

[return to Annotated Bibliography](#)

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

Charles Rhyne
Reed College

Annotated Bibliography
Conservation, Restoration, and
Reconstruction

This is **not a general bibliography on conservation and restoration**. This section includes publications on the conservation, restoration and reconstruction of Maya archaeological sites that include attention to the Puuc region, plus a number of important contextual publications.

A

Acosta, Jorge R.

Nuevos ensayos de restauración en Uxmal, Yuc. Dirección de Monumentos Pre-hispánicos, 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.

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

(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

(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 5th 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". *14th 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 possibly 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.

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.

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 Univrsity (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 in the United States,** 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.

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.**

Aymé, Louis

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

B

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, 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.

Photographs of Uxmal, showing restoration over the years, are reproduced on this web site.

<http://academic.reed.edu/uxmal/uxmalmap.html>

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.

Batres, Leopoldo

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

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

Falsifications and Misreconstructions of Pre-Columbian Art. A Conference at Dumbarton Oaks, October 14th and 15th, 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”

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)

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.

Boone, Elizabeth Hill

Collecting the Pre-Columbian Past; A Symposium at Dumbarton Oaks, 6th and 7th 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.

Benson, Elizabeth H., org. and ed.

Falsifications and Misreconstructions of Pre-Columbian Art. A Conference at Dumbarton Oaks, October 14th and 15th, 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.

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 84th 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.

“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

(accessed 2007 May 21)

C

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: 90-97. Mexico, D.F.: Instituto Nacional de Antropología e Historia de Mexico, and The Getty Conservation Institute, Los Angeles, California, 1987

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).

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 19th 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 compressed, some eliminated**, deleting many useful comments.

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

Ciudad Real, Fr. Antonio.

“Relacion breve y verdadera de algunas cosas de las muchas que sucedieron al Padre Fray Alonso Ponce en las provincias de la Nueva España, siendo Comisario General de aquellas partes. Trátanse algunas particularidades de aquella tierra, y dícese su ida á ella y vuela á España, con algo de lo que en el viaje le aconteció hasta volver á su Provincia de Castilla. Escrita por des Religiosos, sus compañeros, el uno de los cuales le acompañó desde España á Mexico, y el ontro en todos los demas caminos que hizo y rabajos que pasó. Ahora por primera vez impresa. Vol. 2, pp. 455-461. *Colección de Documentos*

Inéditos para la Historia de España, LVIII. 2 vols. Madrid, 1875 (2nd ed. México: UNAM, 1976).

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

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

“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

(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.

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).

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.

Conservatción del patrimonio monumental 1.

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

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 5th 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.**

¿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.

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 5th 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.

D

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.

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

(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 Gustave and Phyllis Mauch, foreword by Phyllis Mauch Messenger

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)

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>

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.

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. Díaz-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 19th 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.

Dorfman, John

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

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*.

E

Ekholm, Gordon

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

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

(accessed 2007 May 21)

Fane, Diane

"Reproducing the Pre-Columbian Past: Casts and Models in Exhibitions of Ancient America, 1824-1935". *Collecting the Past*, ed. Elizabeth Boone: 14-176. Washington, D.C.: Dumbarton Oaks, 1930.

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., 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. Marcri 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

(accessed 2007 January 29)

Although 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.

G

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.

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	González Crespo Norberto
	INAH C.R. Sureste	Restauero
01-01-83	Patrones de Asentamiento, Sayil	Jeremy A. Sabloff
	Univ. de Nuevo México	Investigació
01-01-84	Material de Sayil	Boucher Syliana

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.

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.

García Moll, Roberto

Índice del archivo técnico de la Dirección de Monumentos Prehispánicos del INAH. México, D.F.: INAH (Col. Científica 120), 1982.

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.

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.

Graham, Ian

“Looters Rob Graves and History”. Photographs by George F. Morley. *National Geographic*, Vol. 169, No. 4 (April 1986): 453-460.

Griffin, Gillett

“In Defense of the Collector”. *National Geographic*. Vol. 169 (1986), 462-465.

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.

H**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.

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>

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.

Hodges, H. W. M., ed.

In Situ Archaeological Conservation. México, D.F.: Instituto Nacional de Antropología e Historia and J Paul Getty Trust, 1987.

Honey, Martha

Ecotourism and Sustainable Development: Who Owns Paradise? Washington, D.C., 1998.

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.” *Mecanoescrito en el archivo de la sección de Arqueología del Centro Regional de Yucatán, INAH*. Mérida, 1987.

Photographs 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

Labná, Yucatán. México: Instituto Nacional de Antropología e Historia, 1991.

Photographs of Labná are reproduced on this web site.

<http://academic.reed.edu/uxmal/labnamap.html>

Huchim Herrera, José

“Trabajos de restauracion e investigación en los edificios que integran el Cuadrángulo de los Pájaros de Uxmal, Yucatán: temporada de campo de 1992”. Reporte preliminar presentado en el Consejo Nacional de Arqueología del Instituto Nacional de Antropología e Historia, Mérida, March 1993.

Photographs of Uxmal, showing restoration over the years, are reproduced on this web site.

<http://academic.reed.edu/uxmal/uxmalmap.html>

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.

Photographs 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.

Photographs 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 21st 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 Labna”. *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.

Photographs of the Quadrangle of the Birds 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 20th 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 Arqueología 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 Anastylis”. *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 anastylis, 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 anastylis**. 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.

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

(accessed 2007 May 26)

J

Julien, Henri

"Criterios de Restauración de Monumentos". Conferencias del curso de maestría en Restauración. Escuela Nacional de Arquitectura, Edic. Mimeográfica. México, 1966.

K

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 20th 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).

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).

Kowalski, Jeff Karl

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

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

L

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 site at:

<http://www.famsi.org/reports/99026es/index.html>

(accessed 2007 May 21)

English translation by Alex Lomóaco on the web 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

(accessed 2007 May 21)

Le Plongeon, Alice Dixon

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

Le Plongeon, Augustus

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

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>

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>

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.

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

(accessed 2007 May 21)

M

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.

Photographs 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.

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.

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 20th 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).

Matos Moctezuma, Ediardo

“Manuel Gamio y la Arqueología Mexicana,” in *América Indígena*. Vol. XXXIII, Núm 4. México, 1973.

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”. *14th 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.

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.

Molina-Montes, Augusto

“Archaeological Buildings: Restoration or Misrepresentation”. *Falsifications and Misrepresentations of Pre-Columbian Art: A Conference at Dumbarton Oaks, October 14th and 15th, 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).

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).

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.

P

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.

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 in the United States, 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 19th and early 20th 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.

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.

“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

(accessed 2007 Dec. 2)

Q

Quintana, Oscar “Probleme der Konservierung von Maya-Ruined”. *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.

R

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.

Reygadas Vertiz, Jose

“Estado actual de los monumentos arqueológicos de México”. México: Secretaría de Educación Pública, 1928.

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 5th 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).

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: 129-185. Washington, D.C.: Carnegie Institution of Washington, 1952.

S

Sáenz, César A.

“Exploraciones y reconstrucciones en la Gran Pirámide de Uxmal (1970-1971), Yucatán”. *Boletín del Instituto Nacional de Antropología e Historia (INAH)*, Epoca 11, No. 2: 31-40. México, D.F.: Instituto Nacional de Antropología e Historia, 1975:

Photographs 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>

Sáenz, César A.

“Exploaciones y reconstrucciones en la gran Pirámide de Uxmal, Yucatán,” in *Boletín del Instituto Nacional de Antropología e Historia (INAH)*, Period 2, No. 12: 39-44. México, D.F., 1975.

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, 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 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 21st century. The photographs show before and after views of the north and south sides of the roofcomb and buildings below.

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

Salazar Ortegón, Ponciano

Exploraciones y Problemas de Reconstucción 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 de Historia, Mexico. Abril de 1953.

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>

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.

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 19th 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 19th 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.

"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).

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. Buschiazzi," 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, **Schávizon** 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

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.

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.

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 5th 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).

Smith, Valene L, ed.

Hosts and Guests: the Anthropology of Tourism. Philadelphia, 1989 (2nd ed.).

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

Thompson, Charles O.

"Letter to Stephen Salisbury, Jr." *American Antiquarian Society*. Worcester, 1880.

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, Michael Welman

Ruins: Their Preservation and Display. London: British Museum Publications, 1981.

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.

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 20th 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 2nd half of the 18th 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.

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.

W

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.

Willey, Gordon R. and Jeremy Sabloff

A History of American Archaeology. San Francisco: W. H. Freeman and Co., 1974 (2nd ed. 1980; 3rd ed. 1993).