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**TERMINAL PLEISTOCENE THROUGH MIDDLE HOLOCENE
OCCUPATIONS IN SOUTHEASTERN MESOAMERICA**

Keith M. Prufer

7:30 pm Tuesday, September 21, 2021

At Your Computer, Tablet, or Smart Phone

Data from rockshelters in southern Belize show evidence of tool making, hunting, and aquatic resource exploitation by 10,500 cal. BC, and a function as mortuary sites between 7,600 and 2,000 cal. BC. Early Holocene contexts contain stemmed and barbed bifaces as part of a tradition found broadly throughout the neotropics. After ~6,000 cal. BC, bifacial tools largely disappear from the record, likely reflecting a shift to increasing reliance on plant foods; around the same time, the earliest domesticates appear in the archaeological record in the neotropics. We suggest that people living in southern Belize maintained close ties with neighbors to the south during the early Holocene but lagged behind in innovating crops and farming technologies during the middle Holocene. Skeletons from Belize dated at 7,650 to 5,350 cal. BC are genetically related to ancient individuals from 11,000 to 7,000 cal. BC from North and South America, and to modern populations in lower Central and South America, but to a lesser extent to modern Mexicans. This suggests a complex population history for the neotropics, an area of shared information and technologies. Maize farming in Belize intensified between 2,750 and 2,050 cal. BC, as maize became a dietary staple 1,000 to 1,300 years later than in South America.

Keith Prufer is a Professor of Environmental Archaeology and Core Faculty at the Center for Stable Isotopes at the University of New Mexico. Since 1993 he has conducted field research in the tropical forests of Belize with a focus on landscapes and human interactions with the landscape. For over a decade he directed research at the Classic Period site of Uxbenká, located in the fertile foothills of the Maya Mountains. Since 2014 his research has focused on the human biology and culture of Pleistocene through Middle Holocene settlers in the neotropics.

A day or so prior to the meeting, an email message will be sent to members with the link for the Zoom meeting, which will open around 7 to allow for greetings among friends. Please keep your microphone muted during the presentation until the question-and-answer session.

NOTES FROM THE JULY 20 VIRTUAL MEETING OF THE ALBUQUERQUE ARCHAEOLOGICAL SOCIETY

[Notes from the July 20 meeting, which was not taped, are not available except for the Treasurer's report and the speaker's illustrated synopsis below.]

Treasurer's Report – Tom Obenauf: Income for the past month was \$50.00 from two membership renewals. Expenses for the month were the monthly Zoom fee of \$16.17 and the annual USPS mailbox rental fee of \$204.00. The checking account balance is \$4,938.56.

SPEAKER

Vice President Gretchen Obenauf introduced Mavis Greer, who has operated an archeological consulting business in Wyoming with her husband since 1978 and has authored numerous journal articles, contributed rock-art-themed chapters to archaeological books, and is co-editor of the book *Rock Art and Sacred Landscapes*. Dr. Greer is a former president of the American Rock Art Research Association and the International Federation of Rock Art Organization as well as various archaeological organizations. She provided the following synopsis.

Egypt: Pyramids of the Nile and Rock Art of the Western Desert

By Mavis Greer

It has been 14 years since ten American friends traveled to Egypt to visit the famous pyramids along the Nile and spend 16 days in the remote desert of western Egypt where rock art has been made for thousands of years. However, our memories of the trip remain as fresh as if we had just been there, and it was an experience that greatly expanded our knowledge of the Egyptian countryside, culture, and archaeological remains that ranged from seldom-visited desert sites to well-known and extensively-visited landmarks along the Nile.

Our trip started in and around Cairo. The older pyramids outside Cairo were interesting, but those at Giza were the most anticipated. It was almost surreal to visit this UNESCO World Heritage site, which is the oldest of the Seven Wonders of the Ancient World and the only one to remain largely intact today. The three Giza pyramids or tombs took almost 80 years to construct and were made during the Old Kingdom, which is defined as that period between 2575 and 2150 BC.

After Cairo, we traveled south to Luxor to visit sites built and used during the New Kingdom, which dates from 1550 to 1070 BC. The town of Luxor with its ancient temples has been a UNESCO World Heritage site since 1979. Karnak Temple outside Luxor is accessed by a grand procession way lined with ram-headed sphinxes. The wide pathway connects the Karnak temple, which was the largest religious center in ancient Egypt, with the Luxor Temple, which was the center of Egyptian government for many years. Karnak was constructed over hundreds of years, as many pharaohs wanted to leave something impressive at this highly religious site. This resulted in multiple temples, obelisks, and great gates. Construction started here in the Middle Kingdom about 1908 BC and continued into the Ptolemaic dynasty, a Greek royal family that ruled Egypt from 305 to 30 BC.

The Valley of the Kings lies across the Nile from Luxor. The west side of the Nile was associated with the other world, making it the appropriate location of tombs. The Valley was used mainly between 1539 to 1075 BC. There are at least 63 tombs here, and excavations and tomb renovations are still ongoing.

Back in Cairo we met András Zboray and his crew for the western desert portion of our trip. András has published extensively on the rock art of the Sahara, and taking people on tours helps to fund his research. We had four Toyota Land Cruisers for the trip with five Egyptian drivers. The cruisers had room for two people in the front and six in the back sitting along two benches. Two vehicles carried people and some supplies, and two vehicles carried mainly supplies with people only in the front seats. Supplies included all the diesel we would need for 16 days for four trucks, all the food and water we would need for 18 people for 16 days, plus our tents, clothes, and other equipment. Most importantly to us, we were limited to two 2-liter bottles of water per day per person.

The first day we traveled 484 miles exclusively on paved roads. Although the roads were relatively good, it was rough riding sitting on hard benches for that long distance. We passed near oil fields and experienced blowing



Figure 1. Driving across the Selima Sand Sheet.

sand that had characteristics of snow on the roads. The second day we traveled 168 miles on pavement before turning off into the unmarked, open dunal sands of the Selima Sand Sheet. Working with GPS coordinates we crossed massive areas of sand (Figure 1) interspersed with rocky outcroppings with no visible roads or trails, to arrive at spectacular sites. We saw both petroglyphs and pictographs with images dominated by cattle but also including humans, giraffes, camels, and other eye-catching images. Most of the rock art we visited dates to about 3000 years ago, when the climate was more favorable to habitation. Today the desert supports no permanent residents, and visitors are not common because water is limited to what you bring.

The pictographs and petroglyphs of cattle are especially impressive with their sheer quantity and variety of sizes, shapes, and decorations. History reports that cows were revered in the Egyptian desert as a source of life. They are portrayed in herds and as individual figures, and they appear both as petroglyphs and as colorful pictographs. Although not directly dated, environmental evidence and relative dating from other archaeological studies indicates that the *Cattle Pastoralist* style was made between 4400 and 3300 BC. In some cases, there are cows and giraffes on the same panel (Figure 2). András has written about the co-occurrence of these animals in the petroglyphs of this area and found that the figures were contemporary for over a thousand years, but then cattle disappear from the region before giraffes, with the giraffes continuing for another 1000 years until about 2000 BC.



Figure 2. Cows and a giraffe in a petroglyph panel.

In addition to rock art, the desert supports ancient trails used for thousands of years by caravans, small stone circles at ground level that are the remains of habitation structures, rimmed house floors, and numerous lithic artifacts that include bifaces, retouched pieces, and many debitage flakes.



Figure 3. Cave of the Swimmers at the base of a large outcrop.

In the western Gilf Kebir region on the western edge of Egypt next to its border with Libya, we visited the *Cave of the Swimmers* (Figure 3), a site replicated for use in the movie *The English Patient*. The real site was too remote to film there. The name *Cave of the Swimmers* was bestowed on the site in 1933 when the explorers of the area saw the small pictographic humans in what they considered swimming and diving positions. However, later analysis has shown that these images more likely depict metamorphic trance flight. Analysis has dated these paintings between 6000 and 9000 years old.

North of the *Cave of the Swimmers* we visited the magnificent *Cave of the Beasts* site, which is also known by several other names including Zarzura/Foggini, Foggini-Mestekawi, and Wadi Sura II. This site came to the attention of the world about 2003 after being visited in 2002 by archaeologists Massimo Foggini and Jacopo Foggini under the guidance of Ahmed Mestikawi, a retired Colonel from the Egyptian army turned desert guide. In 2010, three years after we were there, the University of Cologne in Germany did an in-depth recording and analysis of the rock art at this site and noted over 5000 images painted in red, yellow, white and black, and some petroglyphs.

The complex paintings extend from below the floor to the overhanging ceiling. Images are superimposed so densely that sorting them out would have been time-consuming and detail-oriented work. There are humans with groups that are dancing and floating, like at *Cave of the Swimmers*. Animals include elephants, ostriches, gazelles, and giraffes, but no cows, which helped date the paintings to more than 7000 years ago. Some figures have both human and animal attributes, and there is a mythical headless beast, which gives the site its most common name.



Figure 4. Headless beasts and humans in the pictographs of Cave of the Beasts.

The beasts are always surrounded by humans (Figure 4). Recent researchers have noted that even though they are headless, some appear either to spit or swallow humans, and they found that many of the beast images were intentionally defaced in prehistoric times. Almost 900 negative hand stencils have been recorded at the site. Most hands are complete, but some have missing fingers. Thirteen of the small stencils (just a miniscule sample of the 900 total) are thought not to be human hands but instead made by humans blowing around the front foot of a monitor lizard (Honoré et al. 2016), which is native to Africa and has feet similar to human hands in shape.

The sand was relentless in its impact on equipment. Our tent zippers were some of the first items to go, and cameras took a beating; they had to be cleaned every night to keep them in working order. Getting stuck in the sand happened even with excellent drivers knowing how to drive in sandy conditions. All vehicles were equipped with strips of laced metal to put under the wheels to help get the truck unstuck. This process was then aided by all occupants of the truck pushing. It is similar to getting unstuck in snow, only with much warmer conditions. If you want to have this experience yourself, I encourage you to visit the web site András maintains for information: <http://www.fjexpeditions.com/>. If instead you want to learn more about the western desert sites from your couch, there are many publications available, and I encourage you to check Leigh Marymor's Rock Art bibliography on the University of Northern Arizona's website to get started.

Reference Cited.

Honoré, Emmanuelle, Thameur Rakza, Brigitte Senut, Phillippe Deruelle, and Emmanuelle Pouydebat 2016 First Identification of Non-Human Stencil Hands at Wadi Sūra II (Egypt): A Morphometric Study for New Insights into Rock Art Symbolism. *Journal of Archaeological Science: Reports* 6:242-247.

NOMINATING COMMITTEE MEMBERS NEEDED

The AAS Bylaws specify that a nominating committee of two or more members be solicited at the September meeting and present a slate at the October meeting. This is designed to assure that a board of directors does not become self-perpetuating. Please consider volunteering to become a member of the Nominating Committee or to accept one of the Board positions. Simply speak up at the September 21 meeting or contact info@abqarchaeology.org to find out what is involved in being on the Committee or the Board.

BOOK REVIEW

The Prehispanic Ethnobotany of Paquimé and Its Neighbors, by Paul E. Minnis and Michael E. Whalen. Tucson: University of Arizona Press, 2020, 256 pp. \$65 Hardcover (ISBN 9780816540792), \$65 eBook (ISBN 99780816542116)

Reviewed by Matthew J. Barbour

Because of the international border, Northwestern Mexico has often been of peripheral focus to archaeological research in the American Southwest. This should not be the case. The cultures of the region share strong similarities with those farther north and have every right to be discussed and considered within the greater narrative of Pueblo peoples.

Similarly, ethnobotany has been disrespected as a field of study within the archaeological discipline for over a century. Paraphrasing from Minnis and Whalen, the intentionally oversimplified explanation “they ate corn” is often given as a blanket statement before discussing esoteric differences in building methods, flaked stone procurement, and pottery typologies. Yet, all agree that agriculture was the key subsistence activity, dominating everyday life.

The Prehispanic Ethnobotany of Paquimé and its Neighbors seeks to erase this deficiency in our understanding of Northwest Mexico and ethnobotany through a detailed and thoughtful monograph on the subject that summarizes two decades of research in seven chapters accompanied by a substantial set of figures and tables. The authors have even included summary data by site context, thereby allowing readers to integrate and compare the authors’ findings with their own research.

The Introduction “Paquimé, Its Neighbors, and Ethnobotany,” while far from a comprehensive overview of the Paquimé region, describes the current project and provides a research framework for their studies that is principally focused on the Medio Period (ca. AD 1200 to 1450). The individual sites where the research was conducted are highlighted with an aerial photograph and basic site map.

This is followed by a discussion of the “Environmental Setting.” Here the authors describe a diverse environment consisting of several different topographic and biotic communities. Paquimé, being both the commercial and agricultural center of the larger region, was situated to best take advantage of these resources. They also discuss the impacts of modern industrial agriculture on the landscape.

To simplify and classify, the authors ultimately separated their archaeological sites into two general regions: lowlands (those located along and adjacent to flood plains and streams) and uplands. These regions are compared in “Foods: Domestic and Community.” It appears that agave was exploited (and likely cultivated) more commonly in the uplands, and cotton in the lowlands. These findings are not surprising, but the scale of agave processing appears to be on a level unknown until this time – and these are far from the only discoveries made. The monograph provides the only definitive evidence of cultivation of chile and little barley in the greater United States Southwest/Mexico Northwest region.

This discussion progresses to the “Farming” chapter, where the authors examine archaeological features documented in association with Medio Period agricultural production. Most of these features were documented in upland areas, as the flood plain of today is used primarily for industrial agricultural production. However, there is also a small ethnographic section which summarizes the results of speaking with modern-day farmers who toil in the lowland regions.

“Farming” is followed by “Wood Use.” Here the findings demonstrate a preference for pine both for construction and, more surprisingly, as a fuel source – even in lowland locations. The authors speculate about the latter, offering several different hypotheses that may account for the greater-than-expected use of pine for fires.

“Anthropogenic Ecology” is then examined. Given the authors’ focus on the Medio Period, it is unclear (but likely) that increased use of pine was the result of environmental degradation during earlier time periods. Change during the Medio Period, however, is far from certain, and in some instances the distribution of plant resources leads to more questions than answers regarding the state of the environment.

The “Conclusion” chapter is well-written and offers as a satisfactory summary of the results. It is followed by three data-filled appendices. Because this information is provided at the back of the book, it makes for an easy read that is suitable for most audiences, even those who have only a basic understanding the subject matter.

Minnis and Whalen deserve to be celebrated for this contribution to our understanding of the greater United States Southwest/Mexico Northwest region. *The Prehispanic Ethnobotany of Paquimé and its Neighbors* not only provides new and needed data regarding the ethnobotany but encourages a broader discussion that benefits the archaeological community as a whole.

NEWS AND NOTES FROM HERE AND THERE

Traditional Lands, Lithium, and Electric Vehicles. The Biden administration's push for electric vehicles has spurred a rush for the element lithium, which is needed for electric vehicle (EV) batteries. The Bureau of Land Management approved exploratory drilling operations in Arizona's Big Sandy River Valley, despite the Hualapai Tribe's opposition, after refusing to let the tribe participate in the planning process, despite the mine's likely impacts on sacred sites and burial grounds. The Hualapai are seeking legal recourse as drilling companies continue to ignore their objections.

In a similar dispute, two Native American groups joined a lawsuit against Lithium Americas Corporation. The Reno Sparks Indian Colony and *Atsa koodakuh wyh Nuwu* (People of Red Mountain), members and descendants of the Fort McDermitt Paiute and Shoshone Tribes, want to halt mining at *Pee hee mu'huh*, or Thacker Pass, a massacre site in northern Nevada. U.S. District Court Chief Judge Miranda Du recently ruled to allow excavation work to move forward for mining in Northern Nevada, siding with Lithium Americas Corporation "Primarily because the Tribes have not shown they are likely to prevail on their claim that BLM's decision not to consult them on the Project was unreasonable or made in bad faith, have not presented sufficiently specific evidence of irreparable harm that will likely occur if the HPTP proceeds, and ... the Court will deny the Motion," Du wrote in her opinion. As other Indigenous communities like the Hualapai Tribe continue their battles with energy behemoths over resource extraction, Du's ruling could set a dangerous new precedent. [*Brian Oaster in High Country News* via Southwest Archaeology Today, a service of Archaeology Southwest.]

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