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A Seminar: Assessing Current Understanding and Charting Future Research in Basin of México Archaeology: Conference held at San Miguel Ometusco, September 2-7, 2007



Research Year: 2007

Culture: Teotihuacán, Aztec

Chronology: Archaic - Classic

Location: Estado de México, México

Site: Teotihuacán

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Abstract

An international conference on the archaeology of the Basin of Mexico was convened at San Miguel Ometusco in the Teotihuacán Valley, Mexico between September 2 and 8, 2007. The goal of the meeting was to take stock of what is currently known about Basin of Mexico prehistory, and to identify future directions for archaeological research in this region. The fifteen scholars who attended the conference made formal presentations during the first four days of the meeting. The final day was devoted to discussions reviewing important issues addressed in the presentations and priorities for future archaeological research and conservation in the region. Two field trips were made to archaeological sites in the northern Basin.

Resumen

Entre el 2 y el 8 de septiembre del 2007, se llevó a cabo en San Miguel Ometusco, en el Valle de Teotihuacan, una conferencia internacional que abordó la problemática de la arqueología de la Cuenca de México. El propósito de esta reunión fue el de evaluar a grandes rasgos lo que se conoce hasta el momento de la época prehispánica y colonial de la Cuenca de México, e identificar las direcciones futuras de las investigaciones arqueológicas en esta región. Los quince investigadores que participaron en este seminario hicieron presentaciones formales durante los cuatro primeros días de la reunión. El último día se dedicó a la discusión revisando los temas y puntos importantes que se hicieron en las presentaciones y proponiendo prioridades para la investigación y conservación arqueológica de la región a futuro. Durante el transcurso de la semana se hicieron dos visitas a sitios arqueológicos de la parte norte de la Cuenca.

Summary

Supported by funding from the Foundation for the Advancement of Mesoamerican Studies, Inc. (FAMSI), the Center for Latin American Studies and the Archaeology Center at Stanford University, Ian Robertson (Stanford University) and Larry Gorenflo (Pennsylvania State University) convened an international conference on the archaeology of the Basin of Mexico. The conference was held at the former hacienda San Miguel Ometusco in the Teotihuacán Valley, Mexico, between September 2 and 8, 2007. The aims of the meeting were two: define what we currently know about Basin of Mexico prehistory; and identify future directions for archaeological research in this region. Fifteen prominent scholars attended the conference, nine based in the United States and the remainder based in Mexico. Formal presentations formed the core of the first four days of the meeting, with attendees addressing key topics in Basin archaeology organized under the themes of 1) Key aspects of Basin of Mexico archaeology, 2) Regional issues, 3) Research at Teotihuacán, and 4) Sites outside of Teotihuacán. The final day of the meeting focused entirely on discussions loosely organized to review important issues addressed in the presentations and define potential future directions in Basin of Mexico archaeology. Two field trips to several

archaeological sites in the northern Basin provided opportunities for discussing the archaeology of the region in the context of specific research settings.

Conference Description

Covering roughly 7,000 km² of Mexico's central plateau, the Basin of Mexico played an extremely important role in the evolution of complex societies in Mesoamerica. Among the developments that took place in the Basin were the emergences of a pristine state centered at Teotihuacán (by the 1st century AD) and the rise of the Triple Alliance (Aztec Empire) centered at Tenochtitlán (by the 15th century AD). Researchers recognized the importance of this region to Mesoamerican archaeology long ago, and beginning in the early 20th century began a series of seminal research efforts aimed at improving knowledge of Basin prehistory.

Perceiving the need for an integrated research program aimed at the Basin of Mexico, anthropologist Eric Wolf organized a meeting in 1960 at the University of Chicago to help design a systematic strategy for regional anthropological investigation. Attendees included René Millon and William Sanders, who used the Chicago meeting as a springboard for multi-year projects that collected data on urban Teotihuacán and regional settlement patterns outside the urban center. These projects were in many ways unparalleled, both in terms of the volume of data they produced and the issues they addressed. In 1972, Wolf organized a follow-up meeting at the School of American Research to assess the then current state of archaeological research in the Basin of Mexico; Wolf published an edited volume of results in 1976, the first detailed synthesis of archaeology in the region (Wolf 1976). In 1979, researchers published a second synthesis of Basin of Mexico prehistory (Sanders et al. 1979), summarizing Basin archaeology after nearly two decades of systematic fieldwork. Both of these works were important milestones, though they had significant limitations—including a strong bias towards use of surface data, difficulties in integrating data from different subregions, and reliance on partial results from incomplete data compilation and artifact analyses.



Figure 1. Conference participants. Back row (left to right): Raul García, Jeff Parsons, Larry Gorenflo, Ian Robertson. Middle row: Bill Sanders, Oralia Cabrera, Martin Biskowski, Tom Charlton, Deb Nichols, Emily McClung, René Millon, George Cowgill. Front row: Nadia Vélez, Luis Gamboa, Rubén Cabrera, Sergio Gómez.

Archaeological research in the Basin of Mexico has continued to explore the evolution of complex societies in this region. A number of studies based on excavations, paleoecological investigations, ethnohistoric inquiries, and other research have advanced our understanding of Basin prehistory over the past few decades. In addition, two recent efforts have produced new datasets for urban Teotihuacán and the regional settlement system. Around 2001, Ian Robertson (in collaboration with George L. Cowgill) completed a large database and geographic information system (GIS) that integrates in digital format most of the locational and descriptive data collected by the Teotihuacán Mapping Project in the 1960s. In 2005, Larry Gorenflo and William Sanders finished compiling a GIS-format settlement pattern database providing information on more than 3,900 prehispanic sites. Initial studies of these datasets have revealed new insights on cultural evolution in the Basin of Mexico, though much of their potential remains to be explored. Moreover, how each of these datasets complements the other, how they link with other research in the Basin of Mexico, and how various other archaeological studies in the region can be integrated to advance our understanding of Basin prehistory have received only limited attention. It seemed clear that convening another major meeting on Basin of Mexico archaeology, the first in 35 years, would provide an excellent opportunity for exploring how these various research

efforts fit together, and ultimately what we currently know (and do not know) about Basin prehistory

In September 2007, with funding from Center for Latin American Studies at Stanford University, the Foundation for the Advancement of Mesoamerican Studies, Inc. (FAMSI) and the Stanford Archaeology Center, Ian Robertson (Stanford) and Larry Gorenflo (Pennsylvania State) hosted a meeting to assess current understanding of Basin of Mexico archaeology, with an emphasis on advancements in understanding the prehistory of this region since the 1970s. Our approach was to use the knowledge of a relatively small group of experts to define what we currently know about the prehistory of this region, in the process identifying areas characterized by significant gaps in knowledge and issues or interpretations that lack consensus. In part, we hoped to explore how current knowledge articulates with new insights emerging from our analyses of the recently completed databases described above. We also wanted to identify issues most requiring the attention of future research. With archaeological resources in the Basin of Mexico experiencing alarming rates of destruction, due primarily to expanding urbanization and modern agriculture, future research must either occur almost immediately, or rely on a systematic, strategic conservation program designed to protect selected parts of the archaeological record for investigation at a later date.

The following individuals participated in the meeting:

Martin Biskowski	Department of Anthropology, California State University, Sacramento
Rubén Cabrera C.	Zona Arqueológica de Teotihuacan, Instituto Nacional de Antropología e Historia (INAH)
Oralia Cabrera C.	School of Human Evolution and Social Change, Arizona State University
Thomas H. Charlton	Department of Anthropology, University of Iowa
George L. Cowgill	School of Human Evolution and Social Change, Arizona State University
Luis M. Gamboa C.	Centro INAH Hidalgo
Raúl García C.	Centro INAH Estado de México
Sergio Gómez C.	Zona Arqueológica de Teotihuacan, INAH
Larry J. Gorenflo	Department of Landscape Architecture, The Pennsylvania State University
Emily McClung de Tapia	Instituto de Investigaciones Antropológicas, Universidad Nacional Autónoma de México
René Millon	Department of Anthropology, University of Rochester
Deborah L. Nichols	Department of Anthropology, Dartmouth College
Jeffrey R. Parsons	Museum of Anthropology, University of Michigan
William T. Sanders	Department of Anthropology, The Pennsylvania State University
Ian G. Robertson	Department of Anthropology, Stanford University
Nadia V. Vélez S.	Centro INAH Estado de México

Presentations

Ian G. Robertson (Department of Anthropology, Stanford University) and L. J. Gorenflo (Department of Landscape Architecture, The Pennsylvania State University) **Welcome and Seminar Introduction**

Ian Robertson and Larry Gorenflo led off the seminar by welcoming participants and reviewing the two main goals of the seminar—namely, assessing current understanding and charting future research in Basin of Mexico archaeology. They then discussed conference organization, outlined in the conference agenda, and the four main organizational criteria: 1) Key aspects of Basin of Mexico archaeology, 2) Regional issues; 3) Research at Teotihuacán, and 4) Sites outside of Teotihuacán. Robertson and Gorenflo emphasized the importance of discussion. They noted that each presentation would serve as a basis for subsequent discussion and debate, and that dining and social time each evening was designed to facilitate this. Robertson and Gorenflo also described the field trips scheduled for La Ventilla and Atetelco at Teotihuacán (Wednesday) and several salt-making sites north of Ecatepec in the former bed of Lake Xaltocan (Thursday), both aimed at exposing participants to ongoing excavations and promoting the development of further ideas and discussion about current and future research on Basin of Mexico archaeology.

René Millon (Department of Anthropology, University of Rochester) **Teotihuacán and the Fifth Sun Creation Myth**

René Millon's contribution focused attention on the ideological importance of creation mythologies associated with Teotihuacán. Millon argued that Aztec myths situating events associated with the creation of the modern world at Teotihuacán were ancient and existed in some form at Teotihuacán itself. During the discussion period following the formal presentation, and after elaborating on issues raised by the audience, Millon went on to discuss some of the key methodological issues and challenges he confronted in designing and implementing the Teotihuacán Mapping Project.

William T. Sanders (Department of Anthropology, The Pennsylvania State University) **Archaeology in the Basin of Mexico: Past, Present, and Future**

Bill Sanders's presentation examined the theoretical and methodological context of early research in the Basin of Mexico and in the Teotihuacán Valley. Sanders emphasized in his discussion the theoretical importance of anthropology to his research, and appealed to other attendees to continue to integrate anthropological perspectives into their work and to promote their integration into the work of colleagues. Sanders recounted what the Basin of Mexico was like when he first visited the region in 1951, and when he started the Teotihuacán Valley Survey in 1960, remarking on the alarming rates of destruction that happened the second half (and especially the final two decades) of the 20th century. Appealing to the importance of conserving the

archaeological record for future research, particularly to illuminate issues not currently well understood, Sanders discussed possible strategies for improving conservation in the face of what appears to be unstoppable urban growth.

George L. Cowgill (School of Human Evolution and Social Change, Arizona State University) **The Teotihuacán Mapping Project, Experiences with Data Files, Big Questions, and Some Research Priorities for Teotihuacán**

The paper presented by George L. Cowgill emphasized the accomplishments and legacy of the Teotihuacán Mapping Project (TMP). Cowgill discussed data-quality issues, emphasizing the degree to which conclusions based on the largely surface remains collected by the TMP have been corroborated by subsequent and more detailed sub-surface investigations. Although the latter provided crucial detail, and sometimes have corrected interpretive errors, he noted that the Mapping Project data files and artifact collections have, over the years, proven to be a remarkably useful resource. Cowgill argued that the potential for future research using TMP data extends well beyond inquiries conducted to date. He concluded his presentation by reviewing what he regards as some of the important “Big Questions” remaining for Teotihuacán, including the nature of the Teotihuacán polity; its relationship with other important places and regions including Cuicuilco, Cholula, and Tlaxcala-Puebla; and evidence and explanations for the decline of the Teotihuacán state. Cowgill noted the importance of collecting more and better evidence bearing on paleo-environmental conditions and human environmental impacts. He closed by listing a few high-priority excavation projects at Teotihuacán, both within and outside the protected archaeological zone.

Jeffrey R. Parsons (Museum of Anthropology, University of Michigan) **The Regional Surveys in the Basin of Mexico, 1960-1975, and Beyond: Scope, Methodology, Strengths and Weaknesses, Past Uses of Data, Future Prospects, and Miscellaneous Thoughts**

Jeff Parsons briefly reviewed the settlement pattern surveys conducted in the Basin of Mexico, most of which he worked on or contributed to in one way or another. He began his presentation by discussing the foundation of the Basin surveys, both in terms of the intellectual inspiration of Julian Steward, Gordon Willey, Manuel Gamio, and Pedro Armillas, as well as the development of survey methodology during the early field seasons in the Teotihuacán Valley. Parsons placed the early survey efforts, as well as methodological refinements, in the context of goals outlined in the first Basin of Mexico conference in 1960. He then critically reviewed the surveys—what they achieved, and where they fell short. The strengths identified by Parsons included defining the big picture of settlement patterns and settlement change over time, generating data for other researchers, obtaining ceramic collections for further study, providing a basis for research designs in other projects, and defining certain issues for ethnographic studies. Weaknesses that he identified included beginning in an area that was not greatly threatened by development in the early 1960s, reliance on implicit definitions of data, an excessively narrow focus on ceramics and chronology at the expense of site function and other characteristics, lack of tighter chronological control,

the need for geo-archaeological input, and the lack of focus on preceramic settlement. Parsons closed his presentation by identifying future research directions based on survey experience: introduction of *off-site* survey methodologies, identification of priority sites for further study or conservation, systematic urban survey of Mexico City, examination of prehistoric and Colonial hydraulic engineering, and survey of the northeastern Basin.



Figure 2. Conference participants listening to one of the presentations. (l-r) Martin Biskowski, Tom Charlton, Sergio Gómez, Raul García, George Cowgill, Deb Nichols.

L. J. Gorenflo (Department of Landscape Architecture, The Pennsylvania State University) **Analyzing Prehispanic Settlement Patterns in the Basin of Mexico**

The paper presented by Larry Gorenflo had a dual focus, first discussing the nature of the recently-completed database on prehispanic settlement patterns for the entire Basin of Mexico, and then presenting some key results of initial analyses of that database. He began by discussing data compilation for the Cuautitlan and Temascalapa survey regions, recently completed in collaboration with Bill Sanders, and the compilation of similar data for the Teotihuacán region. Emphasizing the structure of this database, he examined the possibilities and limitations of analyzing settlement patterns in the entire Basin using geographic information technology. Gorenflo discussed basic demographic processes over time and space, a higher resolution analysis supporting

earlier contentions that population increases and declines in the Basin required no dramatic demographic events but did require considerable movement within the Basin from one period of occupation to another. He also discussed some new insights on Basin of Mexico settlement systems, including how rank-size plots indicate generally localized administrative patterns amidst occasional regional administration; how settlement population plotted against rainfall indicates a need for widespread irrigation; and how population density near the lakeshore surged during the Late Aztec occupation, demanding further archaeological and ethnohistoric investigations. Gorenflo closed by emphasizing issues that require additional research to understand regional settlement organization, namely chronology and paleo-environment.

Martin Biskowski (Department of Anthropology, California State University, Sacramento)
Regional Economic Development in the Basin of Mexico

Martin Biskowski's presentation began by addressing the changing nature of economic research in the Basin of Mexico, discussing the early emphasis on cultural ecology, which provided the basis for much of what we have understood about the prehispanic economy of the Basin and how that economy evolved over time. Biskowski summarized criticisms of this focus and discussed alternative perspectives derived from anthropological studies of economy—noting recent developments in these areas of inquiry, as well as the difficulty of applying some of these new perspectives to archaeological settings because of data requirements. He questioned the potential of applying such demanding concepts in a region such as the Basin given the enormous loss of archaeological data to development over the past few decades and into the present. Biskowski then reviewed economic development in the Basin from preceramic occupations through the Teotihuacán Period, with an emphasis on subsistence economy. In part, this review described how the regional economy changed over time, relating such change to sociocultural development in the region as increasingly complex societies emerged. Notable were the major changes, and challenges, that accompanied what Biskowski called the “Classic Transformation”—namely the challenges of providing fuel and processing food (mainly maize) as population and demand became more concentrated in urban Teotihuacán following the Terminal Formative period. Calculating demand for fuel and estimating how this demand could be met, he concluded that this essential resource would have become increasingly costly over time; understanding how the demand for fuel was met provides important insights into the prehispanic economy in the Basin of Mexico.

Emily McClung de Tapia (Instituto de Investigaciones Antropológicas, Universidad Nacional Autónoma de México) **The Paleoenvironment of the Basin of Mexico**

Emily McClung de Tapia undertook the particularly challenging task of reviewing evidence for the paleoenvironment of the Basin of Mexico. Although several researchers have examined the environment of this region in the process of conducting cultural ecological studies, most of those studies focus on the modern environment—conditions very different from what prehistoric inhabitants of the Basin faced. McClung's focus was particularly on those periods when human activities could have influenced the

natural environment, and *vice versa*. Following a brief discussion of data used to study paleo-environments—notably, pollen, diatoms, phytoliths, charcoal, and $\delta^{13}\text{C}$ (stable carbon isotopes) from samples of organic material—she provided brief overviews of climate change and its impacts on humans, periods of abrupt climate change, and studies of the modern environment. McClung then turned her attention towards the surprisingly rich literature on the paleo-environment of the Basin of Mexico, focusing on the indicators used and key results. This portion of her review included a discussion of paleo-environmental evidence from the Teotihuacán Valley including soils and indicators of vegetation, as well as prehistoric land use and how that was influenced by, and influenced, the natural environment of that portion of the Basin. She argued that the impressive array of results from numerous existing studies of paleo-environment and related topics in the Basin of Mexico has the potential of supporting the reconstruction of much of the region's natural past.

Deborah L. Nichols (Department of Anthropology, Dartmouth College) **Intensive Agriculture and Early Complex Societies of the Basin of Mexico: The Formative Period**

The presentation by Deb Nichols focused on the development of intensive agriculture in the Basin of Mexico during the Formative period, but with an emphasis on how this economic activity contributed to a trajectory of cultural evolution leading from fairly simple cultural systems to states. She began by discussing the theoretical underpinnings of such research, notably the materialist perspective championed by Pedro Armillas, the Marxist ideas of V. Gordon Childe, the neoevolutionist perspectives associated with the cultural ecology of Julian Steward, and the interplay of agriculture, population, and cultural evolution emphasized by Ester Boserup. Nichols then examined cultural evolution during the Formative occupation in the Basin of Mexico from a variety of perspectives—social, political, environmental, and ecological. Discussions of settlement patterns and evidence for agricultural change provide a basis for overviews of the Basin of Mexico during the Early through Terminal Formative occupations. Nichols's presentation provided a thorough and insightful summary of how agricultural development may have affected sociocultural evolution in the Basin of Mexico, and *vice versa*. However, she also observed that theories about how culture and crop production evolved in this region outstrip available data on this complex issue, highlighting the need to interest the next generation of archaeologists in this challenging and important topic.

Ian G. Robertson (Department of Anthropology, Stanford University) **Investigating Teotihuacán through Surface Observations: TMP Data in 2007**

Ian Robertson's paper focused on data collected by the Teotihuacán Mapping Project (TMP), above all the electronic archives of the TMP, their current structure and the potential insights that can come from their study. After describing the evolution of electronic versions of TMP data files, Robertson focused on the two most current databases that describe artifactual and other remains documented by TMP field and lab workers—DF9 and REANS2. These data files, meshed with an electronic map for the

city in geographic information system (GIS) format, provide unparalleled potential for studying cultural dynamics in a pre-industrial urban setting. Particularly promising (above all with respect to understanding long-term demographic issues) are pilot attempts to merge the metropolitan data with the regional database described at this meeting by Gorenflo. Robertson described the resolution of TMP data as surprisingly high; the ability to carry out meaningful analysis at the level of individual structures and collection tracts is one of the characteristics of these data that makes them so interpretively useful. As an example of possible analyses, Robertson illustrated current approaches to understanding internal organization of Teotihuacán using both exploratory and more formal spatial statistics. His results provide evidence for a temporally long trajectory of internal 'regionalization,' as the ancient city became divided spatially into increasingly distinct sociocultural districts.

Rubén Cabrera (Zona Arqueológica de Teotihuacan, Instituto Nacional de Antropología e Historia) **Los Barrios de Teotihuacan y el Desarrollo Urbano**

The paper presented by Rubén Cabrera dealt with the complex structure of urban Teotihuacán as seen primarily through detailed excavations of individual barrios, notably La Ventilla. He emphasized the importance of understanding the various spatial and social components of cities such as Teotihuacán by examining theoretical issues emerging from the need for different administrative levels and institutions to intercede between residences, barrios, and larger divisions of the urban setting. Cabrera then reviewed evidence for internal divisions in Teotihuacán, noting research that has identified foreign barrios as well as sub-divisions that are defined on the basis of spatial (as opposed to ethnic) criteria, such as La Ventilla. He then discussed how the La Ventilla barrio developed, arguing that it grew as a residential barrio after occupying an area used earlier for agriculture. The development of a barrio temple and a possible Teotihuacán Period *calmecac*—the latter associated with the well-known Patio of the Glyphs—apparently played important roles in the evolution of La Ventilla, not only as a physical component of the city with a particular social identity, but also as a place with a special administrative and ideological function. Cabrera's discussion also emphasized the importance of urban infrastructure for understanding patterns of barrio-level interaction, including hydraulic features (drainage systems, wells and water cisterns) to help manage water and maintain reasonable levels of human well-being, and access systems for managing foot-traffic into and out of both residential compounds and encompassing barrios.

[Spanish translation of Cabrera "**Los Barrios de Teotihuacan y el Desarrollo Urbano**"]

La ponencia presentada por Rubén Cabrera examinó la compleja estructura de la urbe Teotihuacana vista principalmente a través de las excavaciones detalladas de barrios individuales, principalmente La Ventilla. Él enfatizó la importancia de entender los componentes espaciales y sociales múltiples de ciudades como Teotihuacan al examinar temas teóricos que emergen de la necesidad que tenían los diferentes niveles administrativos de interceder entre los conjuntos residenciales, los barrios y las

divisiones mayores en el entorno urbano. Cabrera revisó también algunas evidencias acerca de las divisiones internas de Teotihuacan, haciendo notar investigaciones que han definido barrios foráneos, así como subdivisiones que se definen sobre la base de criterios espaciales (en lugar de étnicos), tales como La Ventilla. Él discutió como se desarrolló el barrio de La Ventilla, argumentando que creció como un barrio residencial al ocupar un área utilizada al principio para la agricultura. El desarrollo de un templo de barrio y de un posible *calmecac* del Periodo Teotihuacano—éste último asociado con el bien conocido Patio de los Glifos—aparentemente jugaron papeles importantes en la evolución de La Ventilla, no solo como un componente físico de la ciudad con una identidad social particular, sino también como un lugar con una función especial de carácter administrativo e ideológico. La discusión de Cabrera también enfatizó la importancia de elementos urbanos infraestructurales para entender la interacción del barrio, tales como los sistemas hidráulicos (drenajes, pozos artesianos y depósitos de agua), que ayudaron a manejar el agua y mantener niveles favorables de bienestar, así como los sistemas de acceso para el tránsito hacia el interior de los conjuntos residenciales y hacia el exterior del barrio.

Sergio Gómez (Zona Arqueológica de Teotihuacan, Instituto Nacional de Antropología e Historia) **La Investigación Arqueológica de Teotihuacan. Perspectivas y Compromisos para la Conservación del Patrimonio Cultural**

Sergio Gómez addressed the challenge of maintaining Mexican cultural patrimony in a rapidly developing world, a situation complicated by the need of meeting enormous demands with limited resources. He characterized the situation in terms of political and institutional impediments to effective archaeological conservation—lack of an appreciation that sites provide insights on the past, the sense that archaeology has dropped out of discussions of nationalism, the tendency of political figures to value sites solely in terms of promoting tourism, and the inclination of archaeologists to focus on research rather than politics or planning. Gómez offered the Zona Arqueológica of Teotihuacán, which lacks a permanent program for management and conservation of archaeological remains, as an example of difficulties in conserving cultural patrimony. Local constraints include the surprising lack of an inventory of architectural and artifactual remains, general hostility to archeology outside of the protected archaeological zone, and laws that seem to favor corruption. Gómez stated that the techniques used by the Department of Salvamento Arqueológico of INAH at Teotihuacán are inadequate, as are levels of analysis and data integration, and argued for a multi-component solution to the challenge of conserving the cultural patrimony of Mexico. What is needed, he contended, are: greater community involvement in planning growth that impacts archaeological remains; programs for sustainable economic growth that accommodate cultural patrimony and archaeology; short and medium term programs for conserving the archaeological record; the creation of academic goals for the Department of Salvamento Arqueológico; focusing research at Teotihuacán on portions of the site outside of the protected zone; and dissemination of archaeological knowledge among the general public.

[Spanish translation of Gómez “**La Investigación Arqueológica de Teotihuacan. Perspectivas y Compromisos para la Conservación del Patrimonio Cultural**”]

Sergio Gómez trató el tema del reto de conservar el patrimonio cultural Mexicano ante el rápido crecimiento urbano, una situación complicada por la necesidad de alcanzar enormes demandas con recursos limitados. Él caracterizó la situación en términos de impedimentos políticos e institucionales que impiden una conservación arqueológica eficaz—la falta de entendimiento de que los sitios proporcionan una ventana hacia el pasado, la posibilidad de que la arqueología haya perdido su lugar en las discusiones del nacionalismo, la tendencia de las figuras políticas para valorar los sitios solo en términos de promoción turística y la inclinación de los arqueólogos de enfocarse sólo en investigaciones y dejar de lado las políticas de conservación o planeamiento. Gómez ofreció como ejemplo la Zona Arqueológica de Teotihuacan, la cual carece de un programa permanente de manejo y conservación del patrimonio cultural. Entre las restricciones locales se incluyen la sorprendente falta de inventario de restos arquitectónicos y de materiales, la hostilidad generalizada hacia la arqueología fuera del área protegida de la zona arqueológica y las leyes que parecen favorecer la corrupción. Gómez manifestó que las técnicas usadas por el Departamento de Salvamento Arqueológico del INAH en Teotihuacan, así como los niveles de análisis e integración de los datos, son inadecuados y se pronunció por una solución multi-componente al reto de conservar el patrimonio cultural de México. Lo que es necesario, enfatizó, son: una mayor inclusión de la comunidad en la planeación del crecimiento tomando en cuenta el contexto de los restos arqueológicos; que se lleven a cabo programas de crecimiento económico sustentable que integren los restos arqueológicos; programas a corto y mediano plazo para conservar los registros arqueológicos; la creación de objetivos académicos del Departamento de Salvamento Arqueológico; el enfoque de la investigación en Teotihuacan en porciones del sitio fuera de la zona protegida; y una diseminación del conocimiento arqueológico al público en general.



Figure 3. Informal discussion outside the conference hall at the ex-hacienda San Miguel Ometusco. (l-r) Deb Nichols, Tom Charlton, René Millon.

Thomas H. Charlton (Department of Anthropology, University of Iowa) **Historical Archaeology in the Basin of Mexico and the Central Mexican Symbiotic Region: Development, Present Status, Future Prospects**

Prepared in collaboration with Patricia Fournier and Cynthia L. Otis Charlton, Tom Charlton's paper focused on the frequently-overlooked topic of historical archaeology in the Basin of Mexico. In discussing this topic, Charlton used a dual geographic focus that considered both the broader Central Mexican Symbiotic Region as well as the Basin itself. His presentation began by discussing the foundations of historical archaeology in

central Mexico, noting that historic remains received considerable attention during the first half of the 20th century—occasionally by virtue of overlying prehistoric archaeological remains, but also through interest in understanding historic remains from a different perspective. Charlton then examined historical archaeological research in different contexts, including the salvage archaeology often associated with urban contexts as well as regional projects directed by himself, Fournier, and others. His presentation of material culture associated with various phases of historic occupation pointed up both the temporal depth of historical archaeology in the Basin of Mexico, and the difficulty in distinguishing the last phases of prehistoric occupations from the Early Colonial period (when life in much of the Basin remained surprisingly similar to that found in pre-Conquest contexts). Charlton accounted for the heavily descriptive nature of historical archaeology as a consequence of the salvage efforts that increasingly comprise this area of investigation, though he mentioned the increasing examples of historical archaeology with a more theoretical emphasis. He closed his paper by noting that rural settings still provide opportunities for more complete investigations not usually encountered in the salvage operations that tend to occur in urban settings, reminding us that each period of history in Central Mexico involved different characteristics that can be usefully examined through archaeological investigation.

Raúl García (Centro INAH Estado de México, Instituto Nacional de Antropología e Historia) **Los Sitios Rurales y la Estrategia del Estado Teotihuacano para la Captación de Recursos en la Cuenca de México**

Raúl García presented a data-rich overview of evidence bearing on the relationship between the city of Teotihuacán and its rural hinterland. Starting in the Formative Period, long before the emergence of Teotihuacán, García traced the growth and economic orientation of settlements in various parts of the Basin, but concentrating above all on lakeshore areas west of Lake Texcoco, and in the vicinity of Lake Chalco. During the Teotihuacán Period, these sites played a crucial role in provisioning the capital with a wide range of key resources, including products obtained through agriculture and hunting, and from lacustrine and forested ecozones. Some sites, such as Azcapotzalco and Xico, are thought to have served at least partially as centers for the accumulation and redistribution of such materials within their respective sub-regions. The size and number of such sites varies significantly over time; changes were related by García to socio-political events, above all at Teotihuacán that modified the ability of capital administrators to control distant parts of their hinterland.

[Spanish translation of García “**Los Sitios Rurales y la Estrategia del Estado Teotihuacano para la Captación de Recursos en la Cuenca de México**”]

Raúl García presentó, con abundantes datos, una visión general de las evidencias que tratan la relación entre la ciudad de Teotihuacan y su periferia rural. Comenzando con el Periodo Formativo, mucho antes de la formación de Teotihuacan, García trazó el crecimiento y la orientación económica de los asentamientos en varias partes de la Cuenca, pero concentrándose sobre todo en la parte occidental de las áreas cercanas al Lago de Texcoco, y en las inmediaciones del Lago de Chalco. Durante el Periodo

Teotihuacano, estos sitios jugaron un papel crucial para proporcionar a la capital una amplia gama de recursos clave, incluyendo los productos obtenidos a través de la agricultura y la caza, y de los ecosistemas lacustres y forestales. Se cree que algunos sitios, tales como Atzacapotzalco y Xico, sirvieron por lo menos parcialmente, como centros de acopio y redistribución de dichas materias primas dentro de sus sub-regiones respectivas. El tamaño y número de estos sitios varía significativamente a través del tiempo; los cambios diacrónicos fueron relacionados por García con los eventos socio-políticos, sobre todo en Teotihuacan, que modificaron la habilidad de los administradores de la capital para controlar partes distantes de su periferia.

Luis Gamboa and Nadia Vélez (Centro INAH Hidalgo y Centro INAH Estado de México, Instituto Nacional de Antropología e Historia) **Propuesta de un Programa de Impacto Arqueológico en Sitios Prehispánicos de la Cuenca de México: El Caso de Asentamientos Salineros**

With a specific focus on salt-making sites, Gamboa's and Vélez's presentation examined the impact of urban sprawl in the Basin of Mexico on archaeological sites outside of the urban center of Teotihuacán. They began by noting that the considerable growth that continues to occur in the Basin does so in the absence of a systematic program of preservation of archaeological remains. Presentation of several images of modern development in the context of known archaeological sites dramatically supported their call for a systematic strategy to deal with such destruction. Gamboa and Vélez proposed a program of focused archaeological fieldwork and conservation in which construction projects are evaluated in terms of impacts on known archaeological sites, an effort that could be made more feasible through the use of geographic information system technology (GIS). They proposed augmenting spatially referenced databases of archaeological resources with the use of predictive models to identify localities with a high probability of containing archaeological remains. To illustrate some of their ideas, Gamboa and Vélez presented as an example a group of salt-making mounds located north of Ecatepec in ancient Lake Xaltocan that were being excavated at the time of our conference. Located in the path of a modern housing development, these salt-making sites yielded considerable information in a short period of time thanks to early, intensive, efficient excavation. The paper concluded by arguing for the utility of such approaches in the face of continuing modern development, in the case of important sites replacing destruction and loss of prehistoric data with salvage excavations or conservation.

[Spanish translation of Gamboa and Vélez “**Propuesta de un Programa de Impacto Arqueológico en Sitios Prehispánicos de la Cuenca de México: El Caso de Asentamientos Salineros**”]

Con un enfoque específico en sitios de producción de sal, la presentación de Gamboa y Vélez examinó el impacto del actual crecimiento urbano en la Cuenca de México, que afecta los sitios arqueológicos fuera del centro urbano de Teotihuacan. Ellos comenzaron por notar que el considerable crecimiento que continúa ocurriendo en la Cuenca se realiza con la ausencia de un programa sistemático de conservación de los

restos arqueológicos. La presentación de varias imágenes del crecimiento urbano moderno en el contexto de sitios arqueológicos conocidos apoyó dramáticamente su llamamiento a formar estrategias sistemáticas para enfrentar esta destrucción. Gamboa y Vélez propusieron un programa de trabajo de campo y conservación arqueológicos en los cuales los proyectos actuales de construcción se evalúen en términos de su potencial impacto sobre los sitios arqueológicos conocidos, un esfuerzo que pudiera ser apoyado a través del uso de la tecnología de los sistemas de información geográfica (SIG). Ellos propusieron que se aumenten las bases de datos de los sitios arqueológicos con referencias espaciales utilizando modelos de predicción para identificar localidades con una alta probabilidad de contener otros sitios arqueológicos. Para ilustrar algunas de sus ideas, Gamboa y Vélez presentaron como ejemplo un conjunto de montículos de producción de sal ubicados al norte de Ecatepec, en el antiguo Lago de Xaltocan, que estaba siendo excavado en el tiempo en que se llevó a cabo nuestra conferencia. Localizado en vías de una zona de desarrollo urbano, estos sitios de producción de sal proporcionaron información considerable en un periodo de tiempo corto gracias a las excavaciones oportunas, intensivas y eficientes. Su ponencia concluyó demostrando la utilidad de dichos enfoques al enfrentar el continuo desarrollo urbano, en el caso de sitios importantes reemplazando la destrucción y pérdida de los datos prehispánicos con excavaciones de salvamento y con conservación.

Field Trips: La Ventilla and Atetelco (Teotihuacán) and Ecatepec Region Salt-making Sites

The seminar at San Miguel Ometusco included two field trips, giving participants a welcome break from the formal meeting and a chance to continue discussion and refine their ideas at sites undergoing active investigation. On the afternoon of Wednesday, 5 September, we visited Professor Rubén Cabrera's ongoing and planned excavations at two localities within the urban center of Teotihuacán, La Ventilla and Atetelco. Cabrera had presented a paper earlier the same day that focused on the development of different neighborhoods in the urban center at different times in its prehistory, with a particular focus on La Ventilla. He graciously provided us with a tour of ongoing excavations as well as prior excavations, pointing out the challenges and approaches to identifying components of that portion of the urban center. We were fortunate in having Robert H. Cobean (INAH) join us for this fieldtrip.



Figure 4. (l-r) Bob Cobean, Rubén Cabrera, Jaime Delgado, Larry Gorenflo, Nadia Vélez, Deb Nichols, Tom Charlton, Ian Robertson, and Jeff Parsons view excavations on a field trip to La Ventilla, Teotihuacan.

On the afternoon of Thursday, 6 September, seminar participants visited salt-making sites being excavated under the direction of Nadia Vélez. Located north of Ecatepec in what once was Lake Xaltocan, these sites date to Late Aztec or Early Colonial occupations and provide a fascinating record of a special part of the native economy not well documented archaeologically. The sites consist of large mounds created by leaching salt-rich sediments, as well as the well-preserved remains of residential structures occupied by salt workers; notable among recovered artifacts are examples of complete salt-making vessels. The sites lie in an area once characterized by dozens of such mounds but which now is the location of rapid construction of dense residential neighborhoods. The excavations we visited represent a rare and highly welcome opportunity to preserve a small amount of information, much of it unique given the general absence of excavation data for such mounds. They also highlight how the archaeological record in the Basin of Mexico is disappearing in the wake of modern development throughout much of the region.



Figure 5. (l-r) René Millon and George Cowgill examine mega-fauna remains during a field trip to a salt production site (Tecamac I) north of Ecatepec, Basin of Mexico.

Final Day—Open Discussion

The final day at San Miguel Ometusco was devoted to open-format, round table discussion. The goal was to explore important next steps in Basin of Mexico archaeology, based on personal interests and opinions, information presented during the preceding four days, insights developed during discussions among seminar participants, or any combination of such sources. Discussion on the final day was broad-ranging and complex, and involved considerable detail. A key, underlying theme that emerged repeatedly was archaeological conservation—above all, the need in the Basin of Mexico for heightened appreciation of the importance of archaeological patrimony, and for more effective strategies for its preservation. We summarize this and other key ideas in the following, highly abbreviated sections. Note that order of presentation does not reflect their relative importance.

Seminar participants generally agreed that no aspect of the cultural record of the Basin of Mexico has been adequately studied, above all when compared to the importance of the region. Many nevertheless identified specific themes of research thought to be particularly important for maximizing the interpretive potential of currently existing data, as well as data that might be collected in the future. Issues of chronology were

mentioned frequently—there was a consensus that we need to invest more research effort in chronometrics, and to sharpen our understanding of diachronic variation in key artifact classes, above all ceramics. Paleo-environmental studies also emerged repeatedly as a topic requiring more focused attention. Both chronological and paleo-environmental studies can be addressed through specific projects and as parts of projects aimed primarily at resolving other issues. Seminar participants identified investigations focused on post-conquest sites and landscapes as requiring heightened attention, particularly in view of the potential of the historic record for illuminating periods of dramatic culture change in the region. Opportunities for ethnographic and ethnoarchaeological work may be disappearing even more quickly than those for archaeological research, but their value has been clearly demonstrated by the pioneering research of Parsons and Sanders, among others; there is an urgent need to take advantage of whatever opportunities may remain for ethnographic and ethnoarchaeological research in the Basin.

Discussions during the final day of the seminar identified the importance of conducting both research and conservation through regional-level strategies that coordinate efforts among researchers. This will not be easy—prior efforts at identifying regional priorities for conservation and research have had relatively little effect—but the basic need is clear and must be moved on soon. Moreover, coordination with government officials and, perhaps at some stage, the general public also emerged as essential. The Instituto Nacional de Antropología e Historia (INAH) could be usefully involved in all such work, but also needs to develop a stronger problem and research focus for in-house investigation and resource management. Above all, there needs to be greater financial and intellectual investment in the crucial work carried out by the Department of Salvamento Arqueológico, the arm of INAH responsible for the monitoring and mitigating impacts on archaeological sites from construction and other land-use changes. Building their work around clear and regularly evaluated research priorities would greatly strengthen the effect of Salvamento Arqueológico, as would the provisioning of adequate funding for post-fieldwork analysis and publication.



Figure 6. Discussions on the final day of the meeting. Clockwise, beginning front-center: René Millon, Bill Sanders, Jeff Parsons, Marty Biskowski, Tom Charlton, Raul García, Rubén Cabrera, Sergio Camarena, George Cowgill, Nadia Vélez, Sergio Gómez, Luis Gamboa, Emily McClung, Larry Gorenflo, Ian Robertson.

The importance of preserving artifact collections from previous research projects has been demonstrated by numerous analyses that productively use such materials to answer often unanticipated questions posed long after fieldwork. Examples of materials that continue to contribute to our understanding of Basin of Mexico prehistory include the large collections of the Teotihuacán Mapping Project housed at the Arizona State University-managed research facility in San Juan Teotihuacán, collections obtained from settlement surveys in the Basin, and excavation materials from various parts of Teotihuacán. Primary artifact collections, as well as meta-data describing them, must be preserved for future study.

It is also important that databases containing archaeological settlement and other kinds of data be shared among researchers; this might be facilitated by the sort of cyber-infrastructure project that is being coordinated by Keith Kintigh at Arizona State University. There is also a need for a regional, spatially-referenced, inventory of archaeological sites, subject to regular updating as new sites are recorded, and descriptions of known sites augmented by new research and monitoring.

The destruction of archaeological resources in the Basin of Mexico has proceeded to the point that relatively little evidence remains *in situ* to address the many important anthropological questions that remain in this region. Some lines of inquiry are probably already closed to us. Nevertheless, we maximize our abilities to conduct field research in the future by 1) preserving as much of what remains of the archaeological record as possible, and 2) directing our fieldwork toward sites that clearly face destruction at the hands of urbanization, agriculture, and similar forces. We and future generations will benefit to the degree that we find ways to focus current field research funding and opportunities on sites that are likely to disappear in the next 10 or 20 years; investigations within protected areas, such as official archaeological zones, should be exceptional.

Archaeological resources in Mexico will ultimately be protected to the degree that they are valued by the Mexican public. Local outreach programs are needed to impress upon the residents of the Basin of Mexico the unique value of their cultural heritage. This might involve investments in local museums, classroom instruction, public lectures, and the publication of monographs aimed at a lay audience. An Internet website might also play a role in engaging the public, serving as a timely way of disseminating new results of current research, and conceivably as a means of collecting notification about sites under immanent threat.

Publication Plans

Because of the overall importance of this conference, and because so much of the material presented at it does not exist in print elsewhere, we are planning a publication that will make papers based on presentations available as a group.

Acknowledgments

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We also wish to thank ArqIgo. Alejandro Sarabia, director of the Zona Arqueológica de Teotihuacán (INAH), for facilitating our fieldtrip visits to La Ventilla and Atetelco, and Prof. Rubén Cabrera and ArqIga. Nadia Vélez for hosting tours of their respective field projects. We thank Arq. Sergio Camarena V., Director of Centro INAH Hidalgo, for his expressions of support and interest in the goals of our meeting and for joining us at San Miguel Ometusco during our final day.

Above all, we acknowledge the immense contribution of ArqIga. Oralia Cabrera to this conference. Oralia assisted with many of the myriad organizational tasks leading up to the conference, but was above all instrumental during the conference as a source of near-simultaneous translation. Much of the conference's success is due to her efforts.

List of Figures

[Figure 1](#): Conference participants. Back row (left to right): Raul García, Jeff Parsons, Larry Gorenflo, Ian Robertson. Middle row: Bill Sanders, Oralia Cabrera, Martin Biskowski, Tom Charlton, Deb Nichols, Emily McClung, René Millon, George Cowgill. Front row: Nadia Vélez, Luis Gamboa, Rubén Cabrera, Sergio Gómez.

[Figure 2](#): Conference participants listening to one of the presentations. (l-r) Martin Biskowski, Tom Charlton, Sergio Gómez, Raul García, George Cowgill, Deb Nichols.

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