides a map diagramming 3 stages of the Maya collapse, based on latest carved or painted dates at each site. He also provides a few radiocarbon dates. The diagram indicates that the northern Yucatan lowlands especially, and a narrow tongue running south to the central Peten, experienced the latest collapse, between AD 861 and 910. Regarding the Puuc region, he writes that “the ninth century saw an explosive rate of population increase, perhaps due to refugee migrations fleeing the deteriorating conditions in the south” (p. 331).

**Gillespie, Susan D.**

“Maya ‘Nested Houses’: The Ritual Construction of Place”. *Beyond Kingship: Social and Material Reproduction in House Societies*, ed. Rosemary A. Joyce and Susan D. Gillespie: 135-160. Philadelphia, PA: University of Pennsylvania Press, 2000.

**Golden, Charles W. and Greg Borgstede, ed.**

*Continuities and Changes in Maya Archaeology: Perspectives at the Millennium*. New York and London: Routledge, 2004.

**Seventeen first-rate articles** describing changes in Maya archaeology during the past century, especially the recent past, and looking into the immediate future. The book demonstrates the diversity of approaches to Maya archaeology by presenting 2 overall introductory papers and a concluding paper, and grouping the other papers under 3 headings: “Social, Political, and Ideological”; “Textual and Materials”; and “Contemporary Concerns”. **The limited approaches of traditional archaeology, and dramatically expanding approaches and achievements of more recent Maya studies are highlighted.**

**For art historical approaches**, the most promising is Wendy Ashmore’s paper on “Ancient Maya Landscapes”, with its discussion of the “blurred boundaries”, “the merging of natural landscape and constructed worlds” (p. 103), the importance of color in ordering the Maya’s environment (p. 106), and the importance of “people’s actions . . . [in] animating buildings and other constructions” (p. 106). Aspects of Antonia Foias’s paper on “The Past and Future of Maya Ceramics Studies”, with in-depth bibliography, partly draws on art historical approaches; and the paper “What did they do and where? Activity areas and residue analyses in Maya archaeology” by Daniela Triadan and Takeshi Inomata, describes the complexity and promise of the study of activity areas through artifact distribution and microscopic residues.

As the editors point out, the book does not fully “highlight the diversity of methodologies” in the field (p.3). There is **no mention of the revisions in our understanding of the Maya that are resulting from** recent excavations at sites such as Chac II adjoining Sayil, not to mention the revelations at San Bartolo. In relation to the focus of this web site, it is not surprising that none of the papers deal with the history of restoration at Maya sites or with the varying ways in which they have been imaged, two fertile areas for understanding what we are looking at when we study a Maya site and what this can reveal of the Maya and ourselves.

### **Gonzales Fernandez, Baltazar**

“Depósitos Subterráneos en Uxmal, Yucatán”. *Memorial del Congreso Interno 1979*: 203-210. Centro Regional del Sureste. Mexico, D.F.: Instituto Nacional de Antropología e Historia, 1981.

This study was conducted as part of the “Proyecto Uxmal” of the Centro Regional del Sureste of the INAH, directed by Norberto González Crespo, director of the Centro Regional del Sureste. Field chief of the project is archaeologist Alfredo Barrera Rubio. The article **describes the “drawings” modeled with stucco (no color was found) on the interior walls of the chultunes examined.** 115 chultunes were found, 75 around the tourist area. The chultunes examined were those in the best condition, which were in the south part of the site. There is a description of 4 chultunes with outline drawings to scale of the stucco “drawings” they contained.

At the beginning of the article there is a general description of the project including **a rare description of the Uxmal defensive wall**, found during the mapping (in translation): “The wall is a stone construction in the form of an irregular ellipse, which measures 900 meters in length by 600 in its widest part and has an approximate height of 2.3

meters in its highest and most conserved part, which is located toward the south” (p. 203). The article states that there will be a forthcoming publication describing this wall.

**Gonzales Licón, Ernesto**

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

**Graff, Donald H.**

“Investigación preliminar de los asentamientos rurales en la zona Puuc, Yucatán”. *Boletín del Consejo de Arqueología 1990*: 135-137.

**Gordon, George Byron**

“The Serpent Motive in the Ancient Art of Central America and Mexico”. *Transactions of the Department of Archaeology, University of Pennsylvania*. Vol. 1, pt. 3: 131-163. Philadelphia: University of Pennsylvania, 1905.

**Graham, Ian**

Alfred Maudslay and the Maya: A Biography. Norman: University of Oklahoma Press, 2002.

As Graham points out, **Maudslay never managed to get to Uxmal** (p. 165), and Chichen Itza was the only Yucatan site he studied and published, Graham’s biography would not normally be included in this web bibliography. However, **Maudslay’s exemplary scholarship provides such essential context for understanding all Maya studies**, and this is such an informative, carefully crafted account of his life and work that it must be included in any account of early explorers and scholars.

Likewise, **Maudslay’s recording methods** provide essential context for understanding those of Uxmal and the Puuc region. He took superb photographs himself, using glass plate negatives, made careful maps of sites he studied, commission plaster casts from an Italian specialist, Lorenzo Giuntini, and commissioned an artist, Annie Hunter, to make drawings, color coded with watercolor, of the casts, to make the hieroglyphs and imagery more legible.

**Graham, Ian**

*Corpus of Maya Hieroglyphic Inscriptions: Uxmal.* Vol. 4, Part 2. Cambridge, Massachusetts: Peabody Museum of Anthropology and Ethnology, Harvard University, 1992.

This is the main Uxmal volume in the corpus project directed by Ian Graham and the Peabody Museum, **attempting to publish all objects and paintings that include Maya hieroglyphic inscriptions**. The corpus does not attempt readings of the inscriptions or interpretations of the imagery. There is an 8 page introduction to Uxmal, including an important chronological review of “principal investigations at the site,” various clarifying “notes on the ruins” and a description of previous mappings of Uxmal and the one included in this volume. The body of the volume consists of large grey-scale photographs and factual descriptions, some with line drawings, of 16 stelae, 1 altar, 1 hieroglyphic step, 2 ballcourt rings, and 4 cemetery platforms. Includes a superb, highly informative 1929 aerial photograph (4:75). In every way **the material is**

recorded and presented with the highest scholarly standards. A careful description of the project, including the bases for various decisions regarding scope, research methods, and organization are provided in volume 1 (1975).

### **Graham, Ian**

*Corpus of Maya Hieroglyphic Inscriptions: Uxmal, Xcalumkin*. Vol. 4, Part 3. Cambridge, Massachusetts: Peabody Museum of Anthropology and Ethnology, Harvard University, 1992.

This volume (15x12 inches) is part of the corpus project directed by Ian Graham and the Peabody Museum, attempting to publish all objects and paintings that include hieroglyphic inscriptions. The corpus does not attempt readings of the inscriptions or interpretations of the imagery. This volume is mainly devoted to Xcalumkin. For Uxmal, it includes grey scale photographs, line drawings, and factual descriptions of 4 capstones, 1 mural painting, and 1 fragmented onyx vase. In every way the material is recorded and presented with the highest scholarly standards.

### **Graham, Ian**

"Exposing the Maya". *Archaeology*, Vol. 43, No. 5 (Sept./Oct. 1990).

### **Graham, Ian**

"Looters Rob Graves and History". Photographs by George F. Morley. *National Geographic*, Vol. 169, No. 4 (April 1986): 453-460.

### **Graham, Ian**

"Maler, Teobert". *The Oxford Encyclopedia of Mesoamerican Cultures: The Civilizations of Mexico and Central America*. Vol. 1: 153. Ed. David Carrasco. 3 vols. Oxford University Press, 2001.

A brief history of the life and career of Teobert Maler. Graham notes that at age 20 Maler worked as a draftsman for an architect in Vienna. Maler spent many years in Mexico, especially in the Yucatan, where he lived for 10 years (1885-1895), photographing and taking measured drawings of Maya ruins. This material, titled *Península Yucatán* by Maler, lay dormant for decades but was finally edited and published 80 years after his death, in 1997.

### **Graham, Ian**

"Tatiana Proskouriakoff, 1909-1985". *American Antiquity*. Vol. 55, No. 1 (1990): 6-11.

### **Graham, Ian**

"Stephens, John Lloyd". *The Oxford Encyclopedia of Mesoamerican Cultures: The Civilizations of Mexico and Central America*. Vol. 1: 167-168. Ed. David Carrasco. 3 vols. Oxford University Press, 2001.

A brief history of the life and career of John L. Stephens. Graham notes that, previous to his first visit to Mexico, Stephens had traveled to Greece, Turkey, Poland, and Russia, then to Egypt and Petra. In 1837, his book *Incidents of Travel in Egypt*,

*Arabia, Petraea, and the Holy Land*, was a financial success. He then planned a trip to Central America and hired Frederick Catherwood as his artist. On this first trip they visited Uxmal only briefly, but their book, dealing mainly with other areas, was an immense success. **On their second trip**, Graham notes, they spent most of their time in the Yucatan, with **Catherwood spending 6 weeks at Uxmal and then discovering the ruins of Kabah**. Their 1843 book, *Incident of travel in Yucatan*, was again a major success. Together, these two publications have led Stephens to be called “the father of Maya studies” (p. 167).

### **Graham, John, and Steven R. Fitch.**

“The Recording of Maya Sculpture”. *Studies in the Archaeology of Mexico and Guatemala*, ed. John A. Graham. Paper no. 4: 41-51. *Contributions of the University of California Archaeological Research Facility*. No. 16 (Oct. 1972).

The authors provide **a rare and valuable review of types of imaging used in the documentation of Maya sculpture**. They first describe a few of the early attempts to record Maya sculpture. They write that Stephens and Catherwood succeeded in accumulating a record of extraordinary excellence”, but add that “Catherwood’s drawings are by no means adequate for modern studies, and today they are to be valued mostly for their antiquarian charm and as works of art in their own right”. They fail to mention the importance of Catherwood’s drawings as records of the state of Maya ruins in 1839 and 1841; Graham and Fitch especially praise A. P. Maudslay as “[laying] the foundations for modern studies of Maya art and epigraphy”. Maudslay’s “drawings were prepared on the basis of photographs, casts, and field notes, and then were often checked against the originals in the field”. The authors write that “regrettably the superlative standards of Maudslay were not emulated in subsequent recording of Maya sculpture . . . Fortunately, however, recent years witness a renewed effort at careful and painstaking photography and drawing of Maya monuments, as in the work of the University Museum’s Tikal project and the Maya text recording project of Ian Graham under auspices of Peabody Museum, Harvard” (quotations on pp. 41 and 42).

Graham and Fitch note that John H. Denison was the first to apply the technique of rubbings in Maya field studies, but that “only in recent years a significant and large scale effort to record Maya sculpture with an advanced rubbing process has been initiated by Merle Greene Robertson. The authors are exceptional in observing that “clearly depending in no small degree upon the artistic sensitivity of Mrs. Robertson, an invaluable an amazingly successful evocation of the original qualities of the sculpture” has emerged (p. 43).

In another rarely noted observation, in this case about line drawings, Graham and Fitch write that “literal line drawings, even when attaining a high and commendable level of accuracy and thus being invaluable for iconographic and similar inquiries, are seldom useful or even useable for purposes of critical or esthetic studies. **The problem of sensitive and effective translation from the three dimensions of relief or sculpture to the two dimensions of drawing are almost insurmountable in simple, direct line drawing**” (p. 43).

The last 2-1/2 pages describe the nature and importance of **photogrammetry** as a “method of easily recording Maya sculpture in such a manner that casts can always be made when needed and which has negligible requirements of space for storage” (p. 44). Unfortunately, they repeat the common claim that in photography “from this stereoscopic pair of photographs all the three dimensional information of the subject can be obtained” (p. 44). In a 1-1/2 page appendix, the authors describe how a contour map or a contoured plaster replica can be generated from the stereo pair of photographs.

**Greene, Merle (see also Robertson, Merle Greene)**

*Ancient Maya Relief Sculpture*. Rubbings by Merle Greene. Introduction and notes by J. Eric S. Thompson. New York: Museum of Primitive Art, 1967 (unpaged).

Published in connection with an exhibition at the Museum of Primitive Art, New York. There are **60 illustrations of rubbings**, half from Palenque, **only one from the Puuc Region, a detail of a “Skull-Rack Relief”** (no. 60). All the rubbings are taken from low-relief sculpture. The rubbings are finely reproduced, though for comparative purposes it is important to keep in mind that they have often been greatly reduced to various degrees to fit the page size (size of each original noted). In his introduction, Thompson quotes extensively from Merle Greene’s detailed description of her procedure (*Expedition*, 1966).

What is especially important for students of Maya art is **the ways in which these expert rubbings record different aspects of the reliefs than carefully taken photographs**. In his introduction, Thompson writes that:

“In many of these rubbings we can see the artists’ work better than could the Maya themselves; rubbings artificially reproduce the best effects of light and shadow. . . . Some of the reliefs were inside buildings and their Maya viewers never saw them with the sharpness of detail caught in Merle Greene’s rubbings.”

In her review (*American Antiquity*, Vol. 33, No. 3, July 1968: 405-406) Proskouriakoff writes:

“The rubbings are not merely reproductions. The technique imparts to them a quality of clarity and charm entirely their own. The registered forms are discontinuous, and **the effect produced is that of a very fine stencil**. Discolorations of the stone that mar many photographs are here eliminated, and delicate shading of the surfaces creates its own emphasis. Shadowless lines accentuate minute incised details, and bring out the fine draftsmanship and characteristically linear quality of Maya reliefs.

But Proskouriakoff also notes that “beautiful as these rubbings are, as an accurate record they are not without imperfections . . . no manual technique can substitute for the mechanical reliability of a camera. Nevertheless, where reliefs are difficult of access, or where it is impossible to get uniform lighting on fine detail, rubbings can be a very valuable supplement to photography”.

**Greene Robertson, Merle**

“The Iconography of Isolated Art Styles that are Group Supported and Individual Supported Occurring at Chichen Itza and Uxmal”. Paper presented at the First Maler Symposium on the Archaeology of Northwest Yucatan, August 1990. Bonn, 1994.

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

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

**Griffin, Gillett**

“In Defense of the Collector”. *National Geographic*. Vol. 169 (1986), 462-465.

**Gropp, Arthur E.**

“Bibliografía de John Lloyd Stephens”. *Los Mayas Antiguos: Monografías de Arqueología, Etnografía y Lingüística Mayas, publicadas con motivo del Centenario de la Exploración de Yucatán por John L. Stephens y Frederick Catherwood en los años 1841-42*. 17-32. México [D.F.]: El Colegio de México, 1941.

**Grube, Nikolai**

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

**Grube, Nikolai**

“Die Hieroglyphenplattform von Kabah, Yucatan, Mexico”. *Mexicon*, Vol. 8, No. 1 (1986): 13-17.

**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.

**Grube, Nikolai; assisted by Eva Eggebrecht and Matthias Seidel.**

*Maya: Divine Kings of the Rain Forest*. Cologne: Könemann, 2001 (1<sup>st</sup> ed., *Maya: Gottkönige in Regenwald*, 2000).

This is a large format book of 480 pages, one of the most comprehensive, up-to-date, and perhaps the most sumptuous introduction to the Maya. The book includes **forty-four sections on the full range of Maya culture, by twenty-six experts**, eleven from the Institut für Altamerikanistik und Völkerkunde, Bonn. The texts are authoritative but readable and **every page includes high quality color illustrations, many spectacular, and/or diagrams**. Appendices include descriptions of major sites and of selected collections and museums, a useful glossary and up-to-date bibliography. There is an interesting but disappointingly brief 2-page chapter on “Maya Cities—Lost, Excavated, and Conserved”, exceptional also in lacking any bibliographic references. Altogether, however, this is a remarkably informative volume.

As the title of the volume suggests, Puuc sites and culture are given little attention. There is one splendid chapter on the Puuc Region, listed below. Early exploration of Maya sites in the Yucatan is integrated with early exploration of sites in other regions in the chapter on “The Search for Evidence - The Scientific Discovery of the Maya” by Eva Eggebrecht.

The following chapter is separately listed and annotated in this web bibliography:

Dunning, Nicholas P., “Long Twilight or New Dawn? Transformations of Maya Civilization in the Puuc Region”

**Grube, Nikolai, and Eva and Arne Eggebrecht, eds.**

*Die Welt der Maya: Archäologische Schätze aus drei Jahrtausenden.* Mainz am Rhein: Verlag Philipp von Zabern, 1992.

The catalogue of a major exhibition at the Roemer und Pelizaeus-Museum, Hildesheim, 1992. **The 264 objects exhibited, illustrated and catalogued do not include any items from the Puuc region.** However, three of the authoritative essays are relevant and are thus included in this web bibliography:

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

Dunning, Nicholas P., “Umwelt, Siedlungsweise, Ernährung und Lebensunterhalt im Maya-Tiefland während der Klassik (250-900 n. Chr.)”.

Quintana, Oscar, “Probleme der Konservierung von Maya-Ruined”.  
Wurster, Wolfgang W., “Die Architektur der Maya”.

**Guadalupe Mastache, Alba, and Robert H. Cobean**

“La arqueología”. *La antropología en México: Panorama histórico: 5. Las disciplinas antropológicas y la mexicanística extranjera*, coordinators Carlos Garcia Mora / Ma. De la luz del Valle Berrocal: 39-82. México, D.F.: Colección Biblioteca del INAH, Instituto Nacional de Antropología e Historia, 1988.

**An unusually thorough review of the development of archaeology in Mexico.** The first two pages provide an essential perspective on the relationship of the archaeology in Mexico to (in translation) “the historical, political, and social reality in the country” (p.39). The authors call attention to the series of laws and regulations, going back as early as 1827, resulting from the political determination to protect the national patrimony, especially the pre-Hispanic, indigenous monuments. This **political and ideological focus** has continued to the present day, determining that (in translation) “archeology [was] tied to the exploration, restoration, and reconstruction of monumental buildings and zones” (p.39). These first two pages note that this political and ideological function of archaeology has evolved through a complex trajectory, resulting from the general development of archaeology and anthropology throughout the world, the creation and growth of Mexican institutions, especially the Instituto Nacional de Antropología e Historia (INAH), and the growth of professionalism and



scientific techniques. The article traces this trajectory through four phases: Antecedents (1840-1880 and 1880-1910), Expansion (ca.1911-1939); Consolidation (ca.1940-1959), and Contemporary (ca. 1960-1987). For each of these phases, **the work of the major explorers, scholars, and other experts is described, with attention to their approaches and major contributions.** Includes an extensive, select bibliography.

**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"

**Guzmán Betencourt, Ignacio**

"Charles Etienne Basseur de Bourbourg". *La antropología en México: Panorama histórico. 9.Los protagonistas (Acosta-Dávila).* 361-365. Ed. Lina Odena Güemes and Carlos García Mora. Mexico City, D.F.: Colección Biblioteca del INAH; Instituto Nacional de Antropología e Historia, 1987.

A brief **review of the life and work of Basseur de Bourbourg (1814-1874).** De Bourbourg first traveled to Mexico in 1848 and in 1851 published his research in *Cartas para servir de introducción a la historia primitiva de las naciones civilizadas de la América septentrional.* **His major contribution was the discovery of Mesoamerican texts and codices, especially the *Popol Vuh*, which he translated and published in 1861.** He also discovered, in the Biblioteca de la Academia de la Historia, Madrid, the *Relación de las Cosas de Yucatán* by Friar Diego de Landa, which he copied **completely, and made public in 1864.** Guzmán Betencourt notes that, because de Bourbourg combined the real and the imaginary and because he worked too fast, his work was often unscientific and defective.

## H

**Hammond, Norman**

*Ancient Maya Civilization.* New Brundwick, NJ: Rutgers University Press, 1982.

**Hammond, Norman**

“Sir Eric Thompson, 1898-1975: A Biographical Sketch and Bibliography”. *Social Process in Maya Prehistory: Studies in Honour of Sir Eric Thompson*, ed. Norman Hammond: 1-17. London: Academic Press, 1977.

A brief, characteristic biography, emphasizing Thompson’s career. Four of the pages are devoted to photographs of Thompson, none at Maya sites, and 8 pages to a valuable bibliography, largely of Thompson’s own publications.

**Handbook of Middle American Indians**

Robert Wauchope and later Jeremy Sabloff, eds. Austin: University of Texas press, 1964-76 and 1981-1992.

**Hanks, William F.**

*Referential Practice: Language and Lived Space among the Maya*. Chicago: University of Chicago Press, 1990.

**Hansen, Eric F.**

*Ancient Maya Burnt-Lime Technology: Cultural Implications of Technological Styles*. Ph.D. thesis, Archaeology, University of California, Los Angeles, 2000.

This 436 page dissertation reports on “the laboratory examination and analysis of samples of ancient Maya burnt-lime products (plasters, stuccoes and mortars), that were carried out in order to identify materials and processing sequences, or ‘technological styles’” (p. 1). The study focuses on “the transition from the Middle Preclassic to the Late Preclassic in the Northern Petén, Guatemala” (p. 4), though it has relevance for all Maya art and architecture. Although recognizing the complex relationship between technology and society, Hansen argues that “**the introduction of burnt-lime in the production of architecture** is one of the more obvious archaeological indicators of increasingly complex sociopolitical organization in Mesoamerica” (p. 2).

**Hansen, Eric F., and Carolina Castellanos**

“Some Considerations for the Reburial of Painted Lime Stucco Facades in the Maya region”. *Conservation and Management of Archaeological Sites* Vol. 9 (2004), 259-274.

An in-depth study of the **possible advantages of reburial of modeled and painted lime-plaster facades, “in conjunction with the construction of exposed replica facades overlying the reburied originals”** (p. 259) as the most effective conservation measure. Two case studies from Belize and one from Guatemala are described. Although emphasizing sites in humid tropical conditions, this study has relevance for all lime-plaster facades.

**Hardoy, J.**

*Urban Planning in Pre-Columbian America*. New York: George Braziller, 1968.

Although the very brief section on “The Mayas” (pp. 25-31, figs. 10-22) does not treat any of the Puuc cities, these few pages provide a brief, introductory survey of some Maya urban design in the context of Pre-Columbian America.

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

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

**Harrison, Peter D.**

“Carlos Vierra: His Role and Influence on the Maya Image”. *The Maya Image in the Western World: A Catalogue to an Exhibition at the University of New Mexico*, ed. Peter Briggs: 21-28. Albuquerque, NM: University of New Mexico Museum of Art and Maxwell Museum of Anthropology, 1987.

[A photograph of the full mural with frame is reproduced on this web site.](http://academic.reed.edu/uxmal/galleries/thumbnails/drawings/Drawings-Vierra.htm)

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

A valuable account of the life of Carlos Vierra (1873-1937), **emphasizing his role as an interpreter of Maya cities in the six large, painted murals**, commissioned for the 1915 Panama-California Exposition in San Diego (murals representing Chichén Itzá, Copan, Palenque, Quiriguá, Tikal, and Uxmal). The author sees these murals as representing a transition between the romantic interpretations of Catherwood’s prints and the scientific illustrations of Proskouriakoff; noting that they are **remarkable for “the high degree of accuracy which they contain relative to the amount of knowledge available at the time”** (p.27). Harrison observes that **Vierra’s interpretations represent these cities not in their heyday nor as they could be seen at the time, but “at a period some time after their abandonment” and “showing some degree of reconstruction”** (p.23). For the panorama of Uxmal, Harrison writes that **“the Temple of the Dwarf, a major architectural feature at the site of Uxmal . . . is significantly omitted in Vierra’s composition”** (p.24); but this is not true. The author must have been looking at a photograph cropped at the right, as reproduced in his article.

**Harrison, Peter D.**

“The Revolution in Ancient Maya Subsistence”. *Vision and Revision in Maya Studies*, ed. Lora S. Clancy and Peter D. Harrison. Albuquerque; University of New Mexico Press, 1990: 99-113.

Based on recent settlement studies, Harrison describes classic Maya cities as composed of “large populations diminishing in density concentrically from the center . . . combined with smaller, dense satellite sites” (p.99). He notes that recognition of the immense size of these populations and the nearly continuous settlement between cities has forced scholars to look for more highly developed means of food production than slash and burn (*milpa*) agriculture and for elaborate systems of water retention and management which would have been necessary to support them.

**Harrison, Peter D., and B. L. Turner**

*Prehispanic Maya Agriculture*. Albuquerque: University of New Mexico Press, 1978.

**Harrison, Peter D., and Flora Clancy, eds.**

*Vision and Revision in Maya Studies*. Albuquerque: University of New Mexico Press, 1990.

**Hartung, Horst**

*Die Zeremonialzentren der Maya: Ein Beitrag zur Untersuchung der Planungsprinzipien*. Graz, Austria: Akademische Druck und Verlagsanstalt, 1971.

A detailed and meticulously organized study of planning principles for Maya ceremonial centers. The author provides an excellent review of previous publications on the subject and describes his own research procedures. His study provides detailed planimetric characteristics of the 4 sites investigated: Piedras Negras, Yaxchilán, Uxmal, and Chichén Itzá, attempting to show the existence of characteristics adhered to in all 4 sites. **Hartung lists 11 planning principles that these 4 sites have in common**, providing an extensive list of these characteristics described for each site. There is a large plan and 34 photographs and diagrams of Uxmal.

**Hartung, Horst and Antony F. Aveni**

“El Palacio del Gobernador en Uxmal: Su trazo, orientación y referencia astronómica”. Escuela de Ciencias Antropologicas de la Universidad de Yucatan, *Boletín*, No.52: 3-11. Mérida: Universidad de Yucatan, 1982.

(ref: Graham 1992, p. 4:81)

Images of the Governor’s Palace, Uxmal, are reproduced on this web site.

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

**Hay, Clarence L., Ralph L. Linton, Samuel K. Lothrop, Harry L. Shapiro, and George C. Vaillant, eds.**

*The Maya and Their Neighbors* [to Alfred Marston Tozzer]. New York: D. Appleton-Century Co., 1940 (a softback edition, titled *The Maya and Their Neighbors: Essays on Middle American Anthropology and Archaeology*, was published by Dover in 1977 and 1989).

**A landmark anthology of 34 chapters by 45 authorities, covering most aspects of Maya scholarship**, plus a few related, non-Maya subjects. Includes a 115-page bibliography.

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

Pollock, H. E. D, “Sources and Methods in the Study of Maya Architecture”.

Smith, A. Ledyard, “The Corbeled Arch in the New World”.

Wauchope, Robert, “Domestic Architecture of the Maya”.

**Hayworth, Bryan C.**

*Time and Maya Architecture: A Study of Temporal Concepts in Architecture at Uxmal*. M.A. thesis, Department of Architecture, University of Miami. Oxford, Ohio: University of Miami, 1990.

### **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 Germany. 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.**

### **Heyden, Doris, and Paul Gendrop**

*Pre-Columbian Architecture of Mesoamerica.* Trans. Judith Stanton. History of World Architecture Series, Pier Luigi Nervi, Gen. ed. New York: Harry N. Abrams, 1975; New York: Rizzoli, 1980 (first pub. in Italian, *Architettura Mesoamerica*, by Electra S.p.A., Milan, 1973).

This book provides a high quality survey of Mesoamerican architecture as a context for architecture of the Puuc region. Most important are the **excellent photos**, including aerial views from Mexicana Aerofoto. Three photos show the Pyramid of the Magician previous to its major 1950s restoration, two in perfect profile – rare and highly informative. The eight pages of text on the Puuc region (pp. 136-154) identify some of the distinguishing features of Puuc architecture, with **sensitive observations regarding the aesthetic character of the buildings: “a cleanness of line, a great clarity in the composition of elements, and a true feeling for balance in the use of varied ornamental motifs. . . concern for the quality of finish . . . both inside and outside, in finely constructed surfaces**, generally made out of thin blocks of stone. . . .” (pp. 143-144).

### **Hinderliter, Edward T.**

*The 1930 World's Fair Expedition to Uxmal, Yucatan, Mexico.* M.A. thesis, Department of Anthropology, Temple University, Philadelphia, 1972.

### **Hissink, Karin**

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

**Hodges, H. W. M., ed.**

*In Situ Archaeological Conservation*. México, D.F.: Instituto Nacional de Antropología e Historia and J Paul Getty Trust, 1987.

**Hodder, Ian**

*Reading the Past: Current Approaches to Interpretation in Archaeology*. Cambridge; Cambridge University Press, 1986.

**Hohmann-Vogrin, Annegrete**

“Unity in Space and Time – The Maya Architecture”. *Maya: Divine Kings of the Rain Forest*: 194-215, ed. Nikolai Grube, assisted by Eva Eggebrecht and Matthias Seidel. Cologne: Könemann, 2001 (1<sup>st</sup> ed., *Maya; Gottkönige in Regenwald*, 2000.

**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.

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

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 20<sup>th</sup> 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.

**Holmes, William Henry**

*Handbook of Aboriginal American Antiquities*. Bureau of American Ethnology.

**Holmes, William Henry**

“Masterpieces of Abogiginal American Art I : Stucco-work”. *Art and Archaeology*, Vol. 1, No. 1 (1914): 1-12.

**Holmes, William Henry**

“La casa del adivino, Uxmal, Yucatán”. *Art and Archaeology*, Vol. 6, No. 1 (1917): 17.

**Honey, Martha**

*Ecotourism and Sustainable Development: Who Owns Paradise? Washington, D.C., 1998*

**Houston, Stephen, ed.**

*Function and Meaning in Classic Maya Architecture: A Symposium at Dumbarton Oaks, 7<sup>th</sup> and 8<sup>th</sup> October 1994*. Washington, D.C.: Dumbarton Oaks Research Library and Collection, 1998.

On the web at:

<http://www.doaks.org/HOFUctn.html>

(accessed 2007 Nov. 27)

This symposium attempted to balance the emphasis of most recent Maya studies by giving “attention to the buildings themselves, rather than simply treating them as media for the investigation of other issues, as valuable as these might be” (Jeffrey Quilter, Preface, p. viii). 12 of the papers are published in this volume plus an introduction and conclusion by Stephen Houston. Because the volume focuses on classic Maya architecture, there are only 2 places in the book that deal directly with Puuc region examples: Johnson and Gonlin, pp. 164-165 continuing on p. 168; and Schele, pp. 480-488 and 501-504. Nevertheless, all of the issues discussed are applicable. Given the scarcity of interdisciplinary books focused on Maya architecture itself, this is an immensely rewarding publication.

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

Miller, Mary. “A Design for Meaning in Maya Architecture”, pp. 187-222.

Schele, Linda. “The Iconography of Maya Architectural Facades during the Late Classic Period”, 479-517.

**Howe, Kathleen Stewart**

“Primordial Stones: Reading Ancient Mesoamerica”. *The New World’s Old World: Photographic Views of Ancient America*, ed. May Castleberry: 32-61. Published on the occasion of an exhibition held at the AXA Gallery, New York, May 8 - July 19, 2003. Albuquerque: University of New Mexico Press, 2003.

The author stresses the variable approaches of different photographs. She devotes 6 ½ pages to the 19<sup>th</sup> century explorer-photographers, with an especially instructive reading of Augustus and Alice Le Plongeon. There are several references to Uxmal. **Howe contextualizes the photographs through discussion of the market and various social and political movements.** She notes that America's ancient stones "serve as a focus for conflicts over race, origins, national identity, spiritual meaning, and indigenous rights" (p. 56). Maler's unique 1891-1893, extremely wide angle albumen silver print of the entire façade of the Governor's Palace, Uxmal, is reproduced in her chapter (fig. 10).

### **Huchim Herrera, José**

"Informe de actividades realizadas en el proyecto de conservación arquitectónica en la Gran Plataforma del Gobernador en Uxmal, Yucatán. Temporada 1986-1987." *Mecanoecrito en el archivo de la sección de Arqueología del Centro Regional de Yucatán, INAH.* Mérida, 1987.

Images of the Great Platform, Uxmal, showing restoration over the years, are reproduced on this web site.

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

### **Huchim Herrera, José Guadalupe**

*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. Facultad de Ciencias Antropológicas, Universidad Autónoma de Yucatán. Mérida, 1991.

Scholars have long recognized that large quantities of water must have been necessary to sustain the population of Uxmal and to construct the city's major architectural complexes. However, as the author notes, the entire pre-Hispanic water systems in the Yucatan had been little studied. Sometimes, in descriptions of Uxmal, the aquadas have even been completely overlooked. Huchim provides **an impressive, in-depth study, based on library and archive research and on-site fieldwork and excavation.** The 163-page thesis consists of an introduction, 5 chapters, conclusions, a bibliography, 29 photographs and diagrams, 4 tables, and a large foldout map of Uxmal locating the aquadas, canals, and their terrain features.

Chapter 1 describes the physical geography of the Yucatan, its geology, climate, vegetation, soils, and hydrology, noting the differences from region to region. As throughout the thesis, previous publications are reviewed as a basis for new research and interpretation.

Chapter 2 **reviews the various hydraulic systems used by the Maya,** distinguishing between natural and artificial systems and calling attention to the many diverse approaches taken. In the Yucatan, Huchim distinguishes 5 zones, based on differences in terrain and depth of the aquifers. Uxmal is located in a zone with low hills and middle-deep aquifers, described in some detail.



Chapter 3 then reviews the historical facts and background information for the aguadas of Uxmal. Beginning with the Books of Chilam Balam, the author provides a thorough review of all early references to aquadas and water systems in the Uxmal area, drawing from them a surprising amount of specific information about their past history and how they were understood at the time. Especially notable is a map of Uxmal after Brasseur de Bourbourg, published in 1867, which includes indications of several aquadas and canals, and, a remarkable description of the complexity of the water system, quoted in chapter 5. The contributions of 20<sup>th</sup> century studies and publications is also reviewed.

Chapter 4 describes the results of fieldwork in the area of the aquadas at Uxmal. This included not only mapping of the location of the aquadas and their surface characteristics and levels, but most notably the stratigraphic excavation of 2 wells in the bed of the largest aguada, *Ch'en Chan Akal*. 12 aquadas are described in detail and Huchim states that these 12 represent 70% of the aquadas in the Uxmal area. The stratigraphic layers of each of the 2 well are described and diagrammed in detail. The techniques used for resistivity soundings and their results are described. Ceramic materials collected are listed in tables with approximate dating.

Chapter 5 provides a detailed description, with elevation diagrams, of the primary aguada, *Ch'en Chan Akal*, and of the tanks, also with diagrams. These tanks were created in the depth of the aguada to provide water after the sun had dried the water in the aguada. There is also a detailed description of the construction methods. Huchim stresses the fact that the water system at Uxmal was highly complex and that those who conceived and designed the hydraulic system and aquadas must have had great engineering knowledge and intimate familiarity with the qualities of different soils and plants in the area.

This dissertation provided a major leap forward in our understanding of Uxmal's complex water system. Clearly, further fieldwork and excavation at Uxmal is justified and comparable studies should be considered for other sites in the Yucatan.

### **Huchim Herrera, José**

*Labná, Yucatán*. México: Instituto Nacional de Antropología e Historia, 1991.

### **Huchim Herrera, José**

“Trabajos de restauracion e investigación en los edificios que integran el Cuadrángulo de los Páraros de Uxmal, Yucatán: temporada de cmpo de 1992”. Reporte preliminar presentado en el Consejo Nacional de Arqueología del Instituto Nacional de Antropología e Historia, Mérida, March 1993.

Images of the Quadrangle of the Birds, showing restoration over the years, are reproduced on this web site.

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

**Huchim Herrera, José**

“Uxmal”. *Atlas de procesos territoriales de Yucatán*: 315. Mérida: Universidad Autónoma de Yucatán (UADY), Facultad de Arquitectura, 1999.

**Huchim Herrera, José, and César Garcia Ayala**

“La arquitectura que denota una ocupación tardía en Uxmal, Yuc.” *Los investigadores de la cultura maya* 8, Vol. 1 (2000): 138 -154.

The authors describe the results of excavations at Uxmal, begun in 1997 and continuing in 2000. Their study focuses on structures in the form of a “C”, concluding that (in translation): “the presence of the structures in the form of a ‘C’ denotes late occupation in Uxmal. . . . They are vestiges of a complex monumental occupation which is found in the important centers of the late classical and which function as markers of the classical terminal transition” (p. 139). Huchim Herrera and Garcia Ayala note that structures in the form of a “C” have been recorded at sites throughout the Maya area. They review previous studies of “C” structures, beginning with Alberto Ruz, who was the first to recognize that they date later than monumental structures at Maya sites, and Gair Tourtellot, who, in his studies in Guatemala, was the first to record them in detail. The authors provide detailed descriptions of their range in form, material, and construction at Uxmal, with 8 diagrams and 2 maps. Most notably, they describe the distribution of “C” structures within Uxmal, noting that the ones within the wall are constructed of material of the finest quality, often using stones from the monumental buildings, in contrast to the structures located outside the walls. From this, they conclude that, despite social-political changes, there was most likely permanence of social stratification in the late classical society at Uxmal.

**Huchim Herrera, José, and César Garcia Ayala**

“Las intervenciones en el adivino de Uxmal, Yucatan”. *Los investigadores de la cultura maya*, Vol. 9 (2001): 174 -182.

Images of the Pyramid of the Magician, showing restoration over the years, are reproduced on this web site.

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

**Huchim Herrera, José, and César Garcia Ayala**

“La restauracion del Edificio del Dios Pajaro de Uxmal, Yucatan”. *Los investigadores de la cultura maya*, Vol. 10 (2002): 208-225.

Images of the Quadrangle of the Birds, showing restoration over the years, are reproduced on this web site.

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

**Huchim Herrera, José, and I. A. Sánchez y Pinto**

“Una Interpretación de Balance Hidrico en el Asentamiento Prehispánico de Uxmal”. Paper presented at the 21<sup>st</sup> Mesa Redonda de al Sociedad Mexicana de Antropología, October 1989. Mérida, 1989.

### **Huchim Herrera, José, and Lourdes Toscano Hernández**

“Algunas anotaciones acerca de los sistemas constructivos de los edificios de Uxmal y Labná”. *Memorias del Tercer Congreso Internacional de Mayistas (9 al 15 de julio 1995)*, 729-739. Mexico [D.F.]: Universidad Nacional Autónoma de México, 1998.

A detailed description and interpretation of new observations of the masonry construction at Uxmal and Labná, based on excavations begun in the 1990s by the Centro INAH Yucatán. The article is divided into 4 sections. The Introduction reviews previous studies of Puuc construction by Pollock, Gendrop, and George Andrews, which however were not based on excavations. The INAH studies aimed to obtain new data from extensive excavations and to revise previous descriptions of the architectural sequence. These were conducted at the Palace and Mirador Group, Labná, and at the Pyramid of the Magician, Quadrangle of the Birds, and Nunnery Quadrangle, Uxmal. Especially studied were the constructive content of the Labná Palace and Quadrangle of the Birds at Uxmal.

In the section on Vaults and Friezes, the authors describe some of the results of their excavation of 18 vaults, 9 with mosaic decoration, some showing evidence of the early Puuc style. Photo 1 and figure 2 show spikes discovered and their positions in the nucleus of vaults in order to increase stability. Photo 2 shows that a layer of stucco was placed over the nucleus of a vault before applying the covering frieze area with mosaic decoration. The section on Foundations describes 2 techniques employed for construction of foundations. The brief section on Walls provides a vertical cross-section of the foundation wall of the East Building of the Nunnery. In the section on Remodeling of the Buildings, the authors describe examples of modifications carried out by the Maya when remodeling their buildings, some simply widening foundations, others requiring dismantling of an entire frieze.

This brief article adds significantly to our understanding of innovative Puuc construction processes. There are 7 photographs and 3 diagrams, especially informative in showing important masonry details described in the text.

### **Huchim Herrera, José, and Lourdes Toscano Hernández**

“El Cuadrángulo de los Pájaros de Uxmal”. *Arqueología Mexicana*, Vol. VII, No. 37 (May-June 1999): 18-23.

Images of the Quadrangle of the Birds, showing restoration over the years, are reproduced on this web site.

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

As a report on the exploration, restoration, and reconstruction of the Quadrangle of the Birds at Uxmal, written by the director of the Uxmal project, jointly with the director of the Yaxuná project, this article is uniquely important. It includes three paragraphs stating the purpose, principles, and methods followed in their work. This must be read by anyone studying the restoration and reconstruction of Uxmal. After a page describing Uxmal, with ground plan of the Quadrangle of the Birds and other near-by structures, the authors devote 4 pages to the 4 buildings that surround the closed patio, forming the Quadrangle. They include 7 photographs and 4 especially clear

diagrams showing the main stages in the construction of these 4 buildings. The authors provide **an exemplary account of the sequence of construction of these buildings**. They conclude that the sequence of development “[in translation] spanned nearly 500 years: it began around 550 A.D. and ended between the years 1000-1100 A.D.” (p.22).

There is relatively little detail regarding individual discoveries and individual restoration choices. However, the authors note that the buildings surrounding the close patio, though closely related, have different characteristics. They call special attention to the unusual façade of the south building, which consists of 13 openings separated by 12 columns, opening into a spacious vaulted portico, which leads to 3 rooms behind. Page 20 includes 5 revealing photographs, showing stages in the exploration and restoration of the north and south buildings. Reproducing these photographs at more reasonable size would allow for more careful looking. The authors note that the diversity of elite materials, from other regions of Mesoamerica, was found in the last stages of construction. **They make the important new claim that** (in translation): “the prestige of the goods found and characteristics of the buildings, such as the restricted access, indicate that **during the last architectural stage the Quadrangle of the Birds was the residence of Chac, last governor of Uxmal**” (p.23).

### **Huchim Herrera, José, and Lourdes Toscano Hernández**

“La región Puuc de Yucatán”. *Arqueología Mexicana*, Vol. 12, No. 70 (2004): 80-87.

Listed as a travel guide, this article provides a brief history of the Puuc region, its physical characteristics including provisions for water, Puuc architecture, and ceramics. There are brief descriptions of Chacmultún, Labná, Xlapak, Sayil, Kabah, Uxmal, and Oxkintok. About 15 illustrations.

In the chronology of the Puuc, **the authors list periods of restoration at Puuc sites during the 20<sup>th</sup> century:**

1900-1950: Restoration carried out by the INAH at Uxmal, Kabah, Sayil, Xlapak and Labná.

1983-1988: The University of New Mexico carried out investigations in Sayil.

1986: The Misión Arqueológica of Spain began a project in Oxkintok.

1990: The INAH began an ambitious program of investigation and restoration at Uxmal, Kabah, Labná, Oxkintok, and Chacmultún.

### **Huchim Herrera, José, Lourdes Toscano Hernández, and Carlos Peraza L.**

“Proyecto Uxmal: reporte de la temporada 1994.” Paper presented at the III Conferencia de Mayista, Chetumal, Quintana Roo, 1995; ms. on deposit at Centro Regional de Yucatán, Instituto Nacional de Antropología e Historia.

### **Hueber, Friedmund**

“Building Research and Anastylosis”. *Preparatory Architectural Investigation in the Restoration of Historical Buildings*, ed. Krista De Jonge and Koen Van Balen: 77-82. Leuven University Press, 2002.

This is one of a series of papers by the author on the subject of anastylosis, which he defines as “rebuilding a building in ruins” (p.79) following the principles laid down in the 1964 Charter of Venice (p.77). The article provides **a thorough review of the advantages and disadvantages of anastylosis**. While calling attention to the necessity of destruction in the process of archaeological excavation, Hueber argues persuasively that “architectural elements should be replaced in a particular position only if it can be proven that this is where and how they originally stood” (p.80). The most original contribution of the article (in the final 2 ½ pages) argues that research must be combined not only with excavation but also with the rebuilding process. **Hueber demonstrated the various ways in which new information and ideas occur at every stage of the entire process.**

### **Hunt, Patrick N.**

“Maya and Olmec Stone Weathering Contexts: Limestone and Basalt Contrasts”. *Seventh Palenque Round Table, 1989*. Virginia M. Fields, vol. ed.: Merle Greene Robertson, gen. ed. San Francisco: Pre-Columbian Art Research Institute, 1994: 261-267.

In contrast to well-preserved Olmec basalt sculpture, the surfaces of Maya limestone architecture and sculpture have decayed seriously. The author points out that this decay is caused by a combination of factors: the tropical climate of Mesoamerica, high solubility and relative softness of limestone, algal or fungal growth on limestone surfaces, and industrial pollution. Hunt calls for immediate attention to this problem and notes the various approaches being tried in Europe for similar problems with world-famous structures.

### **Hyman, David**

*Pre-Columbian Cements*. Master’s Thesis. Baltimore: Johns Hopkins University, 1970.

## I

### **ICOMOS International Committee on Archaeological Heritage Management / Comité international de gestion du patrimoine archéologique de l’ICOMOS**

*Archaeological Remains, in Situ Preservation / Vestiges archéologiques, La conservation in situ*. Proceedings of the Second ICAHM International Conference, Montreal, 11-15 October 1994. Ottawa: ICAHM, 1994.

### ***In Situ Archaeological Conservation: Proceedings of meetings April 6-13, 1986, Mexico.***

Miquel Angel Corzo, Conference Coordinator; Henry W.M. Hodges, Senior Editor. Mexico: Instituto Nacional de Antropología e Historia de Mexico; and The Getty Conservation Institute, Los Angeles, California, 1987.

A first-rate collection of case studies and historical studies covering a wide-range of problem types. The conference was organized to bring conservators and archaeologists together to address a pervasive problem. In his foreword, Brian V. Arthur writes: "if one looks at a sampling of excavations around the world, one may conclude that many archaeologists have never heard of conservation. It is also true that many artifact conservators, for their part, have taken very little interest in archaeology or in the conservation problems that face archaeologists on site", and that "Excavation without conservation is, indeed, destructive and is morally unacceptable" (pp.2-3). There is a review of the conference by Henry W.M. Hodges (pp. 4-10); and a review of the 1985 Ghent conference on "Preventive measures during excavation and site protection," by N.P. Stanley Price (pp. 11-19). Although the Puuc region is not discussed in these papers, chapter III is devoted to highly relevant case studies in Mexico, joining practical experience with theoretical considerations. In addition, there is an informative, practical paper by Luciano Cedillo Alvarez on "Stucco: A Report on the Methodology Developed in Mexico" (pp. 90-97), which is separately listed and annotated in this web bibliography.

### **Instituto Nacional de Antropología e Historia (INAH)**

"La conservación de monumenos arqueológicos". *Boletín del Instituto Nacional de Antropología e Historia* (ep. 2) Vol. 10 (1974): 51-54.

### **"International Meeting on Maya Sites"**

*GCI Newsletter*, Vol. 12, No. 3 (Fall 1997).

On the web at:

[http://www.getty.edu/conservation/publications/newsletters/12\\_3/gcinews3.html](http://www.getty.edu/conservation/publications/newsletters/12_3/gcinews3.html)

(accessed 2007 May 26)

### **Isphording, Wayne C.**

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

## J

### **Jameson, John H. Jr., ed.**

*The Reconstructed Past: Reconstructions in the Public Interpretation of Archaeology and History*. Walnut Creek, California: Altamire Press, 2004.

An anthology of seventeen papers, presenting levelheaded descriptions of the bases for reconstruction and interpretation at a wide range of archaeological sites. Although most examples are drawn from North America and no Maya sites are discussed, many of the ideas and chapters on such topics as the value of reconstruction and virtual reconstructions are relevant to all archaeological sites. The author's detailed descriptions of their experiences at individual sites joined with their reflections on the bases for decisions are highly informative and provide a useful basis for discussion and debate.

**Jean, Bernard**

“Un moment et un style de la civilization Maya: le Puuc”. *L'Archéologue*, Archéologie nouvelle, Vol. 69 (2004): 39-43.

**Joyce, Thomas A.**

*Mexican Archaeology: An introduction to the Archaeology of the Mexican and Maya Civilizations of Spanish America*. London: Philip Lee Warner, 1914 (2<sup>nd</sup> ed. 1920).

**Julien, Henri**

“Criterios de Restauración de Monumentos”. Conferencias del curso de maestría en Restauración. Escuela Nacional de Arquitectura, Edic. Mimeográfica. México, 1966.

## K

**Kelemen, Pál**

*Medieval American Art: A Survey in Two Volumes*. 2 vols. New York: MacMillan, 1944.

This was a landmark publication at its time, the first major publication to treat a wide range of Pre-Columbian art critically, the result of ten intense years travel throughout the Americas and of research in public and private collections in the United States, Europe, Mexico, Guatemala, and elsewhere. The author writes that “this survey is planned to introduce to the reader generally interested in art those achievements of the pre-Columbian civilization which demand attention for their beauty and power irrespective of dates and styles” (p. viii). Although a limited description of what the book accomplishes, Kelemen here calls attention to an essential dimension of Maya art and architecture, which he claims often missing in academic study. Thus, the main sections of his book are first organized not by location or date but by artistic media: architecture, sculpture, pottery, weaving, metal-work, jade and other semiprecious stones, murals and manuscripts, and miscellaneous applied arts.

The 306 plates of some 900 gray-scale photographs, which constitute volume 2, are as major a contribution as the text. They provide a comprehensive survey of pre-Hispanic art of the Americas and record the condition of many buildings in the first half of the 20th century. Many were taken by the author and his wife, others under his supervision, always aiming to convey the artistic quality of the works photographed. Thus, some of the photographs capture the form and detail of three-dimensional objects more successfully than even more recent publications. For example, the photograph of the stucco head from Uxmal (plate 86c) is impressively revealing. It accompanies the most informative description of the object I have read: “Even more individuality is apparent in *fig. c*, from Uxmal, Yucatan. A fortunate preservation of some of its coloring gives us a clearer idea of the original appearance. Here we have an example of one way in which eyes were painted in pre-Columbian America: it was done by giving a light color to the eyeball, a strongly contrasting dark to the iris, and

even adding a dot in the center to suggest the gleam of the pupil. The slight cast, plainly depicted, was to the Maya a mark of beauty. The painted rings recall the Copan head of the preceding plate. The face may have emerged from a monster jaw – the fragmentary remnants around it, especially under the chin, would suggest some such frame. Drawn with proportioned clean-cut line, the artistocratically closed lips give a severe and uncommunicative expression. Baffling plastic details are visible above the nose and upper lip. But the longer we gaze at this face, the more we glimpse of the life which lies today shattered and in chips” (p.137).

[A color photograph of this and a similar stucco head are reproduced on this web site. http://academic.reed.edu/uxmal/galleries/thumbnails/uxmal/uxmal-govpalace.htm](http://academic.reed.edu/uxmal/galleries/thumbnails/uxmal/uxmal-govpalace.htm)

Both photograph and description exemplify the continuing value of this 1944 publication. There are ten pages describing a few of the major buildings at Uxmal, Kabah, Sayil, and Labná, with fifteen accompanying photographs. There is an extensive bibliography and catalogue of illustrations, with measurements for most objects, even where these are by necessity only estimates.

### **Kelemen, Pál and Elizabeth**

*The Kelemen Journals: Incidents of Discovery of Art in the Americas, 1932-1964.* Ed. Judith Hancock Sandoval. San Diego, California: Sunbelt Publications, 2005.

An account of the authors' travels throughout the Americas, studying Maya, pre-Hispanic, and colonial art. Includes impressive photographs, mostly by Elizabeth Kelemen. Pages 15-16 recount the authors' 1933 visit to Uxmal, describing, exceptionally for the time, ways in which “the immense buildings at Uxmal were constructed with a superb feeling for drama”. They note that “the region had a chain of artificial lakes built for ancient Uxmal” and that “unfortunately, little had been done except to clear the ruins and stabilize them to prevent further collapse”. This book includes a highly informative forward by Mary Miller, describing the development of Pre-Columbian art history and the landmark roll of Pál Kelemen's two-volume 1943 publication, *Medieval American Art*.

### **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.



### **Kelly, Joyce**

*The Complete Visitor's Guide to Mesoamerican Ruins*. Photographs by Jerry Kelly and by Joyce Kelly. Drawings and maps by Joyce Kelly. Norman, Oklahoma: University of Oklahoma Press, 1982.

An impressively extensive guidebook, describing 119 sites and 41 museums in Mexico, Guatemala, Belize, Honduras, and El Salvador. **This volume served as the basis for Kelly's later paperback guides to individual areas**, which are basically the same as the corresponding sections of this book, but slightly more up-to-date. There are slightly fewer photographs in this publication, but they are larger and more clearly printed than in the later paperbacks.

Kelly's 1993 *Archaeological Guide to Mexico's Yucatán Peninsula* is separately listed and annotated in this web bibliography.

### **Kendall, Aubyn**

*The Art of Pre-Columbian Mexico: An Annotated Bibliography of Works in English*. Institute of Latin American Studies. Austin: University of Texas, 1973.

A 115 page bibliography, limited to publications in English and now dated, but because of the brief annotations useful.

### **Kidder, A. V.**

"The Maya of Middle America: Part I – The Archaeological Problem". *Carnegie Institution of Washington: News Service Bulletin, School edition*. Vol. 2, No. 17. Washington, D.C.: Carnegie Institution of Washington, 1931.

The author provides **a remarkably revealing statement of a leading conservation approach of the early 20<sup>th</sup> century**. Kidder uses as an example the principles followed at Chichen Itzá, supervised by S. G. Morley, from 1914-1930. The author writes: "Both the Mexican government and Carnegie Institution have appreciated from the beginning the necessity . . . for leaving all cleared structures in shape to resist further deterioration. . . . [this has} involved much strengthening and repair of structures in imminent danger of collapse and the replacement of fallen elements which, if left scattered on the ground, would be meaningless and would also be exposed to eventual deterioration (p. 121).

Of special note, the author writes: "It has been desired that **when cleared all buildings should be both understandable and beautiful**. Comprehension of an ancient structure demands knowledge of its relation to others, of the methods employed in its erection, of alterations made during its occupancy, and of the factors responsible for the condition in which it was found excavated."

"the mere uncovering of an architectural unit will therefore not suffice. Openings must be left to expose earlier remains: sometimes as in the case of the Temple of the Warriors, large parts of deeply buried pre-existing buildings must be kept intact and rendered accessible. There should be opportunity to examine the interior, even of

solid construction, to make plain the methods of the ancient mason. Careful planning permits details of wall and column, vault and roof to be easily seen and studied. And, as at the Caracol, where a section of a great fallen cornice has been held in the exact position of its devastating collapse, there may vividly be illustrated the tremendous forces of destruction.”

“subjective values must not be overlooked. Beauty, in detail and in mass, must be striven for. Unintelligent restoration, no matter how accurate, destroys beauty and so robs ancient structures of their most important psychological effect (pp. 121-122).

**Killion, Thomas W., Jeremy A. Sabloff, Gair Tourtellot, and Nicholas P. Dunning.**

“Surface Assemblages at Terminal Classic (A.D. 800-1000) Sayil, Puuc Region, Yucatán, México”. *Journal of Field Archaeology*, Vol. 16, No. 3 (1989): 273-294.

**Klein, Kathryn**

*Collections, Cultural Contexts, and Conservation: Collaborative Methods for the Conservation of the Cultural Heritage of the Maya People of Highland Chiapas, Mexico*. M.A. Thesis, University of New Mexico. Albuquerque, University of New Mexico, 1994.

This 108-page typescript is based primarily on the personal experiences of the author in working at a Maya-weaving cooperative in San Cristóbal de las Cases, Chiapas. More broadly, Klein stresses “the complex issues surrounding the conservation of anthropological collections of living people” (p. vi).

**Konieczna, Barbara and Pablo Mayer Guala**

“Uxmal, Yucatán. Informe de la Temporada 1973-1974”. *Investigaciones Arqueológicas en el surest, Cuadernos de los Centros Regionales*, No. 27: 1-18. Mexico, D.F.: Instituto Nacional de Antropología e Historia, 1976.

**Kowalski, Jeffrey Karl**

“The Ballcourt at Uxmal, Yucatán, Mexico: A Summary of Its Chronological Placement and Mythic Significance”. *The Mesoamerican Ballgame: Papers Presented at the International Colloquium, The Mesoamerican Ballgame 2000 BC-AS 2000, Leiden, June 30<sup>th</sup>-July 3<sup>rd</sup>, 1988* : 81-90. Ed. Gerard W. van Bussel, Paul L. F. van Dongen, and Ted J. J. Leyenaar. Leiden, The Netherlands: Rijksmuseum voor Volkenkunde, 1991. Leiden, The Netherlands: Rijksmuseum voor Volkenkunde, 1991.

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

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

**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*

*arqueologia 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**

*Guide to Uxmal and the Puuc Region: Kabah, Sayil, and Labná.* Mérida: Editorial Dante (Spanish ed. 1990).

**Kowalski, Jeffrey Karl**

“An Historical Interpretation of the Inscriptions at Uxmal”. *Fourth Palenque Round Table*, held at Chiapas, Mexico, 1980. Vol. 6, ed. Elizabeth P. Benson. Gen ed. Merle Greene Robertson. San Francisco: Pre-Columbian Art Research Institute, 1985: 235-248.

On the web at:

<http://www.mesoweb.com/pari/publications/RT06/Uxmal.pdf>

and

<http://216.239.57.104/search?q=cache:RvDdUdMCHCMJ:www.mesoweb.com/pari/publications/RT06/Uxmal.pdf+historical+interpretation+of+the+inscriptions+of+Uxmal&hl=en>

(accessed 2006 Dec. 14)

This is **the most detailed examination of the hieroglyphic inscriptions at Uxmal**. For those unfamiliar with the reading of Maya glyphs, this article provides **an example of the careful reasoning involved, building probable new readings on the evidence of glyphs at other sites and patterns of use**. Kowalski presents the evidence for interpreting the images on Stela 14 at Uxmal as a portrait of Lord Chaac and for his name on a capstone of the East Building, the Nunnery, and on the ballcourt rings, at Uxmal, and possibly on the low hieroglyphic platform in front of the Codz Poop at Kabah. He notes also that several of the glyphs on this low platform must represent noble women. **Based on the Nunnery capstone, he places the reign of Lord Chaac at about A.D. 906.**

**Kowalski, Jeffrey Karl**

*The House of the Governor: A Maya Palace at Uxmal, Yucatán, México.* Norman: University of Oklahoma Press, 1987.

[Images of the Governor's Palace, Uxmal, are reproduced on this web site.](http://academic.reed.edu/uxmal/galleries/thumbnails/uxmal/uxmal-govpalace.htm)

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

This is **a masterpiece of scholarship**, providing detailed description of a single, remarkable building, its interpretive meaning, and full historical context for many aspects of the building and sculpture. In his introduction, Kowalski makes clear the multifaceted aim of his study. **“In this book I portray the House of the Governor in its richness and complexity of meaning – as a monument in which material, cultural, spiritual, and aesthetic aspects are inextricably interrelated”** (p.4). Although focused on a single building, this book is altogether the single most information publication on Uxmal. The material is presented in three sections: “History and Function,” “Architecture,” and “Architectural Sculpture.” In addition, there is an epilogue providing political context for Uxmal’s architectural forms and their relation to Maya architecture elsewhere. This is followed by an appendix with a unique “Summary of Mexican Archaeological Activities and Reconstruction at Uxmal and the House of the Governor,” providing a chronology of research and restoration at Uxmal with invaluable details.

Among the major, individual findings, **Kowalski was able to identify the ruler of Uxmal, Lord Chac, through study of the hieroglyphic inscriptions.** All dates referring to Lord Chac fall within the first decade of the tenth century, when both the Nunnery Quadrangle and House of the Governor were built.

There are 28 pages of endnotes, many annotated, and an 18-page bibliography. Of the 199 illustrations (all grey-scale but unusually clear) about half are of the Governor's Palace. Following standard practice, these are unfortunately not dated, and only a few dates for the photos are provided in the text. However, these make available the most comprehensive body of details previous to this web site, and many of the photographs could only have been taken by someone intimately familiar with the subject, recording specific types of information. Profile and elevation diagrams reveal information and ideas not available elsewhere. Descriptions of the Governor's Palace itself include an extraordinary chapter on its construction, possible only because of Kowalski's detailed on-site study of the fabric - undertaken initially during his 1976-1977 year of residence - and carefully reasoned conclusions drawn from it. Although Roys' 1934 publication is more comprehensive, treating the entire Maya region and all aspect of structure, **Kowalski's description of Puuc region construction is more detailed and up-to-date in laying out the sequence of construction and answering many questions one might have on site.** In many ways, this web site is heavily dependent on Kowalski's masterful book.

### **Kowalski, Jeffrey Karl**

"Lords of the Northern Maya: Dynastic History in the Inscriptions of Uxmal and Chichén Itzá". *Expedition*, Vol. 27, No. 3 (Special issue on the Discovery of Maya History): 50-60. Philadelphia: University Museum, University of Pennsylvania Press, 1985.

### **Kowalski, Jeff K.**

"Los Mascarones de Tláloc del Cuadrángulo de las Monjas, Uxmal: Formas Teotihuacanas Como Símbolos 'Toltecas'". *Memorias del Primer Congreso Internacional de Mayistas*, Vol. 3: 104-132. México: Universidad Nacional Autónoma de México, 1994.

**An in-depth study of the sculptural masks representing Tláloc on the buildings of the Nunnery Quadrangle, Uxmal.** These are examined in the context of other images of Tláloc on the Pyramid of the Magician, Uxmal, at Teotihuacan, Tikal, Xcalumkin, and elsewhere. Kowalski first provides a comprehensive review of previous interpretations of these images. He concludes that (in translation) "The evidence presented above suggests that the masks of Tláloc on the north building of the Nunnery Quadrangle are polyvalent and can be interpreted in various ways simultaneously. They were probably recognized as goddesses of the storm. In a more limited sense, they were probably emblematic of the art of war and of sacrifices and publicized the military successes of the rulers of Uxmal" (p.116). Kowalski relates the Tláloc reliefs at Uxmal to various realistically sculpted figures on the façades of the same buildings, including tied captives and figures armored for battle. He presents examples showing that the Tláloc masks at Uxmal have foreign connotations but were used to differentiate the lineage of the Uxmal elite from that of foreigners. Kowalski notes that the Xiu founders of Uxmal were intruders who rose to power rapidly at the end of the 8<sup>th</sup> century A.D.,

and that, like other classic and terminal classic governing families, they borrowed symbols from various predecessors and contemporaries in order to validate their claim to power. Thus, images of Tláloc on the Nunnery buildings are seen as Toltec symbols validating their Toltec ancestry.

**Kowalski, Jeff Karl, ed.**

*Mesoamerican Architecture as a Cultural Symbol*. New York, Oxford: Oxford University Press, 1999.

An important publication on Pre-Columbian “architecture as a social enterprise and as a carrier of cultural meaning” (p. 4). Includes **fifteen articles by twenty authorities on the architecture of some fourteen Mesoamerican centers**.

For the Puuc region, the following article is separately listed and annotated in the web bibliography:

Kowalski, Jeff Karl and Nicholas P. Dunning, “The Architecture of Uxmal: the Symbolics of Statemaking at a Puuc Maya Regional Center”: 274-297.

**Kowalski, Jeff Karl**

“Painted Architecture in the Northern Maya Area”. *Painted Architecture and Polychrome Monumental Sculpture in Mesoamerica. A Symposium at Dumbarton Oaks, 10<sup>th</sup> to 11<sup>th</sup> 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, Jeffrey Karl**

“A Preliminary Report on the 1988 Field Season at the Nunnery Quadrangle, Uxmal, Yucatán, México”. *Mexicon* (1990), Berlin. Vol.12: 27-33.

**Kowalski, Jeff Karl**

“The Puuc as seen from Uxmal”. *Hidden among the Hills: Maya Archaeology of the Northwest Yucatan Peninsula; Acta Mesoamericana*, Vol. 7, ed. Hanns J. Prem: 93-120. First Maler Symposium, Bonn, 1990. Möckmühl, Germany: Verlag von Flemming, 1994 (2<sup>nd</sup> ed. 1999).

In this essay, Kowalski describes the cosmological meaning of the Nunnery Quadrangle at Uxmal and the political role of Uxmal in the Puuc region and Northern Yucatan. He concludes that **the design of the Nunnery and its symbolic figures “represents a conscious decision on the part of the architect and royal patron to create an architectural complex that embodied the Maya universe in stone, and which would serve as a theatre for rituals providing divine sanction for the king of Uxmal”** (p. 97). With meticulous references to the range of previous scholarship, he describes the symbolism of the overall design of the Nunnery and its sculpture. Kowalski considers that this interpretation of the Nunnery Quadrangle supports the idea that the ruler of Uxmal, Lord Chac, was sending an ideological message that Uxmal was “the primate religious and political capital for the Puuc region” (p. 95).

The small, gray-scale illustrations are adequate for the drawings and diagrams reproduced, though not for many of the photographs.

**Kowalski, Jeff Karl**

“The Relationship between Chichen Itzá, Uxmal, and the Puuc Area”. Paper given at the 47<sup>th</sup> 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 47<sup>th</sup> International Congress of Americanists*, compiled E. Wyllys Andrews V and Elizabeth Oster Mozillo; New Orleans: Tulane University, Publication 63 (1994): 66.

**Kowalski, Jeffrey Karl**

“Some Comments on Uxmal Inscriptions: A Reference to a Historical Figure and a Probable Tun-Ahau Date”. *Mexicon*, Vol. 8, No. 5 (1985): 93-95.

**Kowalski, Jeffrey Karl**

“Sylvanus G. Morley, Uxmal y los Xiu”. *Coloquio en tomo a la obra de un mayista (Sylvanus G. Morley 1883-1984)*. Ed. Alfredo Barrera Rubio: 29-32. Mérida: Universidad Autónoma de Yucatán, 1992.

**Kowalski, Jeffrey Karl**

“Uxmal”. *The Oxford Encyclopedia of Mesoamerican Cultures: The Civilizations of Mexico and Central America*. Vol. 1, ed. David Carrasco: 299-303. 3 vols. Oxford University Press, 2001.

Authoritative survey of Uxmal, noting that “the settlement-pattern data indicate that Uxmal became the capital of a regional state – one which coalesced in the eastern Puuc region during the reign of the ruler “Lord Chac” (p. 301). In support of this idea, Kowalski writes that the “quadripartite ‘world-directional’ plan and architectural sculpture program [of the Nunnery Quadrangle] embody fundamental Maya cosmological concepts, to convey the idea that Uxmal identified itself as the principal religious center and political capital of the eastern Puuc region” (pp. 301-302). Kowalski describes the character of the distinctive Puuc architectural style and of the most important buildings at Uxmal. There is a good basic bibliography. See Kowalski’s much longer 1999 article with Nicholas Dunning, “The Architecture of Uxmal: the Symbolics of State-making at a Puuc Maya Regional Capital,” for a more in-depth account.

### **Kowalski, Jeffrey Karl**

“Uxmal: A Terminal Classic Maya Capita in Northern Yucatan”. *City States of the Maya: Art and Architecture*. Comp. Elizabeth P. Benson. A conference organized by the Rocky Mountain Institute for Pre-Columbian Studies, held at the Denver Museum of Natural History, January 1986: 138-171. Denver: Rocky Mountain Institute for Pre-Columbian Studies, 1986.

An especially informative, clearly written example of the author’s several excellent summaries of Uxmal. Kowalski interrelates “Uxmal’s architectural development, epigraphy, iconography, and cultural history” (p.140). Recognition of the aesthetic basis for aspects of Puuc design is noted in his observation: “the transverse vaults of the House of the Governor were planned to accentuate the tripartite division of the façade by their striking contours and deep shadows, emphasizing an aesthetic-compositional role over their function as passageways” (p.153). At the same time, he notes that “most designs applied to Puuc buildings were not purely decorative, but carried important religious and cultural meanings” (p. 141). **It is refreshing to see that he does not accept technical evidence at face value.** About the surprisingly early radiocarbon date for the lintel from the lower west temple of the Pyramid of the Magician, Kowalski writes: “the wood sample may have been obtained from the inside rather than the outside of the tree from which the dated lintel was carved, which would produce an artificially early date” (p. 147). Bravo! It is too seldom emphasized that all technical data requires interpretation.

### **Kowalski, Jeffrey Karl**

“Uxmal and the Puuc Zone: Monumental Architecture, Sculptured Facades and Political Power in the Terminal Classic Period”. Peter Schmidt, Mercedes de la Garzia, and Enrique Nalda, eds., *Maya*, New York: Rizzoli, 1998 (identical to *Maya Civilization*, London: Thames and Hudson; and to *Los Mayas*, Milan: Conaculta; Instituto Nacional de Antropología e Historia; all 1998): all 401-425.

**One of the clearest and most informed brief reviews of Puuc architecture and society, balanced and up-to-date.** There are sixteen Puuc region photographs within his essay and seven in other sections of this large volume. A number of these are exception two page spreads, one **a remarkable four-page foldout of the Uxmal Nunnery, which, by surrounding the viewer, manages to convey a sense of the enveloping courtyard.**



Equally rare are three different views of the Queen of Uxmal sculpture, allowing one to compare sides and to see the nearly uniform width of the piece. (On page 416, the photo of the better preserved and restored left half of the Great Palace, Sayil, has been mistakenly reversed right-left, so that it appears to be the right half.)

**Kowalski, Jeffrey Karl**

“Uxmal como un ciudad real-ritual: el asenso y descenso de un estado segmentario en la region este de la zona Puuc”. *Modelos de entidades politicos mayas; Primero Seminario de la Mesa Redonda de Palenque, Palenque, Chiapas, Mexico. Sept. 29-Oct. 1, 1994*, ed. Silvia Trejo: 161-182. Mexico, D.F.: Instituto Nacional de Antropologia e Historia, 1994.

**Kowalski, Jeffrey Karl**

“Uxmal y la zona Puuc: arquitectura monumental, fachadas esculpidas y poder politico en el periodo Clásico terminal”. *Los Mayas*, ed. Peter Schmidt, M. de la Garza, and E. Nalda: 401-425. Milan: Conaculta: Instituto Nacional de Antropologia e Historia, 1999.

**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.

**Kowalski, Jeff Karl, and Nicholas Dunning.**

“The Architecture of Uxmal: the Symbolics of Statemaking at a Puuc Maya Regional Capital”. *Mesoamerican Architecture as a Cultural Symbol*, ed. Jeff Karl Kowalski. Oxford: Oxford University Press, 1999: 274-297.

This up-to-date chapter presents the evidence for the view that “Uxmal was the dominant site in the eastern Puuc district during the late Terminal Classic period and that it became the capital of a regional state which coalesced during the late ninth and early tenth centuries” (p.275). In support of this conclusion, the authors examine the archaeological evidence for the relationship of Uxmal to other Puuc cites and to Chichen Itzá. Much of the chapter is devoted to the symbolism of the architecture, including the various axes and directional lines that “embody traditional Maya cosmological concepts” (p.286).

**Kowalski, Jeff Karl, and Ruth Krochock**

“Puuc Hieroglyphs and History: A Review of Current Data”. Paper presented at the Symposium on Maya Hieroglyphic Writing at the 86<sup>th</sup> Annual Meeting of the American Anthropological Society, November 1987, Chicago.

**Kowalski, Jeffrey Karl, Rhonda B. Silverstein, and Mya Follansbee**

“Seats of Power and Cycles of Creation: Continuities and Changes in Iconography and Political Organization at Dzibilchaltun, Uxmal, Chichen Itza and Mayapan. *Estudios de cultura Maya*, Vol. 22: 87-111.

**Kowalski, Jeffrey Karl, Alfredo Barrera Rubio, Herber Ojeda Más, and Huchim Herrera, José**

“Archaeological Excavations of a Round Temple at Uxmal: Summary Discussion and Implications for Northern Maya Culture History”. *Eighth Palenque Round Table, 1993*, Vol. X, ed. Martha J. Macri and Jan McHargue: 281-296. M. G. Robertson, gen. ed. San Francisco: Pre-Columbian Art Research Institute, 1993.

On the web at:

[http://www.mesoweb.com/pari/publications/RT10/28\\_RoundTemple.html](http://www.mesoweb.com/pari/publications/RT10/28_RoundTemple.html)

(accessed 29 Jan. 2007)

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

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

A model report, **describing in detail (with 4 diagrams and 8 photographs) the results of the 1992 excavation and consolidation of a round structure at Uxmal.** The structure had been discovered in 1988 and briefly published in 1990, **the first circular building discovered at a Puuc site.** The authors relate the round structure at Uxmal to those at other Maya sites and offer reasons for possible datings of the Uxmal structure and what it suggests about the relationship between Uxmal and Chichen Itza. In the process of excavation, a small, north-south oriented ballcourt was discovered just in front of the round structure.

**Kramer, Gerhardt**

“Roof Combs in the Maya Area.” *Maya Research*, Vol. 2 (1935): 106-118.

**Kubler, George**

*Art and Architecture of Ancient America*. Harmondsworth & Baltimore: Pelican Books, 3<sup>rd</sup> ed. 1984 (1<sup>st</sup> ed. 1964; the 1990 reprint of the 3<sup>rd</sup> ed. includes additional bibliography).

The first edition of this book was a pioneering study, not only focusing on the objects of Pre-Columbian art and architecture, but also giving attention to their aesthetic aspects. Kubler notes that most study of Pre-Columbian culture has been conducted by anthropologists, who have had a “restrictive view of the cultural place of artistic activity” (p.37). Instead he writes “I have written about ‘cultures’ only when such topics were required to illuminate the objects, which are after all the principal proof of the ‘culture’s existence” (p.27). It is difficult to find in other publications a statement such as “Uxmal is . . . the least typical [of all Maya cities], having, like most masterpieces, transcendent properties and qualities . . .” (p. 236). Much of the book is comparable to more recent archaeological literature, but even now it is rare to read a sentence such as this: “In the Nunnery, the arch is like a raw wound in the façade, incompletely thought out either as an entrance or as a break in the block” (p. 243). Whether or not

we share this particular response, attention to the dynamic form of the architecture at Uxmal is necessary to understand what is distinctive about that people's view of their world.

### **Kubler, George**

"The Design of Space in Maya Architecture." *Miscellánea Paul Rivet*: octogenario dicata: 515-531. México, D.F.: Universidad Nacional Autónoma de México, D.F., 1961. Republished in *Studies in Ancient American and European Art*, listed and annotated below.

### **Kubler, George**

"The Design of Space in Maya Architecture". *Studies in Ancient American and European Art: The Collected Essays of George Kubler*, ed. Thomas Reese. New Haven: Yale University Press, 1985: 242-250.

A rare article in which Kubler describes the architectural form of ten forms prominent in ancient Maya architecture: roads, pyramidal platforms, precincts, geomantic groups, ball-game courts, buildings, open-cornered enclosures, closed-corner enclosures, multiple-storied buildings, and columnar spaces. Several examples at Uxmal are referred to. Kubler suggests a chronology of architectural development based on these different types of architectural space. Most telling, he calls attention to distinctive aspects of Maya architecture by contrasting it with European architecture. His final paragraph concludes (this brief summary is necessarily weak in comparison to the rich examples): "the principal formal aspects of Maya architecture concern the dominance of masses over the enclosed rooms, in a system of poorly differentiated functional building types, organized by striking differences of level and height, and deliberately composed in respect to the spatial environment generated between or among edifices" (p.249).

### **Kubler, George**

*Esthetic Recognition of Ancient Amerindian Art*. New Haven: Yale University Press, 1991.

Although Kabah and Sayil are not mentioned and Uxmal and Labná appear on only one page, this book provides essential context for understanding early explorations, drawings, photographs, prints, and publications of these four sites. The main body of the text consists of brief accounts of some seventy persons, from Christopher Columbus (1451-1506) to Wendell Clark Bennett (1905-1953), organized chronologically. These include Brasseur, Charnay, Holmes, Stephens, Spinden, Prokouriakoff, Seler, and Morley, whose work and ideas are essential to understanding these four Puuc cities as they have deteriorated and been restored and as we experience them today. As specified in the title, Kubler's primary concern is to trace changing attitudes in the ways in which ancient American objects have been viewed esthetically. Since the esthetic character of Maya art and architecture is more difficult to describe than such things as construction or the reading of hieroglyphics, and since it is has not generally been considered an essential component of archaeology or sometimes even of anthropology, Kubler's contribution is especially revealing.

**Kubler, George**

*Studies in Classic Maya Iconography*. Memoirs of the Connecticut Academy of Arts and Sciences, Vol. 18 (Sept. 1969). New Haven: Connecticut Academy of Arts & Sciences, 1969.

An inventory and interpretation of symbols in imagery at Classic Maya sites, including Yaxchilán, Bonampak, Naranjo, Quiriguá, Palenque, Uaxactun, Piedras Negras, Tikal, and Copán. Kubler writes that “the main purpose of this study is to analyze and group a number of commemorative and ritual scenes” (p.4). He first reviews previous, related studies, calling attention to the difficulty of interpreting the imagery in relation to text, which was only beginning to be deciphered. He discusses the underlying principles of such interpretations; then divides his study between “Commemorative images of dynastic ceremonies concerning historical personages” and “Ritual images concerning supernatural and mythical beings”. The images described are reproduced in 99 photographs and diagrams.

**Kurjack, Edward B.**

“Distribution of pre-Columbian architecture in North-western Yucatan, Mexico.” Paper presented at the 41<sup>st</sup> 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 (2<sup>nd</sup> ed. 1999).

Drawing on widely recognized anthropological principles of correlations 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 41<sup>st</sup> 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 J. Lucas**

“Archaeological Settlement Patterns and Modern Geography in the Puuc Hill Country of Yucatan”. *The Puuc: New Perspectives: Papers Presented at the Puuc Symposium, Central College, May, 1977*, ed. Lawrence Mills: 36-45. Scholarly Studies in the Liberal Arts, No. 1. Pella, Iowa: Central College, 1979.

Like other participants in the 1977 symposium at which this paper was given, these authors note that “many books and articles describe architectural gems at the cores of hill country sites, but few studies of more mundane house ruins have been carried out . . . . Little is known of pre-Columbian community layout or regional organization; analyses of political structure firmly rooted in archaeological data have yet to be formulated” (p. 36).

Their paper was **one of the first to review what was known of the human ecology in the Puuc region**. The authors first describe the environmental setting in the Puuc region; then describe the features of pre-Columbian settlement patterns; and finally the extent of the major sites and Maya roads.

In **describing the geography of the hill country**, the authors emphasize that the land south of the Puuc ridge is made up of two zones with different agricultural qualities. In describing the natural setting of the archaeological sites, the authors note that Puuc cities are situated near the most fertile farmland and that major buildings are scattered over the entire region. In describing ancient communities and territorial organization, they note that Kabah and Uxmal may have been equally important, equally large with different but comparably major buildings. They suggest that the sacbés between structures within Puuc cities may have served as the model for sacbés between sites. The approximately equal size of some structures within individual cities suggests to them that **there may have been a less hierarchical organization within and among cities than has usually been assumed**, different groups and polities perhaps enjoying equal status. They arrive at the promising conclusion that “perhaps the crucial function of the elite was to minimize discord in an ecological setting characterized by small, widespread and isolated plots of good soil” (p. 41).

The paper includes **7 excellent aerial views**, 4 of Uxmal and surroundings, 2 of Labná, and 1 of Sayil.

**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).

**Kutscher, Gerdt**

*Bauten der Maya: Edificios mayas. Edición póstuma a cargo de Gerdt Kutscher.* Monumenta Americana Herausgegeben vom Ibero-Amerikanischen Institut Preussischer Kulkurbesitz Schriftleitung: Peter Masson, Vol. IV. Berlin: Gebr. Mann Verlag, 1971.

## L

**Lamb, Weldon**

"The Sun, Moon and Venus at Uxmal". *American Antiquity*, Vol. 45, No.1 (Jan. 1980): 79-86.

Available on the web through JSTOR subscription at:  
<http://www.jstor.org/view/00027316/ap010172/01a00100/0>

Lamb describes many aspects of the East, West and North Buildings of the Nunnery Quadrangle to support his conclusion that they record specific Maya observations about the sun, moon, and Venus. **He conducts a complex reading of the number of various parts of the East Building**, especially the carved X pieces. He writes: "The most striking fact about the East Building façade is that the Xs of the 48 main bars total 584, a fine value for the Venus synodic mean of 583.92 days" (p.82).

It is reassuring to note that Lamb is aware that much of the architecture at Uxmal has been restored, so that such detailed number counts of today do not necessarily agree with the original designs. He writes: "Most likely the array of Xs that we are counting is true to the original. In late December 1841, John L. Stephens . . . described the East Building façade as virtually intact. Photos from the 1839 expedition of Frans Blom are on file at the Middle American Research Institute of Tulane University, and one (Figure 3) clearly shows [that] only the fourth set of bars, designated as D, had been badly damaged; a few other bars had been only slightly disturbed. Repairs were undertaken by the Instituto Nacional de Antropologia e Historia beginning in 1936" (p. 81).

**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.

### **Larios Villalta, Carlos Rudy**

“Criterios de Restauración Arquitectónica en el Área Maya”. A Report to the Foundation for the Advancement of Mesoamerican Studies (FAMSI), 16 March 2001.

Published on the FAMSI web at:

<http://www.famsi.org/reports/99026es/index.html>

(accessed 2007 May 21)

English translation by Alex Lomóaco at:

<http://www.famsi.org/reports/99026/index.html>

(accessed 2007 May 21)

This is **the most extensive publication to date on the restoration of Maya architecture**. A total of sixteen archaeological sites are illustrated, drawn primarily from Guatemala and Belize. Four sites in which the author was deeply involved are examined carefully for problems of degradation and protection. Notably, **Larios Villalta presents Copán as a model, multidisciplinary project, based on the principle of anastilosis**. Almost no attention is given to the Puuc Region (of 60 some photographs, there is one of Uxmal), but the same issues are applicable. **Unfortunately, very little attention is given to Mexico**, where his objection to the lack of official criteria do not equally apply. The report is clearly organized and written, with 5 figures and 69 carefully taken photographs, all keyed to specific descriptions in the text. Noting the lack of official criteria for restoration in the Maya area, the author attempts to provide some fundamental criteria. He attempts to help coordinate the work of the various disciplines involved in restoration projects. Larios defines a number of often-confused terms and discusses the criteria for conservation. **The most important section of the report is an examination of restoration methods**, taken up in the order in which they are faced in a Maya restoration project. In each case he provides revealing examples, clearly evaluated and illustrated, a most instructive guide for students of archaeology and conservation.

### **LeBlanc, Francois, and Rand Eppich**

“Documenting Our Past for the Future”. GCI Newsletter, Vol. 20, No. 3 (Fall 2005).

On the web at:

[http://www.getty.edu/conservation/publications/newsletters/20\\_3/feature.html](http://www.getty.edu/conservation/publications/newsletters/20_3/feature.html)  
(accessed 2007 May 21)

### **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.

[A selection of the photographs of Augustus and Alice Le Plongeon are reproduced on this web site.](#)

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

### **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 18<sup>th</sup> 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**

“The Ancient Palaces of Uxmal, Mexico”. *Scientific American* (Jan. 21, 1882): 5042.

### **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.

### **Le Plongeon, Augustus**

“The Horse at Kabah”. *Scientific American*. Supplement (March 14, 1885): 768-769.

### **Le Plongeon, Augustus**

“An Interesting Discovery: A Temple with Masonic Symbols in the Ruined City of Uxmal,” *Harper’s Weekly* (Dec. 17, 1881): 851-852.

### **Le Plongeon, Augustus**

*Manual de Fotografia*. New York: Scovill Manufacturing Co., 1873.

This is an impressive 226-page booklet, testifying to Le Plongeon’s expert understanding of the photographic medium. There are no fewer than 28 small chapters, in which he describes various types of photography including daguerreotypes, but especially detailing methods for producing wet collodion glass-plate negatives and paper prints, with an extensive section of formulas.

### **Le Plongeon, Augustus**

*Sacred Mysteries Among the Mayas and the Quichés, 11,500 Years Ago.* New York: R. Macoy, 1886.

### **Le Plongeon, Augustus**

*Vestiges of the Maya.* New York: J. Polhemus, 1881.

The Le Plongeon were appalled by the dismantling of structures at Uxmal by people in charge for the construction of their haciendas and by other desecrations. Here, Alice Le Plongeon writes: "The walls of the rooms are now covered with the names of visitors in letters of every size and color. Some silly people, called civilized, have thought theirs so important that they have painted them on several walls within the same building" (quoted by Desmond, *A Dream of Maya*, p. 77).

A selection of photographs by Augustus and Alice Le Plongeon are reproduced on this web site.

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

### **Leon-Portilla, Miguel**

"Prologo" to Frédéric De Waldeck, *Viaje pintoresco y arqueología a la provincia de Yucatan*: 10-31. México: Servicios Condumex, S.A. de C.V., Centro de Estudios de Historia de México Condumex, Paseo del Río Núm. 186, 1997.

Except for Leon-Portilla's 1997 prologue, this volume is a full-size reprinting, with Spanish translation, of the 1838 French publication: Frédéric De Waldeck, *Voyage pittoresque et archéologique dans la Province d'Yucatan (Amérique Centrale), pendant les années 1834 et 1836*. Paris: Bellizard Dufour et Co, 1838.

Waldeck's original 1838 French edition is separately listed and annotated in this web bibliography, under Waldeck, *Voyage pittoresque . . .*, 1838.

This prologue is an exceptionally thorough review of foreigners who visited Mexico after the country opened itself to foreigners following the war of independence, 1810-1821. Leon-Portilla first calls attention to the pre-independence visit by Alexander von Humboldt in 1803, and the importance of his publications. The first visitors following independence were mostly representatives of mining companies, though most of them became interested in various aspects of Mexico and Mexican culture. A few authored books on Mexico, some including prints, and a few acquired artifacts and codices which they took back to England, Italy, France, and Germany, where they now reside in national museums. Leon-Portilla also provides a detailed review of the early explorers who came to Mexico with strong interests in the Maya ruins.

In the sections on Waldeck, the author relies heavily on the thorough research of Howard F. Cline (see listing in this web bibliography). After describing Waldeck's time and research at Palenque, Leon-Portilla describes Waldeck's brief stay at Uxmal in May 1835. He comments that Waldeck's fantasy caused him to interpret Chac masks as elephant heads. The author quotes from Waldeck's prologue, stating that

the *Voyage pittoresque et archéologique dan la Province d'Yucatan* was to be part 3 of his planned publication but, in order to get the material into print promptly, is being published first (vol. 1 was to be on the history of ancient Mexico, vol. 2 on Palenque).

Leon-Lortilla quotes Waldeck's biographer, Claude-François Baudez, stating that the value of Waldeck's publication resided in the lithographs depicting Uxmal, for which images had not previous been published, and which stimulated the interest of Stephens and Catherwood. However, Baudez states that the text is largely based on Waldeck's dairy, made up largely of anecdotes about local customs, with no rethinking.

### **Leyrer, Dan**

"A New Method Used in Photographing Maya Hieroglyphics". *Maya Research*, Vol. 2 (Jan. 1935): 60-63.

A selection of Leyrer's photographs of Uxmal, including the type described in this article, are reproduced on this web site.

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

The author describes a new photographic method he devised when official photographer of the 1930 Tulane expedition to Uxmal, commissioned to prepare for the 1933 World's Fair in Chicago. The new method was devised in order to photograph in more detail and more clearly the glyphs and images carved in low relief on limestone slabs. The new method involved photographing with "a small portable electric power plant and a 500 watt studio reflector". A photograph illustrated in the article shows a stela fragment being photographed at night with this set up. Leyer writes that "In all cases time exposures were taken. The reflector [light source] was set up at an angle to the monument and the shutter [of the camera] was left open while the reflector was moved forward and backward behind the camera in order that the carvings might throw different shadows and thus underline the low relief designs on the stone" (p. 61). An illustration compared a fragment photographed by daylight and by this new artificial light method. This new photographic method was used partly for the relief on stelae on what is now known as the stelae platform. Leyrer writes that the 1930 Tulane expedition "locate[d] a large terrace mound . . . upon which lay several large monoliths carved with figures of warriors or priests, and columns of hieroglyphs . . . fragments of nineteen different monuments" (p. 61).

### **Ligorred i Perramón, Josep**

"El estilo Puuc tardío: estructura y arquitectura de Codz Pop de Kabah (Yucatán, México)". *Boletín americanista*, Vol. 44 (1994): 171-177.

Photographs of the Codz Poop, Kabah, showing restoration over the years, are reproduced on this web site:

Front

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

Back

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

**Ligorred Perramon, Josep**

“Valor estético en la escultura Maya: la apreciación del símbolo en el Puuc (la Casa de las Tortugas, Uxmal).” *Perspectivas antropológicas en el mundo Maya*. Ed. M. Josefa Inglesias Ponc de León and Francesc Ligorred Perramón. Sociedad Española de Estudios Mayas (Publicaciones Sociedad Española de Estudios Mayas, No. 2): 181-198. Madrid, 1993.

The first half of the article consists of a general theoretical introduction to Maya sculpture, stressing the symbolic language of the artists. The author attempts to establish a philosophical bases for the socio-economic and political function of Maya art. **The second half describes the iconology of the House of the Turtles.** After attention to dating, the author points out that the House of the Turtles is the only Maya example in which the turtle is used as a separate, decorative element. He then impressively brings together many Maya references to turtles and their appearance in other Maya imagery. He also notes the Yucatec Maya liking for the meat and shell of the turtle, the traditional use of turtle oil for respiratory diseases, and the Maya appreciation of the turtle’s long life. Adding to what he describes as the long accepted religious and mythological symbolism of the turtle, Ligorred Perramon develops the turtle’s historical meaning, connecting turtles with the principle lineage of Uxmal through identification with the dwarf legend. Drawing on Panofsky’s distinction between iconography and iconology, he **stresses the interplay of meanings in the House of the Turtles imagery and their involvement with various aspects of Yucatec culture.**

Images of the House of the Turtles are reproduced on this web site.  
<http://academic.reed.edu/uxmal/galleries/thumbnails/uxmal/uxmal-turtles.htm>

**Lippe, William D.**

“A Conservation Model for American Archaeology”. *The Kiva*. Vol. 39, Nos. 3-4 (1974). 213-245.

Although this article was published over 30 years ago, all of the issues discussed have continuing relevance. **Lippe focuses on the “basic problem” that, as archaeologists, “we exploit a non-renewable resource”** (p. 213). Most notably, he writes, **“we need to shift to a resource conservation model as primary,** and to treat salvage, especially of the emergency kind, as a last resort to be undertaken only after all other avenues of protecting the resource have failed’ (p. 214). Especially perceptive is his warning that “If we choose such areas on the basis of current significance to research and public interest, what do we do if these standards of significance change . . . ? (p. 227). He describes various strategies for dealing with these problems, while stressing their continuing nature. There are no detailed references to specific sites.

**Littmann, Edwin R.**

“Ancient Mesoamerican Mortars, Plasters, and Stuccos: The Composition and Origin of Sascab”. *American Antiquity*. Vol. 24, No. 2 (Oct. 1958): 172-176.

A technical report including examples from Uxmal and Sayil.

**Littman, Edwin R.**

"Ancient Mesoamerican Mortars, Plasters, and Stuccos: The Puuc Area". *American Antiquity*, Vol. 25, No. 3 (Jan. 1960): 407-412.

A technical report on the chemical and microscopic properties of building materials at Uxmal, Kabah, Sayil, and Labná. The author states that all the building materials previously identified at other Maya sites (mortars, plasters, wash coats, stuccos, and lime-aggregates) were also found at these Puuc sites. However, **the building materials at Puuc sites had greater strength and smoother composition**. Detailed descriptions of specific samples are given.

**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).

**Longhena, Maria**

*Ancient Mexico: The History and Culture of the Maya, Aztecs, and Other Pre-Columbian People*. New York: Stewart, Tabori & Chang, 1998.

A sumptuous, glossy publication with adequate text, but most of the space is given to magnificent illustrations, many full or double-page. Eighteen pages are given to Uxmal, Kabah, Sayil, and Labná. **The reason for listing in this bibliography is the three hypothetical reconstruction drawings with color**. There is a double-page drawing of the Nunnery Quadrangle at Uxmal (pp. 268-269) and the Great Palace at Sayil (pp. 278-279). These are based on the most reliable information to date and **convey a feeling for the original architecture more fully than any other any other illustrations** I have seen, especially as much of the architectural sculpture is represented in color (on the contents page, Monica Falcone and Roberta Vigone are credited for drawings). **Very few other publications have attempted this, but without the brilliant color of the original paint, our visual impression of the sculpture is seriously flawed**. It is a professional responsibility of experts to suggest the most likely reconstruction of paint, as with the hypothetical reconstruction of form and meaning. In this book, unfortunately, the representation of paint is highly conservative. Only the friezes and moldings are shown in color, though it seems likely that the columns, Colonnette, and probably also the walls were also painted. The National Geographic Society has published occasional, highly instructive drawings of Maya cities elsewhere with full hypothetical paint reconstruction. Without similar colored drawings of other Maya sites, our vision of Ancient Maya cities will continue to be reduced. In this book, **there is one small drawing of one mask from the Nunnery Quadrangle frieze (p.268), impressively shown in full color**. Although partly hypothetical, this provides a basis for peer review,

alternative suggestions and progressive improvement, as with other aspects of scholarship.

**Lorelei Zapata Peraza, Renée**

“Augusto Le Plongeon”. *La antropología en México: Panorama histórico. 10. Los protagonistas (Díaz-Murillo)*, 367-382. Ed. Lina Odena Güemes and Carlos García Mora. Mexico City, D.F.: Colección Biblioteca del INAH; Instituto Nacional de Antropología e Historia, 1987.

An extensive review of the life and work of Augusto Le Plongeon (1826-1908), with some attention to the joint work of Alice Le Plongeon, his wife. Benavidas Castillo credits previous authors on Le Plongeon, especially the basic publication of Robert Brunhouse. There is a useful 4-page bibliography.

**Lorelei Zapata Peraza, Renée**

“Désiré Charnay”. *La antropología en México: Panorama histórico. 9. Los protagonistas (Acosta-Dávila)*, 567-587. Lina Odena Güemes and Carlos García Mora, eds. Mexico City, D.F.: Colección Biblioteca del INAH; Instituto Nacional de Antropología e Historia, 1987.

An extensive review of the life and work of Désiré Charnay (1828-1915). The author notes that, following his 1857-1861 research and photography in Mexico, Charnay spent all of 1862 in Paris preparing the photograph and text for his landmark publication, *Cités et ruines américaines: Mitla, Palenque, Izamal, Chichen Itza, Uxmal*, published 1862-1863. This book included an essay by Viollet-le-Duc. Lorelei Zapata Peraza provides substantial information about Charnay’s travels and ideas, but very little directly on his photographs. There is an extensive bibliography.

**Lorenzo de Zarala, M., Ambassadeur du Mexique en France**

“Notice sur les monuments antiques d’Uxmal, dans la Province de Yucatan,” No. VI, pp.33-35. *Antiquités mexicaines*, Première Partie. Notes et Documents Divers.

**Loten, H. Stanley**

*Plaza and Platform in Mesoamerica: a Study of Architectural Design in the Quadrangle of the Nunnery, Uxmal*. M.A. thesis, Department of Anthropology, University of Toronto, 1966.

**Loten, Stanley, and David M. Pendergast**

*A Lexicon for Maya Architecture*. Monograph 8. Toronto, Canada: Royal Ontario Museum, 1984.

**Luxen, Jean-Louis**

“Reflections on the Use of Heritage Charters and Conventions”. *GCI Newsletter*, Vol. 19, No. 2 (Summer 2004).

On the web at:

[http://www.getty.edu/conservation/publications/newsletters/19\\_2/feature.html](http://www.getty.edu/conservation/publications/newsletters/19_2/feature.html)

(accessed 2007 May 21)



## M

**MacCurdy, George B.**

A Study of Maya Art". *Current Anthropological Literature*, 1 (1912): 145-154.

**Macgowan, K.**

"The Orientation of Middle American Sites." *American Antiquity*. Vol. 11 (1945): 118.

**Maldonado Cárdenas, Rubén**

"Intervención de restauración en el juego de pelota de Uxmal, Yucatán".

*Memoria del Congreso Interno 1979* : 233-243. México: Instituto Nacional de Antropología e Historia, Centro Regional del Sureste, 1981.

Images of the Ballcourt at Uxmal, showing restoration over the years, are reproduced on this web site.

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

For the subjects of this web site, the most important of the congress articles is this thorough report of the 1977 and 1978 intervention and restoration of the Uxmal ballcourt. **The publication of such an informative, well illustrated, restoration report had previously been unusual for the Puuc region.** There are 12 carefully taken, clear, gray-scale photos, showing the entire ballcourt before and after, showing research and work in progress and important details. For example, figures 6-9 show the top of the west structure before and during liberation, and during and after restoration.

Although the ballcourt had been worked on in 1941, 1948, and 1956, it was in such an advanced stage of deterioration that the decision was taken to study, liberate, consolidate, reintegrate, and restore it. Following now standard archaeological practice, as the remains of the ballcourt were uncovered, every stone was carefully labeled with its location on the control grid. Upper levels were sealed with small stones against water seepage, because throughout the project stability was a major concern. Where there was sufficient evidence to tell where fallen stones had originally been, these were reintegrated, set off 1 or 2 cm. from the originals. Interior walls of the central nucleus were filled in some places to indicate the height of the original rooms. As always, the survival of a few key original elements *in situ* was crucial, such as, here, a piece of the original cornice. Various discoveries were made, such as the location of stairways on the east and west sides, the fallen remains of an entrance to a room in the west structure, and evidence for dating 800-1000 A.D. In finishing, the ballcourt was reintegrated with the entire architectural complex.

**Maldonado Cárdenas, Rubén**

"Dos ofrendas encontradas en el Juego de Pelota, Uxmal," unpublished report on file at the Centro Regional del Sureste, Merida, n.d.

**Maldonado Cárdenas, Rubén**

“Ofrendas del Juego de Pelota en Uxmal”. *Novedades de Yucatan* (April 25, 1979).

**Maldonado C., Rubén and Beatriz Repetto Tio**

“Tlalocs at Uxmal”. *Sixth Palenque Round Table, 1986*. Merle Greene Robertson, gen. ed., Virginia M. Fields, vol. ed.: 97-101. Norman: University of Oklahoma Press, 1991.

This essay is devoted to the only known relief sculptures representing the face of the Rain God, Tlaloc. Ten of these reliefs were for years on the ground on the west sides of the Pyramid of the Magician at Uxmal and are thought to have fallen from the façade of the lowest and earliest known temple of the Pyramid. The authors include illustrations of rubbings of these ten largely intact reliefs with a comparative chart of their exterior and interior shapes. The images of Tlaloc on these ten stones are similar, all with the prominent goggle-like eyes of the central Mexican Tlalocs. Of the other facial parts described, the authors state that “the most significant symbolism . . . is the Teotihuacán year sign . . . over the headdress and at the ears” of each relief. The authors also describes four similar relief sculptures of Tlaloc, for which there are only fragmentary remains, situated on top of mask stacks on the North Building of the Nunnery Quadrangle, Uxmal, and a few lesser remains also on the North Building. The authors also review descriptions of Tlaloc in historical sources and discuss his meaning.

Images of some of these Tlaloc reliefs are reproduced on this web site.  
<http://academic.reed.edu/uxmal/galleries/thumbnails/uxmal/uxmal-Museum.htm>

**Maler, Teobert**

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

**Maler, Teobert**

“Lista de las ilustraciones para una proyectada publicación de Teobert Maler, en el libro de recuerdos del Congreso de Americanistas.” *Reseña de la segunda sesión del XVII Congreso Internacional de Americanistas efectuada en la Ciudad de México durante el mes de Septiembre de 1910*. Mexico, 1912.

**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**

*Arquitectura Prehispánica*. Memorias del Instituto Nacional de Antropología e Historia, I. México, D.F., Secretaria de educación Publica, 1951 (2<sup>nd</sup> edition 1964; facsimile of 1<sup>st</sup> edition 1990; facsimile of 2<sup>nd</sup> edition 1981). The most recent edition, 1990, is separately listed and annotated in this web bibliography).

### **Marquina, Ignacio**

*Arquitectura Prehispánica*. Memorias del Instituto Nacional de Antropología e Historia, I. México, D.F., Secretaria de educación Publica, 1990 (facsimile of first edition of 1951, with the addition of the appendix from the second edition of 1964).

This is **the monumental, descriptive survey of pre-Hispanic Mexican architecture** by (at the time of publication) the director of Mexico’s National Institute of Anthropology and History. This weighty 1055 page volume is based on previous works by the author. He states that there are two types of sources of information about ancient Maya culture, one the rare codices and texts, the other the material remains. This publication is a study of the material remains, especially the monumental architecture, organized by region and within that by archaeological site. The book includes an invaluable variety of maps, diagrams, and photographs, taken from a wide variety of sources.

There are thirty pages for Uxmal (including 11 full-page illustrations and 22 half-page); 5 pages for Kabah (including 1 full page of diagrams and 3 half-page photographs); 4 plus pages on Sayil (including one full page of diagrams and 2 half-page photographs); 10 pages on Labná (including 3 full page illustrations [Fot. 363 mislabeled “Kabah”] and 7 half-page photographs). The majority of the photographs were taken by A. Garceía V for the Instituto Nationale de Antropología e Historia and

show the structures after partial restoration and there are many other valuable illustrations.

### **Marquina, Ignacio**

*Estudio Arquitectonico Comparativo de los Monumentos Arqueologicos de Mexico.* Contribucion de México al XXIII Congreso de Americanistas. Secretaria de Educacion Publica. México: Talleres Graficos de la Nacion, 1928.

An oversize, horizontal volume, presenting a comprehensive account of Mexican archaeological monuments at the time, with occasional comparisons of sites in different regions of Mexico. For a three-long page comparisons with other regions, the author uses Chichen Itzá and Uxmal to represent Northern Yucatán. When describing individual sites, Marquina devotes 3+ pages of text to Uxmal, 2 pages to Labná, 1 ½ to Kabah, and 2 paragraphs to Sayil. These include descriptions with some measurements. But, of greater importance than the text are the large, full-page ground plans, diagrams, and especially the watercolor reconstructions.

For Uxmal, there is a ground plan of the site, copied from Holmes (1895); a ground plan of the East Building of the Nunnery Quadrangle; an elevation and ground plan of the Governor's Palace; and a large ground plan of the Turtles. In addition, for the Turtles, there are two large pages of various drawings. These include an elevation and cut-away elevation of the main façade, and an elevation and cut-away elevation of the end façade, all with unusually detailed measurements. Most importantly, there are two large watercolor drawings by Marquina, presenting two rare attempts to reconstruct the color of two facades. One shows the West Building of the Nunnery, northern section of the main façade. The other shows the main façade of the Governor's Palace, the section surrounding the southern archway, most strikingly with the infill removed so that one sees straight through the open archway to trees and sky beyond.

For Labná, there is a groundplan of the site and 2 full pages of the Labná arch: small elevations of the southeast and northwest facades with a small ground plan, and a large elevation of the southeast façade. For Kabah, there is a small groundplan and a small elevation and ground plan of what appears to be the Temple of the Columns (unspecified). For Sayil, there is a full-page ground plan of the Palace with elevation of the main façade, and, again most importantly, a color reconstruction watercolor drawing of a façade. For Sayil, the color reconstruction drawing shows the much admired mid-level of the façade of the Great Palace, west side, central and eastern sections.

### **Marquina, Ignacio and Ruiz**

*La orientación de las pirámidas prehispánicas.* Universidad de México. México, 1928.

### **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.

### **Martínez Muriel, Alejandro**

“Archaeological Research in Mexico’s Monumental Sites”. *Archaeological Research and Heritage Preservation in the Americas*, pp. 56-62. Washington, D.C.: Society for American Archaeology, 2002.

This is an essential paper, **the clearest and most authoritative description I have read of the complex archaeological situation in Mexico**, by a representative of the Instituto Nacional de Antropología e Historia, Mexico (INAH). The author divides her chapter into 3 parts: “first, the organization of the institution that is in charge of archaeology . . . ; second . . . technical aspects of research and conservation in monumental sites . . . ; [third] relations between the institution and the community” (p.56).

Martinez Muriel describes the complexity of the management of archaeology in Mexico in her second paragraph: “its is, first of all, necessary to recognize the significance that archaeological ruins have for Mexicans. There ruins are understood as the representation of a glorious past and of Mexican identity and nationalism. Thus, in addition to their scientific value, that have an ideological and political value, and archaeology is, in our country, immersed as much in the daily life of Mexicans as in politics and, obviously, culture” (p.56).

She provides a description of the organization of INAH, the size of the archaeological heritage in Mexico, history of restoration in Mexico beginning at the turn of the 20<sup>th</sup> century, its major figures, and the education of archaeologists in Mexico. Notably, she discusses the interrelationship of scientific investigation, restoration, and preparation of sites for the public. This is an especially informed and revealing discussion, followed by an important section on Archaeology and community, concluding with the importance of “working on the community level, with the ordinary citizens who are the only ones who can really protect their own cultural heritage” from “looting, vandalism, and other sources of destruction” (p. 62).

### **Martínez, Cantón E.**

“Informe de los trabajos efectuados a la ‘Casa del Gobernador’ en Uxmal,” in *Informe inédito en el Archivo Técnico de la Dirección de Monumentos Prehispánicos*. México, D.F., 1927.

Images of the Governor’s Palace, Uxmal, are reproduced on this web site.

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

### **Martínez, Cantón E.**

“Informe detallado sobre el derrumbe ocurrido al edificio del Gobernador,” in *Informe inédito en el Archivo Técnico de la Dirección de Monumentos Prehispánicos*. México, D.F., 1926.

### **Martínez, Cantón E.**

Monografía de las Ruinas Arqueológicas de Uxmal,” in *Informe inédito en el Archivo Técnico de la Dirección de Monumentos Prehispánicos*. México, D.F., 1918.

**Martínez, Hernandez, Juan**

“Informe acerca de la visita practicada recientemente en los monumentos arqueológicos de Uxmal, 31 de marzo, 1914,” in *Estado de Yucatan: Uxmal*, vol.1. Instituto Nacional de Antropología e Historia Archives, Mexico City, 1914.

**Marus, Joyce**

“On the Nature of the Mesoamerican City”. *Prehistoric Settlement Patterns: Essays in Honour of Gordon R. Wiley*, ed. Evon Z. Vogt and Richard M. Leventhal: 195-242. Albuquerque: University of New Mexico Press, 1983 (anthologized in *The Ancient Civilizations of Mesoamerica: A Reader*, ed. Michael E. Smith and Marilyn A. Masson; Oxford: Blackwell, 2000; Chapter 3).

An exceptional synthesis of the form and structure of Mesoamerican cities, with 21 diagrams. Provides an invaluable basis for considering the individuality of any Mesoamerican city. Includes an extensive bibliography.

**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.

**Mastache, Guadalupe Alba and Robert H. Cobean**

“La arqueología”. *La antropología en México: Panorama histórico: 5. Las disciplinas antrológicas y la mexianística extranjera*, coordinators Carlos Garcia Mora/Ma. De la luz del Valle Berrocal: 39-82. México, D.F.: Colección Biblioteca del INAH, Instituto Nacional de Antropología e Historia, 1988.

An unusually **thorough review of the development of archaeology in Mexico**. The first two pages provide an essential perspective on the relationship of the archaeology in Mexico to (in translation) “the historical, political, and social reality in the country” (p.39). The authors call attention to the series of laws and regulations, going back as early as 1827, resulting from the political determination to protect the national patrimony, especially the pre-Hispanic, indigenous monuments. This political and



ideological focus has continued to the present day, determining that (in translation) “archeology [was] tied to the exploration, restoration, and reconstruction of monumental buildings and zones” (p.39). These first two pages note that **this political and ideological function of archaeology** has evolved through a complex trajectory, resulting from the general development of archaeology and anthropology throughout the world, the creation and growth of Mexican institutions, especially the Instituto Nacional de Antropología e Historia (INAH), and the growth of professionalism and scientific techniques. The article traces this trajectory through four phases: Antecedents (1840-1880 and 1880-1910), Expansion (ca.1911-1939), Consolidation (ca.1940-1959), and Contemporary (ca. 1960-1987). For each of these phases, the work of the major explorers, scholars, and other experts is described, with attention to their approaches and major contributions. Includes an extensive, select bibliography.

### **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).

### **Mathewson, Kent**

“Maya Urban Genesis Reconsidered: Trade and Intensive Agriculture as Primary Factors” *Journal of Historical Geography*, Vol.3, 1977: 203-215.

### **Matos Moctezuma, Ediardo**

“Manuel Gamio y la Arqueología Mexicana,” in *América Indígena*. Vol. XXXIII, Núm 4. México, 1973.

### **Maudslay, A. P.**

*Biología Centrali-Americana, Archaeology*. 1 vol. Text, 4 vols. Illus. 1889-1902.

The **classic publication** by one of the greatest early Maya scholars, including carefully measured drawings and illustrations of buildings. **Regrettably, Maudslay never reached the Puuc Region, so Puuc sites are not dealt with in his publication.**

**May Ciau, Rossana**

“Análisis de las torres este y oeste de la estructura 8 de Labná, Yucatán”. Thesis for degree, Mérida, Yucatán, Facultad de Ciencias Antropológicas, Universidad Autónoma de Yucatán, 2000.

***Los Mayas Antiguos: Monografías de Arqueología, Etnografía y Lingüística Mayas, publicadas con motivo del Centenario de la Exploración de Yucatán por John L. Stephens y Frederick Catherwood en los años 1841-42.***

México [D.F.]: El Colegio de México, 1941.

An anthology of 18 articles commemorating the hundredth anniversary of the landmark exploration of the Yucatan by John Lloyd Stephens and Frederick Catherwood.

The following articles are separately listed in this web bibliography.

Arthur E. Groppe, “Bibliografía de John Lloyd Stephens”

Lawrence Roys, “Masonry Traits found at Mayapan”

Alfred M. Tozzer, “Stephens, and Prescott, Bancroft and Others”

**Mayer, Karl H.**

“Una pintura mural olvidada de Kabah, Yucatan.” *Boletín informativo: la pintura mural prehispánica en México*, Vol. 6, Nos. 12-13: 38-43.

**Mayer, Karl H.**

“La Pintura mural 1 de Uxmal”. *Boletín informativo: la pintura mural prehispánica en México*, Vol. 3, Nos. 6-7: 13-17

**Mayer, Karl Herbert**

“Teobert Maler: an Early Explorer of Classic Maya Architecture”. *Cuadernos de arquitectura mesoamericana*. México, UNAM, No.5: 82-92.

**Mayer, Karl H.**

An unpublished Maya text from Sayil, Yucatan, *Mexicon*, Vol. 17, No. 6 (1995): 103.

**Mayer, Karl H.**

“Uxmal, miscellaneos text 1”. *Revindi*, Vol. 4: 74-80. Editorial Pallas Interedition, Budapest, 1989.

**McAnany, Patricia A.**

“Water Storage in the Puuc Region of the Northern Maya Lowlands: A Key to Population Estimates and Architectural Variability”. *Precolumbian Population History in the Maya Lowlands*, ed. T. Patrick Culbert and Don S. Rice. Albuquerque: University of New Mexico Press, 1990: 263-284.

The author describes the acute seasonal water deficit in the Puuc region, but that the Maya in the area developed an advanced form of underground water storage, customized chultunes, which allowed dense settlement. She presents "a quantitative assessment of prehistoric water-storage facilities" in the Puuc region as "the key to a derivation of population estimates and an examination of room facilities" (p. 263). This article is an especially dense and informative presentation of evidence for water storage in the Puuc region. McAnany analyses the frequency and location of chultunes associated with 4 types of structures: foundation braces, stone buildings, platforms, and basal platforms. There are 6 pages of charts and diagrams.

**McAllister, Mitchell A.**

*An Archaeological Museum/Visitor's Center and Research Center for Uxmal, Mexico*. M. Arch. thesis, University of Utah, Salt Lake City, 1983.

**McGuire, Randall H., and Michael B. Schiffer**

"A Theory of Architectural Design". *Journal of Anthropological Archaeology*. Vol. 2 (1983): 277-303.

**McKillop, Heather**

*The Ancient Maya: New Perspectives*. Santa Barbara, Calif: ABC-CLIO, and Norton, 2004.

**McLoughlin, Anthony**

*Palenque and the Maya Gems of the Puuc*. New York: Vintage Press, 1976.

**McNamara, C., T.D. Perry, M. Zinn, M. Breuker, R. Müller, G. Hernández-Duque, and R. Mitchell**

"Microbial Processes in the Deterioration of Maya Archaeological Buildings in Southern Mexico." *Art Biology and Conservation: Biodeterioration of Works of Art*. Ed. R. Koestler et al. New York: Metropolitan Museum of Art, 2003.

**Meehan Hermanson, and Alonso Olvera, A.**

"Conservation and Research in the Archaeological Maya Site of Ek' Balam at the Yucatan Peninsula: an Extensive Project on Stucco Decor and Mural Painting Preservation". *14<sup>th</sup> Triennial Meeting The Hague, 12-16 September 2005, Preprints*. Vol. 1: 402-408. Icom Committee for Conservation, 2005.

Although this paper deals exclusively with Ek' Balam, it provides the clearest, most comprehensive, and up-to-date statement of the conservation approach appropriate for all Maya archaeological sites in the Yucatan and perhaps elsewhere. Because remarkably well preserved stone, stucco, and painting remains were uncovered as recently as 2001, Ek' Balam provided an unusual opportunity for formulating a balanced, highly professional approach making use of local skills and conditions. This report is essential reading for everyone involved in or studying the conservation of Maya archaeological sites.

**"A Megalithic Phallus from Sayil, Yucatan".**

*Mexicon*, Vol. 25, No. 5: 118.

Images of the Phallic Stela at Sayil are reproduced on this web site.  
<http://academic.reed.edu/uxmal/galleries/thumbnails/sayil/sayil-pstela.htm>

**Megaloni, Diana, et al.**

“Studies on the Mayan Mortar Techniques”. Material Research Society Symposium Material. .Pittsburgh: Matierial Research Society. Vol. 352: 483-489. 1995.

**Meldonado C., R. and B. Repetto Tio**

“Tlalocs at Uxmal,” in *Sixth Palenque Round Table, 1986*. Ed. Virginia M. Fields. Norman: University of Oklahoma Press, 1991. Pp.97-101.

**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."

**Memorias del Tercer Congreso Internacional de Mayistas (9 al 15 de julio de 1995)**

Instituto de Investigaciones Filológicas Centro de Estudios Mayas. México [D.F.]: Universidad Nacional Autónoma de México, 1998.

In her introduction, Ana Luisa Izquierdo notes that this international meeting in Chetumanl, the capital of Quintana Roo, celebrates the 25<sup>th</sup> anniversary of the founding, in June 1970, of the Centro de Estudios Mayas, integrating 2 previous institutions for Maya studies. She describes the Center's extensive publication

history, including 20 volumes of *Estudios de Cultura Maya*. The *Memorias del Tercer Congreso* volumes publishes 57 papers by 77 authors.

The following article is separately listed and annotated in this web bibliography.  
José Huchim Herrera and Lourdes Toscano Hernández, “Algunas anotaciones acerca de los sistemas constructivos de los edificios de Uxmal y Labná”

### **Menendez, Oscar**

*Observaciones Arqueográficas sobre la Cultura Maya (particularmente Chichen-Itza y Uxmal) Guia 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.

### **Merewether, Charles**

“Mexico from Empire to Revolution”. Los Angeles: Getty Research Institute, n.d. (ca. 2002).

Previously on the web at:

<http://web.getty.edu/research/tools/digital/mexico/html/>.

(accessed 2003 Aug 24)

This web site, with text and accompanying photographs, is an outgrowth of a two-part exhibition of photographs and other materials from the collections of the Getty Research Institute, held at the Institute October 2000 – May 2001. It covers Mexican history from 1857 to 1923. The web site is unique in juxtaposing the history of Mexico with the history of the photography of Mexico during this period. Although it includes only four photographs of Uxmal the text provides important context for understanding the early photographers of these sites.

### **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.

## **Mesoweb**

On the web at:

<http://www.mesoweb.com/>

“Maintained by Joel Skidmore and Marc Zender, with photographs, articles and translations by Jorge Pérez de Lara and photographs by Mark Van Stone and Merle Greene Robertson.”

“Mesoweb is devoted to the ancient cultures of Mexico and adjacent Central America, including the Olmec, Zapotec, Mixtec, Teotihuacan, Toltec, Aztec and Maya . . . we have chosen to **specialize in the Maya** and, more particularly, Maya history, viewing in through the lens of archaeology and the related disciplines and the written records left by the Maya themselves” (*About Mesoweb*). On the web in both Spanish and English. (accessed 2007 Nov. 27).

## **Mexicon**

On the web at:

[http://whp.uoregon.edu/vma\\_preview/Mexicon/](http://whp.uoregon.edu/vma_preview/Mexicon/)

(accessed 2007 Nov. 27)

PDF facsimiles of articles in back issues, Vol. 17, 1994 - Vol. 28, 2006 (earlier issues said to be forthcoming).

For the Puuc region, the following articles are separately listed and annotated in this web bibliography:

Stanton, Travis W., Ramón Carrillo Sánchez, Teresa Ceballos Gallareta, Markus Eberl, Socorro Jiménez Alvarez, and Julieta Ramon Pacheco, “Puuc Settlement on the Northwest Coastal Plain of Yucatan: Preliminary Research from Santa Bárbara”.

## **Meyer, Karl Ernest**

*The Maya Crisis: a Report on the Pillaging of Maya Sites in Mexico and Guatemala and a Proposal for a Rescue Fund*. Washington, D.C.: K. E. Meyer, 1972.

This report provides **informed, up-to-date (as of 1972) information about the plundering of ancient Maya sites to supply the art market**. Chapter 1 introduces “the world-wide problem of the illicit market in national art treasures” (pp. 1-5), then focuses on the extreme situation in Guatemala, based partly on the author’s 3-week trip to Guatemala and Mexico, Feb.-March 1972. Meyer writes that “the Petén . . . is possibly the most heavily pillaged single area in the New World” (p. 9). **The report is notable for accounts of specific, on-site experiences of American archaeologists**. Chapter 2 describes current steps being taken to protect threatened sites. Chapter 3 proposes steps to safeguard archaeological sites in Mexico and especially Guatemala. There is an up-to-date bibliography including newspaper and magazine articles and US government reports and treaties.

*Uxmal/Kabah/Sayil: Official Guide*

**México, D.F.: Instituto Nacional de Antropología e Historia (INAH), 1963.**

**Michelet, Dominique, ed.**

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

**Michelet, Dominique**

“Intento de interpretación del habitat 2: perspectivas regionales”, *Mayas del Puuc: Arqueología de la region Xculoc, Campeche*. México: Gobierno del Estado Campeche; Centre Francais d'Études Mexicaines et Centraméricaines, 2000: 459-512.

**Michelet, Dominique, and Pierre Becquelin**

“Elementos políticos y religiosos de un sector de la region Puuc occidental: su identificación e interpretación”. *Religión y sociedad en el area maya*, ed. C. V. Torrecilla, J. K. B. Villarejo, and Y. F. Marquínez: 109-134. Publicaciones de la S.E.E.M., No. 3. Madrid: Instituto de Cooperación Iberoamericana, 1995.

**Michelet, Dominique, and Pierre Becquelin**

“Tipología de edificios en la zona Puuc: Problemas y perspectivas”. *Los investigadores de la cultura Maya*, Vol. 4 (1996): 123-146.

**Michelet, Dominique, Pierre Becquelin and Marie-Charlotte Arnauld**

*Mayas del Puuc: Arqueología de la region Xculoc, Campeche*. México: Gobierno del Estado Campeche; Centre Francais d'Études Mexicaines et Centraméricaines, 2000.

This 548-page study is one of the most in-depth publications on any Puuc township or city. Although focused entirely on the region of Xculoc, Campeche, the study was conducted and has relevance for other Puuc sites. Indeed, the in-depth approach, especially **the concluding attempt to synthesize the demographics, the economy, and the social and political organization, to see how the Maya in the Xculoc region lived from the ninth through eleventh centuries, was a pioneering effort in Maya studies**. Of special importance is chapter 9, which proposes a typology for all the structures in the zone, examining the forms of groupings of individual structures, attempting to measure the social and political significance of each grouping.

**Miller, Mary E.**

“A Design for Meaning in Maya Architecture”. *Function and Meaning in Classic Maya Architecture: A Symposium at Dumbarton Oaks, 7<sup>th</sup> and 8<sup>th</sup> October 1994*, ed. Stephen D. Houston: 187-222. Washington, D.C.: Dumbarton Oaks Research Library and Collection, 1998.

On the web at:

<http://www.doaks.org/ClassicMaya/maya05.pdf>

(accessed 2007 Nov. 27)

This article consists of two parts. The longer, second part describes the architecture at Palenque, Yaxchilan, Tonina, and other western Maya sites, making extensive use of



images. The briefer first part describes Maya architecture more broadly, providing a basis for the study of any Maya architecture. It is **essential reading for understanding the underlying meaning of the architecture of Uxmal, Kabah, Sayil, and Labná.**

Citing Kubler's identification of "several key forms: among others, the road/path, the platform, the precinct, the ballcourt, and what he called the building and its various types", Miller notes that "the void is key to Maya architecture, the space where meaning enters, anchored by surrounding mass" (p.187). She affirms Thompson's assertion that "Maya architecture . . . function[s] as backdrop, with public iconography framing repeated public ritual", adding "we can also go a step further, for the architecture confirms ritual and makes it present and living even when it is not being performed" (p.192).

Most importantly, Miller adds to Kubler's three fundamental elements (the platform, the hut, and the path) a fourth element, steps. In a key paragraph, she writes: "Recognizing the specific function of stairs allows us to isolate the step as an independent architectural feature, manipulated by the Maya and frequently incorporated into larger assemblages and frequently the formal element bridging the agglutinative hut-platform-path elements and the more geometric ballcourt. Give its size, disposition, ability to elaborate hierarchies and accommodate numerous participants, the step is also the most specifically theatrical of all Maya architectural forms. Furthermore, despite the hostile implications that we may read into the making of such steps, their creation may also have indicated the end of active hostilities and a return to economic well-being—a well-being even promoted by the presence of renewed architectural and artistic commissions" (p 193).

### **Miller, Mary Ellen**

*Maya Art and Architecture*. London and New York: Thames and Hudson, 1999.

Although a paperback of only 240 pages, this is **the best brief introduction to Maya art and architecture**, providing a comprehensive, up-to-date interpretation of its character and meaning. Includes an instructive nine page history of Maya art studies. Sixteen pages of text and nine illustrations are devoted to Uxmal, Kabah, and Labná. Small but high quality photographs and diagrams.

Many books on the Maya describe characteristics of the architecture but avoid connecting these with visual quality. But this is surely to miss one of the most important characteristics that distinguishes Maya cities from each other and allows us to share to some extent the experiences of the people we are attempting to understand. **Miller is one of the few to connect physical characteristics and visual effect with aesthetic quality.** She writes: "Puuc architects recognized the monotony of regularly spaced doorways" and "The builders of the House of the Governor took all the lessons of the Nunnery and used them in a single structure, composing what may be the single most beautiful building of ancient America" (p. 59). Her description of the Governor's Palace wonderfully joins physical characteristics with visual effect and viewer response.

**Miller, Mary E., and Stephen D. Houston**

"The Classic Maya Ballgame and Its Architectural Setting: A Study in Relations between Text and Image". *RES: Anthropology and Aesthetics*. Vol. 14 (1987): 47-66.

[Images of the ballcourt at Uxmal are reproduced on this web site.](http://academic.reed.edu/uxmal/galleries/thumbnails/uxmal/Uxmal-Ballcourt.htm)

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

**Miller, Mary and Karl Taube**

*An Illustrated Dictionary of The Gods and Symbols of Ancient Mexico and the Maya*. London: Thames and Hudson, 1993 (pb. 1997).

Valuable in many ways in addition to the comprehensive dictionary, which includes not only names of gods but also terms for concepts, ritual practices, natural phenomena and objects such as altar and obsidian. In spite of the broad range of the book, much of this informs the architecture, sculpture and restoration of the Puuc region. The "Guide to Sources and Bibliography" constitutes a mini-history of Pre-Columbian studies, two of its thirteen pages devoted to the Maya.

**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 44<sup>th</sup> International Congress of Americanists, Manchester, 1982.

**Mills, Lawrence, ed.**

*The Puuc: New Perspectives: Papers Presented at the Puuc Symposium, Central College, May 1977*. Scholarly Studies in the Liberal Arts, Pub. No. 1. Pella, Iowa: Central College, 1979 (the paper by David Kelley was published in 1982 as a supplement).

The **papers of a symposium** held at Central College, Pella, Iowa, based on ten years of study and exchange from the college's Yucatan campus in Mérida. In addition to the four authors, the symposium was attended by Norberto Gonzales c., Director of the Centro Regional del Surest del INAH, Mérida.

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

Andrews, E. Wyllys V, "Some Comments on Puuc Architecture of the Northern Yucatan Peninsula"

Ball, Joseph, "Ceramics, Culture History, and the Puuc Tradition: Some Alternative Possibilities"

Ball, Joseph, "The 1977 Central College Symposium on Puuc Archaeology: A Summary View"

Kurjack, Edward, Silvia Garza T., and Jerry Lucas, "Archaeological Settlement Patterns and Modern Geography in the Hill Region of Yucatan"

**Mills, Lawrence.**

“A Study of Carved Columns Associated with Puuc Architecture: A Progress Report”. *Arquitectura y Arqueología: metodologías en la cronología de Yucatán* : 50-55. Collection d’Etudes Mesoaméricaines Serie II-8. México, D.F.: Centre d’Etudes Mexicaines et Centroaméricaines, 1985.

**Mimenza Castillo, R.**

*La Civilización Maya*. Barcelona, 1930.

**Mock, Shirley Boteler, ed.**

*The Sowing and the Dawning: Termination, Dedication, and Transformation in the Archaeological and Ethnographic Record of Mesoamerica*. Albuquerque: University of New Mexico Press, 1998.

**Molina-Montes, Augusto**

“Archaeological Buildings: Restoration or Misrepresentation”. *Falsifications and Misrepresentations of Pre-Columbian Art: A Conference at Dumbarton Oaks, October 14<sup>th</sup> and 15<sup>th</sup>, 1978*. Org. Elizabeth H. Benson, Ed. Elizabeth H. Boone: 125-141. Washington, D.C.: Dumbarton Oaks, Trustees of Harvard University, 1982.

Authoritative presentation of **the official Mexican government policy on the restoration of archaeological buildings**. Molina-Montes reviews nineteenth and twentieth century European restoration theory as the basis for understanding the restoration of Pre-Columbian buildings. The author states that until the 1940s, restoration of archaeological buildings in Mexico “was acceptable and in some cases very good,” but that “between the 1940s and 1960s . . . massive reconstruction” was institutionalized, resulting in aesthetic and historical falsification. As one example he cites the Pyramid of the Magician at Uxmal:

“A good consolidation of the loose stones of the facing and of the outer part of the core was necessary and would have been sufficient . . . . It was instead decided, in 1970, to reconstruct the structure by totally encasing it with a facing of new stone (Fig. 8). This was inexcusable on economic, aesthetic or technical grounds. The result is a cold caricature of the original. . . a through consolidation of the core and facing stones should have been made before attempting to cover it with a new facing” (p.136).

**Following historic 1973 and 1974 meetings in Mexico City, the official Mexican position has embraced international standards**. As one example, he cites the Ballcourt at Uxmal:

“The restoration carried out by archaeologists in the Centro Regional del Sureste, under Norberto González, are excellent examples of good conservation practice. This is especially so in the recent restoration of the Ball Court at Uxmal, where the combination of good archaeological techniques and sound concepts of restoration

have resulted in one of the best examples of anastylosis in Mesoamerican buildings” (p.140).

### **Molina-Montes, Augusto**

“Conservation and Restoration”. *The Oxford Encyclopedia of Mesoamerican Cultures: The Civilizations of Mexico and Central American*. Vol. 1: 257-259. David Carrasco, editor in chief. 3 vols. Oxford University Press, 2001.

In two pages of text, the author provides a superb **historical review of the changing approaches to conservation of archaeological sites in Mexico**. The article includes clarifying distinctions among five frequently confused terms “as they are understood by the majority of archaeologists and conservators in Mesoamerica”:

**“Conservation**: all activities directed toward the safeguard of cultural heritage and its values in order to transmit them to the future. It includes actions such as identification, documentation protection, and restoration.

**Restoration**: activities or processes physically conducted on the cultural object with the purpose of safeguarding and maintaining it and prolonging its existence. Restoration has several aspects, the following among others:

**Reintegration**: restitution of original but dismembered parts to their original position and function.

**Integration**: addition of clearly recognizable elements to ensure the conservation of the object or to make its form understandable.

**Reconstruction**: reproduction of parts or the whole of a cultural object with new material similar or identical to the original.”

Molina-Montes then provides a chronology of the development of conservation in Mexico and Central American Countries, noting especially **the important 1939 founding of the Instituto Nacional de Antropología e Historia (INAH)** “which coordinates all archaeological excavation and conservation in Mexico.” She writes that “as the archaeological projects increased in number and extent, the quality of the restoration work decreased considerably. From the 1940s to the early 1970s, undue and exaggerated importance was given to the massive reconstruction of pre-Hispanic architecture . . . reducing the factual and historical value of the restored buildings.” She notes a number of sites, including Uxmal, at which “cases of undue, exaggerated reconstruction occurred during this period. . .”, listing 4 possible motivations. She then describes the reaction against massive reconstruction and the landmark 1973 meeting of the First Latin American Regional Seminary on Conservation and Restoration in Mexico City, which agreed to “condemn the proliferation of works that, are removed from the spirit of Venice, falsify and annul values of the monuments . . . .” (p. 258). She then describes the much better balance that has gradually been achieved among archeological research, conservation, tourism, and other valid interests.

### **Molina-Montes, Augusto**

*La Restauración Arquitectónica de Edificios Arqueológicos*. Colección Científica, No. 21. México, D.F.: Instituto Nacional de Antropología e Historia, SEP: Departamento de Restauración del Patrimonio Cultural, 1975.

A landmark study for Mexican archaeology and conservation and a significant contribution to the literature of restoration worldwide. It is astonishing that this exemplary text has never been translated into English. This book was a call to action for Mexican archaeology by a Professor at Instituto Nacional de Antropología e Historia, urging his fellow archaeologist to recognize and follow international standards and to face up the institutional and professional problems he identified. This book was in press when the important first Reunión Técnica Consultiva on the Conservation of Monuments and Archaeological Zones was announced for 1974 in Mexico City, facing many of the same issues.

Examining Mexican archaeology in comparison with International (primarily European) standards, Molina-Montes rejected the assumption that European experiences were not relevant for Mexican archaeology and strongly supported the *Charter of Venice*, which he reproduced at the end of Chapter One. He stressed the lack of a theoretical basis within Mexican archaeology, including the lack of Mexican publications with a theoretical basis, and the lack of an academic structure for training archaeologists and providing a basis for professional standards and practice.

Chapter 1 is a twenty-three-page history of European restoration and theory. Chapter 2 provides a sixteen-page review of contemporary theories of architectural and archaeological restoration. The author supports the position of the *Charter of Venice*, specifying that restoration must be based only on established facts, with any hypothetical restoration recorded only on documents, and that restoration of fallen stones from a building be clearly distinguished, on the building itself, from stones in situ. Montas then distinguishes seven steps in the restoration of ancient monuments. The first five were adopted from Carlo Perogalli's 1955 book, *La progettazione del restauro monumentale*.

- (1) Consolidation
- (2) Liberation
- (3) Reintegration
- (4) Reconstruction
- (5) Innovation

The last two are added by Molina-Montes:

- (6) Transportation and Reproduction of Monuments
- (7) Restoration of Restorations

Chapters 3 to 6 present in-depth discussions of the first four of these procedures, taken up in the order in which they occur in actual restoration projects. These exemplary chapters include specific Mexican examples, with details of approach and evaluative comments. Although there are few Puuc examples, every page is relevant. *Uxmal* is mentioned four times. Molina-Montes commends archaeologist César Sáenz for his relative success in liberating the eastern façade of the western interior building of the Pyramid of the Magician by tunneling into the nucleus of the covering, outside building, parallel to the perimeter of the interior building (p.48). He commends the method by which archaeologist Jorge R Acosta preserved the original wooden lintels of the North Building of the Nunnery Quadrangle by installing reinforced concrete

lintels, hidden behind the walls (diagrammed as fig.7). Molina-Montes considers this an ingenious solution for a difficult problem, illustrating in living form an interesting example of deterioration and structure (p.55). The author criticizes the reconstruction of the four sides of the Pyramid of the Magician when the consolidation of large parts of the original and partial reconstruction to make some parts safe would have been sufficient. He describes the Pyramid of the Magician as a brand new wedding cake that has lost much of its authenticity (p.71). He objects to the Southwest mask on the Chenes temple as a reconstruction (p.73).

As appendixes the book includes the 1931 *Charter of Athens* and the 1931 Italian *Guidelines for the Restoration of Monuments*. Altogether this is a deeply informed, highly intelligent, publication, marking a crucial coming of age of Mexican archaeology.

### **Molina-Montes, Augusto**

“Ruz Lhuillier, Alberto”. *The Oxford Encyclopedia of Mesoamerican Cultures: The Civilizations of Mexico and Central American*. Vol. 1: 98-100. David Carrasco, editor in chief. 3 vols. Oxford University Press, 2001.

A description of the career of one of the leading archaeologist of Maya culture of his time, his appointment as Mexico’s director of Maya archaeology, then position on the faculty of the Universidad Nacional, where he was founder and first director of the University’s Centro de Estudios Mayas, and final three years as director of the Museo Nacional de Antropología. Molina-Montes notes that his major research was carried out at Palenque (including the famous 1952 discovery of the tomb of King Pacal), where “he and his multidisciplinary team carried out vast and impressive restoration and conservation work”. Immediately previous, Ruz Lhuillier had “conducted extensive excavations and major conservation work at Uxmal, presenting important revisions to the chronology of the site, and clarifying the problems related to central Mexican influences in this area”. Importantly, Molina-Montes states that “he firmly believed that the splendid architectural monuments of the Maya should be ‘reconstructed’ in order to give back to the people ‘their patrimony, the cultural heritage of which they have been disposed’ (all quotes p. 99).

***Monumentos Arqueológicos de México*** (Publicaciones de la Secretaría de Educación Pública, Departamento de Monumentos, Dirección de Monumentos Prehispánicos). México, D.F.: Talleres Gráficos de la Nación, 1933.

### **Morelet, Arthur**

*Voyage dans Amérique Centrale, le Cuba et la Yucatan*, 1857.

### **Morley, Sylvanus Griswold**

*The Ancient Maya*. Stanford, California: Stanford University Press, 1946 (2<sup>nd</sup> ed. 1947). “The first edition of this book, by Sylvanus G. Morley, was published in 1946; the second, with revisions by Morley, in 1947. The third edition, published in 1956, was prepared after Morley’s death by George W. Brainerd, except for the final chapter, which was written after Brainerd’s death by his editorial assistant, Betty Bell. The fourth edition, a revision of the

third prepared by Robert J. Sharer and published in 1983, preserved much of the Morley-Brainerd text while adding the considerable results of research and reinterpretation then available (though ca. 1980). The present edition, also prepared by Robert J. Sharer, is a thoroughly rewritten and much expanded treatment based on the rapid advance in knowledge achieved in the dozen years since the fourth edition was prepared” (Robert J. Sharer, *The Ancient Maya*, p. iv).

From its first publication in 1946, Morley’s *The Ancient Maya* became **the standard, comprehensive survey of the Maya**, presenting all aspects of Maya civilization and culture. The text deals largely with the period A.D. 320-1541 and includes an important, classified bibliography. Although some of his ideas and datings have been superseded by later scholarship, this 520-page book was a major achievement, making Maya scholarship broadly available. Relevant to this web site, Morley’s claim that the northern Maya constituted a New Empire following the collapse of and migration from the Old Empire in the South, and his dependence on the *Maya Chronicles* for the history of Northern Yucatan, are no longer accepted.

Most significantly, Morely includes Uxmal among only 4 “Class 1” sites, based on his judgment of their “relative importance in ancient times” (p. 318; the 3 other Class 1 sites are Tikal, Copan, ad Chichen Itza). Kabah and Sayil are listed among 19 Class 2 sites; Labná among 39 Class 3 sites. He lists 53 Class 4 sites. Morley provides 3+ pages on Uxmal and 2 on Kabah (pp. 329-332 and 341-342). There are also 20 relatively small, weakly reproduced, gray-scale photos of Uxmal, plus 3 of Kabah, 1 of Labná.

Especially notable for this web site, **Morley provides an early statement of the aesthetic transcendence of the Governor’s Palace and Nunnery at Uxmal**. He writes: “the Maya Renaissance reached its most magnificent expression at Uxmal in the Palace of the Governors – probably the finest edifice ever constructed in ancient America . . . and in the scarcely less spectacular Monjas Quadrangle” (p. 90; also pp. 330-331). He also observes that “The cutting and fitting of the individual elements of the elaborate stone-mosaic facades at Uxmal reached a perfection never equaled elsewhere in the Maya area” (p. 330).

Although he accepted the Xiu statements that they had founded Uxmal, he was keen enough to observe that architecture at Uxmal shows very few of the Xiu characteristics so evident at Chichen Itzá (p. 33).

This 520-page book is densely illustrated with small, gray-scale photographs. These include 17 of Uxmal and 4 of Kabah (the captions at the bottom of plate 75, opposite p. 384, belong instead to the 2 upper photographs; the captions opposite the 2 upped photographs belong instead to the 2 Kabah photographs at the bottom). There are also many line drawings, a few including aspects of Uxmal.

### **Morley, Sylvanus Griswold**

“Ancient Temples and Cities of the New World: Uxmal, the City of the Xius.” *Bulletin of the Pan American Union*, Vol. 32 (April 1911): 627-642. Washington, D.C.: Pan American Union.

### **Morley, Sylvanus Griswold**

“A Group of Related Structures at Uxmal, Mexico”. *American Journal of Archaeology*. Second Series. Vol. 14, No. 1 (Jan. - Mar. 1910): 1-18 plus 2 plates (also published in *Papers of the School of American Archaeology*, Vol. 6 , 1909).

Images of the Dovecote Group are reproduced on this web site.

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

The author writes that “the object [of his paper] has been to describe as fully as possible without excavation a single group of buildings” at Uxmal: the South Pyramid, the quadrangles north and south of the House of the Pigeons, and the 2 intermediate platforms. Although based on a single field season in 1900, Morley provides a remarkably detailed description of every section of the group with measurements. These are keyed to a large, detailed ground plan and matching elevation. The article is filled with perceptive observations and carefully reasoned interpretations. Morley includes description of the Maya method of construction, Maya arch, half arch (used at Uxmal and Kabah), and roofcomb. For the early 20<sup>th</sup> century, this is an exceptional professional study and a model for later archaeological reports.

### **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.

### **Morley, Sylvanus Griswold**

“The Stela Platform at Uxmal, Yucatan, Mexico”, ed. with notes by H. E. D. Pollock. *Archaeological Studies in Middle America*. Middle American Research Institute Publications, no.26: 151-180. New Orleans: Tulane University, 1970.

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

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

In his foreword, Pollock notes that this unfinished manuscript was very likely written in 1941 and 1942. It was published posthumously, in the volume listed above, respectively edited by Pollock, with a very few noted changes and additions. This article was the first widely available report of the stela platform, by which time all of the stelae had fallen, most of them unfortunately with their carved faces up and vulnerable. All were turned on their sides with their carved fronts facing west. Morley



provides a five-page introduction to the platform, stelae, altars and other sculptured stones on the Uxmal stelae platform. There follow detailed descriptions of sixteen individual stelae, with a photograph of each (except no.1) and detailed line drawings of the six most important (nos. 2-5, 11 and 14). Morley notes that “the relief of all the Uxmal stelae is very low and, generally speaking, poorly executed” and badly eroded (p.160).

**Morley, Sylvanus Griswold**

“Uxmal, the City of the Xius”. *Bulletin of the Pan-American Union*. Vol. 32: 627-642.

**Morley, Sylvanus Griswold**

“Yucatan: Uxmal”. *Carnegie Institution of Washington Year Book*, Vol. 41: 251-253. Washington, D.C.: Carnegie Institution of Washington, 1942.

**Morley, Sylvanus Griswold, and George W. Briarnerd**

*The Ancient Maya*. Palo Alto, California, 1956 (3<sup>rd</sup> ed.; 1<sup>st</sup> ed. 1946)

A slight revision of Morley’s classic, correcting his view of the Northern Maya to agree with prevailing scholarship.

**Morley, Sylvanus Griswold, and George W. Briarnerd; a major revision by Robert J. Sharer**

*The Ancient Maya*. Palo Alto, California, 1983 (4th ed.; 1<sup>st</sup> ed. 1946)

This major revision and expansion **reflects the immense progress of Maya studies in the 37 years since Morley’s first edition**. Sharer has divided the text into 4 new sections: “Cultural History”, “Society”, “Material Culture”, and “Intellectual Culture”. For the Puuc region, Sayil and Labná have been added to the sites discussed in the section on material culture. The list of references includes nearly 1000 entries. Even years after publication, Maya scholars recognized this as **the best survey of the ancient Maya**.

**Morris, Earl H.**

*The Temple of the Warriors: The Adventure of Exploring and Restoring a Masterpiece of Native American Architecture in the Ruined Maya City of Chichen Itzá, Yucatan*. New York: Charles Scribner’s Sons, 1931.

Based on the study and restoration of the Temple of the Warriors at Chichen Itzá, this informative report includes **a unique chapter on the step-by-step procedure by which the builders of Chichen Itzá, and in all likelihood Puuc region cities, constructed their major buildings**. Based on his detailed observations, the author proposes a series of procedures and uses of materials used by the Maya architects. He distinguished between procedures carried out at the quarry, those carried out by craftsmen off-site, and those carried out by masons and architects at the building site itself. Although written over 75 years ago, this is the most informative description of these procedures I have read.

Of special interest, Morris describes in detail the method he has observed by which the Maya produce lime for the production of mortar and plaster, essential ingredients for their art and architecture. He writes that such a description “will recast with close fidelity the procedure followed in this particular ramification of the building trade in the days before the conquest” (p. 235). His 7-page description, including 4 photos, is a remarkably informative description of every stage of the process. He includes unique descriptions such as:

“The better workmen of to-day say that the mortar now used is not nearly as good as it could be made. In the old days when there was less hurry, the *maestros* took great pains in its preparation. It was thoroughly stirred and remoistened once a day for two weeks, or longer if needed for floor or roof construction. These latter features, which astound one with their hardness considering that the cementing material is only lime, owe their hardness to two things. They were tamped for hours on end with wooden mauls, until they were poreless and compact as stone. Moreover, a special liquid was used for remoistening the surface paste as it was being tamped and finally troweled. The bark of the *chocom* tree was stripped off and put to soak in vats. After standing for a number of days the water had drawn enough of the soluble chemicals from the bark to fulfill the intended function. Lime moistened with it takes a marvelous polish under the trowel, and is practically impervious to water. It turns a bright red, and does not check under exposure to the sun” (pp. 239-240).

Although Morris’s detailed descriptions provide the unique value of his book, it is worth noting that he, like others, concludes that “burning of the lime for mortar and plaster called for a quantity of fuel [wood] that is staggering in its immensity” (p. 235), and that “it is quite impossible to form an adequate conception of the amount of labor expended in the construction of one of the ancient buildings” (p. 240).

### **Morsley, Sylvanus G.**

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

### **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.

**Moser, Stephanie, and Sam Smiles**

“Introduction: The Image in Question”. *Envisioning the Past: Archaeology and the Image*, ed. Sam Smiles and Stephanie Moser: 1-12. Oxford: Blackwell, 2005.

None of the case studies in this anthology deal with imaging the Maya, but the introduction by the editors is the most intelligent brief essay I have seen **explaining how the interpretive nature of all imagery plays out in the disciplines of archaeology and art history**. After a list of the factors that affect what is and what is not recorded in any image, the authors write:

“Above all, the underlying rationale for the image, its commissioning, function, and intended audience will all determine the limits of what it once meant and what it may mean now. These conventions need to be understood if the imaging of archaeological knowledge is to be properly considered, and they apply with equal force to all categories of its visual representation.” (pp.1-2).

They correctly note that “art history, for all its sophistication as a means of investigating visual culture, has not made any sustained effort to consider the importance of images to archaeology . . . . The characteristic reference points for each discipline do not share much common ground” (p.3).

**Muñoz Viñas, Salvador**

*Contemporary Theory of Conservation*. Oxford, etc.: Elsevier, Butterworth, Heinmann, 2005.

**Muñoz Come, Gaspar**

*Templo I de Tikal: Arquitectura y restauración*. British Archaeological Reports (BAR) International series 1557. Oxford: John and Erica Hedges, Ltd., Hadrian Books, 2006.

Although this publication focuses on Temple I Great Jaguar of Tikal, it is included in this web bibliography because of its importance in understanding the history of restoration of Maya architecture. In order to establish criteria for the restoration of Temple I, Tikal, during the years 1992-1997, the author examined the “many interventions since its re-discovery in 1848” and the “criteria employed by similar Projects, being developed contemporaneously in other archeological sites of the Petén” (p. 5). The result is a uniquely informative study, **reviewing changing practices**

in the restoration of Maya architecture and the basis for specific choices in the restoration of one of the great monuments. Although many of the photographs are printed too dark, this volume is densely illustrated throughout, demonstrating the importance of in-depth photo documentation for reports on architectural restoration. This publication originated as a doctoral thesis, submitted to the Department of Architectural Composition, Polytechnical University of Valencia, in 2003.

**Muñoz Viñas, Salvador**

*Teoría contemporánea de la Restauración*. Madrid: Editorial Síntesis, date.

**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*. 2<sup>nd</sup> ed. New Orleans Geological Society, 1967: 5-51.

N

**Narberhaus, Mechthild**

“Typologie und Chronologie der Steinarchitektur in Uxmal, Yucatán”. Universität Bonn, 1998.

**Netting, Robert McC.**

*Maya Subsistence: Mythologies, Analogies, Possibilities. Origins of Maya Civilization*: 299-333. Ed. Richard E. W. Adams. Albuquerque: University of New Mexico Press, 1977.

**“New Finds at Uxmal”**

*Art and Archaeology*, Vol. 30 (1930): 96

**Nicholson, H. B.**

“Seler, Eduard”. *The Oxford Encyclopedia of Mesoamerican Cultures: The Civilizations of Mexico and Central America*. Vol. 1: 134-137. Ed. David Carrasco. 3 vols. Oxford University Press, 2001.

A survey of Seler’s scholarly life. Beginning with the declaration that Seler’s “overall contribution to the archaeology, ethnohistory, ethnography, and linguistics of [Mesoamerican studies] was monumental” (p. 135), the author describes Seler’s study of an unusual range of academic disciplines, perhaps most notably botany, which provided the basis for the character of his exceptional range of scholarly publications. Nicholson writes that “Seler’s single most influential contribution to Mesoamerican studies” was his “extensive commentaries on the *Tonalamatl Aubin*, the codices *Fejérváry-Mayer*, *Vaticanus B*, and *Borgia*, along with the facsimiles and English translation of the first three” (pp. 135-136). He notes that Seler “focused on central

and southern Mexico". Although Nicholson writes that "Seler was also much concerned with the Maya region" (p. 136), he does not mention Seler's major 1917 publication, "Die Ruinen von Uxmal".

### **Norfolk, Simon**

"Built to Awe: Mesoamerica's Grand Monuments." *National Geographic*, Vol. 212, No. 2 (August 2007), 86-95, and fold-out photo on pp. 68-69, and "On Assignment: Shedding Light on the Subject", p. 154.

For a Society that, in the past, has funded highly informative color reconstructions of Maya architecture and sculpture, it is difficult to know what was intended by these photographs that approximate most closely *son et lumière* performances. One photograph of the night sky above the Pyramid of the Magician, taken as a time exposure showing the paths of several stars, suggests the Maya devotion to the heavens and their careful observation of the stars and planets. The other photographs, **taken at night by powerful flood lights hidden behind walls and in rooms, do not approximate the way these monuments look today or at any time in the past, nor do they help us in anyway to understand the Maya.**

### **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 on-site observation.

## O

### **Ober, Frederick A.**

*Ancient Cities of America. Journal of the American Geographic Society of New York*, 1888: 39-74.

This long article exemplifies the speculations of some 19<sup>th</sup> century writers regarding the age of Pre-Columbian civilizations, whose ruins Europeans had recently discovered and were exploring. Ober writes: "America . . . abounds in the oldest known strata; it has yielded the oldest remains of man, indicating that he has long been a denizen there; and it has afforded evidence of a civilized era which may even have preceded that of Western Europe" (p.40). "The conclusion forced upon me is, that this civilization was either indigenous, or obtained from the East . . . with a world older than Europe – older than Asia; Atlantis, perhaps, or a portion of our own continent now beneath the waves" (p.74).

### **Ober, Frederick A.**

*Travels in Mexico and Life Among the Mexicans*. Boston, 1884.

Uxmal is described in chap. 3, pp. 56-81.

**O'Brien, Patricia J. and Hanne D. Christiansen**

"An Ancient Maya Measurement System". *American Antiquity*. Vol. 51, No. 1 (Jan. 1986): 136-151.

This was the first article to examine possible measuring systems used by the Maya in the layout and design of their architecture. For this study, Uxmal, Kabah, and Chichen Itzá were studied. The authors note that they "assumed that a precise measurement system was used by the builders of Puuc style buildings because their complex facades required extensive planning" (p.140). New measurements of selected buildings were taken, avoiding restorations where possible. The authors also examined references to measurements in the Mayan language and historical documents. Based on this and other evidence, they propose a tentative measurement system (p. 149).

**Ochoa, Lorenzo**

"Alberto Ruz Lhuillier", *La antropología en México: Panorama histórico, 11. Los protagonistas*: 395-404. México, D.F.: Colección Biblioteca del INAH, Instituto Nacional de Antropología e Historia, 1988.

A brief, authoritative review of the professional life of Ruz Lhuillier (1906-1979), his publications, academic positions, theoretical approaches to archaeology and Maya culture, and his professional and public acclaim. The author describes his subject's rigor in recording data and analysis, while always asking why things had been done, Ochoa also notes his aesthetic sensitivity to works of art, and cultural focus, including awareness of his own time. Special attention is given to Ruz Lhuillier's extensive study of Palenque and discovery of the tomb of Pascal, with its superbly carved sarcophagus lid, in the Temple of Inscriptions. Includes a bibliography of 20 of Ruz Lhuillier's most important publications.

**Ochoa, Lorenzo**

"Prólogo: Pasajes amargos". Désiré Charnay, *Ciudades y ruinas americanas*. Trans. Rocío Alonzo. México, D.F.: Consejo Nacional para la Cultura y las Artes, 1994; 11-27.

In this introduction to a Spanish translation of Charnay's *Cités et ruines américaines*, Ochoa provides an excellent, heat-felt review of Charnay's life and work, in relation to that of other early Maya scholars. He includes also an account of 20<sup>th</sup> century translation and publication which describe, or not, Charnay.

**Odena Güemes, Lina, and Carlos García Mora, eds.**

*La antropología en México: Panorama histórico. 9. Los protagonistas (Acosta-Dávila)*. Mexico City, D.F.: Colección Biblioteca del INAH; Instituto Nacional de Antropología e Historia, 1987.

This volume and the following one, both coordinated and edited by Odena Güemes and García Mora, publish a large number of **authoritative articles describing major anthropologists and scholars in closely related disciplines, from a variety of countries, who have contributed significantly to the study of the anthropology and archaeology of Mexico.** This volume includes 49 articles; Vol. 10 includes 62 articles.

The following essays are separately listed and annotated in this web bibliography.

Cyphers Guillén, Ann, and Anna Di Castro, "Frederick Catherwood y John L. Stephens".

Guzmán Betencourt, Ignacio, "Charles Etienne Brasseur de Bourbourg".

Lorelei Zapata Praza, Renée. "Désiré Charnay", 567-587.

### **Odena Güemes, Lina, and Carlos García Mora, eds.**

*La antropología en México: Panorama histórico. 10. Los protagonistas (Díaz-Murillo).* Mexico City, D.F.: Colección Biblioteca del INAH; Instituto Nacional de Antropología e Historia, 1987.

This volume and the previous one, both coordinated and edited by Odena Güemes and García Mora, publish a large number of **authoritative articles describing major anthropologists and scholars in closely related disciplines, from a variety of countries, who have contributed significantly to the study of the anthropology and archaeology of Mexico.** This volume includes 62 articles; Vol. 9 includes 49 articles.

The following essays are separately listed and annotated in this web bibliography.

Benavidas Castillo, Antonio, "Teoberto Maler".

Lorelei Zapata Peraza, René, "Augusto Le Plongeon".

### **Orellana Tapia, Rafael**

"La Reina de Uxmal". *Tlatoani*, Vol. 1, Nos. 5-6 (1952): 42-44.

### **Ormas, Sandro**

"The Archaeology of Photography: An Inquiry into the Significance of Ruins in Contemporary Photography". *Camerawork: A Journal of Photographic Arts* (special issue: "Archaeology as a Template for Investigation", Vol. 24, No. 2 (Fall/Winter 1997).

## P

### **Pablo Aguilera, Maria Del M. De**

"Columnas con decoración en el área Puuc". *Misión Arqueológica de España en México*, ed. Miguel Rivera Dorado: 161-176. Madrid: Ministerio de Cultura, 1992.



### **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,

### **Palumbo, Gaetano, and Jeanne Marie Teutonico, eds.**

*Management planning for archaeological sites: Proceedings of the Corinth Workshop*. 19-22 May 2000, Corinth, Greece. Los Angeles, CA: Getty Conservation Institute, 2002.

Although begun with a focus on sites in the Mediterranean, the conference included reports on Chan Chan Peru and other non-Mediterranean sites and has international relevance.

### **Paso y Troncoso Francisco del**

*Catálogo de la Sección de Mexico. Exposición Histórico-Americana de Madrid*. Madrid, 1893.

“Vol. 2, pp. 40-51, contains a detailed description of a number of enlarged photographs of the ruins of Uxmal, exhibited at the [1892 Madrid exposition]” (Saville 1921, p.114).

### **Pavón Abreu, Raul**

“Compendio de los trabajos efectuados durante el año de 1951 por el INAH en las zonas arqueológicas de Kabah, Yuc. y Tecoh-Hopelchen, Campeche. Informes de Arqueología de Yucatan, Archivo INAH, 1951.

### **Paxton, Meredith**

“Frederick Catherwood and the Maya: Reorientation of Nineteenth Century Perceptions”. *The Maya Image in the Western World: A Catalogue to an Exhibition at the University of New Mexico*. Ed. Peter Briggs: 11-20. Albuquerque, NM: University of New Mexico Press, 1986.

An introduction to the life and work of Frederick Catherwood, placing his drawings, prints, and daguerreotypes in the context of antiquarianism and early 19<sup>th</sup> century explorers. Paxton compares different approaches to recording and artistic styles. He notes that Catherwood’s 1844 lithographs differ somewhat from his earlier engravings, which are remarkable for their accuracy and detail. Close comparison of a lithograph of Uxmal with later photographs allows the author to demonstrate how Catherwood’s famous lithographs involve slight manipulations for clarity and how they attempt to convey something of the “geographic context and the means of sustenance” the local people (p.19).

### **Peabody Museum of Archaeology and Ethnology, Harvard University: Collections Online**

On the web at:

<http://www.peabody.harvard.edu/col/default.cfm>

(accessed 2007 Nov. 27)

This is one of the two most extensive, publically available collections of early photographs of Uxmal, Kabah, Sayil, and Labná, either in print or on the web. The other equally large collection is also on the web, hosted by ARTstor (which see), which earlier this month posted on their web site early photographs from the Carnegie Institution of Washington Maya Excavations, which are now also housed at the Peabody.

Some of the same photographs appear on both web sites. These include distant views, views of individual buildings, including lesser known structures, interiors, many details of collapsing sections and individual pieces of fallen architectural sculpture, reliefs, etc. Both sets of photographs show structures as discovered, some uncovered, and some at various early stages of restoration.

The main differences are that the ARTstor images can be opened larger and at higher resolution, allowing viewers to examine the images in greater detail, a significant advantage for photographs of these elaborate and much restored Maya sites. Also, as of December 2007, the catalogue information posted with the ARTstor images is much more extensive than that on the Peabody site. However, ARTstor images are only available at subscribing institutions, whereas the Peabody images can be viewed by anyone with Internet connection anywhere in the world.

On the Peabody web site, there are 426 images of Uxmal, 347 of Kabah, 197 of Sayil, and 374 of Labná. The images can be opened mid-size, ca. 640 x 460 ppi. Nearly all appear to be from the very late 19<sup>th</sup> and early 20<sup>th</sup> centuries, though there are also recent color photographs of some artifacts. Not surprisingly, some of the photographs are badly faded, though most are in remarkably good condition.

**Pech Cassanova, Jorge, and Celia Pedrero**

*Guide for Uxmal and the Region Puuc.* Merida: Editorial Dante (paperback), 1997.

An especially clearly written brief tourist guide to the Puuc region. Following a balanced, brief introduction to the region, there are 34 short pages on Uxmal, and 4 each on Kabah, Sayil, and Labná. The photograph of Uxmal on the back cover is reversed left-right.

**Peer, Johann**

“Planungskriterien im präkolumbianischen Städtebau am Beispiel von Uxmal”. *Transparent*, Vols. 11-12 (19780: 13-31).

**Pérez de Heredia Puente, Eduardo J.**

“El edificio de las Manos Rojas de Kabah, Yucatán: chronologic y funcionalidad”. Thesis for degree. Facultad de Ciencias Antropológicas, Universidad Autónoma de Yucatán, 1998.

**Pérez de Lara, Jorge**

“Breve historia del redescubrimiento de Uxmal y de los trabajos arqueológicos llevados a cabo en el sitio”. *Mesoweb Artículos*.

**Pérez de Lara, Jorge**

“A Tour of Uxmal with a Brief History of the Site and its Archaeology”.

On the web at:

<http://www.mesoweb.com/features/uxmal/index.html>

(accessed 2007 Nov. 27)

This handsome and informative web site provides **one of the best brief introductions for visitors to Uxmal**. There are 39 first-rate photographs (some now slightly out-of-date), mostly of the Nunnery and Governor’s Palace, each with a brief, informative description. These descriptions provide basic information, helpful but properly cautious interpretations, and especially perceptive visual observations. Of special note, there is a brief, chronological review of early references to Uxmal and to early explorers and scholars of the site. **Most valuable (because, as far as I know, it is the only published list of its type) is a brief, chronological review of major restoration projects at Uxmal, beginning with the initial work of the Mexican government in 1927 and mentioning about 9 later restoration and related projects.** The web site is beautifully and clearly laid out, a model which might well be imitated by those with more artsy and chaotic designs.

*Tikal Digital Access Project*

**Philadelphia: University of Pennsylvania Museum of Archaeology and Anthropology.**

On the FAMSI web site at:

<http://www.famsi.org/research/tikal/index.html>

(accessed 2006 Nov. 26)

This image archive does not deal with the Puuc region, but it provides a model for future web archives for all types of archaeological research materials at all archaeological sites. Currently, the archive includes 500 of the more than 60,000 historic images taken by various photographers during the University of Pennsylvania Museum's 1956-1970 archaeological investigations at the Maya site of Tikal. The project promises to be a model demonstration of how previously little-known research materials, difficult of access, can be made available to other scholars, students, and the public. For a description of the project see:

[http://www.museum.upenn.edu/TDAP/TDAP\\_About\\_the\\_Project.html](http://www.museum.upenn.edu/TDAP/TDAP_About_the_Project.html)

### **Pierrebourg, Fabienne De**

“La plataforma del cabrio: una unidad habitacional de Kabah, Yucatan”. *In Memorias del Segundo Congreso Internacional de Mayistas: 197-209*. Mexico, D.F.: Universidad Nacional Autónoma de México, Instituto de Investigaciones Filológicas, 1995.

### **Pijoan, J.**

*Arte Precolumbiano, Mexicano y Maya*. Vol. X of *Summa Artis: Historia General del Arte*. Madrid, 1946.

### **Piña Chán, Román**

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

### **Piña Chan, Roman**

“Una escultura de Kabah, Yucatan”. *Técnica y Arte 3*. Mexico, D.F., 1965.

### **Piña Chán, Román**

*El Puuc: una tradición cultural maya*. México: El Equilibrista and Madrid: Turner Libros, 1991.

This handsome, large format book contains **the largest number of color photographs of Puuc architecture of any print publication**. Although the text is extensive, it is the photographs and their captions that set this book apart from previous publications. The one section of the text of special use to advance students is the list of decorative elements of Puuc architecture divided between 13 characteristics that preceded and 18 that followed the arrival of invading conquering groups (pp. 165-166).

Altogether, there are some 150 photographs of Puuc architecture, sculpture, and painting, and 17 diagrams. Some of the photographs are largely pictorial images of sunsets or skylines, and most of the photographs of sculpture are diminished by the fashionable use of blank, black background and overcontrasty lighting, but **most of the photographs are outstanding, professional images especially making available details otherwise unavailable in print**. This allows us to see the present condition of the architectural sculpture and important details of carving and imagery. Perhaps because of limited time to photograph, a fair number of the photographs were taken in shade or overexposed in printing, eliminating some of the 3-dimensional information of these complex facades. Nevertheless, these have some value and at least half of the

photographs survive as among the finest and most informative published of Puuc architecture.

### **Piña Chán, Román**

“To Reconstruct or Not: Comments by a Distinguished Archaeologist”. *A Guide to Architecture in Ancient Mexico*, by Paul Gendrop. Toluca, México: Editorial Emahaia, 1974 (4th ed. 1998): 3-6.

Short essay describing the work of professional archaeologists in Mexico. The author writes: “Professional ethics demand that he leave the testimony of what he finds; then he must decide whether mere conservation of such remains is sufficient, or whether he should undertake partial or total restoration of the monument.” Román Pina Chán then **describes some of the visible characteristics that allow one to distinguish modern restoration from original remains.**

### ***La Pintura Mural Prehispánica en México; II Área Maya.***

2 vols. Tomo III Estudios, Tomo IV Estudios (pages numbered consecutively through the 2 vols.). Beatriz de la Fuente, Directora del Proyecto; Leticia Staines Cicero, Coordinadora. Universidad Nacional Autónoma de México; Instituto de Investigaciones Estéticas, 2001.

An impressive, oversize publication, with large foldout charts and illustrations, profusely illustrated with invaluable color photographs of mural paintings with diagrams. This publication provides **the first comprehensive study of Maya wall painting, with different authors for the 27 or so different chapters and sections.** These 2 volumes are part of the larger 4-volume study of Mexican mural painting. Following an introductory section, there are 3 summary chapters on different Maya areas. Unique, and of special importance, are 3 long chapters, one on the style, one on the materials and techniques of Maya mural painting, and one on the role of epigraphy in mural painting. There are 6 short sections on the relation of astronomy to wall painting at 6 Maya sites. Finally, there are 9 chapters on the painted murals at 9 Maya sites.

Because the small vault lid paintings at Uxmal and Kabah are less significant than mural paintings at other sites, Uxmal, Kabah, Sayil and Labná receive little attention. The Chapter on the Northern Yucatán briefly describes the small paintings on the interior surfaces of vault lids, a few with rectangular paintings usually about 60 x 30 cm. Although there are 3 small color photographs of the exterior of buildings at Uxmal and Labná, there are no photographs of their vault lid paintings. There is a chapter on painted images on vault lid in which 9 are listed from Uxmal and 2 from Kabah. Of course, it is likely that vast amounts of Maya wall painting on

plaster have deteriorated or been destroyed with no trace.

**Plan of the Nunnery Quadrangle at Uxmal**

*Tulane News Bulletin*, Vol. 11, No. 6 (1931): 95-97.

**Pohl, John M. D.**

*Exploring Mesoamerica*. Oxford University Press, 1999.

**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 Wauchop. Austin, Texas: University of Texas Press, 1965.

This orderly survey presents a comprehensive description of Maya architecture, tracing its development and change, considered under the following categories: city planning; building materials; quarrying, stonecutting and transportation; construction and masonry; types and functions of buildings; and architectural styles. Pollock attempts to describe overall characteristics of Maya architecture, then to draw distinctions and exceptions. He notes the emphasis on the masses of platforms, pyramids, and monumental buildings, their grouping and relation of different levels. He calls attention to our dependence on the classic and late classic remains, since most monumental structures were constructed in successive stages, on top of each other, and, at least by 1965, very little excavation had been carried out. He notes also how little we know of such things as the planning that preceded the erection of Maya buildings. The Puuc region is one of ten Maya areas included. Pollock calls attention to the unusual density of ruins in the Puuc and to the special difficulty of estimating the limits of Puuc cities. In a separate description of the Puuc style, that includes five restoration drawings of Puuc buildings by Proskouriakoff (pages 429-433), Pollock provides a perceptive observation, usual in Maya studies: “One’s first impression of this architecture might be to notice a sharpness of line, a crisp quality, that for the most part we have not seen elsewhere. This is true not only of the simple lines of the substructural terraces, of the sharply relieved moldings and generally level roof lines, but of much of the decoration which is executed in precisely carved stone covered by only a thin coat of plaster” (p.431).

**Pollock, H. E. D.**

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

**Pollock, H[arry] E. D.**

“Casa redonda”. *Contributions to American Archaeology*. Vol. 3. Washington, 1937.

**Pollock, H[arry] E. D.**

“Department of Archaeology” in *Carnegie Institution of Washington, Year Book* no. 51. Washington, D.C., 1936. Pp.235-243.

**Pollock, H. E. D.**

*The Puuc: An Architectural Survey of the Hill Country of Yucatan and Northern Campeche, Mexico.* Memoirs of the Peabody Museum, Harvard University, Vol.19. Cambridge, Mass.: Harvard University (published in cooperation with the Carnegie Institution of Washington), 1980.

Although now over twenty years old and based on fieldwork in the 1930s, this volume still constitutes **the most comprehensive published archaeological report on Maya sites in the Puuc region.** There are 600 pages, about half of which are photographs and diagrams, **reporting in varying degrees on some 140 “ruins”.** Overall comments are contained in an Introduction, Summary and Review, where Pollock deals with questions of environment, age of the ruins, size of the sites, types and features of the buildings, stelas and altars, and architectural style. Among other things **he notes that his field research was carried out during a period when major attention was given to the formal architecture of the civic-ceremonial centers and that it would have been desirable to have given more attention to domestic dwelling and especially to settlement patterns.**

Of special note, the book includes over 900 illustrations, a few of which are large fold-outs housed in a sleeve in the back. It is all too rare for this type of in-depth professional recording to be published and thus made available to interested students and the public. Often, field reports are housed in the archives of research institutes and governmental agencies, but not generally available. Pollock’s illustrations are exemplary and exceptional in allowing the reader to see what is described in the text. **These are not pictorial photographs, but were taken to record a multitude of specific observations. Both the in-depth diagrams and large body of photographs are indispensable.** Although small, grey-scale, and weakly reproduced, the photographs are of special importance in recording many aspects of the sites previous to extensive restoration of the mid and late twentieth century. **The correlation between text and image is a model of how these mutually supportive media should be presented.**

**The major reports are on the four sites which constitute the subject of this web site:** 136 pages for Uxmal, 65 for Kabah, 52 for Sayil, and 46 for Labná. Pollock notes that, because of study underway by the INAH, he was unable to conduct the type of in-depth study of some of the major buildings at Uxmal that he accomplished for the other three cities. Otherwise, for each city Pollock provides detailed descriptions, photographs and diagrams, structure by structure and room by room; noting features such as the plan, section, and elevation, the walls, wall depression and projections, moldings, vaults, doorways, stairways, and floors. These allow him, among other things, to make suggestions about building sequences; though he notes the difficulty when there are so few excavations with stratigraphy to rely on. This is by far the most informative book for anyone studying the physical remains of Uxmal, Kabah, Sayil and Labná. Even for the many scholars who now have other interests, the basic data and presentation in the volume provide invaluable evidence for their work. In many ways this web site is dependent on this basic study.

**Pollock, H[arry] E. D.**

“Round Structures of Aboriginal Middle America”. *Carnegie Institution of Washington, Publications*, Pub. 471. Washington, D.C., 1936.

**Pollock, H. E. D.**

“Sources and Methods in the Study of Maya Architecture”. *The Maya and Their Neighbors*, ed. Clarence L. Hay, *et al.* Chapter XII, 179-201. New York: Appleton-Century, 1940.

A chronological account of the study of Maya architecture, beginning with 16<sup>th</sup> century references. There are sections on the 18<sup>th</sup> and 19<sup>th</sup> centuries, the “Modern Period”, and 1924-1939. These describe the research and writings of the major explorers, archaeologists, and other scholars. Pollock discusses the methods used in the study of Maya architecture, the aims of such study, and the needs and problems of future research.

**Pollock, Harry E. D., et al.**

*Arte Maya: Uxmal, Sayil, Labna, etc.* México: Editora del Sureste, 1982.

**Ponce, Alonzo, and Antonio Ciudad Real**

*Tratado curioso y docto de las gandezas de la Nueva Espana: 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.* Madrid, 1872 (the publication of a 1588 report).

A definitive, 2-volume, scholarly edition, by Josefina García Quintana and Víctor M. Castillo Farreras, with remarkably extensive preliminary material, notes, and maps, was published in 1993, by the Universidad Nacional Autónoma de México. Of the maps charting their travels, map 16 includes Uxmal.

An excellent English translation of the section describing Uxmal is included in Herbert J. Spinden, *A Study of Maya Art*, Peabody Museum, 1913, pp. 5-8. Spinden’s volume is separately listed and annotated in this web bibliography.

In his 2-page prologue to the 1947 edition, Andres Henestrosa points out that an arbitrary title has been used and that **this 1588 report, although attributed to Friar Alonzo Ponce, was largely written by Antonio de Ciudad Real**, who served as secretary and guide for Ponce and Friar Alonso de San Juan. Ciudad-Real spoke Yucatec fluently and was familiar with the Yucatan. Henestrosa also writes that this account is a perfect description of Mexico at the time, of the people they met, their villages, food, etc., written simply without pretension.

**The 5-year expedition of Alonso Ponce, Antonio de Ciudad Real, and Fray Alonso de San Juan, took place 1584-1588.** Ciudad Real’s account of their travels was almost certainly written in Europe in the next few years, upon his return from the Yucatan.

**The section on Uxmal is not the earliest mention of the ancient Maya city but is the earliest description of it.** The text consists of 6 substantial paragraphs describing the Pyramid of the Magician, Nunnery Quadrangle, and Governor’s Palace. Much is



straightforward, accurate description. But there are a few exceptional observations. About the South Building of the Nunnery. Ciudad-Real writes (from the excellent translation in Spinden):

“At the door of each of the rooms of this building on the inside, there are four rings of stone, two on one side and two on the other,--two of them being high up 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 . . . .”

Especially important evidence for our much needed hypothetical restoration of plaster and paint is the author’s observations about the entrance arch to the courtyard: “**this entrance 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”.

**The most detailed observation is the author’s description of the interior vaults of the South Building of the Nunnery,** which he states are similar to all others in this province: “both sides [of the vault] draw together little by little and the space between becomes more narrow, till on the top 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 and remains fixed and strong”.

### **Ponce, Alonzo**

*Viaje a Nueva España* (Antología). Selección y prólogo de Andres Henestrosa. Biblioteca Enciclopedia Popular (Segunda Epoca) 184. México, D.F.: Secretaria de Educacion Publica, 1947.

See the listing for the 1872 edition above.

### **Ponce de León, Josefa Iglesias, and Francesc Ligorred Perramon, eds.**

*Perspectivas Antropologicas en el Mundo Maya*. Sociedad Espanola de Estudios Mayas, Publicaciónes Sociedad Espanola de Estudios Mayas, No. 2. Madrid: Departamento de Historia de América II, Facultad de Geografia e Historia, Universidad Complutense: Instituto de Cooperacion Iberoamericana, Madrid, 1993.

This volume publishes **35 papers given at the roundtable**, “Perspectivas Antropologicas en el Mundo Maya”, organized by the Sociedad Espanola de Estudios Mayas (S.E.E.M.), held May 1991 in Girona, Catalonia. Scholars in the fields of archaeology, ethnohistory, ethnology, linguistics, epigraphy, and iconology attended from Mexico, Guatemala, Spain, France, Canada, and the United States.

The following five papers dealing with the Puuc region are separately listed and annotated in the bibliography on this web site:

Taladoire, Eric “Les juegos de pelota en el Norte de Yucatan: una revision de los datos”

- Ligorred Perramon, Joseph, "Valor estético en la escultura Maya: la apreciación del símbolo en el Puuc"
- Ramón Carrasco, Vargas, "Formación sociopolítica en el Puuc: el sacbé Uxmal-Nohpat-Kabah"
- Vidal Lorenzo, Cristina and Gaspar Munoz Cosme, "Nuevas aportaciones a la evolución arquitectónica en el area Puuc"
- Pable Aquilera, M.a del Mar de, "Algunas columnas antropomorfas en la mitad occidental del área Puuc. Particular referencia al sitio de Oxkintok"

**Popol Vuh**, *Le Livre Sacre et les Mythes de l'Antiquité Américaine, avec les Livres Héroïques et Historiques des Quichés: ouvrage original des indigenes de Guatémala, philologiques et d'un commentaire la mythologie et les migrations des peuples anciens de l'Amerérique, etc., composé sur des documents orginaux et inédits, par L'Abbé Brasseur de Bourbourg.*  
Paris: Aug. Durand, Éditeur, 1861.

The 1954 English translation by Delia Gotz and Sylvanus Griswold Morley, from the translation of Adrián Recino, is on the web at:  
<http://www.sacred-texts.com/nam/maya/pvglm/>  
(accessed 2007 Nov. 29).  
1908 English translation by Lewis Spence of excerpts is on the web at:  
<http://www.sacred-texts.com/nam/pvuheng.htm>  
(accessed 2007 Nov. 29)

In his 1948 note, Sylvanus Griswold Morley writes:

"The original redaction of this most precious fragment of ancient American learning is now lost; however, it seems first to have been reduced to writing (in characters of the Latin script), in the middle of the sixteenth century, from oral traditions then current among the Quiché, by some unknown but highly educated, not to say literary, member of that race."

"This now lost original was again copied in the Quiché language, again in characters of the Latin script, at the end of the seventeenth century, by Father Francisco Ximénez, then parish priest of the village of Santo Tomás Chichicastenango in the highlands of Guatemala, directly from the original sixteenth-century manuscript which he had borrowed for the purpose from one of his Indian parishioners."

"The *Popol Vuh* is, indeed, the Sacred Book of the Quiché Indians, a branch of the ancient Maya race, and contains an account of the cosmogony, mythology, traditions, and history of this native American people, who were the most powerful nation of the Guatemala highlands in pre-Conquest times. It is written in an exalted and elegant style, and is an epic of the most distinguished literary quality."

There is also a much longer, 1950, highly informative scholarly note by Adrián Recinos.

**Porro, Antonio G. B.**

"O año de Uxmal e os gémeos deo Popul Vuh". *Revista do Museu Paulista*, Vol. 24 (1977): 7-21.

**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”.

**Pratt, Mary Louise**

*Imperial Eyes: Travel Writing and Transculturation* (New York and London: Routledge Press, 1992).

## **Precolumbian Art Research Institute (PARI)**

On the web at:

<http://www.mesoweb.com/pari/>

The web site for PARI, a research institute for “Mesoamerican civilizations, their art, archaeology and glyphic texts, as well as research concerning the tropical environment and its ancient monuments” (“About PARI”), including lists of print and on-line publications.

### **Prem, Hanns J.**

“Aspectos de los patrones de asentamiento en la region Puuc central”. *Escondido en la selva: arqueología en el norte de Yucatan*, ed. Hanns J. Prem: 273-308. México, D.F.: Instituto Nacional de Antropología e Historia; and Universidad de Bonn, 2003.

In this impressive paper, Prem distinguished 2 different approaches to the study of settlement patterns in the Puuc region, which attempt to understand social conditions through the study of the physical remains of buildings. He states that the majority of such studies investigate external patterns, the distribution of archaeological sites in a geographical area. In his conclusion, he writes that such attempts to reconstruct areas of political influence or economic networks are premature, necessarily fictitious, because there are so many still unknown archeological sites in the Puuc region.

Prem writes that the second type of settlement pattern study, internal patterns, has been less common but is much more reliable. This is the study of building remains within an archaeological site. **He especially argues for the study of the spatial configuration of human habitation within Puuc cities.** He refers to the studies of Carmean proposing complex households. Prem distinguishes various types of buildings by design and associates these with potential types of use. Especially of interest is his identification of non-habitational buildings and zones and of the social implications based on the different directions buildings face. He writes that, in the Puuc region, buildings were related to spaces either as quadrangles surrounding an interior space or as quadrangular buildings with 4 not clearly differentiated facades.

Ten of the 25 illustrations and a significant portion of the text are devoted to Xkipché, where the author has studied the design of the buildings and their relationship to each other and the related spaces.

He illustrates and briefly discusses Kabah, Sayil, and Labná, and provides 4 illustrations of Uxmal which he examines in some depth. Prem calls special attention to the frequency of C-shaped buildings at Uxmal, both small and large gallery-type structures. He writes that the long rectangular form of these buildings with open columned fronts, along with the lack of cisterns and metate remains in these areas, indicates that they were not used for habitation.

### **Prem, Hanns J.**

“Consideraciones sobre la técnica constructiva de la arquitectura Puuc”. *Cuadernos de arquitectura mesoamericana*, Vol. 29 (1995); 29-38.

**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 Chichén 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 1<sup>st</sup> 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”

**Prem, Hanns J., and Alfredo Barrera Rubio**

“Proyecto arqueológico región noroeste-central Puuc”. *Consejo de Arqueología: Boletín*. Consejo Nacional para la Cultura y las Artes; Instituto Nacional de Antropología e Historia (1991): 228-232.

Report of a systematic study of the archaeological site of Xkipché, 9 km south of Uxmal. The study attempts to help clarify the chronological and stylistic sequence in the Puuc area and to help in understanding outside influences. This is pursued through (in translation) “the complete excavation of a relatively well-preserved building, that serves to document and analyze the transition of an earlier stylistic complex toward the Puuc Classic” (p. 228). The authors conclude that the evidence, including the existence of reutilized elements in almost all the constructions at Xkipché, shows that the ancient inhabitants dismembered previous buildings to use in the construction of new ones. They note various unanswered questions raised by this conclusion. Unfortunately, the diagram of the archaeological zone is reproduced too small to read much of the detail, even the legend of symbols.

**Prem, Hanns J., and Nicholas P. Dunning**

“Investigations at Hunto Chac, Yucatan”. *Mexicon: Aktuelle Informationen und Studien zu Mesoamerika*. Vol. 24, No. 2 (April 2004): 26-36.

Report of the most thorough mapping (March-April 2003) and study of the Puuc site, Hunto Chac, located 8 kilometers south of Uxmal and 10 kilometers north-west of Kabah. In addition to valuable comparisons with other Puuc sites, of special importance for the study of Uxmal is the report on an occasionally mentioned *sacbé* connecting Hunto Chac with Uxmal. The authors report: “A systematic search was made around the northern end of Group D in an attempt to locate the rumored intersite *sacbe* to Uxmal. A search was also made along a 1.2 km-long east-west transect about 500 m north of the site center. Neither search was able to locate any trace of an intersite *sacbé*. These searches do not eliminate the possibility that such a roadway exists, but we now consider that such a link to Uxmal is unlikely. We suspect that the prominence of the intra-site *sacbe* at Hunto Chac may have given rise to the local belief of an ancient roadway linking the sites” (p.27).

**“Principles, Practices, and Process: A Discussion about Heritage Charters and Conventions”**

*GCI Newsletter*, Vol. 19, No. 2 (Summer 2004).

On the web at:

[http://www.getty.edu/conservation/publications/newsletters/19\\_2/dialogue.html](http://www.getty.edu/conservation/publications/newsletters/19_2/dialogue.html)

(accessed 2007 Dec. 2)

**Proskouriakoff, Tatiana**

*An Album of Maya Architecture*. Carnegie Institution of Washington, Publication 558. Washington, D.C.: Carnegie Institution of Washington, 1946 (republished in paperback by the University of Oklahoma Press, Norman, 1963).

Full-page reproductions of **thirty-six gray-scale watercolor drawings** (in the collection of the Peabody Museum, Harvard) of major, surviving Maya buildings and parts of cities, **presenting Proskouiakoff's proposed reconstructions “shown in perspective plotted from the most accurate measurements available.”** Small, accompanying line drawings show the remains as they existed in the 1940s, distinguishing among “parts of a building which still stands substantially in their original position, . . . ruined or buried features which have a counterpart elsewhere on the same structure, [and] fallen elements whose approximate original position can be reasonably deduced from the general nature of the design.” “Whatever is less certain and has been restored merely by analogy with other buildings at the same site or by surmise based on habitual building practices of the Maya, is either entirely omitted . . . or is indicated lightly by the outline of existing debris.”

In addition to a general introduction to Maya architecture, there are comments accompanying each drawing. The drawings include the Monjas Quadrangle, Palace of the Governors, and Palomas Group at Uxmal; Palace Group at Kabah; Palace at

Sayil; and Palace and Portal Vault at Labná. In these she provides reasons for some of the details of her reconstructions.

In a few instances she does not avoid aesthetic judgments. In the most extended example, she writes of the Codz Poop at Kabah:

“In view of the tremendous amount of skilled labor involved in carving so many individual pieces of stone, the artistic effect achieved is disappointing, and one regrets that the originality of the designer was not equal to the craftsmanship of the artisan. The highly cultured and pious aristocracy of the Maya Old Empire would have scorned such baroque ostentation, the product of a later, more secular, civilization seeking to impress the populace with a spectacular display of technical skill. There is some indication that the building was designed to have two stories. . . . Perhaps the builders themselves were discouraged by the results of their efforts by the time the mask façade was completed, and terminated the extravagance by substituting a simple roof comb for the intended second story. This change of plan may be in a measure responsible for the ineffectual pretensions of this building, which was obviously meant to dominate the composition of the group.” For a contrasting aesthetic judgment, see Stierlin).

### **Proskouriakoff, Tatiana**

“Civic and Religious Structures of Mayapan”. *Mayapan, Yucatan, Mexico*: 87-164. H.E.D. Pollock, Ralph L. Roys, T. Proskouriakoff, and A. Leyard Smith. Carnegie Institution of Washington, Publication 619. Washington, D.C., 1962

Although based on study of Mayapan, the lists and four pages of drawings in this article provide **the clearest depiction and descriptive names available for the large variety of stones used in Puuc architecture** (pp. 146-153, unnumbered). Among others, these include boot-shaped vault stones, wall stone, coping stone, molding stone, and gutter spout from roof (fig. 4); eyepiece of masks, fillets of mask headdresses, scroll elements, mask earplug, interlacing strand motifs, dentate squares, S-scroll elements, mat or grid motif, cross element, dentate triangles from dentate zigzag motif, stepped triangle, fret, guilloche or bead-and-fringe motif, dentate elements used diagonally in zigzag, serpent head, spool elements, nose of mask, fret elements, guilloche, mouth elements of serpent motif, and rosettes (fig. 5); serpent tails, serpent heads, and human hands of monster (fig. 6); and serpent head, tenoned serpent heads of Toltec type, serpent-eye elements, serpent-mouth elements, stucco figures on columns, stucco monster at foot of serpent column, stucco figure of jaguar, and stucco statue (fig. 7). **These drawings are detailed and remarkably clear, invaluable.**

### **Proskouriakoff, Tatiana**

*Maya History*, ed. R. A. Joyce. Austin: University of Texas Press, 1993.

### **Proskouriakoff, Tatiana**

“Sculpture and Major Arts of the Maya Lowlands”. *Archaeology of Southern Mesoamerica: Part One*, ed. Gordon R. Wiley: 469-497. Vol. 2 of *Handbook of the American Indians*. Austin: University of Texas Press, 1965.



The body of this paper is **an impressive chronological review of the sculptural objects and styles of the Lowlands** from their origin to the century before the conquest. Proskouriakoff points out that the few stelae being produced were “not placed near the principal temples. . . but were usually collocated in platforms apart from the main architectural groups.” She claims that “the monuments that are found in Florescent Puuc sites are generally crudely sculpted and seldom have legible inscriptions (p.490). She illustrates Stela 5 and Column of Str.4B1 from Sayil (fig.12). About Puuc architectural friezes she writes: “mosaic sculpture . . . although it is excellent in craftsmanship, its scope of design is limited” (p.490). Equally important are the observations in her three-page introduction (pp.469-470). She is a rare voice noting the lack of photographic evidence, largely true even today: “Photographs of sculptures are scattered through many archaeological reports, but detail is often poorly discernible in them.” Here also she states her approach: “I believe the aesthetic effects are incidental to the communicative function of art, and that emphasis on them reveals the bias of the present age far more than it clarifies the intentions of the past”.

### **Proskouriakoff, Tatiana**

“Some Non-classic Traits in the Sculpture of Yucatan”. *The Civilization of Ancient America: Selected Papers from the XXIX<sup>th</sup> 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).

### **Proskouriakoff, Tatiana**

*A Study of Classic Maya Sculpture*. Carnegie Institution of Washington, Pub. 593. Washington, D.C.: Carnegie Institution of Washington, 1950.

**A classic tour de force of stylistic analysis.** The author marshals over four hundred details from figural sculpture, illustrated with small line drawings of approximately the same size, devoid of physical context. She organizes these into a series of fourteen categories, based on costume parts and a few other types (e.g. scrolls, serpent heads, feathers, headdresses, earplugs and nose beads, collars, etc.). Within each category, she divides the examples according to detailed types (e.g. she divides earplugs and nosebeads into “Large earplug with deep indentation, Earplug fastened with rope or fillet, Earplug with bead directed away from face,” etc.). She writes that

she is not dealing here with the complex matters of artistic style, but with “qualities of pure configuration: the preferences for certain shapes, proportions, types of curvature, and rhythmic changes of their arrangement.” In classic Morellian form, she writes: “What degree of meaning or suggestion they are intended to convey is immaterial. They have been chosen entirely on the basis of their similarity in form structure and grouped according to differences in arrangement and configuration.” Her aim is “to establish definite and significant style characteristics on which future discussion can be based. This is the principal aim of this study” (preface). Proskouriakoff then puts these details into approximate chronological order, making use of recent advances in epigraphic decipherment if dates.

Unfortunately, the Puuc style does not figure significantly in this impressive stylistic analysis. Only five of the over four hundred examples are drawn from Puuc sites. The examples are drawn from the figural sculpture on stelae and related types of monuments. There are relatively few of these at Puuc sites, and those that do exist are mostly weak descendant of southern Maya types. On the other hand, the figural sculpture on the mosaic friezes, in which the Puuc sites are so rich and of such high quality, play almost no part in the analysis.

The last half of the book organizes these monuments according to their sites of origin, with a comprehensive corpus of photographs. In this half of the book, Proskouriakoff describes these monuments and provides historical-descriptive-evaluative terms such as “Late Classic Period-the Ornate Phase,” “Late Classic Period-the Dynamic Phase,” “The Late Classic-the Decadent Phase.” Although there are some perceptive observations about the style of Puuc monuments, the examples are again drawn entirely from stelae and other southern Maya type monuments. None of the thirty some photographs of Uxmal, Kabah, Sayil, or Labná show sculpture from their pervasive and highly original mosaic friezes, so necessary if one were to study Puuc style.

Kubler wrote: “She made her own view clear: Critical study of art is not for the archaeologists. Aesthetic values have little bearing on immediate archaeological problems, and their elucidation in works of art has always been and should remain the function of art critics and art historians. . . . Our responsibility ends with supplying for the critic the necessary information on chronology and cultural affiliation of works of art and in publishing them with the least possible loss of aesthetic values.” (ref: Kubler, p.153 [bibliog.: “Studies in Middle American Art,” in *Anthropology and Art*, ed. C. M. Otten (New York, 1971), 129] )

### **Prowe, Hermann**

“Neue Forschungen in den Ruinen von Uxmal (Yucatan)”. *Globus*, Vol. 71: 220-224, and 240-242 (an original manuscript, “Recent Researches in the Ruins of Uxmal (Yucatan)”, is in the Tozzer Library, Harvard University).

### **Puleston, Dennis E.**

“An Experimental Approach to the Function of Classic Maya Chultuns”. *American Antiquity*. 1971: 322-335.

This article presents **an extended review of the various theories regarding the use of chultunes by the Maya during the Classic Period**. The author states that there is general agreement that the deep, bottle-shaped, cistern-like chultunes in the northern Yucatan were used for rainwater storage. However, he states that the smaller, lateral-chambered chultunes of the southern lowlands, thought first also to have been used for water storage, are now generally thought to have been used for food storage. However, by running experiments storing food in comparable chultunes, he has determined that they are unsuitable for the storage of most foods; the hardseed of the ramon, which remained edible for 13 months, being an important exception. He has also concluded that **“chambers constructed beneath platforms in the northern lowlands may have been used for the storage of maize”** (p. 322). One page contains comparative diagrams of chultunes and a burial vault from the Maya lowlands. Puleson states that chultunes at Uxmal, Kabah, and Sayil have been re-plastered inside, their circular catchment-basins restored, allowed to fill with rainwater, and are currently in use.

## Q

### **Quintana, Oscar**

“Probleme der Konservierung von Maya-Ruinen”. *Die Welt der Maya: Archäologische Schätze aus drei Jahrtausenden*, ed. Nikolai Grube and Eva and Arne Eggebrecht: 139-141. Mainz am Rhein: Verlag Philipp von Zabern, 1992.

This brief essay is necessarily **a survey of the changing destruction and restoration history of Maya ruins**. Most of the essay is devoted to a review of the diverse factors causing decay and destruction of the sites and the numerous needs for their preservation. There is not space to more than comment on the quality of restoration at a few individual sites, though **a useful chronology is provided of restoration projects at a list of Maya sites, including Uxmal, Kabáh, and Labná**. Quintana ends with a summary of the current state of the ruins and needs for their preservation.

### **Quirante, Jacinto**

“Diferencias arquitectónicas en dos ciudades mayas: Uxmal y Chichén Itzá”. *Boletín del Centro de Investigaciones Históricas y Estéticas*, Vol. 5 (1966): 51-119.

## R

### **Ralph, Elizabeth K., H. N. Michael, and M. C. Han.**

“Radiocarbon Dates and Reality,” in *Masca newsletter* 9: 1-20. Philadelphia: Applied Science Center for Archaeology, University Museum, University of Pennsylvania, 1973.

### **Ramirex Aznar, Luis A.**

*Puuc*. Mérida, 1978 (2<sup>nd</sup> ed.)

**Ramirez Aznar, Luis A.**

*Puuc: testimonios del pueblo Maya*. Colección Voces de Yucatán, Vol. 15,. Mérida: Maldonado Editores, 1983.

**Ramirez Vazquez, Pedro**

“Técnica para la Conservación y la Restauración del Patrimonio Artístico Nacional”. *Seminario de Cultura Mexicana*. IV Asamblea Nacional de Corresponsalías, 29 Ene - 5 Feb. 1966. Edición Mimeográfica. Aguascalientes.

**Ramón Carrasco, Vargas**

“Formación sociopolítica en el Puuc: el Sacbé Uxmal-Nohpat-Kabah”. *Perspectivas antropológicas en el mundo Maya*, ed. M. Josefa Inglesias Ponc de León and Francesc Ligorred Perramón. Sociedad Española de Estudios Mayas (Publicaciones Sociedad Española de Estudios Mayas, No. 2): 199-212. Madrid, 1993.

The author observes that the Uxmal-Nohpat-Kabah sacbé has been used to claim the position of Uxmal as regional capital. Instead **he argues that the evidence from an exploration of the sacbé in 1990 demonstrates that all three cities were part of a regional organization, based on a political agreement that allowed their autonomous populations to interact equally and to retain their own integrity**. Carrasco Vargas calls attention to the overlooked importance of Chetulix as the end of the sacbé, which never arrived at Uxmal. Based on the remaining evidence, he makes the extraordinary claim that Nohpat may have been as important as Uxmal. He describes the monumental area of Nohpat as surpassing in some ways the monuments of Uxmal. In tracing the sacbé from Kabah to Nohpat to Chetulix, the author provides **the most detailed description of various aspects of this often mentioned roadway**.

**Ranney, Edward**

*Stonework of the Maya*. Albuquerque: University of New Mexico Press, 1974.

The author-photographer’s dramatic, high-contrast, black-white photographs demonstrate his claim that “a photograph, like an archaeological artifact itself, has the unique potential for providing an intensely evocative expression of an ancient culture” (p. viii). There are 76 photographs of 11 sites, 13 photos of which are of Uxmal, Kabah, Sayil, and Labná.

**Rapoport, Amos**

*The Meaning of the Built Environment: A Nonverbal Communication Approach*. 2<sup>nd</sup> ed. Tucson: University of Arizona Press, 1990.

**Reindel, Markus**

“El abandono de las ciudades puuc en el norte d Yucatán”. *50 años de estudios americanistas en la Universidad de Bonn: Nuevas contribuciones a la arqueología, etnohistoria, etnolingüística y etnografía de las Américas*, ed. Sabine Dedenbach-Salazar Sáenz, et al.: 239-258. Markt Schwaben: Verlag Anton Saurwein, 1998.

**Reindel, Markus**

“El apogeo de la arquitectura Puuc: voludion de una cultura del Clasico tardio en el norte del area Maya”. *Escondido en la Selva: arqueología en el norte de Yucatan*, ed. Hanns J. Prem: 79-96. México, D.F.: Instituto Nacional de Antropología e Historia; and Universidad de Bonn, 2003.

**Reindel, Markus**

Review of “*Mayas del Puuc: Arqueología de la región de Xculuc, Campeche*. Dominique Michelet, Pierre Becquelin, and Marie-Charlotte Arnaud. Centre Francais D’Etudes Mexicaines et Centraméricaines, Mexico City, 2000”. Reviewed in *Latin American Antiquity* . Vol. 12, No. 3 (Sept. 2001): 343-345.

Although reviews are not generally included in this web bibliography, this excellent 3-page review should be referenced. The author notes the importance of previous Puuc studies, but states that the new publication, *Mayas del Puuc*, is **the most profound in its analysis of its archaeological information and our understanding of the Puuc, most notably in our ability to reconstruct the life of the inhabitants.**

**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. Cenro de Estudios Mayas. Fuentes para el Estudio de la Cultura Maya 1. México: UNAM, 1983.

**Renfrew, Colin and Paul Bahn**

*Archaeology*. London: Thames and Hudson, 1996.

**Reygadas Vertiz, Jose**

“Estado actual de los monumentos arqueológicos de México”. México: Secretaría de Educación Pública, 1928.

**Reygadas Vértiz, José**

“Labná”. *Estado actual de los principales edificios arqueológicos de México*: 199-209. México, D.F.: Dirección de Arqueología, 1928.

**Reygadas Vértiz, José**

“Ruinas de Labná, Yucatán un informe al ministerio de educación pública”. *Mexican Folkways*, Vol. 4 (1928): 40-48.

**Reygadas Vértiz, José**

“The Ruins of Labná, Yucatán”. *Art and Archaeology*, Vol. 18 (Vol. 38), No. 4 (1929): 126-130.

**Reygadas Vertiz, J.**

“Ruines de Sayil”. *Museo Nacional de México, Anales*, Vol. 3 (1925). México, D.F.: Museo Nacional de México.

**Rice, Prudence M.**

*Maya Political Science: Time, Astronomy, and the Cosmos*. Austin: University of Texas Press, 2004.

An extensive study of “the nature of the political organization of the Classic lowland Maya: the structure of its power relations and the decision-making functions within that structure” (p. 275). In her introduction, the author distinguishes among various approaches to Maya political organization. In her conclusion, Rice concludes that “the *may*, the multi-k’atun calendrical cycles by which Classic and Post-classic period political organization was structured, also contoured the topography of Classic period political geography” (p. 290). Five pages are devoted to the Puuc region, half to Uxmal, simply reviewing some of the known buildings and stelae. There is a 41-page bibliography.

**Rickard, Constantine George**

*The Ruins of Mexico*, Vol.I (no later volumes were published). London: H. E. Shrimpton, 1910.

This large format volume is rarely referenced, presumably because its text is brief and standard, occasionally even amateurish. However, there are about 250 valuable grey-scale photographs, 8.8 x 13.2 cm (3 1/2 x 5 3/16 inch.), many showing unusual views or details, and all taken before major restorations of the mid-20<sup>th</sup> century. These include 39 of Uxmal, 5 of Labná, and 1 of Sayil, showing major structures in slightly overgrown condition and a few of graffiti and of small freestanding sculptures. Although the title is accurate, nearly all the photos are of Maya structures.

**Riese, Berthold**

“Altar 10 von Uxmal, Yukatan, Mexico”. *Mexicon*, Vol. 6, No. 5 (1984): 70-73.

**Ringle, William**

“An Application of GIS Modeling to Maya Settlement Pattern Studies.” *NASA/ASEE Summer Faculty Fellowship Program Final Administrative Report*, ed. James E. Miller, Armond Joyce, and Eddie Hildreth: 108-119. Bay St. Louis, Mississippi: Stennis Space Center and the University of Southern Mississippi, 1998.

**Ringle, William M. and George J. Bey III.**

“Post-Classic and Terminal Classic Courts of the Northern Maya Lowlands”. *Royal Courts of the Ancient Maya*, ed. Takeshi Inomata and Stephen D. Houston. Vol. 2: 266-307 (Boulder, CO: Westview Press, 2001).

This refreshing article explores ways in which the architecture, especially the spatial design, of Northern Lowland Maya cities can help us to understand political structure. Building on Dunning’s two Puuc site architectural patterns, the authors describe various Puuc site core complexes. They note the evidence of the number and size of quadrangles at any given city as markers of political importance. Thus, they conclude that the two major palace-quadrangle groups [at Sayil] probably “reflects the presence of two important families” (p.284) and that the number of temple and court groupings

at Uxmal indicates, more than “city size, architectural elaboration, and its intersite sacbe connection” that the Nunnery Quadrangle was “not the local court of a very large *batabil* but rather of a more complex order – the Terminal Classic equivalent of the *cuchcaba*” (p.284). They discuss house societies and examine what the architecture and glyphic texts can teach us about political segments of the polity. The authors note variations among plaza and quadrangle types, and, throughout, stress the priority of open spaces to buildings.

**Ringle, William M., with contributions by Tomás Gallareta Negrón and George J. Bey III**

*The 2001 Field Season of the Labná-Kiuic Archaeological Project*. Grantee Report for the Foundation for the Advancement of Mesoamerica Studies, Inc. (FAMSI), no posting date.

On the web at:

<http://www.famsi.org/reports/00019/index.html>

(accessed 2007 March 1)

This is primarily a report of the author’s excellent study of Kiuic, a Puuc city about 9 km. (about 5 ½ miles) south and a bit east of Labná. This detailed study is outside the range of this web bibliography. However, this is part of a larger project of several scholars, including Labná and the area between, including Huntichmul. Thus most of the questions examined in the Kiuic study are relevant to the larger area, including Labná.

Ringle calls attention to the difference in soil and productivity between the eastern extreme of the Puuc, the Valle de Santa Elena (which includes Uxmal and Kabah) and the Bolonchén District slightly to the south and east of the Valle de Santa Elena (which includes Sayil, Labná, and Kiuic). Ringle suggests that the deep soils of the Valle de Santa Elena favored larger settlements such as Uxmal and Kabah, whereas, in the Bolonchén District, the small flat areas of rich soil, between the higher slopes which had thin soils, favored more densely packed smaller settlements, such as Sayil, Labná, and Kiuic. He calls attention to the need for study of the hinterlands, not just of the major settlements.

Ringle reviews the contribution of previous scholars who have studied the area and describes the basic questions regarding chronology, size, etc.

There are 40 illustrations, outstanding diagrams and satellite maps, and well-chosen photographs which are unfortunately rather washed out.

**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 artístico y el pasisaje de los mayas de Yucatan”. *Revista española de antropología Americana*, Vol. 32 (2002): 69-85.

### **Rivera Dorado, Miquel**

“Principios de la manifestacion cultural Puuc”. *Escondido en la Selva: arqueologia en el norte de Yucatan*, ed. Hanns J. Prem: 219-234. México, D.F.: Instituto Nacional de Antropologia e Historia; and Universidad de Bonn, 2003.

### **Rivet, Paul**

*Cités Maya*. Paris: Éditions Albert Guillot, 1954.

English translation by Miriam and Lionel Kochan, *Maya Cities*, London: Elek Books, 1960.

A survey with 7 pages of text on Uxmal with 14 standard grey-scale photos and 1 map. There are also 8 photos of Labná, 4 of Kabah, and none of Sayil.

### **Robertson, Merle Greene**

“The Iconography of ‘Isolated Art Styles’, that are ‘Group Supported’ and ‘Individual Supported’ occurring at Chichen Itza and Uxmal”. *Hidden among the Hills: Maya Archaeology of the Northwest Yucatan Peninsula; Acta Mesoamericana*, Vol.7, ed. Hanns J. Prem: 197-211. First Maler Symposium, Bonn, 1990, Möckmühl, Germany: Verlag von Flemming, 1994 (2<sup>nd</sup> ed. 1999).

Although only 3 of the 15 pages and none of the illustrations deal with Uxmal, the comparison the Chichen Itza is telling. The author recounts the various features in the architectural sculpture at Uxmal that correspond to features of Chichen Itza and elsewhere. In contrasting Uxmal with Chichen Itza, she notes that “Uxmal has no works of art that display large or small groups of individuals. Nowhere in the city is there a display of group orientated public art. Uxmal art is oriented toward the individual ruler, one person. Stela 14 portrays and names Lord Chac, king of Uxmal. His name is associated in several occurrences with structures of the Nunnery and Ballcourt (Kowalski 1987:38). Other stelae at Uxmal depict standing human figures who probably were rulers also. All other art at Uxmal is decorative in style” (p. 210). **Robertson asks “why is there this difference in ‘group orientated’ public art at Chichen Itza and ‘individual oriented’ public art at Uxmal?”** (p. 210). In contrast to the politicized, competitive ethnic and kin groups at Chichen Itza, which stimulated “large group oriented projects . . . financed by individuals who wished to have their ancestors or prominent persons in their families commemorated by having their portraits carved in stone where they could be seen by everyone”, “Uxmal’s ruling class must have been strong enough to support their elegant style of art either [through] conscription or reaching into the city treasury but it did not have the political organization of a large group of citizens willing, desiring to, or capable of supporting mass commemoration of



its people, or possibly there was not the need in the Puuc and there was at Chichen Itza' (p. 211).

**Robertson, Merle Greene (see also Greene, Merle)**

*Merle Greene Robertson's Rubbings of Maya Sculpture*. San Francisco: Pre-Columbian Art Research Institute, 1995. 15 CD-ROMs and a small booklet.

This is a remarkable resource of **expertly made rubbings from "over 2000 monuments from nearly 90 sites in Mexico, Guatemala, Belize, Honduras and El Salvador, as well as major museums around the world,"** made over a 35 year period by Merle Greene Robertson and assistants. 4 of the 11 CDs are of Chichen Itza. There is only 1 image from Uxmal (Stela no.14) and 6 from Kabah (Structure 1A1). **The quality of the rubbings is superb and CD-ROM publication allows one to enlarge the images often to about 2800 dpi long side, allowing study of important details.** As a model example of its type, this publication allows us to explore **the types of information that are uniquely recorded by rubbings** and to compare their usefulness to photographs and other types of images. See the extensive quotations about this under Greene, Merle in this web site bibliography. There is an extensive index by Martha J. Marci and Christi L. Vieira, listing (1) "iconographic terms to use with the search function of the . . . database"; (2) "site or location, structure, and/or monument" (3) "database number" (1966).

**Robertson, Merle Greene (see also Greene, Merle)**

"Methods Used in Recording Sculptural Art at Palenque". *Proceedings of the 42<sup>nd</sup> International Congress of Americanists*, Vol. 7 (1979): 439-460. Paris.

**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.

**Robertson, Merle Green (see also Greene, Merle)**

"Stucco". *The Oxford Encyclopedia of Mesoamerican Cultures: The Civilizations of Mexico and Central America*. Vol. 1: 170-172. Ed. David Carrasco. 3 vols. Oxford University Press, 2001.

Although the Puuc region is not mentioned, this superb description of the nature and importance of stucco (describing especially Palenque) is applicable to all Mesoamerica. As Robertson notes, "all Mesoamerican cultures used stucco . . . in everything from floor surfaces to sculptured figures to fresco paintings" (p. 170). Of immense importance, she writes that **"one of the contributing factors in the collapse of**

the Maya may have been the denudation of vast landscapes of timber that were used for the fires in burning limestone to make stucco for thousands of buildings, as well as sculptured art” (p. 170).

**Robertson, Merle Greene, gen. ed; Virginia M. Fields, vol. ed.**

*Seventh Palenque Round Table, 1989*. San Francisco; the Pre-Columbian Art Research Institute, 1994.

Collection of papers from the 1989 international Palenque Round Table conference, the leading semi-regular conference of experts on all aspects of ancient Maya culture.

The following papers are separately listed and annotated in this web bibliography:  
 Desmond, Lawrence G., “The Use of Close-Range Photogrammetry for Archaeological Documentation: Chichen Itza and Uxmal 1989”  
 Carrasco, Vargas, “The Rings from the Ball Court at Uxmal”  
 Hunt, Patrick. N., “Maya and Olmec Stone Weathering Contexts: Limestone and Basalt Contrasts”

**Robin, Cynthia**

“Peopling the Past: New Perspectives on the Ancient Maya”. *Proceedings of the National Academy of Sciences*, Vol. 98 (2001): 18-21.

**Robles Garcia, Nelly**

“Social Landscapes and Archaeological Heritage in Latin America”. *Of the Past, for the Future: Integrating Archaeology and Conservation*. Ed. Neville Agnew and Janet Bridgland. Proceedings of the Conservation Theme at the 5<sup>th</sup> World Archaeological Congress, Washington, D.C., 22-26 June 2003. Los Angeles: Getty Conservation Institute, 2006: 113-124.

This is one of the longest, more fully illustrated, and most informative papers in this volume of Congress proceedings. Based on her comprehensive experience as archaeologist in charge of Monte Albán, Robles Garcia describes the multifaceted, complex social landscape in Mexico, necessary to understand “the relationship between heritage conservation and regional development” (p. 113). She includes sections on Institutions, Political Jurisdictions, Land Tenure and Speculation, Land use, Indigenous Land Claims, Urban Growth, and Quality of Life. Robles concludes that “the surroundings of heritage sites such as Monte Albán and others in Mexico reflect poverty, social marginality, and conditions hardly conducive to an appreciation of the values of heritage conservation”. “Unfortunately, in Latin America these landscapes all too frequently . . . [involve] conflict over resource access and social problems such as drugs, assaults, pollution, congestion, and other indicators of a highly stressed existence. Meanwhile, the heritage sites themselves become the targets of looting, vandalism, depredations. . .” (p. 122). “The goal must be to generate development programs that create positive environments for efforts to protect the archaeological heritage” (123).

**Rodríguez, José Antonio**

“Los inicios de la fotografía en Yucatán 1841-1847”. *Fotozoom*, Vol. 16, No. 181 (October 1990), 20-47.

**Rosado Ojeda, Vladimiro**

“The Great Palace of Zayi”. *Art and Archaeology*, Vol. 34 (1933): 259-266.

Images of the Great Palace at Sayil are reproduced on this web site.

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

**Rosenthal, David**

The Southernmost Rise of Venus at Uxmal, 1997 and 2005”.

On the web at:

<http://www.ridgecrest.ca.us/~n6tst/maya/event.html>

(accessed 2007 March 21)

Pictorial story of the expedition to document the southernmost rise of the planet Venus as seen from the ancient Mayan city of Uxmal in the Yucatan Peninsula. This event only occurs once every eight years and the account describes efforts necessary to view and photograph it from a Mayan temple specially oriented to face it.

**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 Engineering Knowledge of the Maya*. Carnegie Institution of Washington, Pub. 436, Contri. 6. Washington, D.C.: Carnegie Institution of Washington, 1934.

Although now 74 years old, this is **still the most comprehensive, in-depth analysis of the mechanical and structural principles used in all Maya areas**, as visible in their architectural remains. Roys takes up in systematic order the subjects of stability, strength of materials used, wooden vault members, stonework, and many other features (wooden and stone lintels, columns, cornices, inverted step at spring of vault, upper facades, vault capstones, roofs, roofcombs, quality of foundations, end walls and partitions, dry rubble masonry, arches and passageways, East Coast architecture, use of the true arch on the East Coast, ruins of brick and mortar at Comalcalco, flatstone work at Cobá, receding upper wall faces at Palenque). He deals with all Maya areas, noting changes over time and difference among various centers. All of his discussion is relevant to an understanding of Puuc architecture; moreover, he **includes examples from Chichen Itzá and a few from Uxmal and Labná**. Roys convincingly distinguishes between the structural principles of European and other “old world” architecture, based on stone-upon-stone, and the structural principles of Maya architecture, based on concrete. He notes the evolution of Maya architecture from block masonry to concrete construction, and the Maya understanding of concrete and the gradual improvement in its quality which they achieved. Directly correlated with the text, there are **27 highly instructive diagrams and 3 photos**.

Of special note for Puuc architecture, the author calls attention to the exceptionally high quality of lime concrete and skill in its use achieved in the northern Yucatan, and alterations to the shaping of stones to best serve the principles of concrete structure. He writes: “beyond all doubt **the Maya of northern Yucatan should be credited with the invention of an individual technique of original character, which was in many respects a distinct cultural advance beyond the masonry of their forefathers**” (p.65). At various points Roys takes up the still not completely solved question of the methods used in constructing concrete vaults, raising doubts about various prior proposals, such as Spinden’s suggestion that Maya vaults may have been built over wooden forming.

Even with such an exemplary examination of the issues, **some questions remain unanswered**. With Puuc architecture at least, with the facing stones not self supporting, thus dependent on the concrete mass for support, if there were no temporary interior support structure each layer of concrete would have had to be relatively shallow in order to apply the facing stones with such perfection. But how long would it have been necessary to wait for each of these layers to set before proceeding to the next layer? And how, given this need, would sufficient cohesion have been developed within the concrete mass? To achieve the perfection in the shaping of large vaults, such as those at Uxmal, some interior support would seem to have been necessary.

I agree entirely with Roys that the acceptance of wooden framing as the form of construction for Late Classic and Terminal Classic vaults in the Puuc Region, when facing stones were very nearly veneer, is almost untenable. Each interior facing stone would have required individual support in order to achieve such perfection. The use of temporary earthworks as interior forms is a more viable theory, though the method used for constructing ca. 800-950 AD Puuc vaults is still an open question,

For major publications on engineering and construction in the Puuc Region, see George Andrews, *Architecture of the Puuc Region and Northern Plains Areas*, 1995, and Justine Cecilia Staneko, *Peeking at the Puuc: New Views on the Design, Engineering, and Construction of Ancient Maya Architecture from Yucatan and Northern Campeche, Mexico*, 1996/2000.

**Roys, Ralph L.**

*The Ethno-botany of the Maya*. Middle American Research Institute, Pub. 2. New Orleans: Tulane University, 1931.

**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, Lawrence**

"Masonry Traits found at Mayapan". *Los Mayas Antiguos: Monografías de Arqueología, Etnografía y Lingüística Mayas, publicadas con motivo del Centenario de la Exploración de Yucatán por John L. Stephens y Frederick Catherwood en los años 1841-42*. 143-153. México [D.F.]: El Colegio de México, 1941.

**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**

"A Special Assemblage of Maya Structures". *The Maya and their Neighbors*, ed. Clarence L. Hay and others. New York: Appleton-Century, 1940. Pp. 222-231.

**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.

**Ruz Lhuillier, Alberto**

*La Civilización de los Antiguos Mayas*. México, D.F.: Fondo de Cultura Económica, 3<sup>rd</sup>. ed., 1991 (1<sup>st</sup> ed. Universidad de Oriente, Cuba, 1957; 2<sup>nd</sup> ed. Instituto Nacional de Antropología e Historia, México, 1962).

A brief, comprehensive survey of ancient Maya civilization by one of Mexico's greatest Maya scholars. His descriptions of Uxmal, Kabah, Sayil and Labná are organized chronologically, with attention to stylistic developments. He **rejects the previous view that Maya civilization arrived in the north of Yucatán after the abandonment of the classic sites in the south**, writing that (in translation) “mayan culture developed in a manner more or less parallel and simultaneous in all of its territory” (p.67). He points out that the Palace at Kabah has an inclined frieze and crenellations, earlier Maya characteristics. **He describes Puuc buildings as having (in translation) “the following tendencies:** disappearance of crenellations, transfer of the ornamentation to the frieze, substitution of sculptures and stucco reliefs with elements made of rock placed as a mosaic to form geometric motifs and masks, and the use of columns” (p.68). He writes that the feathered serpent is a strange element at Uxmal and must have been added later when Toltec influences were dominant.

**Ruz Lhuillier, Alberto**

“Exploraciones arqueológicas en Uxmal, Yuc.. Temporada de 1947. Estado de Yucatán, Uxmal, Tomo 3: 1942-1947. Archivo Técnico del Departamento de Monumentos Prehispánicos-INAH, Tomo 160. México, D.F., 1947.

**Ruz Lhuillier, Alberto**

“Exploraciones y obras de reconstrucción en Uxmal, Yucatán”. *Boletín Bibliográfico de Antropología Americana*, Vol. XIV, No.1: 31-32. Instituto Panamericano de Geografía e Historia, México, 1952.

**Ruz Lhuillier, Alberto**

“El juego de pelota de Uxmal”. *Miscellánea Paul Rivet, Octogenario Dictata; Proceedings of the International Congress of Americanists (Mexico 1954)*, Vol. 1: 635-667. México, D.F.: Universidad Autónoma de México (UNAM), 1958.

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

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

**Ruz Lhuillier, Alberto**

*Frente al pasado de los mayas*. Introducción, selección y notas de Ana Luisa Izquierdo. México, D.F.: Secretaría de Educación Pública, 1987.

**Ruz Lhuillier, Alberto**

“Informe de las exploraciones y reconstrucciones en Yucatán temporada 1953 en las Zonas Arqueológicas de Uxmal, Kabah y Sayil. Estado de Yucatán, varios, Tomo 4: 1942, 1953, 1955. Archivo Técnico del Departamento de Monumentos Prehispánicos INAH, Tomo 145. México, D.F.: 1953.

**Ruz Lhuillier, Alberto**

*Exploraciones y Reconstrucciones en Yucatán: Uxmal-Kabah-Sayil; temporada 1953.* Dirección de Monumentos Pre-hispánicos. Informe 1. México, D.F.: Instituto Nacional de Antropología e Historia, México, 1955.

This was **the first in what was a new series of INAH reports** publishing the activities of the INAH since 1913, when the INAH was created. The preface states that **the archives of the Dirección de Monumentos Prehispánicos house eighty-four volumes containing reports of their archaeologists from 1915 to date.** This first report, by Alberto Ruz L., provides a fourteen-page text describing work at Uxmal, Kabah, and Sayil, along with twenty-three informative photographs and three diagrams.

Especially instructive are **5 pairs of photographs showing the same portion of a building before and after a restoration season.** As so often in publications, the pairs are not illustrated on the same or facing pages. Perhaps most valuable is **a 3 page fold out drawing showing a hypothetical reconstruction of the architrave of the lower Temple I of the Pyramid of the Magician.**

**Ruz Lhuillier, Alberto**

“El juego de pelota de Uxmal”. *Miscellánea Paul Rivet, Octogenario Dictata; Proceedings of the International Congress of Americanists (Mexico 1954)*, Vol. 1: 635-667. México, D.F.: Universidad Autónoma de México (UNAM), 1958.

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

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

**Ruz Lhuillier, Alberto**

*Maya Zone, January 1948: Archaeological Investigations in Kabáh and Uxmal, Yucatan, Financed by Benjamin B. Felix (Zona Maya, Enero de 1948. Exploraciones arqueológicas en Kabah y Uxmal, Yucatan).* Typescript. Cambridge, MA: Tozzer Library, Harvard University, 1948.

**Ruz Lhuillier, Alberto**

“Tumbas en Kabah, Yucatán”. *Homenaje a Pablo Martínez del Río en el XXV aniversario de la edición de los orígenes americanos: 337-353.* México, D.F.: Universidad Nacional de Antropología

**Ruz Lhuillier, Alberto**

*Uxmal: Official Guide of the Instituto Nacional de Antropología e Historia*, trans. F. and M. Camara Barbachano. Mexico City, D.F.: Instituto Nacional de Antropología e Historia, 1963, 2<sup>nd</sup> ed. (1<sup>st</sup> English ed. 1959)..

This small guidebook is of interest because it includes 7 nearly unique illustrations. There are photographs of 4 rarely illustrated (presumably architectural) sculpture heads from Uxmal. Most importantly, there are 3 reconstruction drawings by Archaeologist (spelling? Ponciado Salazar Orteón, drawn by Nipoletto Sánchez Vera). One is a large foldout with the Ballcourt large and detailed in the foreground and the Nunnery and Pyramid of the Magician in the background. The other 2 are reconstruction drawings representing the south passage through the Governor's Palace; one showing the passage still open front to back, the other showing the passage after it had been closed and a new façade constructed. These are instructively reproduced on facing pages (figs. 18 and 19).

**Ruz Lhuillier, Alberto**

"Uxmal: temporada de trabajos 1951-1952". *Anales del Instituto Nacional de Antropología e Historia*, Vol. 6, No. 1, 3-4: 49-67. México, D. F.: Centro de Yucatán, Instituto Nacional de Antropología e Historia, 1955.

**Ruz Lhuillier, Alberto**

*Uxmal-Kabah-Sayil; Temporada 1953*. Dirección de Monumentos Pre-hispánicos. Informe 1, Instituto Nacional de Antropología e Historia, México, D.F.: 1955.

This is the first in a new series of INAH reports publishing the activities of the INAH since 1913 when the INAH was created. The preface states that the archives of the Dirección de Monumentos Prehispánicos contain eighty-four volumes containing reports of their archaeologists from 1915 to date. This first report, by Alberto Ruz L., provides a fourteen-page text describing work at Uxmal, Kabah, and Sayil, along with three diagrams and twenty-three photographs. Especially instructive are 5 pairs of photographs showing the same portion of a building before and after a restoration season. As so often in publications, the pairs are not illustrated on the same or facing pages. Perhaps most valuable is a 3-page fold out drawing showing a hypothetical reconstruction of the architrave of the lower Temple I of the Pyramid of the Magician.

**Ruz Lhuillier, Alberto**

"Uxmal-Temporada de Trabajos 1951-52". *Anales del I.N.A.H., Tomo. VI* (1s parte, 1952). México, D.F.: 1955.

S

**Sabloff, Jeremy A.**

"Ancient Maya Civilization: An Overview". *Maya: Treasures of an Ancient Civilization*, ed. Charles Gallencamp: 34-46. N.Y., 1985.

**Sabloff, Jeremy A.**

"Changing Conceptions of the Ancient Maya and Their Neighbors". *The Maya and Their Neighbors*, ed. G. R. Willey, J. A. Sabloff, E. Z. Vopgt, and F. P. Saul: 12-19.



Cambridge, Mass, 1975.

**Sabloff, Jeremy A.**

*The Cities of Ancient Mexico: Reconstructing a Lost World.* London and New York: Thames and Hudson, 1989.

An introduction to Pre-Columbian cultures of Mexico, based on study of a range of major cities. **Written to be accessible to the public, the text should also be read by specialists. Most unique is Chapter 3 “How do we know?” Sabloff opens the section with the questions:**

“How can archaeologists look at piles of stones and say that they are houses or, more particularly, houses where peasants lived? How do they know that weaving was important at a certain site, or the number of people who lived there? The archaeological record cannot speak to us like a modern anthropologist’s informant. It is mute. Moreover, it is a very incomplete record that has usually been disturbed over long periods of time. How can archaeologists begin to understand this static record that remains today? How can they link cultural actions in ancient times with these modern remains? Although these kinds of questions are clearly very basic, archaeologists still cannot agree on how to answer them” (p. 155).

The following 423 pages (half text, half illustrations) provide **informed answers to these questions, recognizing the high degree of speculation necessarily involved in reconstructing the past.** The book is filled with high-quality gray-scale photographs and diagrams, including 5 of Labná, 2 of Uxmal, and 1 of Sayil. Chapter 6 is titled “Uxmal and the Northern Maya Lowlands”, providing a brief, historical sketch of Puuc and other northern Maya cities, including Chichen Itzá. There are 3 pages of text on Sayil, pp. 10, 12-13.

**Sabloff, Jeremy A.**

*The New Archaeology and the Ancient Maya.* Scientific American Library No.30. New York: HPHLP, 1990 (paperback 1994).

This outstanding publication **explains essential changes in the practice of Maya archaeology over the past several decades and the conceptual framework of current archaeology worldwide.** It is structured as a contrast between the old archaeology, focused on each city’s administrative-ceremonial center with major stone structures, one-of-a-kind works of art, and hieroglyphic texts; contrasted with the new archaeology, focused on the entire settlement area of each city, based on surviving platforms and superstructures of perishable structures, mass produced ceramics of everyday use, and patterns of trade, making use of recent advances in scientific instrumentation and analysis. The book is **exceptional in the range of ideas and examples,** in the choice of photographs and diagrams, and in the clarity of the writing. Why do we not have more books of this quality? The answer: such books require comprehensive command of a discipline, especially recent scholarship, a clear, acknowledged point of view, recognition that illustrations should allow one to see what is being discussed rather than simply identifying a building, years of experience teaching at undergraduate as well as graduate levels, and a commitment to writing clearly in plain English. There are **over one hundred small but well-chosen**

photographs, nearly all in color, and half as many maps and diagrams. There are only brief mentions of Uxmal, Kabah, and Labná but about six pages of on-the-spot text on Sayil, where Sabloff has supervised landmark settlement pattern studies. These are accompanied by seven photographs of excavations in process with explanatory captions. The illustration of The Great Palace at Sayil (p. 153) is reversed right-left.

**Sabloff, Jeremy**

“Review of *The Puuc: An Architectural Survey of the Hill Country of Yucatan and Northern Campeche, Mexico* by H. E. D. Pollock”. *The Hispanic American Historical Review*, 1981: 507-508.

Available on the web through ARTstor subscription at:

<http://www.jstor.org/view/00182168/di008644/00p0511e/0>

(accessed 2007 Dec. 8)

**Sabloff, Jeremy**

“Settlement Patterns and Community Organization in the Maya Lowlands”. *Expedition: The Magazine of the University of Pennsylvania Museum of Archaeology and Anthropology*, Vol. 38, No. 1 (1996): 3-13.

**Sabloff, Jeremy A. and Kelli Carmean**

“Archaeologists’ Images of the Ancient Maya: Changing Perspectives”. *The Maya Image in the Western World: A Catalogue to an Exhibition at the University of New Mexico*. Ed. Peter Briggs: 29-32. Albuquerque, NM: University of New Mexico Press, 1986.

This is the **best short essay for understanding the major changes in approach in Maya archaeological studies since 1970**. Although the Puuc region is not mentioned, the authors provide a basis for understanding these changes relevant to all Maya regions and periods. To make their point, the authors draw a somewhat oversimplified contrast between the traditional approach of Maya studies and approaches beginning in the 1970s. Considering how basic early “recording, description and classification of . . . architecture” has been and how much it has still has to teach us, it seems misguided to write that its pre-1970 description was excessive (p.29). Nevertheless, their explanation of the new emphases in Maya studies is fully informed and instructive. They call special attention to the importance of settlement pattern studies, agricultural practices, and population distributions. In an especially important observation, they write that **“Perhaps the most pressing concern of modern archaeology, in general, and Maya archaeology, in particular, is the assignment of relevant meaning to the archaeological record which scholars view today”** (p.30).

**Sabloff, Jeremy, and Gair Tourtellot.**

“Análisis del patron de asentamiento en Sayil, Yucatán, Mexico. *Arqueologia*, Vol. 3 (1988): 179-192.

**Sabloff, Jeremy, and Gair Tourtellot.**

“Beyond Temples and Palaces: Recent Settlement Pattern Research at the Ancient Maya City of Sayil (1983-1985)”. *New Theories of the Ancient Maya*: 155-160. Ed. Elin C. Danien and Robert J. Sharer. University Museum Monograph 77. University Museum Symposium

Series Volume 3. Philadelphia: University Museum, University of Pennsylvania, 1992 (a revision of a paper presented at the 51<sup>st</sup> Annual Meeting of the Society for American Archaeology, New Orleans, April 1986).

The authors provide an exceptionally clear, **detailed description of their mapping of Sayil during the 1983-1985 seasons** (this was followed by two seasons of surface collection and excavation in 1987-1988). Their careful, guarded interpretation of these findings and comparisons with other Maya areas is notable. The inability to photograph areas lacking in above ground remains and, except when cleared, even those with remaining platforms and foundations, makes these site maps and their descriptions of unique importance. This is **a most instructive read for students being introduced to the ways in which archaeological mapping can reveal major aspects of ancient civilizations.**

**Sabloff, Jeremy, and Gair Tourtellot.**

“Sayil Settlement Survey: Some Preliminary Observations”. *Mexicon*, Vol. 6, No. 6 (1984): 84-85.

**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”

**Sabloff, Jeremy, and Gair Tourtellot, with appendixes by Nicholas P. Dunning, Gail Tourtellot, and Diana Christensen.**

*The Ancient Maya City of Sayil: The Mapping of a Puuc Regional Center.* Middle American Research Institute, Publication 60. New Orleans: Tulane University, 1991.

Photographs of the limestone foundation and lower wall remains of 1 domestic structure are reproduced on this web site.

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

For anyone not familiar with archaeology, this publication is an education. The Sayil mapping project, conducted 1983-85, is first described: noting the special significance of Sayil research, previous Puuc settlement studies, and the goals and organization of the project. These are “the first large-scale settlement maps for a Puuc region site” (p. xi). Next, the methods and procedures of the project are described, including some twenty feature types, such as basal platforms, chich mounds, and solution holes. This is followed by an analysis of the types and distribution of soils, so central to understanding the role of agriculture in the density and layout of Puuc cities. Next a list is provided of the extensive, detailed coding used for recording nearly a hundred features, coordinates, and stylistic features. All of this is intelligently organized and presented with exemplary clarity.

The main body of the publication is the sixteen large, separate, folded maps, in a pocket at the back of the volume, at a scale of 1:1,000 (overall site map of Sayil is at a scale of 1:5,000). Appendix 3, “Sayil Feature Database,” is provided on a computer diskette, a form unfortunately not readable on most recent computers. Phase two of the project, including excavations, completed 1987-88, is not included in this report.

In addition to a list of specific questions being examined, four long-term goals of the project are identified: “(1) to determine the nature of the adaptation of Sayil’s former inhabitants to the little-known Puuc hills environment, focusing on their patterns of land and water use; (2) for the first time to classify and assign functions to the full range of features and structures of an ancient Puuc community, concentrating on the long-neglected small feature clusters or potential households; (3) to reveal, analyze, and codify the population and internal organization of a Puuc community and model its sociopolitical organization; and (4) to delimit the organization of Sayil and its relation to neighboring sites” (p.7).

**Sabloff, Jeremy a., Patricia A. McAnany, Bernd Fahmel Beyer, Tomás Gallareta N., Signa L. Larralde, and LuAnn Wandsnider.**

*Ancient Maya Settlement Patterns at the Site of Sayil, Puuc Region, Yucatan, Mexico: Initial Reconnaissance (1983).* Latin American Institute, University of New Mexico, Research Series 14. Albuquerque: University of New Mexico, 1984.

The authors first describe the underlying questions of their research and the need for intensive settlement pattern and household studies at Puuc region sites. In particular, they describe their reasons for selecting Sayil (they review the limited previous research). These reasons are laid out in 13 pages with great clarity. There follow 26

pages describing **the results of the May-June 1983 field season** and their analysis, supported by 11 tables and figures. The 2 zones surveyed in the 1983 study are identified: the “Western Transect”, just southwest of the Palace, and the “South-central Survey Zone”, immediately north of the Southern Palace on both sides of the north-south causeway. The amount of new information resulting from this study is impressive and served as the basis for more in-depth field research the next year.

**Sabloff, Jeremy A., Gair Tourtellot, Bernd Fahmel Beyer, Patricia A. McAnany, Diana Christensen, Sylviane Boucher, and Thomas R. Killion**  
*Settlement and Community Patterns at Sayil, Yucatan, Mexico: The 1984 Season*. Latin American Institute, University of New Mexico. Research Papers Series No. 17. Albuquerque: University of New Mexico Press, 1985.

A report of an **intensive study** of the community and household settlement patterns at Sayil, **undertaken Feb.-May 1984**. Introducing this report, the authors write: “Unlike the situation at other Maya sites like Tikal or Seibal in the Southern Maya Lowlands, or Dzibilchaltun or Cobá in the north, there never has been an intensive settlement pattern study at any of the Puuc region sites” (p. 2). This document reports on just such a study at Sayil. The study consisted of **4 moods of investigation**: (1) survey and mapping, (2) excavation, (3) historical research, and (4) environmental research” (p. 5), each of which is broken down into constituent elements and described in detail. What is **especially impressive is the interplay of description with meaningful interpretation**. Building on the report of the previous year’s study, this report provides a more comprehensive and detailed account, which allows the authors to make promising speculations in answer to the many questions posed at the beginning of the 1984 report. The text is supported by 2 tables and 13 analytical diagrams.

**Sáenz Vargas, César A.**

“El adoratorio central, palacio del gobernador, Uxmal”. *Revista Tlatoani*. Period 1, Nos. 5-6: 45-50. México, D.F.: Escuela Nacional de Antropología e Historia (ENAH), 1952.

Photographs of the Governor’s Palace, Uxmal, are reproduced on this web site.  
<http://academic.reed.edu/uxmal/galleries/thumbnails/uxmal/uxmal-govpalace.htm>

**Sáenz Vargas, César A.**

“Cerámica de Uxmal, Yucatán”. *Anales del Instituto Nacional de Antropología e Historia*. Vol. 5 (1975): 171-186. México, D.F.: 1975.

**Sáenz Vargas, César A.**

“Exploraciones y reconstrucciones en la Gran Pirámide de Uxmal (1970-1971), Yucatán”. *Boletín del INAH*, Epoca 11, No. 2: 31-40. México, D.F.: Instituto Nacional de Antropología e Historia, 1975:

Photographs of the Great Pyramid at Uxmal are reproduced on this web site.  
<http://academic.reed.edu/uxmal/galleries/thumbnails/uxmal/uxmal-grpyramid.htm>

**Sáenz Vargas, César A.**

“Exploraciones y restauraciones en Uxmal, Yucatán”. *Boletín del Instituto Nacional de Antropología e Historia (INAH)*, Vol. 36: 5-13. México, D.F.: Instituto Nacional de Antropología e Historia, June 1969.

Photographs of Uxmal, showing restoration over the years, are reproduced on this web site.

<http://academic.reed.edu/uxmal/uxmalmap.html>

A summary report of the sixth campaign of excavation, restoration, consolidation, and reconstruction at Uxmal, completed in April 1969, written by the director of the project. For the Governor's Palace, there is a one-sentence description of the strengthening of the mosaic of the frieze on the rear façade. For the House of the Turtles, there is a one sentence statement that the southwest section was restored and consolidated, and photo taken after restoration.

The remainder of the article describes in exemplary detail work carried out on the Pyramid of the Magician, the major focus of recent work. There are five unique photographs showing excavation and restoration in progress, plus four after restoration, and six showing sculpture and ceramics discovered. There are also three large-scale diagrams of the newly discovered architectural sculpture. The director notes that “[in translation] the Adivino waited, for so long, an intensive exploration and restoration such as that which we had the opportunity to carry out” (p.4), and that “We believe that in it's interior other constructions are enclosed, but its exploration could be extremely costly and difficult” (p.13). The most important exploration took place in the northwest base of the Pyramid, where a well-preserved tunnel was discovered, including the façade of Temple I. Also discovered was a partially destroyed stairway leading down from the tunnel, indicating an additional, previous stage of construction, thus at least six epochs for the Pyramid as a whole. In addition to restoration, extensive reconstruction was carried out. This included the pavement surrounding the Pyramid, exterior surfaces of much of the Pyramid, especially north and south, and two stairways at the sides of Temple IV, the so-called “Chenes Temple”. The director writes that a beam in Temple I was carbonated to 569+- 50 D.C., the earliest date so far know at Uxmal.

**Sáenz Vargas, César A.**

“Exploraciones y Restauraciones en Uxmal, Yucatán (1970-1971)”. *Boletín del INAH*, Period 2, No.2: 31-40. *Instituto Nacional de Antropología e Historia*. México, D.F., July-Sept. 1972.

**Sáenz Vargas, César A.**

“Exploraciones y reconstrucciones en la gran Pirámide de Uxmal, Yucatán,” in *Boletín del Instituto Nacional de Antropología e Historia*, Period 2, No. 12: 39-44. México, D.F., 1975.

### **Sáenz Vargas, César A.**

“Exploraciones y restauración en Yucatán”. *Boletín del Instituto Nacional de Antropología e Historia (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 21<sup>st</sup> 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.

### **Salazar Ortigón, Ponciano**

*Exploraciones y Problemas de Reconstrucción del “Codz Pop” y del Sistema I de la Zona Arqueológica de Kabah, Yuc.* Tesis para obtener el Grado Académico de Maestro en Ciencias Antropológicas y el Título de Arqueólogo, Escuela Nacional de Antropología e Historia, México. Abril de 1953.

Photographs of the Codz Poop, Kabah, showing restoration over the years, are reproduced on this web site.

Front

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Back

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

A detailed examination of the 1950-52 reconstruction of the Codz Poop at Kabah. The author first reviews the geographic environment, literary evidence, twenty-two previous explorers, and evidence for dating from the architecture, ceramics, and

inscriptions. There follows a sixty-two page systematic account of the 1950-52 exploration, reconstruction, and consolidation, with conclusions and bibliography. There are **highly informative, with rarely published photos** taken before, during, and after. An appendix catalogues the ornamental pieces of the façade. Finally, there are **large sheets of careful archaeological diagrams of the Codz Pop platform, the hieroglyphic altar, the façade and various details.**

**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 (2<sup>nd</sup> ed. Mexico, 1892).

This mid-17<sup>th</sup> 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.

**Sanders, William T., and David L. Webster**

“The Mesoamerican Urban Tradition”. *American Anthropologist*. Vol. 90 (1988): 521-546.

**Satterthwaite, Linton, Jr.**

“Radiocarbon dates and the Maya correlation problem”. *American Antiquity* (1956) 21: 416-419.

**Satterthwaite, Linton, Jr., and Elizabeth K. Ralph.**

“New radiocarbon dates and the Maya correlation problem”. *American Antiquity* (1960), 26:165-184.

**Saville, Marshall H.**

“Bibliographic Notes on Uxmal, Yucatan”. *Indian Notes and Monographs*. Ed. F. W. Hodges. Vol. 9, No. 2. New York: Museum of the American Indian, Heye Foundation, 1921.

Although a very small soft cover book of 77 pages text plus 7 illustrations, this is a basic scholarly resource. Saville presents **a chronological list of every document known to him that mentions Uxmal**. These include documents as early as 1556, the earliest known only from Stephen’s descriptions and quotes, and others published later in the 19<sup>th</sup> century. Saville include an 8 pages English translation (published by Spinden, 1913) of by far the most extensive early description of the buildings of Uxmal, in a report by Fray Antonio de Ciudad Real in 1588. Beginning with publications in the early 19<sup>th</sup> century, Saville’s descriptions are much briefer, except



for Stephens' landmark 1843 *Incidents of Travel in Yucatan*. A few of the references are to publications too slight to be included in this web bibliography. Saville provides informed evaluations of the importance, or not, of many of the publications, notably including descriptions of the types and importance of illustrations. *Bibliographic Notes* includes illustrations of and comments on a previously unpublished 1841 painting by Catherwood, 4 rare photographs of the Nunnery, and the 3 painted stucco heads recently discovered in the Governor's Palace.

He provides **an invaluable, detailed description of these 3 stucco heads, including their color**, by then in the Museum of the American Indian, Heye Foundation.

In addition to his bibliography, Saville writes that "In excavation, no work has been done except the desultory digging of the Le Plongeon, and the exploration of a mound back of the hacienda by the writer. **The site requires careful exploration and much restoration work is necessary to strengthen weak walls, especially to replace the wooden lintels which have fallen in practically all of the buildings, the loss of which will ultimately prove fatal to the security of the walls**" (pp. 57-58).

**Saville, Marshall H.**

"The Cruciform Structures of Mitla and Vicinity". *Putnam Anniversary Volume*. New York, 1909.

**Saville, Marshall H.**

"The Ruins of Labná, Yucatan". *The Archaeologist*. Vol.1, No.12: 229-235. Waterloo, Indiana: Ohio Archaeological and Historical Society, 1893.

**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.

One of the purposes of this web site is to trace physical changes in the Maya cities of Uxmal, Kabah, Sayil, and Labná. For this purpose, **reports of significant damage, such as this, providing specific examples and approximate dating, are rare and especially valuable**. Two portions of this 1892 article by an "Assistant in Peabody Museum, Harvard University" are worth quoting:

"The ancient buildings and sculptures of Yucatan and Central America have within a few years been much damaged and disfigured by the indifference of the natives of those countries and by the vanity of travelers, some of them unfortunately American, who paint their names in large characters on the sides of the buildings and carve them on the sculptures".

"The magnificent 'House of Governors' in Uxmal, probably the grandest building now standing in Yucatan, is **almost covered with names on the front and on the cemented walls inside**. These names are painted in black, blue, and red, and the letters are in some cases twelve inches high, and here are to be seen the names of men who are widely known in the scientific world. The 'House of the Dwarfs' in the same city has

suffered in a like manner. Many of the sculptures which have fallen from the buildings in Uxmal have been willfully broken, and I noticed particularly that two of the beautifully carved turtles from the 'House of the Turtles' had been broken apparently by a machete" (p. 365).

**Scarborough, Vernon L.**

"Courting the Maya Lowlands: a Study in Prehispanic Ballgame Architecture". *International Symposium on the Mesoamerican Ballgame* : 184-248. L. Scarborough and D. Wilcox, eds. Tucson: University of Arizona Press, 1991.

**Scarborough, Vernon L., and David R. Wilcox, eds.** *The Mesoamerican Ballgame*. Tucson: university of Arizona Press, 1991.

The standard publication on the Mesoamerican ballgame, demonstrating its pervasive presence and importance in Pre-Columbian Mesoamerica. There are 16 separate articles by 16 different authors or co-authors.

The following articles is separately listed and annotated in this web bibliography:  
Kurjack, Edward B., Ruben Maldonado, and Merle Green Robertson,  
Chapter 8, "Ballcourts of the Northern Maya Lowlands",

**Scarborough, Vernon L., and Garry C. Gallopin.**

"A Water Storage Adaptation in the Maya Lowlands". *Science*. Vol. 251: 658-662.

**Schávelzon, Daniel**

*La conservación del patrimonio cultural en América Latina: Restauración de edificios prehispánicos en Mesoamérica: 1750-1980*. Buenos Aires: Facultad de Arquitectura, Diseño y Urbanismo, Universidad de Buenos Aires; Instituto de Arte Americano e Investigaciones Estéticas "Mario J. Buschiazzo," 1990.

This is the single most comprehensive and informative publication on the conservation of prehispánicos architecture in Mesoamerica. A 270-page book with extensive footnotes and bibliography, this volume consists of sixteen chapters chronologically arranged from prehispanic antecedents to recent years. Within each chapter the text is subdivided by dated restoration campaigns at individual sites, supervised by different archaeologists. The text is illustrated with 132 small, grey-scale illustrations, but these are carefully chosen and captioned to illustrate examples in the text. While there are more detailed reports in print on individual restoration projects, there is nothing else that rivals the comprehensive account of this book. It is immensely valuable in tracing the changing approaches over time, using specific examples, and evaluating each. The author includes an important eighteen-page concluding chapter describing the social and political context for conservation.

Schávelzon provides a detailed account of the various restoration campaigns at Uxmal, which he rightly states could serve as the subject of a book on its own. He notes that the first intervention occurred in the 1927-28 season and has proceeded almost continuously since then. He describes the first stage of work on the Pyramid of

the Magician, consisting of the complete reconstruction of the stairs, using only a few original stones, with no consolidation. Later he describes the clearing of the Western Building at the base of the Pyramid of the Magician, which were partially completed in spite of finding only the bottom of the front wall and parts of the vault. He prefers the treatment of the North side in which the walls were left at the height as uncovered, thus allowing us to see what is original. He describes in some detail the restoration of the Nunnery and of the Governor's Palace. He claims that the House of the Turtles, reconstructed in 1969 to 1972, is about 70 percent modern, including the missing central sections and much of the interior. In general, writing of the period up to 1980, he describes the restoration at Uxmal as increasingly aggressive so that it is increasingly more modern than old. Photographs of Uxmal include an aerial view of the Nunnery in 1932, after clearing but before restoration, and the central portion of the main façade of the Governor's Palace around 1912. There is an astonishing photograph of the main staircase area of the Great Pyramid in 1972 after clearing, showing that there were only five steps and part of the wall of the upper temple showing, contrasted with a recent view. He considers this one of the extreme examples of tourist reconstruction. Finally, he includes a recent photograph of the restored Ballcourt, which he, in agreement with others, considers the most important example of the new method of restoration, rigorously excavated and restored, only where evidence directed.

About **Kabah** he writes that it had been practically abandoned until 1926 when it was decided to uncover the monuments more thoroughly and to move some of the sculpture to the museum in Merida. In 1951 repair began on the Codz Pop. In 1953 work was done again on the Codz Pop and this time also on the Temple of the Columns, Arch, and Sacbé. For Sayil he describes the work from 1953 to 1957, then completed in 1962, evaluating in detail the restoration of the Great Palace. He objects to the reconstruction of the facade of the lowest level of the right (East) side, leaving the interior and roof of these rooms completely unreconstructed, thus giving the layman a mistaken impression. He objects also to the complete restoration of other parts of the structure, which could have appeared more authentic if only partially restored. For **Labná** he describes the work from 1953-1962 on the Temple of the Columns, Arch and its annexes, and Great Temple.

In his introduction and final chapter, **Schávelzon** claims that conservation has been treated as many separate parts and argues instead for the common ground of all conservation. He also stresses the social function of conservation and the political reality in which it must operate.

### **Schele, Linda**

"The Iconography of Maya Architectural Facades during the Late Classic Period". *Function and Meaning in Classic Maya Architecture; A Symposium at Dumbarton Oaks, 7<sup>th</sup> and 8<sup>th</sup> October 1994*, ed. Stephen D. Houston: 479-517. Washington, D.C.: Dumbarton Oaks Research Library and Collection, 1988.

(on the web at:

<http://www.doaks.org/ClassicMaya/maya012.pdf>  
accessed 2007 Nov. 27)

A study of the modes of decoration used to display symbolic and narrative information on Maya buildings, noting variations by date and region. Schele devotes her chapter to mask programs, which she claims are “the most widespread of all architectural decoration in lowland Maya architecture” (p. 481). She **describes a range of symbolic meanings associated with these mask programs**, including: mountains, sky dragons, Itzamna, creation imagery, Na Ho Kin, creation mountains, head cliffs, mat and flower houses, and war imagery. Along the way she describes examples from Uxmal (primarily the Nunnery), Kabah (primarily the Codz Poop), Sayil, and Labná. Schele and co-author Peter Mathews develop these themes in the Nunnery in much more detail in their chapter “Uxmal: The Nunnery Quadrangle of Chan-Chak-K’ak’nal-Ahaw” in their book *The Code of Kings*, which is separately listed and annotated in this web bibliography.

### **Schele, Linda**

“Linda Schele Drawing Collection”. Foundation for the Advancement of Mesoamerican Studies, Inc. (FAMSI).

On the web at:

<http://www.famsi.org/research/schele/index.html>

(accessed 2006 Nov. 25)

The FAMSI web site contains **962 outline drawings by Linda Schele**, including 20 of Uxmal, none of Kabah, Sayil, Labná. Two represent capstone paintings, 1 is a drawing after a Charnay photograph and 1 a phallus stone. The others are details of the architectural sculpture. All but one of these has been published in *The Code of Kings* (by Schele and Matthews, 1998), but there they are so reduced in size that the clarity of detail is largely obscured. **On the FAMSI web site, the images can be opened at large size** (most at about 2000 pixels on the long side, 72 pixels per inch resolution) making it possible to see the detailed information recorded in the drawings. Schele’s drawing purposely separates the masks, figures, etc. she is drawing from their backgrounds and surroundings, provided **an instructive example of what is best recorded and what not using such a procedure**.

### **Schele, Linda**

“Linda Schele Photograph Collection Foundation for the Advancement of Mesoamerican Studies, Inc. (FAMSI).

On the web at:

[http://research.famsi.org/schele\\_photos.html](http://research.famsi.org/schele_photos.html)

(accessed 2006 Nov. 25)

The FAMSI web site contains **11,642 Maya photographs by Linda Schele**, including 488 of Uxmal, 155 of Kabah, 56 of Sayil, and 17 of Labná. The images can be opened at large size (most at about 3000 pixels on the long side, 72 pixels per inch resolution). There are important views taken before recent restoration and there are a few photographs of small sculptures and stelae not reproduced elsewhere (Uxmal, nos. 116066-116095).

Unfortunately, in contrast to the expertly drawn and reproduced images in the Linda Schele Drawing Collection, many of the photographs of these four sites seem to have

been rather casually taken and indiscriminately posted on the web. Many of the images, as posted, are not very sharp, some are too dark and contrasty, others presumably made from faded 35mm slides. The accompanying metadata provides only basic identification. None are dated.

**Schele, Linda, and Peter Mathews.**

*The Code of Kings: The Language of Seven Sacred Maya Temples and Tombs.* Photographs by MacDuff Everton and Justin Kerr. New York: Scribner, 1998.

If I could recommend only one book on Maya architecture to a bright, beginning student, this would probably be it. Chapter 1 provides a 40 page introduction to all aspects of Maya architecture, comprehensive and impressively clear. There follow 7 chapters, each an in-depth exploration of a major structure or plaza at 7 different Maya sites. **No other text I have read brings Maya buildings to life as richly as this.**

The extraordinary chapter, “Uxmal: The Nunnery Quadrangle of Chan-Chak-K’ak’nal-Ahaw”, is separately listed and annotated in this web bibliography.

**Schele, Linda, and Peter Mathews**

“Uxmal: The Nunnery Quadrangle of Chan-Chak-K’ak’nal-Ahaw”. *The Code of Kings: The Language of Seven Sacred Maya Temples and Tombs.* Photographs by MacDuff Everton and Justin Kerr: 257-289 and three unnumbered color plates. New York, Scribner, 1998.

Photographs and other images of the Nunnery Quadrangle are reproduced on this web site.

Overall Views

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

North Building

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

West Building

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

East Building

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

South Building

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

This chapter brings the Nunnery Quadrangle to life. Taking up each of the four buildings and court in turn (with sixteen pages on the North Building alone) **the authors describe the design and ornamentation of each building focusing on the interpretation of their many parts.** As acknowledged, much of this is built on the research of previous scholars, though the authors advance a consistent range of new interpretations, drawing on their wide-ranging familiarity with Maya culture. **What is most remarkable is the convincing, in-depth, synthetic interpretation of the entire quadrangle, its function and multifaceted meaning to those who designed and used it.** About the stone sculpture of the upper-facades, the authors write: “For the ancient Maya, these extraordinary sculptural passages were not just decorations; they transformed the buildings into sacred spaces that were the habitations of gods, supernatural beings of all sorts, ancestors, and kings. They also identified and labeled

the buildings so that from afar people could understand their function in both the political and spiritual life of the city” (p.262).

Amid this profusion and complexity of symbolism, the authors call attention to the too easily assumed visual design. “At the same time, the builders integrated these discrete groups into a greater whole by means of vistas, lines of sight, controlled access, imagery, and the repetition of pattern and design” (p.258). About the front façade of the North Building they write: “The dark openings of eleven doorways punctuate the front façade.” How much more revealing this is than the simple statement that there are eleven doorways in the façade. Their sentence captures the powerful, three-dimensional effect of the dark doorways, which transform a plain wall into a strong base supporting the great entablature. This is especially effective on the South façade of the North Building, over which the daylight plays longer than on the façades of the other three buildings. For the West Building, the authors describe the evidence for reconstructed portions of the facades, essential information almost always missing from publications for the public. But how else can viewers know what they are looking at?

There are **eight (two in color) outstanding panoramic photos** of Uxmal by McDuff Everton, which convey the dramatic sweep of the Nunnery Quadrangle as few other photos do. It is a shame that they must be reproduced at such small scale, where they give a somewhat distorted sense of the relative size of the buildings. **Reproduced large and in color, they would dramatically convey the experiential presence of this extraordinary quadrangle.**

Altogether, there are thirty-one photographs of the Nunnery Quadrangle, which provide significantly more visual evidence for the text than does any other print publications. Moreover, the photographs are intelligently taken so that the raking light reveals the three-dimensional reliefs and one can see the way in which platforms and moldings of adjacent buildings are aligned. At such small scale, however, and reproduced in gray-scale on pulp paper, much of the detail of the original photographs is lost.

In addition, there are ten groundplans and elevations and forty some other line drawings, which provide diagrammatic information and distinction of parts sometimes not visible in photographs. Here too, however, **it is a shame to see the largest and most complex drawings, such as Mark Van Stone’s superb drawings of the four immense mask stacks of the North Building, so compressed.** If the photographs on this web site serve to more fully illustrate this masterful chapter, one of the purposes of this web site will have been fulfilled.

**Schele, Linda and Mary Ellen Miller; photographs by Justin Kerr**

*The Blood of Kings: Dynasty and Ritual in Maya Art.* Fort Worth, Texas: Kimbell Art Museum, and G. Braziller, N.Y., 1986; reprinted with corrections Sept. 1986; London: Thames and Hudson, 1992.

This book would not normally be included in a bibliography on the subjects of this web site. There are only a few mentions of the Puuc region or of Uxmal, Kabah, Sayil, or

Labná, and they do not appear in the chronological chart or voluminous illustrations. In the description of Maya interior space and the restrictions of corbel vaulting, no recognition is given to the development of high quality concrete in Puuc architecture, which eliminated the restrictions of corbel technology (pp. 34-35). Yet this is **one of the most richly informative books ever published on the Maya, providing essential context for any study of Maya art.**

Especially relevant and pioneering are the 8 pages on the characteristics of Maya 2- and 3-dimensional imagery, **the “visual canon” through which the Maya imaged their world** (pp. 33-40). As the authors had noted in their prologue, “The methodology of this study derives from the union of hieroglyphic decipherment and the interpretation of pictorial imagery, which together allow us to discover patterns inherent in Maya art” (p. 15). Although the authors do not explore the relevance of these patterns to the architectural sculpture of Puuc region facades, the characteristics they describe for Early to Late Classic period art from the Southern Maya areas are tantalizingly applicable to Puuc region facades. A comparable study of the visual canon of the most complex and refined of all Maya architectural sculpture awaits an equally in-depth study.

Also notable for the subjects of this web site are the first 7 pages (pp. 18-24) of the section on “The Modern Invention of the Ancient Maya”. These pages trace the changing Euro-American concepts of Maya civilization from the authoritative surveys of Morley and Thompson in 1946 and 1956 until about 1972. As part of this study, **the authors describe a number of drawings, prints, and photographs, which reveal the attitudes of various early explorers and later scholars.** Joined with the preface by Michael Coe (pp. 1-4), a succinct survey of Maya studies from ca. 1940 (especially from 1960), to 1985, *The Blood of Kings* provides a background for any study of changing concepts of the ancient Maya.

The main body of this publication is built around the objects in the exhibition, organized in 8 theme chapters; each consisting of an extended introductory text and detailed entries for each object illustrated. **The superb photographs are by Justin Kerr;** the detailed line drawings by Linda Schele.

### **Schlesinger, Victoria**

*Animals and Plants of the Ancient Maya.* Austin: University of Texas Press, 2001.

Describes in some detail a small portion of the vast number of animal and plant species that are of importance to the Maya today and to the ecosystem of the Maya area. Special attention is paid to animals and plants that “were of recorded significance to the ancient Maya.” Only a few of these, noted in the section on “Tropical Dry Forest” are significant in the Puuc area. In the foreword, Carlos Galindo-Leal notes that “While it is still possible to find every plant and animal that witnessed Maya history, the region’s natural environment is rapidly vanishing in spite of the protected areas.”

**Schmidt, Peter J.**

"El Puuc". *Boletín del INAH*, No. 31: 17-23

**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).

**Schmidt, Peter, Mercedes de la Garzia, and Enrique Nalda, eds.**

*Maya*. New York: Rizzoli, 1998 (identical to *Maya Civilization*, London: Thames and Hudson, 1998).

Large format, 695 page volume, published in conjunction with a groundbreaking exhibition at the Palazzo Grassi in Venice. Authoritative articles on many aspects of Maya art and society, illustrated by **superb, large color photographs**. Includes **a detailed catalogue by 42 authors of the 514 works exhibited, every item illustrated in superb small color photos**, though unfortunately against the now pervasive, fashionable, black background, which eliminates space and scale. Quite a few objects are from the Yucatan. From Uxmal nos. 27, 54, 55, and 63. From Kabah nos. 62 and 372. In addition to occasional references to the Puuc region in other parts of the text, there is an authoritative survey of Puuc architecture by Jeff Karl Kowalski, titled "Uxmal and the Puuc Zone: Monumental Architecture, Sculptural Facades and Political Power in the Terminal Classic Period" (pp. 400-425). (On page 416, the photo of the better preserved and restored left half of the Great Palace, Sayil, has been mistakenly reversed right-left, so that it appears to be the right half.) For an annotation on this essay see the separate entry in this web bibliography.

The following chapter is separately listed and annotated in this web bibliography:  
Kowalski, Jeff Karl, "Uxmal and the Puuc Zone: Monumental Architecture, Sculptural Facades and Political Power in the Terminal Classic Period"

**Schmidt, Peter Mercedes de la Garzia, and Enrique Nalda, eds.**

*Maya Civilization*. London: Thames and Hudson, 1998 (identical to *Maya*. New York: Rizzoli, 1998).

Exactly the same publication as the volume listed and annotated above under the title *Maya*. The practice of publishing the same book under different titles was discredited years ago.

**Scott, David A., and Pieter Meyers, eds.**

*Archaeometry of Pre-Columbian Sites and Artifacts*. Los Angeles: Getty Conservation Institute, 1994.

20 papers from a conference on the material culture of North and South America.



### **Segovia, Victor**

“La Astronomía en Uxmal”. *Arqueoastronomía y etnoastronomía en Mesoamérica*. Ed. Johanna Broda, Stanislaw Iwaniszewski, and Lucrecia Maupomé. México: Universidad Nacional Autónoma de México, 1991. Chapter 6: 61-63. Based on a symposium held 24-28 Sept. 1984.

The author describes his discoveries of the ways in which the Maya designed, oriented, and laid out their buildings in relation to the sun, including using them as astronomical calibrators. He describes aspects of Uxmal as examples.

### **Seler, Eduard.**

*Collected Works in Mesoamerican Linguistics and Archeology*. English translation of German papers from *Gesammelte Abhandlungen zur Amerikanischen Sprach- und Alterthumkunde*, made under the supervision of Charles P. Bowditch. Slight emendations to vols. IV and VI by J. Eric S. Thompson. Ed. J. Eric S. Thompson and Francis B. Richardson. Culver City, CA: Labyrinthos, 1991-1998, separate index pub. 2000.

Among these far-ranging papers is a chapter on the “Studies of the Ruins of Yucatan,” including a four page description of Uxmal with diagrams of five design details, based on Seler’s 1903 visit to the site. This concludes with the paragraph:

“In the general character of their ornamentation, the buildings of Uxmal resemble a great number of other ruined cities that are scattered over the wilderness of the western part of the peninsula. But I actually know of no single ruin which the ornamentation is so rich and at the same time so varied and so significant as in the Uxmal buildings, so that as a matter of fact this ruin belongs to the most important of those existing at the present time” (Vol. IV, p. 349).

In these collected papers there are very few other references to Puuc region sites. However, Seler is one of the early scholars to note that “In the neighborhood of Uxmal and a few other places there are lake-like, open collections of water that are called *akal ché*. Here, however, investigation of several has shown that they too have been made by the hand of man, by the construction of an impervious bottom” (Vol. II, p. 147).

### **Seler, Eduard Georg**

“Die Ruinen von Uxmal”. *Abhandlungen der Königlich Preussischen Akademie der Wissenschaften* Philosophisch-Historische Klasse, Nr. 3. Berlin, 1917.

All of Seler’s images of Uxmal in this publication are reproduced on this web site.  
<http://academic.reed.edu/uxmal/galleries/thumbnails/drawings/Drawings-Seler.htm>

A truly remarkable publication for its time, based on three visits during 1902-1911. Includes 154 pages of text with some 130 diagrams and line drawings and about 60 photographs and closely related material, constituting by far the most in-depth study of Uxmal until Pollock’s volume on the Puuc in 1980. Seler takes up the major buildings at Uxmal one by one, describing them in detail along with his own meticulous ground plans, sections, and especially numerous details of masks, figures, and mosaic

designs (there are ten or so drawings from other publications, credited). Among these are the first detailed diagrams of the design patterns for the frieze of the House of the Governor. About four of the photographs are his own with some thirty by Caecilie Seler, his wife. There are also two by Le Plongeon and **an important, previously unpublished group of twenty-two photographs by Maler**, fully credited. The most elaborate drawings as published (based on Seler's material and drawings and photographs by others) are signed by Wilhelm von den Steinem, and most of the other drawings are consistent with his hand.

Seler's other publications make massive contributions to our understanding of ancient Mexican culture, most notably in the interpretation of imagery. However, this text is **almost entirely descriptive, impressively so**. Presumably as a result of this, in several extensive accounts of Seler's career and publications, this monumental work is not mentioned. If he considered this type of study worthy of his time and effort we should acknowledge it, especially as it has proved to be impressively accurate and records information no longer visible.

### **Seler, Eduard**

"Die Ruinen von Uxmal". *Zeitschrift für Ethnologie*. Vol. XLVII (1915): 429-432. Berlin.

### **Seler, Eduard**

"Ruins of Uxmal". Manuscript in the Tozzer Library, Harvard University, 1967.

### **Seler, Eduard**

"Some Older Systems in the Ruins of Uxmal". Manuscript in the Tozzer Library, Harvard University, 1912.

### **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.

### **Seler, Eduard Georg**

"Ueber einige ältere Systeme in den Ruinen von Uxmal". *Proceedings of the 18<sup>th</sup> International Congress of Americanists* (London 1912), Vol. 1: 220-235. London, 1913.

The first publication of Seler's introductory description of Uxmal, reused, slightly expanded, as the first 32 pages of his monumental 1917 "Die Ruinen von Uxmal", described above.

### **Sepúlveda y Herrera, María Teresa**

“Eduard Georg Seler”. *La antropología en México: panorama histórico: 11. Los protagonistas (Nájera-Yurchenco)*. Coordinado del volumen, Linda Odena Güemes. Coordinador general Carlos Garcia Mora. Colección Bibliotheca del INAH. México, D.F.: Instituto Nacional de Antropología e Historia, 1987-88.

A detailed, chronological **survey of Seler’s life and career**. The author stresses the importance of Seler’s early study of mathematics, natural science, and linguistics, as a basis for his later work on the ancient Americas, and specifies 6 areas of Seler’s major achievements: (1) studies of writing and the Maya calendar; (2) paleography, translations of commentary and texts in native languages; (3) interpretation of documents, pictographs and codices, religious; and (4) ethnohistorical studies of cultural synthesis. Astonishingly, there is **no mention of Seler’s major 1917 volume, *Die Ruinen von Uxmal***. No doubt the author did not consider it theoretical enough.

### **Serlacor**

“Conclusiones del Primer Seminario Regional Latinoamericano de Conservación y Restauración”. Centro Regional de Estudios para la Conservación y Restauración de Bienes Culturales, México, 1973.

### **Shanks, Michael**

“Photography and Archaeology”. *Cultural Life of Images: Visual Representation in Archaeology*, ed. Brian Leigh Molyneaux: 73-105. New York: Routledge, 1997.

In this article, the author provides a rich selection of examples demonstrating the various ways in which archaeological images are interpretive. It is surprising, however, to see this idea presented as a new discovery. Shanks writes: “There is little or no questioning of conventional uses of photography. Archaeological photographs are treated as transparent windows to what they are meant to represent” (p. 73). But surely well before 1997 nearly all professional users of photographs recognized that all images are interpretive. Historians of photography have for years published broadly on the usefulness of photographs in reconstructing cultural attitudes to the past, describing the rich complexity of interpretations they have to offer and the diverse purposes they have served.

### **Sharer, Robert J.**

*The Ancient Maya*. Stanford University Press, 1994 (6th ed., co-authored with Loa P. Traxler, 2006).

This classic survey of the ancient Maya was first authored by Sylvanus G. Morley in 1946, revised and expanded by additional authors in following editions. In this fifth edition, the text has been **thoroughly rewritten and greatly expanded, with over one hundred new illustrations**. One need hardly mention that the book provides an exceptionally thorough, balanced, and accessible account. However, given the rapid growth of Maya studies, this edition is now necessarily out of date in some areas; and given the comprehensive scope of the text, relatively little space could be given to

most sites. For the Puuc region, there are 6 ½ pages of text and 14 illustrations. There is no mention of the unusually extensive restorations at Uxmal. Although this section is almost entirely description, the author does write that the Puuc region produced “some of the most beautiful and appealing of all Maya buildings” (p.368).

Chapter 14, exceptional in the Maya literature, provides a comprehensive survey of the factual aspects of Maya “Architecture, Sculpture, and Painting”. Unfortunately, the almost 50 well chosen illustrations are all grey-scale, in spite of the important descriptions of Maya color.

### **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**

*Greca: An Exploratory Study of the Relationships between Art, Society, and Personality*. Ph.D. dissertation, University of North Carolina, Chapel Hill. Ann Arbor, Michigan: University Microfilms, 1972.

### **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.

### **Silberman, Neil, and Dirk Callebaut**

“Interpretation as Preservation: Rationale, Tools, and Challenges”. *Of the Past, for the Future: Integrating Archaeology and Conservation*. Ed. Neville Agnew and Janet Bridgland. Proceedings of the Conservation Theme at the 5<sup>th</sup> World Archaeological Congress, Washington, D.C., 22-26 June 2003. Los Angeles: Getty Conservation Institute, 2006: 43-46.

This paper argues for the essential role of interpretation in stimulating public interest and involving the community in preservation. The authors also recommend the establishment of “a set of international professional standards for the interpretation of public heritage resources” yet “avoiding cultural homogenization” (p. 43).

**Simpson, Jon Eric S.**

“The New York Relief Panel – and Some Associations with Reliefs at Palenque and Elsewhere, Part 1”. *Segunda mesa redonda de Palenque*, pt. 3 (Palenque Round Table Series, Vol. 2), ed. Merle Greene Robertson: 95-105. Peable Beach, CA: Robert Stevenson School, 1974. [1976]

The two New York relief panels are reproduced on this web site.  
<http://academic.reed.edu/uxmal/galleries/thumbnails/kabah/Kabah-RedHands.htm>

**Smith, A. Ledyard**

“The Corbelled Arch in the New World”. *The Maya and Their Neighbors*, ed. Clarence L. Hay, et al: Chapter XIII, 202-221. New York: D. Appleton-Century Co, Inc, 1940 (reprinted Dover Publishing, New York, 1977).

Smith traces the **chronological development of the corbelled arch**, primarily in Maya areas, from its crude beginnings to its most sophisticated form. He writes that:

“in its later development in Yucatan this principle [cantilevering the stones] was in part lost by the introduction of the boot-shaped vault stone (Fig. 12, c). These highly specialized vault stones do not tenon back into the hearting to any such degree as did the earlier types, and the bearing surface of one stone upon the other is minimized. The result is that the function of these stones as a support is to a great extent lost and they become a veneer for the cement hearting which holds them in place and carries the main strain. The boot-shaped vault stones are the best cut and dressed stones used in corbeled vaulting in the New World and even without a plaster finish offer a beautiful surface”(p. 206).

Smith diagrams 15 different “examples of Maya arches” including 2 forms from Uxmal and 1 from Labná (fig. 12). He writes that “A characteristics of the vaults in the Puuc sites is the overhanging step formed by the course of stones upon which the capstone rest” (pp. 208, 210).

“The principal use of the corbeled arch in Middle America was in roofing the rooms of ceremonial buildings. It was also used, but not so commonly, in portal arches at Labna, Uxmal (Fig. 1, *m* and *n*) and Kabah” (p. 210).

**Smith nowhere mentions the Puuc innovation of higher quality concrete, which made possible the abandonment of true, cantilevered, corbelled arches and the spanning of wider interior spaces. Also, there is no description of the still problematic method of constructing these Puuc region vaults.**

**Smith, A. Ledyard and Karl Ruppert**

“Ceremonial or Formal Archway, Uxmal”. *Carnegie Institution of Washington: Notes on Middle American Archaeology and Ethnology*. Vol. V, No. 116: 1-3. Washington, D.C.: Carnegie Institution of Washington, 1954.

**Smith, C. Earle Jr., and M. L. Cameron**

“Ethnobotany in the Puuc, Yucatan. *Economic Botany*. Vol. 31 (1977); 93-110.

**Smith, Monica L., ed.**

*The Social Construction of Maya Cities*. Washington, D.C.: Smithsonian Institution Press, 2003.

**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.

**Smith, Valene L, ed.**

*Hosts and Guests: the Anthropology of Tourism*. Philadelphia, 1989 (2<sup>nd</sup> ed.).

**Smyth, Michael P.**

“Architecture, Caching. And Foreign Contacts at Chac (II), Yucatan, Mexico. *Latin American Antiquity* (June 2006).

**Smyth, Michael P.**

“Before the Florescence: Chronological Reconstruction of Chac II, Yucatan, Mexico”. *Ancient Mesoamerica*, Vol. 9 (1998): 137-150.

Apart from its importance in reporting on Chac and its chronological relationship to the Puuc region and beyond, this is a crucial article for arguing the importance of certain excavation techniques in order to provide secure bases for dating.

The article reports on 3 field seasons (1995-1997) at Chac II (Chac), the Yucatan, Mexico. Fig. 2 is a full-page “digitized map of the Great Pyramid Plaza and Hol-Be groups”. The intent of the research was to establish an absolute chronology for the site, with implications for the entire Puuc region and beyond. Smyth concludes that “Chac, in particular, and the Puuc region—by extension—underwent significant cultural development well before the Terminal Classic period (A.D. 800-1000). Chac also appears to have experienced foreign influence, contacts, or both, from the southern Maya area, central Mexico, and Chichen Itza. These new chronological data

suggest an earlier, longer developmental sequence for the Puuc region than has been traditionally supposed”.

The author writes that “Unfortunately, chronological reconstructions for the region have not been rigorous and are largely based upon relative dating techniques using primarily architecture and ceramics. Furthermore, there are few chronometric dates taken from stratigraphic contexts necessary to place architectural and ceramic sequence in absolute time”. Instead, this study is based on “independently linking architectural styles to ceramic sequences via a program of absolute dating” (p. 137). Smyth provides a detailed description of evidence, independently, for “Architectural Chronology”, “Ceramic Sequences”, and “Absolute Dating”.

Smyth writes that “the paucity of chronometric dates from controlled contexts associated with ceramics and architecture has been a significant problem for the reconstruction of Puuc prehistory” but that “such data are obtainable if comprehensive stratigraphic excavations are conducted systematically” (p. 126).

**Smyth, Michael P.**

*Domestic Storage Behavior in the Puuc Region of Yucatan, Mexico: An Ethnoarchaeological Investigation*. Doctoral Dissertation, Department of Anthropology, University of New Mexico, 1988.

**Smyth, Michael P.**

“An Early Classic Center in the Puuc Region: New Data from Chac II, Yucatan, Mexico.” *Ancient Mesoamerica*. Vol. 9, No. 2 (Fall 1998), 233-257.

**Smyth, Michael P.**

“Early Maya Urbanism in the Puuc Region: Archaeological Research at Chac II (1995-2000)”. *Escondido en la Selva: arqueología en el norte de Yucatan*, ed. Hanns J. Prem. México, D.F.: Instituto Nacional de Antropología e Historia; and Universidad de Bonn, 2003: 97-118.

Based on 6 seasons of research at Chac II (1995-2000), this paper provides detailed, systematic information on this recently rediscovered site that is serving as the basis for new understanding of the Puuc Region. Smyth has established that Chac II began to emerge in 300-500 AD, became a substantial settlement in 500-650 AD (Middle Classic), was a large center by 650-800 AD (Late Classic), and had largely disappeared by 800-1000 AD (Terminal Classic). This corrects the previous view that northern Yucatán developed significantly later than southern Maya centers. Smyth has also demonstrated long-distance contact with other Mesoamerican centers, most notably Teotihuacán, earlier than previously recognized. He has mapped some 100 architectural groups at Chac II. He describes various sculptural objects, ceramic and other artifacts, relating their characteristics to those at other sites in the Puuc Region and elsewhere. He provides a table of radiocarbon readings.

Especially important was the discovered “a remarkably intact pyramid substructure beneath the Great Pyramid dated to around 400 AD”, showing “that substantial stone

architecture was being constructed in the heart of the Puuc region during the Early Classic period” (p. 116). Also important, he writes that the data gathered “strongly suggests a relationship with central Mexico that went beyond long-distance influence” suggesting that “the presence of foreigners at the site cannot be easily dismissed” (p. 118). Smyth concludes that “the site holds great promise for addressing the nature of cultural links between the Puuc region and the rest of Mesoamerica during the Early-Middle Classic periods, a time of strategic importance for the development of northern Maya urbanism and the rise of complex societies in Yucatan” (p. 118).

**Smyth, Michael P.**

“Ethnoarchaeological Research on Storage Behavior in the Puuc Region: Some Implications for Future Research at Sayil”. *Archaeological Investigations at Sayil, Yucatan, Mexico, Phase II: The 1987 Season*, ed. G. Tourtellot et. al.: Appendix. Anthropology Papers 2. Pittsburgh: University of Pittsburgh, 1989.

**Smyth, Michael P.**

“Kabah (Yucatán, Mexico)”. *Archaeology of Ancient Mexico and Central America: An Encyclopedia*, ed. Susan Toby Evans and David L. Webster: 387. New York: Garland Pub. Inc., 2001.

The most up-to-date one page summary of Kabah including brief bibliography, pointing out that “recent work by Carrasco and his colleagues suggests that the total mass of architectural construction may be greater at Kabah than at . . . Uxmal, prompting researchers to reassess its role in the regional settlement hierarchy.”

**Smyth, Michael P.**

“Labna (Yucatán, Mexico)”. *Archaeology of Ancient Mexico and Central America: An Encyclopedia*, ed. Susan Toby Evans and David L. Webster: 391. N.Y.: Garland Pub. Inc., 2001.

The most up-to-date one page summary including brief bibliography of Labná.

**Smyth, Michael P.**

“A Land with No Water: The Gruta de Chac and the Rise of the Puuc Maya”. *Archeology* (in press).

**Smyth, Michael P.**

“Maize Storage among the Puuc Maya: the Development of an Archaeological Method”. *Ancient Mesoamérica*: Vol. 1, No. 1 (1990): 51-70. Cambridge, England.

**Smyth, Michael P.**

“Maya Urbanism at Sayil, Yucatan”. *National Geographic Research and Exploration*, Vol.10 (1994): 38-55.

**Smyth, Michael P.**

*Modern Maya Storage Behavior/ Comportamiento de almacenaje entre los mayas modernos.*



**Smyth, Michael P.**

*Modern Maya Storage Behavior: Ethnoarchaeological Case Examples from the Puuc Region of Yucatán.* Memoirs in Latin American Archaeology, No. 3. Pittsburgh: University of Pittsburgh, 1990, 1991.

**Smyth, Michael P.**

"A New Study of the Gruta de Chac, Yucatán, México." Report submitted to the Foundation for the Advancement of Mesoamerican Studies, Inc. (FAMSI). Report submitted 1998 Dec. 1.

On the web at:

<http://www.famsi.org/reports/97011/index.html>

(accessed 2007 Nov. 18)

This is an especially rich report of **new findings resulting from a new study of the Chac cave conducted summer 1998**. The cave is less than 1 km north of Chac II, which is thought to be "the original settlement from which nearby Sayil emerged" (p.2). Through cave exploration and excavation, settlement survey, ceramic analysis, neutron activated analysis, and radiocarbon dating, Smyth reaches several conclusions that further our understanding of this important center. Among these are that "the sites of Chac I and Chac II are one and the same" and that "the Gruta de Chac was contemporary with Chac II" (p. 5). Smyth provides multiple support for his conclusion that **the Gruta de Chac became not primarily a source of everyday drinking water but rather "one of their most sacred and holy places" in the Puuc area** (p. 6). There are 3 maps and diagrams and 6 photos.

**Smyth, Michael P.**

"Origins of Puuc Slate Ware: New Data from Sayil, Yucatan, Mexico". *Ancient Mesoamerica*, Vol. 6, No. 2 (1995): 119-134.

**Smyth, Michael P.**

"Sayil and Chac (Yucatán, Mexico)". *Archaeology of Ancient Mexico and Central America: An Encyclopedia*, ed. Susan Toby Evans and David L. Webster: 654-655. N.Y.: Garland Pub. Inc., 2001.

**The most up-to-date one page summary plus brief bibliography of Sayil.**

**Smyth, Michael P.**

"Surface Archaeology, Site Organization, and Sayil, Yucatan: New Methods for Studying Urban Maya Communities". *Surface Archaeology*, ed. A. Sullivan: 43-60. Albuquerque: University of New Mexico, 1998.

**Smyth, Michael P.**

"Teotihuacán in the Puuc Region: Investigating an Early Foreign Presence at Chac II". Report Submitted to FAMSI (Foundation for the Advancement of Mesoamerican Studies). Research year 2000.

On the web at:

<http://www.famsi.org/reports/99017/index.html>

(accessed 2006 Nov. 220)

When viewed on a computer monitor the images are in color, and when viewed at high resolution they are much clearer than in print.

Following his previous archaeological research, showing that “Chac II (Chac) has revealed a major center in the heart of the Puuc region dating to the Early Classic period (A.D. 300-600). Providing extensive, detailed excavation results, Smyth argues that “these various lines of evidence indicate that **Chac began to emerge in the Early Classic (A.D. 300-500), became a substantial settlement during the Middle Classic period (A.D. 500-650), and by the Late Classic (A.D. 650-800) covered up to 3 sq km with perhaps as many as 6000 inhabitants.** The site appears to have become largely depopulated by the onset of the Terminal Classic period (A.D. 800-1000) when settlement patterns shift to the nearby and neighboring center of Sayil”. (p. 1). The article includes a map, 2 ground plans, 10 color photographs, and a scholarly bibliography.

### **Smyth, Michael**

“Uxmal (Yucatán, Mexico)”. *Archaeology of Ancient Mexico and Central America: An Encyclopedia*, ed. Susan Toby Evans and David L. Webster: 792-796. NY: Garland Pub. Inc., 2001.

**The most up-to-date four page summary of Uxmal**, including site map and brief bibliography, pointing out that Uxmal benefited from being situated “within a relatively flat, bowl-shaped basin of deep, rich agricultural soils, flanked on the southwest by five clay-filled sinkholes, or aguadas, which provided a vital source of water in this semiarid tropical environment.” Importantly, Smyth notes that **“the densest settlement zone at Uxmal, largely unexcavated, is associated with the Cemetery Group.”**

### **Smyth, Michael P., and Christopher D. Dore**

“Large-site Archaeological Methods at Sayil, Yucatán, México: Investigating Community Organization at a Prehispanic Maya Center”. *Latin American Antiquity*, Vol. 3, No. 1 (March 1992): 3-21.

The authors claim that “the important means of understanding transformations in Maya society and its social and cultural adaptations to the natural environment must lie in the ways in which suprahousehold or community organization systems changed” (p. 16). To pursue this approach, Smyth and Dore conducted **an in-depth study of community organization at a major Terminal-Classic Puuc site, based on broad scale, systematic surface collecting in 1990.** Their study, constituted Phase III of the Sayil Project, built on the important mapping and study of architectural remains by Sabloff, Tourtellot and associates in previous field seasons. The authors urge comparable studies at other Maya sites to provide interpretational links to better understand societal change in the Maya world. Includes an extensive bibliography.

**Smyth, Michael P., and Christopher D. Dore**

“Large-site Surface Archaeological at Sayil, Yucatán, México: A Preliminary Report”. *Mexicon*, Vol. 14, No. 3 (1992): 52-56.

Following up previous groundbreaking Sayil mapping projects, this article reports on **broad-scale surface collecting during the summer of 1990**. Unlike some previous studies, this study **focused on “community phenomena** organized at a hierarchical level above that of individual behavior, households, or specific archaeological/architectural features”, focusing on “community organization, city planning, and site development” (p. 52). The authors describe various preliminary results of their study.

**Smyth, Michael P., and Christopher D. Dore**

“Maya urbanism at Sayil, Yucatan”. *Research and Exploration*. Vol. 10, No.1 (1994): 38-55. Washington, D.C., 1994.

This article **presents evidence to support the following hypotheses**: 1) Large monumental buildings were probably not elite residences, but rather special places for political, ceremonial & economic activity of the greater community. 2) Sayil appears to have had a large community specializing in the manufacture of ceramic vessels. The ceramic-making barrio had many stone building yet a low percentage of elite ceramics and no stone altars, which suggests an economically viable but politically constrained middle class. 3) Elite communities were spatially decentralized & distributed across the site in patterns that suggests they controlled the largest and most fertile tracts of cultivable land within the city. 4) The distribution of stone altars within & outside the civic-ceremonial precinct imply that ceremonialism, elite groups, and perhaps political power was not rigidly centralized at Sayil but shared among competing factions within Maya society.

**Smyth, Michael P., and David Ortegón Zapata**

“Un estudio de la antigua comunidad de Chac II, Yucatán, México: Reporte final de las investigaciones arqueológicas de 1997”. Reporte presentado en el Consejo de Arqueología del Instituto Nacional de Antropología e Historia, México [1997]

**Smyth, Michael P., and Daniel Rogart**

“A Teotihuacan Presence at Chac II, Yucatan, Mexico: Implications for Early Political Economy of the Puuc Region”. *Ancient Mesoamerica*, Vol. 15, No. 1 (2004): 17-47

**Smyth, Michael P., Christopher D. Dore, and Nicholas Dunning**

“Interpreting Prehistoric Settlement Patterns: Lessons from the Maya Center of Sayil, Yucatán”. *Journal of Field Archaeology*, Vol. 22, No. 3 (1995): 321-347.

**Smyth, Michael P., Christopher D, Dore, Hector Neff, and Michael Glascock**

“The Origins of Puuc Slateware: New Data from Sayil, Yucatan, Mexico”. *Ancient Mesoamerica*, Vol. 6 (1995): 119-134.

**Smyth, Michael P., J. Ligorred P., D. Ortegon Z., and P. Farrell**

“An Early Classic Center in the Puuc Region: New Data from Chac II, Yucatán, México. *Ancient Mesoamerica*, Vol. 9 (1998): 233-257.

**Smyth, Michael P., et al.**

“Un estudio de la antigua comunidad de Chac II, Yucatán, México: Reporte final de las investigaciones arqueológicas de 1999”. Reporte presentado en el Consejo de Arqueología del Instituto Nacional de Antropología e Historia, México [1999]

**Smyth, Michael P., et al.**

“Un estudio de la antigua comunidad de Chac II, Yucatán, México: Reporte final de las investigaciones arqueológicas de 1998”. Reporte presentado en el Consejo de Arqueología del Instituto Nacional de Antropología e Historia, México [1998]

**Smyth, Michael P., et al.**

“Un estudio de la antigua comunidad de Chac II, Yucatán, México: Reporte final de las investigaciones arqueológicas de 1996”. Reporte presentado en el Consejo de Arqueología del Instituto Nacional de Antropología e Historia, México [1996]

**Smyth, Michael P., et al.**

“Un estudio de la antigua comunidad de Chac II, Yucatán, México: Reporte final de las investigaciones arqueológicas de 1995”. Reporte presentado en el Consejo de Arqueología del Instituto Nacional de Antropología e Historia, México [1995]

**Smyth, Michael P., et al.**

“Informe de la exploration en la Estrura del Dintel: Chac II. Yucatán, México, 1995”. Informe presentado en el Consejo de Arqueología del Instituto Nacional de Antropología e Historia, México, 1995.

**Sosa, John Robert**

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

**Solomon, Char**

*Tatiana Proskouriakoff: Interpreting the Ancient Maya*. Norman and London: University of Oklahoma Press, 2002.

A straightforward biography, based partly on interviews with Proskouriakoff's family, friends, and associates, and on her unpublished diaries and correspondence. Her visits to Uxmal in 1937 and 1947 are mentioned, in addition to her important visits to Uxmal, Kabah, Sayil, and

Labná in 1940, the basis for her famous reconstruction drawings of these four sites. There is a valuable list of over 50 of Proskouriakoff's publications (pp.197-200).

### **Spinden, Herbert Joseph**

*Ancient Civilizations of Mexico and Central America*. American Museum of Natural History. Anthropology Handbook Series No. 3. New York: American Museum of Natural History, 1917. The final edition, a nearly identical republication of the 3<sup>rd</sup> edition, was published in Spinden's *Maya Art and Civilization*, 1957. The 3<sup>rd</sup> edition was republished as a paperback with new, 13-page, introduction by Bruce E. Byland, different page numbering and less legible illustrations; by Dover Publications, Inc., Mineola, New York, 1999.

A highly successful, popular account of many aspects of Pre-Columbian civilizations, including their arts, beliefs, and social structures. Puuc cities are barely mentioned or illustrated, but Spinden's descriptions of architecture and ornament often apply. Includes many illustrations, clearly reproduced though many quite small, based on the collections of the American Museum of Natural History in New York. Byland's "Introduction to the Dover Edition" is a splendid review of Spinden's impressive life and career, in the context of American studies.

### **Spinden, Herbert Joseph**

*Maya Art and Civilization: Revised and Enlarged with Added Illustrations. Part 1: A Study of Maya Art; Part 2: The Nuclear Civilization of the maya and Related Cultures*. Indiana Hill, Colorado: Falcon's Wing Press, 1957.

This is a nearly identical republication, in one volume, of Spinden's two major previous publication: *A Study of Maya Art* (1913) and *Ancient Civilizations of Mexico and Central America* (3<sup>rd</sup> and revised ed. 1943). Strangely, on the title page of *Maya Art and Civilization*, the original title of Part 1 is used, whereas Part 2 is given the new title "The Nuclear Civilization of the Maya and Related Cultures".

A number of the changes from the two original separate volumes should be noted. **A new 7 page forward by Spinden has been added for the new 1956 volume. The original preface for *Ancient Civilizations* has been dropped from Part 2. A new, 29 page, Epilogue, titled "Maya Dynamic Dating and the Fallacy of Time", has been added to Part 2.**

The republication of the hundreds of the author's impressive drawings are almost as useful as in their original volumes. However, the reduced size and diminished clarity of the 250 odd photographs, many quite small even in the original publications, considerably weakens the form and detail of the architecture and sculpture represented.

### **Spinden, Herbert Joseph**

*The Nuclear Civilization of the Maya and Related Cultures*. This is the title incorrectly used for Part II in Herbert Joseph Spinden, *Maya Art and Civilization*, separately listed and

annotated in this web bibliography. Part II is actually a republication of *Ancient Civilizations of Mexico and Central America*.

**Spinden, Herbert Joseph**

“Reconstructing a City of Ancient America”. *Discovery* (London), Vol. 12 (May 1931): 149-151.

**Spinden, Herbert J.**

“The Stephens Sculptures from Yucatan”. *Natural History: The Journal of the American Museum*. Vol. 20, No. 4 (Sept.-Oct. 1920): 378-389.

Photographs of the 2 Kabah doorjambs described in this article are reproduced on this web site.

<http://academic.reed.edu/uxmal/galleries/thumbnails/kabah/Kabah-RedHands.htm>

This is the most informed and detailed account of the 6 major sculptures removed from Uxmal and Kabah by Stephens and Catherwood in 1841, the so-called “Stephens stones”. Spinden first gives a brief account of Stephens’ remarkably productive professional life with a history of the Stephens stones. He notes that they had recently [1919] become a part of the collection at the American Museum of Natural History in New York, having been for 80 years in the private family collection of John Church Cruger, to whom they had been given by Stephens.

There are a number of detailed observations about these sculptures, unpublished elsewhere, in this eminently informed article by the curator in charge of the collection at the Museum. These include the only detailed description of the 2 carved doorjambs from Kabah, easily the most important pieces among the Stephens stones. Reproduced side-by-side with a photograph of one of the jambs (not both as stated in the text, p. 385) and the print from Catherwood’s summary drawing of it is a more informative drawing by John Held Jr., carefully studied from the original jamb. Spinden notes that “Each [jamb] consists of two separate stones, as indicated in the engravings. In each the upper stone is one foot five inches high, and the lower one four feet six inches, and both are two feet three inches wide” (p. 385). He notes also that the top portion of one of the jambs had been lost and has been restored. He describes the figures on each jamb as a warrior standing over a kneeling warrior or vanquished chief and notes that the standing figures are uncharacteristically slender in Maya sculpture. Spinden provides an unusually careful description of each figure, noting that the standing figures have nose plugs, which accounts for the seemingly long noses in the less studied Catherwood drawings.

Describing the mask from the façade of the East Building of the Nunnery, Uxmal, Spinden notes that it is “made up of several stones carefully mortised together by the pin and dowel method” (p. 380), and that “the built-up head with headdress . . . may contain parts from the other two heads [that had fallen from the façade], especially since some of the joints do not fit properly” (p. 383). He writes also that “It is possible that the crevices in this composite ornament were filled in with plaster, and that the

whole was painted in bright colors” [almost certainly true]. Curatorial information of this type is extremely rare in publication on Maya art.

There are 3 photographs of the 3 Uxmal facades from which some of the sculptures came. There are 7 photographs of the 6 Stephens sculptures, including an especially informative one of the mask from the East Building of the Nunnery.

### **Spinden, Herbert Joseph**

*A Study of Maya Art, Its Subject Matter and Historical Development, with two hundred and eighty-six illustrations in the text, twenty-nine plates and map.* Memoirs of the Peabody Museum of American Archaeology and Ethnology, Harvard University, Vol. VI. Cambridge, MA: Peabody Museum, Harvard University, 1913.

Republished as Part 1 of *Maya Art and Civilization*, Indiana Hills, Colorado: Falcon’s Wing Press, 1957. A later edition published by Kraus Reprints, New York, 1970. The 1975 Dover reprint includes an introduction by J. Eric S. Thompson.

This is **the groundbreaking attempt to work out the chronological sequence of Maya monuments**, based on Spinden’s reading of the evolutionary development of stylistic traits and their correspondence to dates inscribed at the sites. There are long, detailed sections analyzing the subject matter and iconography of Maya art, then sections on form, design and architectural principles, followed by the longest section on chronological sequence with fold-out chart. **Even in comparison with art historical studies of European art published at the time, Spinden’s study is impressive and unique in Pre-Columbian studies. The breadth and precision of Spinden’s study and many of his art historical observations and interpretations remain unequalled.**

In the text, little separate attention is given to Uxmal, Kabah, Sayil, or Labná, but, like other Maya sites, they appear in the descriptions of types of ornament, architectural members, and chronological sequence. Twenty of Spinden’s drawing of details and ground plans are of these four Puuc sites and fifteen of the black-white photographs are of previously unpublished photographs of Uxmal, Kabah, and Labna, taken by Henry Sweet as part of the Thompson expeditions of 1888-91 (additional photographs from this exposition are included on this web site in the category “1888-91 Thompson & Sweet”). There is an extensive list of ruins and principal monuments that have previously been published, attempting to establish a nomenclature for the sites and their buildings, with references.; and an extensive bibliography of works referred to in the text.

Spinden includes what is, **as far as I know, the only English translation of the description of Uxmal in Friar Alonzo Ponce’s *Viaje a Nueva España***, actually written by his secretary and guide, Fr. Antonio de Ciudad-Real. This is the earliest known description of Uxmal. It is separately listed and annotated in this web bibliography (pp. 5-13).

### **Spinden, Herbert Joseph**

*Maya Art and Civilization: Revised and Enlarged with Added Illustrations. Part 1: A Study of Maya Art; Part 2: The Nuclear Civilization of the Maya and Related Cultures.* Indiana Hill, Colorado: Falcon’s Wing Press, 1957.

This is a nearly identical republication, in one volume, of Spinden's two major previous publications: *A Study of Maya Art* (1913) and *Ancient Civilizations of Mexico and Central America* (3<sup>rd</sup> and revised ed. 1943). Strangely, on the title page of *Maya Art and Civilization*, the original title of Part 1 is used, whereas Part 2 is given the new title "The Nuclear Civilization of the Maya and Related Cultures".

A number of the changes from the two original separate volumes should be noted. A new 7 page forward by Spinden has been added for the new 1956 volume. The original preface for *Ancient Civilizations* has been dropped from Part 2. A new, 29 page, Epilogue, titled "Maya Dynamic Dating and the Fallacy of Time", has been added to Part 2.

The republication of the hundreds of the author's impressive drawings are almost as useful as in their original volumes. However, the reduced size and diminished clarity of the 250 odd photographs, many quite small even in the original publications, considerably weakens the form and detail of the architecture and sculpture represented.

**Spinden, Herbert Joseph and Mrs. Ellen S. Spinden**

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

**Spinden, Herbert Joseph and Mrs. Ellen S. Spinden**

"The Mystery of the House of the Magician; Sidelights on Studies at Uxmal". *Hobbies, The Magazine of the Buffalo Museum of Science*, Vol. 2 (1930): 69-74.

**Staines Cicero, Leticia**

"Uxmal y el estilo Puuc: semblanza de Marta Foncerrada". *Arqueología Mexicana*, Vol. 2, No. 11 (Feb. 1995): 35-37.

A recounting of the studies of Marta Foncerrada published in the 1960s, describing **the originality of her stylistic approach and ideas resulting**. Staines Cicero emphasizes that it was the aesthetic-stylistic basis of Foncerrada's studies that made possible her discovery of the relationship of Uxmal's architectural sculpture to that of other regions and her identification of its originality and autonomy. This same approach served her in discovering (in translation) "the evolutionary schema that determined the stylistic sequence of the plastic symbols of Uxmal". The author calls attention to Foncerrada's revision of the five constructive phases of the Pyramid of the Magician (Adivino) and study of the origin and evolution of individual elements such as the column.

**Standley, Paul C.**

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

**Staneko, Justine Cecilia**

*Peeking at the Puuc: New Views on the Design, Engineering, and Construction of Ancient Maya Architecture from Yucatan and Northern Campeche, Mexico*. Ph.D. dissertation,



1996. Department of Architecture, University of California, Berkeley. Ann Arbor, Michigan: University Microfilms, 2000.

This is **the most detailed engineering study of Puuc construction**, based partly on the author's "two-week long trips" to the Puuc area "in 1986, 1989 and 1994" and "one nine week season in 1990, where most of the time was spent at the site of Sayil" (p. 8). The study is rigorous in its approach and has much to offer, but it is unfortunate to find the author exaggerating the originality of its contribution and misrepresenting previous scholarly opinion on the central concept of his thesis.

The volume is divided into 2 sections: 119 pages on "The Architecture" and 45 pages on "Construction". There is a 7 page bibliography followed by 134 pages of important appendices. The author notes that his study does not concern itself with architectural style, utilitarian functions, chronological sequence, or what the architecture suggests of social organization. Part 1 is a systematic account of Puuc building plans, materials, components, and stability and structural design. In this section the author provides a rigorous classification of these aspects of Puuc architecture, with descriptions and comments. Part 2 describes the "Order and Sequences of Construction Tasks and Puuc Approaches to Construction" and "Methods and Techniques of Puuc Vaulting and Erection Procedures". Although this is the shorter section, it is the focus of his study. The central claim of originality for the thesis is that Puuc architecture was not based on corbelled structure. It is astonishing to read on page 1 of a 1996 doctoral dissertation:

"It is not only a popular notion . . . but a longstanding practice among Mesoamerican scholars themselves to see the monumental, arcuated forms of the ancient Maya as 'corbel structures'". "What is more, this way of seeing stands until this time as our only way of seeing ancient Maya architecture. For nearly a century, the 'corbel view' alone has served as the conceptual foundation from which all of our understanding, interpretations and explanations of ancient Maya architecture spring. . . . this view of Maya architecture has never been empirically challenged" (p. 1). Wow! **It is true that many Maya specialist have published unfortunate generalizations about the structure of Maya architecture, not recognizing the diversity of construction technologies. However, for decades Maya scholars have described Puuc architecture and vaults as concrete-rubble core with so-called "veneer" surface stones, not corbelled structures.** As George Andrews has pointed out, this is itself an oversimplification, since the transition to so-called "veneer" facing stones occurred gradually during the development of Puuc architecture. Possibly because it was published the year before his dissertation was accepted, Staneko does not mention the most important, closely-related preceding scholarly study of Puuc construction technology, in which George Andrews distinguishes 4 phases of Puuc vault construction ("Puuc Construction Technology—Early to Late": 113-126; Appendix 1 of "The Puuc Regions and Architectural Styles: A Reassessment", *Architecture of the Puuc Region and the Northern Plains Areas*, 1995: 2-131; based on a 1982 symposium paper).

Nevertheless, there are important observations along the way. **Staneko's discussion of the likelihood of wooden framework for the construction of vaults and his recommendation for a reconstructable, systematic, step-by-step dismantling of a Puuc**

building to document its construction are especially valuable. The 35 page appendix of “Architectural and Construction Notes on Some Ruins of Sayil, Yucatan. Mexico” and 42 page “Glossary of Architectural, Construction, and Engineering Terms” and diagrams of vault and other construction types are highly valuable.

### **Stenger, Erich**

“Aus der Frühgeschichte der Photographie: Désiré Charnay”. *Camera* (Lucerne) Vol. 8 (May-June 1930): 329-331, 397-399.

### **Stephens, John L.; illustrations by Frederick Catherwood**

*Incidents of Travel in Central America, Chiapas, and Yucatan*. 2 vols. New York: Harper & Brothers, 1841 (many later editions: first German edition 1854; Dover paperback, English, 2 vols., 1969)

Catherwood’s illustrations of Uxmal and map of their “journey in Central America, Chiapas and Yucatan” are reproduced on this web site.

<http://academic.reed.edu/uxmal/galleries/thumbnails/drawings/Drawings-41Stephens.htm>

Stephens and Catherwood were the first to conduct fairly comprehensive explorations of ancient Central American ruins and the first to provide detailed, remarkably accurate reports. At the end of their expedition in 1841, they visited Uxmal for the first time and immediately added it to the end of their two-volume publication that year. They were fortunate to find the site fully cleared of vegetation because the area had recently been burned to clear it for planting corn. The 18 pages of text and 4 illustrations of Uxmal are the only descriptions of Puuc region sites in their 1841 publication (pp. 413-414, 420-435). In contrast, their two volume 1843 publication, *Incidents of Travel in Yucatan*, based on later visits and more extended study, devotes more than half of volume 1 to the Puuc region, with 47 illustration of Uxmal, Kabah, Sayil and Labná.

Both Stephens’ text and Catherwood’s drawings in their 1841 and 1843 publication are descriptive rather than interpretive or imaginative and are justly famous for their remarkable accuracy.

On their 1841 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.

### **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.

**Stierlin, Henri; photographs by; Anne Stierlin and Henri Stierlin; diagrams by Alberto Berengo Gardin**

*The Maya: Palaces and Pyramids of the Rainforest*. Köln, etc.: Taschen, 2001.

Before turning to the Puuc region text, it should be noted that this book provides **outstanding, large color photographs of Uxmal, Kabah, Sayil and Labná**, nearly all taken by the author and his wife, Anne Stierlin. **For these four Puuc sites, there are fifty-one high quality color photographs, seven of which are full or double page reproductions, including multiple views of major buildings and valuable details, including an all-but-unique color photograph of the interior of the great central-front room of the Governors Palace, Uxmal.** All of these photographs are expertly taken with the sunlight revealing the form of each sculpted facade. The seven color diagrams of building elevations and plans are exceptionally clear. Only the book *El Puuc: una tradición cultural maya*, by Román Piña Chán, contains more color photographs of these sites. The most, though gray-scale photographs, are of course in *The Puuc: An Architectural Survey of the Hill Country of Yucatan and Northern Campeche*, by H. E. D. Pollock.

The text includes an excellent, brief introduction to the characteristics of Maya architecture. In this introduction, the author notes “. . . the “Puuc” style which, in formal and decorative terms, represents the peak of Mayan architecture. Both for purity of layout and technological rigor, Yucatán contains veritable masterpieces: the sites of Uxmal, Kabah, Sayil and Labná feature buildings whose dazzling facades date from the later Classic period (A.D. 800-900)” (p.13).

There are about four pages of text on Uxmal and one each on Kabah, Sayil and Labná. In these, the author integrates aesthetic observations with other types of information. Stierlin writes: "The four palaces [of the Nunnery at Uxmal] . . . do not meet in the corners, so the quadrangle is open. Visually, this lightens the whole composition and demonstrates a remarkable mastery of the handling of volume and mass" (p. 132). There is a revealing formal analysis of the repetitive masks on the frieze of the Governor's Palace (pp. 146-147). Like Proskouriakoff (but from a contrasting position) Stierlin does not hesitate to offer an aesthetic judgment on the unique façade of the Codz Poop at Kabah: "This accumulation reflects an obsessive litany based on unchanging repetition, from which it draws its spell-binding appeal. The repetition of the schematic Chac mask becomes almost hypnotic in its effect. . . ." (p.155).

### **Stone, Andrea**

*The Maya Discovered: Frederick Catherwood's "View of Ancient Monuments in Central America, Chiapas, and Yucatan"*. University of Wisconsin-Milwaukee Art Museum, 1992.

Stone was the guest curator and author of the **catalogue for this exhibition of Catherwood's twenty-five spectacular lithographs from his 1844 publication**. In the set on display "certain details were colored in by hand, perhaps by the artist himself" (p.1). Like Paxton's earlier essay for a University of New Mexico exhibition, Stone notes that Catherwood embellished his original drawings with romantic backgrounds for dramatic effect. She states that **"his best architectural renderings were done at Uxmal" and that "eight of the twenty-five lithographs present views of this great Puuc city"** (p.7). The author describes the separate travels and publications of Stephens and Catherwood prior to their joint travels and publications in Central America, and notes that "through their journeys and tireless research they gained a sense, unparalleled in their day, of the scope and quality of Maya art" (p.7).

### **Storniolo, Judith**

"Blinded by the Light: A View of Uxmal's House of the Governor at Summer Solstice". *Codex*, Vol. 7, No. 1 (1998): 9-25.

### **Suárez, Luis**

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

### **Stuart, David**

"Maya Systems". *The Oxford Encyclopedia of Mesoamerican Cultures: The Civilizations of Mexico and Central America*. Vol. 1: 340-343. Ed. David Carrasco. 3 vols. Oxford University Press, 2001.

Highly informative **introduction to the famous Mayan writing system**, noting that “the script was a major component of elite Classic Maya culture”, and carefully explaining its character and principles. About the Mayan language spoken in the Puuc region, Stuart writes:

“Yucatec Mayan is today spoken by millions in the northern half of the Yucatán Peninsula, and it was certainly widely spoken in the Maya Lowlands in ancient times. Despite this, there is little evidence for Yucatecan language in the inscriptions, even at sites in the extreme north of the peninsula, such as Chichén Itzá. Individual words may have Yucatecan affiliations, but these, too, appear to be Cholan. It is possible that this ancestral Choltí/Chortí language was a lingua franca for centuries, used in the composition of royal texts even in areas where Cholan was not spoken by the populace at large” (p.342).

### **Stuart, George E.**

“The Royal Crypts of Copán”. Photographs by Kenneth Garret; art by Christopher A. Klein. *National Geographic Magazine* (December 1997): 68-93.

An up-to-date report on Copán. The main contribution to our understand of the restoration of Maya architecture are **two full-color images indicating current ideas of the visual appearance of Copán and, by extension, to some extent of other fully-developed Maya cities**. These images show a 3-page fold-out, aerial view of the towering Acropolis of Copán (pp. 72-74) and a double-page spread of the only nearly completely preserved building at Copán, the so-called “Rosalia” (pp. 86-87). These are **the types of rare, hypothetical reconstructions so important if we are to visualize and share ideas about the appearance of ancient Maya cities**.

## T

### **Taladoire, Eric**

“Los juegos de pelota del norte de Yucatán: una revisión de los datos”. *Perspectivas antropológicas en el mundo maya*. Sociedad Espanola 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.**

*Códices genealógicos representaciones arquitectónicas.* Colección Científica Arqueología 62. Centro Regional del Sureste, SEP INAH, Mexico, 1978.

A fascinating, 65-page description of Maya architecture based on illustrations in the historical-genealogical codices of the Mixtec people. The Mixtec, for whom a significant number of codices survive, occupied the area corresponding roughly to the western portion of the state of Oaxaca. The author stresses the importance of architecture for the study of many aspect of culture, especially in Mesoamerica, where architecture is (in translation) “the plastic manifestation that was most vigorous and original among the Mesoamerican people” (p. 9). There are 13 pages of small color details from these codices, 10 or more per page.

**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 Antopología e Historia, 1980.

**Termer, Franz**

“Der Erste Bericht über die Ruinen von Uxmal, Yucatan, aus dem 16. Jahrhundert”. *Beiträge zur Völkerforschung*, Vol. 65: 654-664.

**Thompson, Charles O.**

“Letter to Stephen Salisbury, Jr.” *American Antiquarian Society*. Worcester, 1880.

**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 Herbert**

“The Chultunes of Labná, Yucatán: Report of Explorations by the Museum, 1888-89 and 1890-91”. *Memoirs of the Peabody Museum of American Archaeology and Ethnology, Harvard University*. Vol. 1, No.3. Cambridge, Mass: Harvard University, 1897 (reprinted Kraus Reprints, New York, 1970).

This report consists of 16 pages of text (with diagrams and drawings of stone implements, etc.), 8 plates of chultune diagrams, and illustrations of photographs of objects found within the chultunes. Thompson presents a detailed factual **description of each chultune and his interpretation of their probably function**. These are discussed in the context of a broader discussion of the sources of water in the northern Yucatan.

**Thompson, Edward Herbert**

“Explorations at Labna, Yucatan”. Abstract of a diary presented at the semi-annual meeting of the American Antiquarian Society. Cambridge, Massachusetts, 1887.

**Thompson, Edward H.**

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



**Thompson, Edward Herbert**

*People of the Serpent: Life and Adventure among the Mayas*. Boston and New York: Houghton Mifflin, 1932.

**Thompson, Edward Herbert**

*Portal at Labna, Yucatan*. Worcester, Massachusetts: Press of Charles Hamilton, 1888.

**Thompson, Edward H.**

"Recent Excavations in Northern Yucatan". *Proceedings of the XIX International Congress of Americanists, 1915*: 202-205. Washington, 1971.

**Thompson, J. Eric S.**

*Civilization of the Maya*. Chicago: 1927-1932.

**Thompson, J. Eric**

"The Elephant Heads in the Waldeck Manuscripts". *Scientific Monthly*. Vol. 25, No. 5 (Nov. 1927): 392-398.

A description of two competing ideas about Maya art. The first, the **diffusionist theory**, claims that "a cultural trait is only invented once in the history of the world" (p. 393) and that, therefore, the fact that Maya art shares characteristics with much earlier art in cultures on other continents proves that these characteristics descended from these earlier cultures, through some type of migration or influence. The second idea is that such characteristics could be **home grown**, not influenced by much older cultures on other continents. To introduce this comparison, Thompson reproduces and describes 2 of Waldeck's previously unpublished drawings which include elephant heads. Strangely, Thompson does not evaluate Waldeck's evidence or the competing theories.

**Thompson, J. Eric**

"Frans Blom (1893-1963)". *Estudios de Cultura Maya*: 307-314. Universidad Nacional Autonoma de Mexico, Facultad de Filosofia y Letras: Seminario de Cultura Maya, Vol. III. México, 1963.

A brief **biography of the professional life of Frans Blom**, describing his early career and 1926 appointment as director of the Department of Middle American Research at Tulane. His early success in organizing and leading expeditions is described, including the important 1930 expedition to Uxmal to prepare reproductions for the Century of Progress in Chicago, during which 20 stelae were discovered and the first night photography of Mesoamerican relief sculpture initiated. Thompson also describes Blom's growing problem with alcohol and disregard for his department, which led to his removal as director in 1941. There is an extensive, extremely **valuable bibliography of Blom's publications**.

**Thompson, J. Eric S.**

*Maya Archaeologist*. Foreword by Norman Hammond (1964). Norman: University of Oklahoma Press, 1963.

An autobiography of Thompson's explorations and career from 1926 to 1936, including 7 pages describing his first trip to Uxmal, Kabah, Sayil and Labná in 1926. About Uxmal, Thompson notes that "the Franciscan Alonso Ponce found the site in ruins and thickly wooded when he visited it in 1588" (p.67). Describing the Governor's Palace and House of the Turtles, he writes: "what a people capable of such extremes of exuberance and austerity" (p.67).

Regarding restoration, writing for publication in 1963, Thompson states that "Mexican archaeologists have done a wonderful job of restoring damaged buildings, replacing fallen stones, and clearing up the mess inseparable from ruins" (p.66). He writes also that "in 1951, Mexican archaeologists completing a magnificent job of repairing the Mojas, removed debris accumulated over the nine or ten centuries since the site was abandoned, bringing to light" the stone base of a common hut, which he describes in detail, constructed in the courtyard after the demise of Uxmal. Movingly, he writes: "These unspectacular relics of squatters at Uxmal . . . so completely exemplify the decline of Maya culture that one could hardly ask for a better illustration" (p.68).

It is disturbing to find that Thompson, like many other archaeologists, does not recognize the remarkable originality and spectacular display of the façade of the Codz Poop at Kabah, which he describes as "a depressing sight a trifle like that occasionally produced by high pyramids of cans of salmon in a shop window" (69). The photograph on plate V, showing the central portion of the main (south-east) facade of the Governor's House, Uxmal, is misleadingly captioned "the south half of the Governor's House".

**Thompson, J. Eric S.**

*Maya History and Religion*. Norman: University of Oklahoma Press, 1970.

**Thompson, J. Eric S.**

"The painted capstone at Sacniete, Yucatan, and two others at Uxmal". *Indiana*, Vol.1: 59-64. Berlin: Ibero-Amerikanisches Institut, 1973.

**Thompson, J. Eric S.**

*The Rise and Fall of Maya Civilization*. Norman, Oklahoma: University of Oklahoma Press, 1954 (Spanish translation 1964).

Classic publications, providing an easily read summary of Maya civilization. It is listed in this web bibliography because of its **review of the characteristics of Maya art** (pp. 172-187). Although summary, this is **rare in Maya studies** and provides a context for considering the art of any Maya area. Brief descriptions of Uxmal, Kabah, Sayil and Labná appear elsewhere in the book.

**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).

### **Thompson, Michael Welman**

*Ruins: Their Preservation and Display*. London: British Museum Publications, 1981.

### **Tichy, F.**

“The Axial Direction of Mesoamerican Ceremonial Centers on 17 N of W and Their Association to calendar & Cosmovision. *Lateinamerika Studien*. Vol. 10 (1982): 25-42

### **Tichy, Franz**

“Las torres en el Chenes, Yucatán, México, y el meridiano de Uxmal”. *Cuadernos de Arquitectura Mesoamericana* (1992). México. Vol. 19: 45-52.

### **Toscano, Salvador**

*Arte Precolombino de México y de la América Central*. México, D.F.: Instituto de Investigaciones Estéticas, Universidad Nacional Autónoma de México, 1952 (2<sup>nd</sup> ed.; 1<sup>st</sup> ed. 1944)

Based closely on the author’s manuscripts, but edited and published after his death, this is a comprehensive survey of PreColumbian art. In his introductory comments, Alfonso Caso mentions the work of Spinden and Kelemen, but states that Toscano’s book marks a point of departure, combining archaeological and aesthetic points of view. Toscano first provides brief sections on the Indigenous Esthetic and on Art and History, then three brief, insightful sections on the challenge of our attempt to understanding aboriginal art. Following this there are two brief sections surveying the development of Pre-Columbian art, in which he describes the architecture of Sayil, Labná and Uxmal as incomparable.

The main body of the book is divided by media: Architecture, Sculpture, Painting, Ceramics, Mosaic, Plumage, and Gold/Silverwork The architectural subsections, describing such things as the orientation and plan of ancient cities, pyramids, temples and palaces, etc., include well stated summary observations. The author writes that (in translation) “the fundamental character of ancient Mexican architecture is the sprit of elevation of the monuments and even more the external” (p.83). Toscano describes some of the features of Puuc architecture and writes that in the Nuevo Imperio (New Empire, Northern Yucatan) the Maya’s spatial and geometric arrangements reached a new flowering. He especially admires the Palace at Sayil, which he describes as the most complete and artistic Maya palace, noting especially the proportions of the façade and portico. He describes the Labná arch as the most original and important

development of the portico with arch. In the 115-page section on architecture, there are 11 photographs and 5 diagrams of Puuc buildings.

### **Totten, George Oakley**

*Maya Architecture*. Washington, D.C.: Maya Press, 1926 (reprinted by Burt Franklin, New York, 1973).

A large format book with 25 pages of standard text and 104 plates of illustrations, a few full page. These include 23 photographs of Uxmal, 2 of Kabah, 2 of Sayil, and 3 of Labná. 21 of these photographs were taken by Totten, who also contributed 2 drawings and 2 watercolor reconstructions. 7 of these photographs were taken by Maler and 2 by Ernest L. Crangall. Presumably because the text is somewhat amateurish, this book is almost never mentioned in publications on Maya architecture, but many of the photographs are high quality and record information not available elsewhere.

Moreover, there are occasional observations worth noting. Regarding the physical condition of the buildings, Totten states that “the greatest enemy of stone masonry is frost. Fortunately this is not present, so that many of the stones are as fresh and sharp as though carved yesterday”. He writes that the buildings have been damaged by the deterioration of wooden lintels and roots forcing stones apart. However, he claims that the foremost cause of destruction was man: “these buildings . . . offered tempting quarries for succeeding generations. Thus we see what were once beautifully carved doorways and splendid ashlar facades robbed not only of their adornments but of the actual plain cut stone work as well. Many of the haciendas of recent date are largely built of the old buildings” (p. 37).

### **Tourtellot, Gair**

“Puuc”. *The Oxford Encyclopedia of Mesoamerican Cultures: The Civilizations of Mexico and Central America*. Vol. 1: 42-43. Ed. David Carrasco. 3 vols. Oxford University Press, 2001.

The author points out that the word “Puuc” is used to describe both its geographical area and its architectural style, which spread well beyond its region. Tourtellot describes the natural conditions of the Puuc region, especially the unusually fertile soil for agriculture but the unusually scarce water, because of the regions elevation above the water table. Regarding art and architecture, he notes that there are few carved stone monuments in the region and that Puuc region architecture has been unusually well preserved because of its remoteness.

### **Tourtellot, Gair, and Diana Christensen**

“Sayil Site Coding”. *The Ancient Maya City of Sayil: the Mapping of a Puuc Region Center*, ed. Jeremy A. Sabloff and Gair Tourtellot. Publication 60: 28-31. New Orleans: Tulane University: Middle American Research Institute, 1991.

**Tourtellot, Gair, and Jeremy A. Sabloff**

“La antigua ciudad Maya de Sayil”. *Arqueologia Mexicana*. Vol. 2, No.11 (Feb. 1995): 28-34.

This article is a summary of the authors’ previous publications on Sayil, based on their five investigations during the 1980s, in cooperation with the Southeast Regional Center of INAH. As such, every sentence is packed with essential information. **The number of specific observations and carefully informed interpretations is a revelation to anyone not already familiar with their landmark studies.** It must be read by everyone. They write that, in comparison with other Maya cities, the population was especially dense, between 2075 and 3147 inhabitants per square km., with houses nearly everywhere it was possible to build a cistern. The city covered 3.5 square km. with well-defined boundaries. They write that there were more than 30 different types of buildings and 5 or 6 types of houses. From archaeological observations of the ground, ceramics, etc., they conclude that (in translation) **“every habitation complex was surrounded by a vegetable garden that allowed sustenance and privacy”** (p.34).

**Tourtellot, Gair, and Jeremy A. Sabloff**

“Approaches to Household and Community Structure at Sayil, Yucatan”. *Households and Communities: Proceedings of the 21<sup>st</sup> Annual Chacmool Conference* : 363-370. Ed. Scott MacEachern, David J. W. Archer, and Richard D. Garvin. Proceedings of the 21<sup>st</sup> Annual Chacmool Conference. Calgary: Archaeological Association of the University of Calgary, 1989.

**Tourtellot, Gair, and Jeremy A. Sabloff**

“Community Structure at Sayil: A Case Study of Puuc Settlement”. *Hidden among the Hills: Maya Archaeology of the Northwest Yucatan Peninsula; Acta Mesoamericana*, Vol.7, ed. Hanns J. Prem: 71-92. First Maler Symposium, Bonn, 1990, Möckmühl, Germany: Verlag von Flemming, 1994 (2<sup>nd</sup> ed. 1999).

**A review and update of the publications by Sabloff, Tourtellot, Beyer and McAnany, which had been based on on-site research 1983-1988. This research continues to constitute the only in-depth study of the layout and full range of architectural and spatial features for any Puuc city.** The authors had concluded that, within its regional context, Sayil’s borders were marked and largely identifiable. They write that “Sayil differs from the well-known amorphous, and seemingly endless, Maya settlements of the Classic period to the south; Sayil more closely resembles later Mayapan, although without a peripheral wall” (p. 71). They had concluded that, internally, Sayil was dispersed, approximating a “garden city, retaining considerable areas of open terrain between clusters of residential buildings” (p. 71). Of special interest was the proposal of a possible “central marketplace or fair ground”.

**In this 1991 article, Tourtellot and Sabloff bring these findings up-to-date** and discuss more recent data by Dunning, Smyth/Dore and others, which have raised major alternative interpretations (pp. 77-79). The most interesting question with which they conclude is “whether the apparent residential nucleation of Sayil and other Puuc cities is merely an historical by-product of a truncated growth trajectory or a deliberate and protected mode of community organization” (p. 91).

**Tourtellot, Gair, and Jeremy A. Sabloff**

"Puuc Development as seen from Sayil". *Hidden among the Hills: Maya Archaeology of the Northwest Yucatan Peninsula*, ed. Hanns J. Prem. Mockmuhl: von Fleming, 1994.

**Tourtellot, Gair, Jeremy A. Sabloff, and Kelli Carmean**

"Progress Report of the 1987 and 1988 Field Seasons at Sayil, Yucatan, Mexico. *Mexicon*, Vol. 9 (1988): 12-15.

**Tourtellot, Gair, Jeremy A. Sabloff, and Michael P. Smyth**

"Room Counts and Population Estimation for Terminal Classic Sayil in the Puuc Region, Yucatan, Mexico". *Precolumbian Population History in the Maya Lowlands*, ed. T. Patrick Culbert and Don S. Rice. Albuquerque; University of New Mexico Press, 1990: 245-261,

The authors note that Sayil provides an unusual basis for population evidence because it is a single period site that has not been excavated. They write that **the "remarkable clarity of exposed surface plans [at Sayil] stands in sharp contrast to the frequently buried and obscure plans of structures at deep-soil sites farther south"** (p. 245). In consort with the intention of the volume, emphasis is on clear, detailed presentation of data, with important warnings about interpretation (e.g., p. 256).

**Tourtellot, Gair, III., Jeremy A. Sabloff and Kelli Carmean**

"Will the Real Elites Please Stand Up?: An Archeological Assessment of Maya Elite Behavior in the Terminal Classic Period". *Mesoamerican Elites: An Archaeological Assessment*, ed. Diane Z. Chase and Arlen F. Chase, University of Oklahoma Press, Norman, 1992: 80-98.

**Tourtellot, Gair, Jeremy A. Sabloff, Patricia A. McAnany, Thomas W. Killion, Kelli Carman, Rafael Cobos Palma, Christopher Dore, Bernd Fahmel Beyer, Sandra Lopez Varela, Carlos Pérez Alvarez, and Susan Wurtzburg (appendix by Michael P. Smyth)**

*Archaeological Investigations at Sayil, Yucatán, México, Phase 2: The 1987 Field Season*. University of Pittsburg Anthropological Papers No. 1, 1989.

**Tourtellot, Gair, Jeremy A. Sabloff, Michael P. Smyth, L. Van Whitley, Stanley L. Walling, Tomas Gallareta Negron, Caarlos Perez Alvarez, George F. Andrews, and Nicholas P. Dunning.**

"The Mapping Community Patterns at Sayil, Yucatan, Mexico: The 1985 Season". *Journal of New World Archaeology*. Vol. 7, No. 43 (2/3, 1988): 1-24.

**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.**

“Stephens, and Prescott, Bancroft and Others” *Los Mayas Antiguos: Monografías de Arqueología, Etnografía y Lingüística Mayas, publicadas con motivo del Centenario de la Exploración de Yucatán por John L. Stephens y Frederick Catherwood en los años 1841-42*. 33-60. México [D.F.]: El Colegio de México, 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, 19<sup>th</sup> International Congress of Americanists*: 178-186.

**Trevelyan, Amelia M. and Heather W. Forbes**

“The Gendered Architecture of Uxmal”. *Ancient Maya Gender Identity and Relations*, Ed. Lowell S. Gustafson and America M. Trevelyan: 93-140. Westport, Connecticut: Bergin & Garvey, 2002.

This extensive essay has the dual purpose of demonstrating the important role of women in the socio-political realm of Maya society in general and of exploring how this helped determine the distinctive style of architecture in the Puuc region. Uxmal is examined as the primary example, especially the Nunnery Quadrangle. There are eleven small black-white photographs of Uxmal, including four details. The authors provide a revealing description of the ways in the Puuc architecture continues certain aspects of Maya architecture from the Southern Lowlands but, more importantly, of the ways in which Puuc architecture departs from previous Maya architecture, creating new form and meaning. The authors stress that this was a conscious, deliberate change, that the creation of a new architectural style at Uxmal and other Puuc region cities coincided with the conscious creation of a new political and social order. They argue that this “new vocabulary was unquestionable borrowed from the textile arts and, as such, had strong associations with women and things feminine, in general” (p.95). They describe how the striking similarities between motifs, forms and organization, of Maya textiles, and the processes through which they were created, closely parallel the characteristics of the highly original Puuc region stone mosaics, presenting the viewer with “weaving in stone”. There are many original ideas in this essay. In their probing exploration of possible connections between textile based architecture and other aspects of culture, the authors even suggest that, in the public architectural display of the mosaic friezes, “the metaphorical richness of textile-based symbol and process may have rendered more explicit texts superfluous” (p.101).

## U

**UNESCO**

“World Heritage: Pre-Hispanic Town of Uxmal”.

On the web at:

<http://whc.unesco.org/en/list/791>

(accessed 2007 April 12)

Quoted from UNESCO web site:

**Date of Inscription:** 1996

**Criteria:** (i)(ii)(iii)

**Brief Description**

The Mayan town of Uxmal, in Yucatán, was founded c. A.D. 700 and had some 25,000 inhabitants. The layout of the buildings, which date from between 700 and 1000, reveals knowledge of astronomy. The Pyramid of the Soothsayer, as the Spaniards called it, dominates the ceremonial centre, which has well-designed buildings decorated with a profusion of symbolic motifs and sculptures depicting Chaac, the god of rain. The ceremonial sites of Uxmal, Kabah, Labna and Sayil are considered the high points of Mayan art and architecture.

**Justification for Inscription**

The Committee decided to inscribe the nominated property on the basis of cultural criteria (i), (ii) and (iii) considering that the site is of outstanding universal value. The ruins of the ceremonial structures at Uxmal represent the pinnacle of late Mayan art and architecture in their design, layout and ornamentation, and the complex of Uxmal and its three related towns of Kabáh, Labná and Sayil admirably demonstrate the social and economic structure of late Mayan society.

## V

**Valdés, Juan Antonio, ed.**

*Criterios de intervención arqueológica en ciudades Mayas.* Instituto de Antropología e Historia de Guatemala, Ministerio de Cultura y Deportes, 1997.

A **compilation of 14 papers**, with 46 color photographs and about 40 diagrams and maps, resulting from a conference held at Tikal in 1996, with participants from Guatemala, México, United States, Honduras, and Spain. In his introduction, the



editor, Director General del Patrimonio Cultural y Natural, Guatemala, writes that while there have been many publications on the methodologies of investigation and excavation of (in translation) “almost no literature exists specific to the processes, methodologies, and materials that should be used in the works of consolidation and restoration of monuments” (p.1). As a result, he writes, individual criteria are often used. Instead, Valdés writes (in translation) “today the sites should no longer be seen as isolated pieces of a riddle, but rather as an integral part of a totality representative of diverse cultural and ethnic groups, at every moment forming an integral part of the cultural patrimony of a people, a culture, a nation” (p.1). He notes the controversy surrounding some of the early 20<sup>th</sup> century alterations in México, Guatemala, Honduras, and El Salvador, and writes that large advances have since been made. Valdés describes this conference and publication not as attempting to establish fixed normatives, but rather as at the beginning of a dialogue.

In his introduction, “Antropología y criterios de intervención arqueológica”, Félix Jiménez Villalba, Museo de América, Madrid, provides several informative historical accounts. First, he presents a chronology of early descriptions of Maya sites. He then notes the first excavations, in Peru and Mexico, sent by the Spanish crown in the 2<sup>nd</sup> half of the 18<sup>th</sup> century, and the influence of the 1787 excavation in Palenque. He then turns to the history of anthropological and archaeological interventions in the Maya area, ending with a rather grim description of the present condition, in which the varied interests of archaeologists, architects, anthropologists, ethno-historians, and biologists converge, joined with the economic and political interests that come into play. There is (in translation) “no search for equilibrium, a joint vision that would permit us to recover the reality of that which was” (p.13). Only one of the papers deals with a Mexican site, a paper on Isla Civituk, southeast of the town of Campeche, by Elena Canché Manzanero, Instituto Nacional de Antropología e Historia, Campeche.

### **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.

### **van Bussel, Gerard W., Paul L. F. van Dongen, and Ted J. J. Leyenaar, eds.**

*The Mesoamerican Ballgame*. Leiden, The Netherlands: Rijksmuseum voor Volkenkunde, 1991.

**Varela Torrecilla, Carmen**

“La genesis de la estructuracion politica del area Puuc: una cuestion pendiente. *Estudios de cultura maya*, Vol. 22 (2002): 63-74.

**Varela Torrecilla, Carmen, and Alain Leclair**

“Systemes de production et circulation des ceramiques puuc (analyse pétrographique)”. *Journal de la Société des Américanistes de Paris*. Vol. 85 (1999): 353-365.

**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 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.

**Vidal Lorenzo, Christina and Gaspar Munoz Cosme**

“La arquitectura de las ciudades Mayas del area Puuc, Yucatan”. *Simposio de investigaciones Arqueológicas en Guatemala*. Guatemala: Ministerio de Cultura y Deportes, Instituto de Antropología e Historia, 1997; 351-366.

**Vidal Lorenzo, Christina and Gaspar Munoz Cosme**

“Nuevas aportaciones a la evolucion arquitectonica en el area Puuc”. *Perspectivas antropológicas en el mundo maya*. Sociedad Espanola de Estudios Mayas, Pub. 2. Ed. Josefa Iglesias Ponce de León, and Francesc Ligorred Perramon: 225-235. Madrid: Departamento de Historia de América II, Facultad de Geografía e Historia, Universidad Complutense; Instituto de Cooperación Iberoamericana, 1993.

The authors **attempt to establish stylistic groupings for Puuc architecture, hoping thus to establish a more secure chronological sequence**. They review previous attempts at classification, providing an excellent summary of the approach of George Andrews. Vidal Lorenzo and Munoz Cosme claim that Andrews’ approach, valuable as it is, places almost exclusive importance on formal characteristics. Instead of Andrews’ classification of architectonic, constructive, and decorative; they propose a classification of (1) technological constructive, (2) typological functional, and (3) esthetic-formal. They claim to slightly contradict Andrews’ chronological thesis by proposing that the eastern Puuc and western Puuc styles developed somewhat differently, with western Puuc sites such as Oxkintok declining, while the maximum blossoming of the Puuc style was achieved in the later phases of development at Uxmal in the eastern Puuc.

**Videla, H. A., P. S. Guimet, and S. G. Saravia**

“Biodeterioration of Mayan Archaeological Sites in the Yucatan Peninsula, Mexico”. *International Biodeterioration and Biodegradation*. Vol. 46, No. 4 (Dec. 2000): 335-341.

**Villagran Garcia, Jose**

“Arquitectura y Restauración de Monumentos”. *Memoria del Colegio Nacional*. Tomo VI, Núm 1. México, 1966.

**Viollet-le-Duc, [Eugene Emmanuel]**

“Antiquités Américaines”. Charnay, *Cités et ruines américaines: Mitla, Palenqué, Izamal, Chichen-Itza, Uxmal, receuillies et photographiés par Désiré Charnay, avec un texte par M Viollet-le-Duc*, 3-80. Paris: Gide Éditeur, A Morel et C, 1862-1863 (a Spanish translation, side-by-side with the original French, was published in *Ciudades de Luz*, by Désiré

Charnay and Viollet-Le-Duc, introduction by Guillermo Tovar de Teresa; México: Grupo Financiero del Sureste, 1993; 13-80).

The drawings and map of Uxmal accompanying Viollet-le-Duc's article are reproduced on this web site.

<http://academic.reed.edu/uxmal/galleries/thumbnails/drawings/Drawings-Charnay-1.htm>

Viollet-le-Duc's essay was published as part of the 1863 text volume of Charnay's classic *Cités et ruines américaines*. Viollet-le-Duc's account was **based primarily on photographs, drawings, and notes provided by Charnay, though the interpretation is his own and heavily influenced by writers other than Charnay**. At least 1 of the 3 drawings in the section on Uxmal must have been drawn by him, probably all 3. Viollet-le-Duc describes research of the Americas by previous authors and explorers, like them drawing analogies between the architecture and sculpture of Mexico and that of cultures in Egypt, India, China and Japan, and Europe. **As had other authors, he claims that the art and architecture of Pre-Columbian Meso-America are based on foreign prototypes**.

He then describes the ruins of Izamal, Chichen-Itza, Uxmal, Palenque, and Mitla, providing a section of 12 short pages on the ruins of Uxmal. Here he describes Charnay's photographs of Uxmal and, more importantly, includes 3 drawings with descriptive and interpretive text (pp. 61-72). Figure 8 is **the first published map of Uxmal**, obviously either by Charnay or based on his notes. The major buildings and a few altars and cisterns are identified on the map by letters and, in Viollet-le-Duc's text, named and briefly described.

**In the most revealing section of his description**, Viollet-le-Duc writes:

"Let us take a moment to examine this interior façade of the building marked K [Nunnery East Building]. Here, the tradition of construction with wooden piers and interposed openwork is evident. Moreover, underneath the masonry, the lintels of these square doors are made of wood. . . . Between the two columns projecting from the base that simulate supporting framework beams, the architect placed a series of juxtaposed wooden beams. **No doubt this was meant to recall primitive wooden buildings of the people of mixed white and yellow descent** that consisted first of a corbelled arrangement timbers stacked in such a way as to leave large spaces at their base. These spaces were then closed off by lattices that suggest openwork.

In order that these stacked structures, which are still in use in regions where yellow and white races are intermixed, are clearly understood, it is useful to have a diagram of this primitive work of carpentry.

In figure 9, A represents columns or interior walls. At the top of these stacks lay the first pieces of wood, B, onto which cross beams are interlocked at right angles, C. Another layer of beams B' are parallel to B; then a second layer of corbelled crossbars is stacked, C'. This method of construction creates vertical partitions directly above the bearing walls that incline in the direction of the openings and support the beam D, into which crossbars are inserted. If we were to fit lintel E between the two piers, yet set

deeper than the front section of BB', and then lay trellis upon these lintels, we would have a primitive wooden structure, which was obviously the guiding decorative principle of the stone facades of the edifice (plate XXXIX) [Plate 39 is Charnay's photo of the north-west corner and façade of the East Building of the Nunnery]. But this primitive construction method was not understood by the artists who erected these facades: we will notice that these wooden corbels are arranged haphazardly over walls and openings alike" (pp. 64-66).

Figure 10 is a plan of the south end of the East Building, showing the shape of the vault in one of the back rooms. About this Viollet-le-Duc writes (in translation):

"we can see in figure 10, giving a portion of the layout of the building, that the inclined walls of the room are arranged parallel to the opposite walls, as indicated by section G, rather than perpendicular to these walls. While this tradition of wooden construction was conserved at Uxmal, it functioned only as decoration, which indicates a long artistic era between the tradition's origin and the construction of these edifices" (p. 66).

### **von Hagen, Victor Wolfgang**

*Frederick Catherwood, archt.*. New York: Oxford University Press, 1950.

An early survey of the life of Frederick Catherwood, based partly on previously unpublished correspondence. Although only a few pages are given to his work in the Puuc region, the book puts this and all other aspects of Catherwood's professional career in the context of his entire life and times. Von Hagen includes the full text of Catherwood's "Introduction" to his *Views of Ancient Monuments in Central America, Chiapas, and Yucatán* (1844) and reproduces 8 of the plates of Uxmal (1 also in color), 2 of Kabah and 1 of Labná, all grey-scale. Most importantly, 2 of Catherwood's original sepia drawings of Uxmal are reproduced, though weakly (plates 12 and 13).

### **von Hagen, Victor Wolfgang**

*Frederick Catherwood, Architect-Explorer of Two Worlds*. Barre, MA: Barre Publishers, 1968.

A much-reduced version of the same author's 1950 *Frederick Catherwood, archt.*

### **von Hagen, Victor Wolfgang**

*Maya Explorer: John Lloyd Stephens and the Lost Cities of Central America and Yucatán*. Norman: University of Oklahoma Press, 1948 (paperback edition Chronicle Books, San Francisco, 1990).

An early account of the life of John Lloyd Stephens, based partly on previously unpublished correspondence. Includes an account of his explorations of the Puuc region, most notably Uxmal, with Frederick Catherwood, and of the remarkable success of their two publications, *Incidents of Travel in Central America* (1841) and *Incidents of Travel in Yucatan* (1843). These are presented in the context of Stephens' entire life and times. Includes a brief chronology of Stephens' life and

bibliography of reviews etc. used by the author in research for this book. There are 7 illustrations of Puuc sites, including an aerial photograph of Uxmal.

**von Hagen, Victor Wolfgang**

“Waldeck”. *Natural History*, Vol. 55 (Dec. 19 ? ): 450-456.

W

**Wagner, Elizabeth**

“. . . and then it was Sculpted, the Precious Stone – the Maya Stonemasons and Sculptors”. *Maya: Divine Kings of the Rain Forest*: 338-339. Ed. Nikolai Grube, assisted by Eva Eggebrecht and Matthias Seidel. Cologne: Könemann, 2001 (1<sup>st</sup> ed., *Maya; Gottkönige in Regenwald*, 2000).

**Wagner, Philip L.**

“Wilhelmy’s Geographical Appraisal of Mayan Civilization”. *Geographical Review*. Vol. 72, No. 2 (April 1982): 223-227.

A review of Herbert Wilhelmy’s *Welt und Umwelt der Maya: Aufstieg und Untergang einer Hochkultur* (R. Piper, Munchen, 1981). In his first sentence, Wagner describes Wilhelmy’s book as “a masterpiece of geographical scholarship” and in his thorough, detailed review, demonstrates why this is so. Wilhelmy’s book focuses on the agricultural potential of the Maya territory and asks central questions about the characteristics of Maya land, water, climate and their interplay with Maya society and culture. Especially for those who do not read German, this is an invaluable review.

Wilhelmy’s book is separately listed and annotated in this web bibliography.

**Waldeck, Jean-Frédéric**

*Monuments anciens du Mexique*. Commentary by Brasseur de Bourbourg. Paris, 1866.

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

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

**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.

All of Waldeck's images of Uxmal in this book 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.

### **Washington, D.C.: National Geographic Society**

*The Mesoamericans*. A reference map produced by National Geographic Maps as a supplement for the *National Geographic Magazine*, Dec. 1997 (size: 35 x 22 inches, scale: 1 inch = 38 miles).

On the opposite side from the map, there is a full-color reconstruction of Palenque. This is one of the rare, up-to-date attempts to reconstruct the visual appearance of a fully developed Maya city, most notably including full-color. This is the type of hypothetical reconstruction so necessary if we are to visualize and share ideas about the appearance of ancient Maya cities.

### **Watson, Patty Jo, Steven A. LeBlanc, and Charles L. Redman**

*Archeological Explanation: The Scientific Method in Archaeology*. NY, 1985.

### **Wauchope, Robert**

"Domestic Architecture of the Maya". *The Maya and their Neighbors*, ed. Clarence L. Hay and others: Chapter XV, 232-241. New York: Appleton-Century, 1940.

A survey of house types among the Maya, stressing the scarcity of reliable studies. Wauchope calls attention to the variety of house forms and construction among the Maya and within the Yucatan. He warns that "The modern Yucatecan platforms can scarcely be interpreted as mere survivals of an ancient custom, to which, as to many other customs, the Indian has clung" (p. 233). He adds that "thirteen undated, prehistoric houses at Chichen Itzá and other small habitations at Kabah and Sayil were probably rectangular, yet Yucatecan dwellings have been primarily apsidal since at least 1843 and probably earlier" (p. 234).

### **Wauchope, Robert**

*Modern Maya Houses: A Study of Their Archaeological Significance*. Carnegie Institution of Washington Publication No. 502. Washington, D.C.: Carnegie Institution of Washington, 1938.

This is an extraordinarily comprehensive and detailed study: 181 pages of text; about 50 clear diagrams, many including on a single page comparisons of the ground plan, elevation, structural details, and pictorial drawing of a single house; and about 150

small, grey scale photographs, of high quality. Apart from the rewards for anyone interested in the range of structural types and use of materials of indigenous peoples worldwide, this study provides **the most detailed information available for understand the nature of ancient Maya houses**. Because ancient Maya representations of houses, in paintings and relief carvings, appear so similar to contemporary Maya houses, the author initiated his study with the belief that “the best approach to an improved interpretation of ancient domiciliary remains could be made by a study of present-day dwellings” (p.1). He notes also that since “materials used in house construction in many cases have not changed since the sixteenth century; there is no cause for belief that they were not used by the ancient Maya also” (p.161). Although his study is primarily descriptive, Wauchope argues that only by understanding the structure, materials, and many other details regarding contemporary Maya houses can we hope to recognize the very slight remains of ancient Maya houses when conducting surface exploration or excavation. Although his study is directed largely to archeological description, the author offers suggestion, along the way, for possible interpretations. For example, he suggests that “someday we shall find a significant correlation between the [geographical] distribution of ground plans [types] and events in Maya history and prehistory” (p.147).

There are chapters on Foundation features, House framing, Walls, Extraneous features, Thatch, Interiors, Miscellaneous property, and Non-material aspects. Moreover, each chapter is presented in a series of subtopics: for example, walls are described in subsections for Types, Identification of wall construction in ruins, Position of walls, and Finish. Within each of these there is a further division: for example Wall Types are divided into Vertical Poles, Horizontal wattle, Vertical wattle, Dry rubble masonry, Rubble masonry, Cane or wooden framing and mass adobe, Adobe brick, and Combinations of above types. Finally, each of these wall types is described under subdivisions: for example, Horizontal Wattle is described under Construction, Geographical Distribution, Antiquity, and Linguistics. The result is **a mass of detailed information easily accessed and interrelated**.

Although including examples from other districts, the study **primarily contrasts house types in Guatemala with those in the Yucatan**. Wauchope notes that “almost every family in [Yucatan and Campeche] has, in addition to its dwelling, other property which lies usually back of the main house or to one side of it”(p.128). There are occasional references to Uxmal, Kabah, Sayil and Labná. For example, the author notes that at Sayil “house sites were associated for the most part in group units surrounding the chultunes or underground reservoirs (p.4).

**Wauchope concludes with a prophetic and stirring call for “a complete excavation of the domestic architecture of some small Maya village”** (p.153). “We need an excavation that will tell us how the great mass of the people lived . . . many things with social and religious implications could be found in a carefully excavated small village site” (p.153).

### **Wauchope, Robert**

*They Found the Buried Cities: Exploration and Excavation in the American Tropics.* Chicago and London: University of Chicago Press, 1965.

**Webster, David L.**

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

**Weeks, John M.**

*Maya Civilization 1990-1995: A Bibliographic Guide (2)*. 2<sup>nd</sup> ed. Labyrinthos, 1997.

It is impressive to see the number of publications that have appeared within a five-year period. Apart from the individual listings, this bibliography provides a well-conceived **subject matter outline of Maya studies** in seven sections (“Introduction to Maya Civilization,” “Cultural History and Society,” “Material Culture,” “Intellectual Life,” “New Directions,” “Site Reports,” and “Audiovisual Format”), many of which have detailed subdivisions, comprehensive and informative. Also useful, the entries are separately indexed by author, place name, and subject. The **structure of this bibliography** could well serve as the basis for future comprehensive Maya publications. Apart from the listing of contents, there are only a few, very brief annotations.

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

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

**Weitzel, R. B.**

“Uxmal Inscriptions”. *American Journal of Archaeology*, Vol. 35, No. 1 (Jan. 1931): 53-56.

Presents evidence to show that Maya inscriptions at Uxmal do not support the claim that “the position of the days in the Maya months underwent a shift of but a single day which left unimpaired an otherwise uniform calendar system” (p.56).

***Die Welt der Maya: Archäologische Schätze aus drei Jahrtausenden.***

Mainz am Rhein: Verlag Philipp von Zabern, 1992.

The catalogue of a major exhibition at the Roemer-und Pelizaeus-Museum, Hildesheim, 1992. Unfortunately, the 264 objects exhibited, illustrated, and catalogued do not include any items from the Puuc region. However, three of the authoritative essays are relevant.

The following essays are separately listed and annotated in this web bibliography”

Dunning, Nicholas P. Dinning, “Umwelt, Siedlungsweise, Ernährung und Lebensunterhalt im Maya-Tiefland während der Klassik (250-900 n. Chr.)”  
 Quintana, Oscar, “Probleme der Konservierung von Maya-Ruinen”  
 Wurster, Wolfgang W., “Die Architektur der Maya”

**Wiessner, Polly**

“Is There a Unity to Style?” *The Uses of Style in Archaeology*, ed. M. W. Conkey and C. A. Hastorf: 105-112. Cambridge University Press, 1990.

**Wilcox, David, and Vernon Scarborough, eds.**

*The Mesoamerican Ballgame*. Tucson: University of Arizona press, 1991.

**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).

**Wilhelmy, Herbert**

*Welt und Umwelt der Maya: Aufstieg und Untergang einer Hochkultur*. Mit 65 grösstenteils farbigen Abildungen auf Tafeln, 81 Abbildungen und Tabellen im Text und 2 Karten im Anhang. München, Zürich: R. Piper & Co. Verlag, 1981.

An over 500-page, comprehensive survey of the Maya, by a geographer and landscape ecologist. Wilhelmy’s fieldwork was conducted in the Petén and Yucatan, but his book makes use of studies of other Maya areas and he is an expert on geographical studies of culture elsewhere. His book focuses on the agricultural potential of the Maya territory and asks central questions about the characteristics of Maya land, water, climate and their interplay with Maya society and culture. **He claims that the Maya were not familiar with forms of artificial irrigation.** There are 65, mostly color, plates and 75 figures. There are a few pages and 13 standard photographs of the Puuc region.

**Wilk, Richard P.**

“The Ancient Maya and the Political Present”. *Journal of Anthropological Research*, Vol.31 (1986): 307-326

**Willey, Gordon R., vol. ed.**

*Archaeology of Southern Mesoamerica: Part One*. Austin: University of Texas Press, 1965. Vol. 2 of *Handbook of Middle American Indians (HMAI)*, gen. ed. Robert Wauchope, 16 volumes, 1965-1976, 4 supplements.

This volume contains 20 authoritative articles, 8 of which focus on Guatemala, 9 on the Maya Lowlands. Three of the later include attention to the Puuc region and are thus included in this web bibliography

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

Andrews, E. Wyllys, “Archaeology and Prehistory in the Northern Maya Lowlands: an introduction”

Pollock Henry E. D., “Architecture of the Maya Lowlands”

Proskouriakoff, Tatiana, “Sculpture and Major Arts of the Maya Lowlands”

**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).

**Willey, Gordon R. and Jeremy Sabloff**

*A History of American Archaeology*. San Francisco: W. H. Freeman and Co., 1974 (2<sup>nd</sup> ed. 1980; 3rd ed. 1993).

**Willey, G. R., J. A. Sabloff, E. Z. Vopgt, and F. P. Saul, eds.**

*Maya and Their Neighbors*. Cambridge, Mass, 1975.

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

Sabloff, Jeremy A., “Changing Conceptions of the Ancient Maya and Their Neighbors”

**Williams-Beck, Lorraine Annette**

*El Dominio de los Batabob: el área Puuc occidental campechana*. Campeche, México: Secretaría de Educación Pública: Universidad Autónoma de Campeche, 1998.

**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.

**A wide ranging, in-depth study of “the relationship between water resources 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 aguadas 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 *aguadas* 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.

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

“The Electronic Atlas of Ancient Maya Sites”. Presented at the symposium on Current Applications of Remote Sensing and GIS in North America and Mesoamerican Archaeology, 67<sup>th</sup> annual meeting of the Society for American Archaeology. Denver, March 22, 2002.

On the web at:

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

(accessed 2008 March 13)

The authors describe their development of “a regional GIS for the Maya culture area of southern Mexico and northern Central America.” They describe their approach and problems involved. Although not discussed in their paper as it appears on the web, their PowerPoint slides include 5 maps of the Northern Yucatan area studied, which includes the Puuc Region.

**Wurster, Wolfgang W.**

“Die Architektur der Maya”. *Die Welt der Maya: Archäologische Schätze aus drei Jahrtausenden*, ed. Nikolai Grube and Eva and Arne Eggebrecht: 107-138, 287. Mainz am Rhein: Verlag Philipp von Zabern, 1992 by Wolfgang W. Wurster.

In his essay, Wurster **reviews the history of public reception and scholarship of Maya architecture and a wide variety of characteristics of Maya architecture**. These include sections such as the general rule of layering in monumental architecture, construction principles of a pyramid, decorative elements of step pyramids, the Maya vault, basic principles of city construction, and the effect of space. Although he does not discuss the Puuc in his text, there are four photograph of Labná and one each of Kabah and Uxmal.

**Wurster, Wolfgang**

“Maya Cities and Tourism”. *Of the Past, for the Future: Integrating Archaeology and Conservation*. Ed. Neville Agnew and Janet Bridgland. Proceedings of the Conservation

Theme at the 5<sup>th</sup> World Archaeological Congress, Washington, D.C., 22-26 June 2003. Los Angeles: Getty Conservation Institute, 2006: 191-193.

This paper derives from the author's 15 years experience as part of the German Archaeological Institute's attempting to preserve Maya sites in the northeast Petén. The author **reviews alternative approaches to conservation** over the years, calling attention to such things as the "boom in the reconstruction of Maya ruins started about twenty-five years ago" (p. 192). Wurster suggests that we view a Maya city "not just as a group of prominent buildings to be restored . . . but rather as an . . . urbanistic scheme [which] can be made visible through the control of vegetation". **He recommends "a master plan for the entire region of Maya settlements" in Guatemala, which would be declared a national park, and in which visitors would experience as "a cultural landscape", "the habitat of an ancient civilization"** (p. 193).

**Wurtzburg, Susan**

"Applied x-ray fluorescence: sourcing chert artifacts from Sayil, Yucatan". *Méxicon*, Vol. 13, No. 5 (1921): 92-95.

**Wurtzburg, Susan**

"Economic Interactions at Sayil, Mexico". Unpublished MS., Department of Geography and Anthropology, Louisiana State University, 1989.

**Wurtzburg, Susan**

"Lithic Analysis and Residential Patterns: Sayil, Mexico". Paper presented at the Annual Meeting of the Society for American Archaeology, Atlanta, 1989.

**Wurtzburg, Susan**

*Sayil: Investigations of Urbanism and Economic Organization at an Ancient Maya City*. Doctoral Dissertation. Department of Anthropology, State University of New York at Albany, 1991.

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, Xlaapaak, Sayil, Labná.*  
Mérida: Producción Editorial Dante, (n.d.,1983).

Although titled a guide, this is a 110 page account by an archaeological expert, **more detailed and scholarly than guide books normally available**. For example, about the West Building of the Nunnery, he writes: “Some years ago, a hole was dug in the rear platform of the western building, which clearly allowed us to see the upper part of an arch and some of the stones used to seal it. This hole was covered when the Light and Sound Show installations were put in. This tells us . . . that the western building was built over an existing structure” (p. 42).

Although most of the illustrations are small, it is remarkable to see 90 photographs and drawings, 13 of which are in color. A few of these are rare, especially **7 photographs by the author, with text, showing the “sequence of restoration, in 1972-73, of the Great Pyramid** by archaeologist Cesar Sáenz of the I.N.A.H. of México” (pp. 63-66). 6 of the illustrations are aerial photos by José López Nájera.

In one of the most specific summaries of the architectural qualities of Uxmal, the author writes: “it has been unequivocally stated that the architecture at Uxmal was the most beautiful of the American continent during Pre-Hispanic times – its fine finish, the delicacy of its soft lines, the proportions of its majestic buildings, and the richness of its varied reliefs, are all indications of its builder’s high sense of esthetics” (p. 27).

**Zapata Peraza, Renee L.**

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

**Zapata, Peraza, R. L.**

*Los chultunes: Sistemas de captación y almacenamiento de agua pluvial.* Colección Científica No. 182. México, D.F.: Instituto Nacional de Antropología e Historia, 1989.

**Zavala, Lorenzo de**

“Notice sur les monuments antiques d’Ushmal, dans la province de Yucatan, fournie par M. Lorenzo de Zavala, Ambassadeur du Mexique en France”. *Antiquités Mexicaines, relation des trios expéditions du Capitaine Dupaix.* Part 1, Notes et documents divers. Vol. 1, No. 6, pp. 33-35. Folio. Paris, 1834.

As Ignacio Bernal writes: “Most of these articles [of the time] consist of hypotheses originating in Paris, lacking factual foundations and not to be taken too seriously. Even Lorenzo de Zavala’s piece on Uxmal, for all the writer’s high standing, is inferior to Ciudad Real’s description of 250 years before” (Bernal,1962, p.104).

