PALEOCLIMATE, PLAYAS, AND THE PALEOINDIAN OCCUPATION OF THE NORTHERN JORNADA DEL MUERTO

Christopher W. Merriman

7:30 PM, Tuesday May 15, 2018
Albuquerque Museum of Art and History
2000 Mountain Road NW

The Pleistocene-Holocene transition (~15,000-8000 BP) was a period of significant climate fluctuation, mass extinction, and human expansion into the New World. Recently, much attention has been given to the effects climate change may, or may not, have had on Paleoindian hunter-gatherers – in particular the abrupt onset of near full glacial conditions during the Younger Dryas (12,900-11,700 BP). This presentation will discuss these climate fluctuations in reference to the Paleoindian occupation of the Northern Jornada del Muerto (NJM) in eastern Socorro County, New Mexico. Archaeologically this includes the Clovis, Folsom, Plainview, and Cody techno-complexes that respectively correspond in time with the Bølling-Allerød (B-A), Younger Dryas (YD), and Early Holocene (EH) climatic periods. The topics addressed will include new paleoclimate records from playas (ephemeral lakes) in the NJM, the Paleoindian archaeological record represented by the Robert H. Weber Collection, and the shifts in Paleoindian foraging strategies in response to Late Pleistocene-Early Holocene climate change. Stable isotope records from two playas in the NJM and speleothems from southeastern New Mexico indicate that there were abrupt transitions between the warm/dry B-A, the cool and wet YD, and the highly variable EH. The Weber Collection contains roughly 800 well-documented and tightly-provenienced Paleoindian projectile points from dozens of sites throughout the NJM, which allows for a big picture examination of Paleoindian occupation in relation to the paleoenvironmental setting. Juxtaposing the paleoclimate and archaeological records demonstrates a strong correlation between Paleoindian settlement and mobility patterns and climatically driven shifts in surface water availability.

Christopher Merriman is a Ph.D. candidate at the University of New Mexico with research interests focused on human paleoecology, hunter-gatherer archaeology, lithic technological organization, geoarchaeology, and paleoenvironmental reconstruction. His dissertation concerns Paleoindian responses to climate change in the Northern Jornada del Muerto in south-central New Mexico. He is also engaged in ongoing research projects in the Maya Mountains and the Toledo District of southern Belize, as well as the San Juan Mountains of Colorado.

Merriman was awarded the AAS Dudley King Scholarship in May 2015.
Vice President Evan Kay convened the meeting at 7:30. He welcomed one new member and four visitors and invited everyone to stay after the meeting to partake in refreshments provided by Pat Harris and Donna Rospopo.

**Meeting minutes:** There being no corrections or additions to the minutes, they stand as published.

**REPORTS**

**Vice President – Gretchen Obenauf:** She and Evan have a full slate of speakers for the rest of the year.

**Treasurer – John Guth:** We are on budget with a balance of $5952.00 in checking account. A balance of $11,486 for the Annual Meeting will cover all of the expenses and possibly even provide some profit for the donation fund.

**Archives – Karen Armstrong:** The group completed two collections – from Pueblitos and Chacra Mesa – and will work on the Los Aquajes, (LA 5) collection for approximately three weeks. Karen added that she has been researching these sites.

**Membership:** Mary Raje sent a third reminder to members who have not renewed, and we have a total of 157 members as of this date. Mary is looking for the person who took Lynn Black's membership form and fee.

**Rock Art – Dick Harris:** The rock art recording team goes out each Tuesday, weather permitting. During the past month two outings were cancelled due to weather. On one outing we continued recording at a very large site that will take at least a year to complete. Recording at this site has been suspended until the fall because of hotter temperatures there during the late spring and early summer. The team recorded a series of pictographs at another site. We took photographs of the pictographs and used a software package called Dstretch to enhance the images. This approach is moderately successful and additional details in some of the pictographs could be discerned after enhancement.

**Field Trips – Pat Harris:** The first trip of 2018 will be on April 28 under the leadership of Jim Walker from The Archaeology Conservancy. Sites include Tinaja, a thirteenth-century masonry pueblo and Scribe S Pueblo, both in El Morro Valley. An alternate site is San Marcos in case the current fires in El Morro Valley prevent entry into that area. Sign up and pay the $10.00 fee to Pat after the meeting.

**Pottery Southwest:** Haywood Franklin has received four articles with enough material for two full issues this year. The publication date will announced by Gretchen Obenauf when the first 2018 issue is ready.

**ONGOING BUSINESS**

**ASNM Annual Meeting – Nancy Woodward:** AAS is hosting the Annual Meeting for the Archaeological Society of New Mexico at The Nativo Lodge in Albuquerque on May 4–6. Information and registration forms are on the table outside and at the AAS and ASNM websites. Meals will be provided by Hotel Albuquerque. The keynote speaker on Friday is W.W (Chip) Wills. Eighteen people will be presenting papers Saturday morning and afternoon, and the Bandelier Lecture on Saturday evening will be delivered by Patricia Crown.

**ANNOUNCEMENTS**

**Homer Milford** announced that he had copies of the book *The Galisteo Basin and Cerrillos Hills* that he co-wrote with Paul Secord. It can be purchased after the meeting for $20.

The business meeting concluded at 7:45 PM.

**SPEAKER**

Gretchen introduced Lawrence Loendorf of Sacred Sites Research, Inc., who provided the following synopsis.
Horses on the Rocks

By Lawrence L. Loendorf

Rock images of horses are quite rare in the Albuquerque area. Examples at the Piedras Marcadas unit of Petroglyph National Monument include an example that may represent the oldest depiction of a horse and rider north of Mexico. The figure, first noticed by Matt Schmader, has a distinct boat-shaped body and L-shaped feet that turn up at the toes. The strange-appearing body may represent the armor that horses of Spanish soldiers were wearing in the middle sixteenth century, when it is suspected the image was made. The strange feet likely represent the fact that Native peoples in the Americas had never seen an ungulate track that was non-cloven until they saw a horse track.

Another site with a possible sixteenth-century horse is found in the Guadalupe Mountains in southern New Mexico. The horse has a wide body and thick neck, characteristics that do not resemble typical Indian ponies. The rider appears to wear body armor and carry a buckler-type shield, items that identify him as a Spanish soldier or conquistador. Three dogs with the rider indicate he had war dogs; these have attacked a group of Indians on foot, one of whom is on his back with parts of his legs missing. Surrounding red paint indicates it was a bloody affair. The scene appears to represent a raid by Spanish or Portuguese soldiers on an Indian village to obtain slaves.

The “War Dogs” scene reads from right to left, or the typical way that Plains Indians interpreted their biographic or narrative art. Part of the lecture included a description of ceremonial rock art versus biographic rock art and the significance of small details on rock art horses that allow viewers to identify the tribe that made them. Indeed, Crow Indian horses are so distinct from Blackfoot Indian horses that Jim Keyser has developed a series of measurements with degrees of angles that anyone can make to differentiate the two. Comanche horses are also very recognizable by unique attributes.

Navajo rock pictures of horses include two well-known sites in Canyon del Muerto, Arizona. The Narbona panel with the Spanish cavalcade is among the most distinctive canyon wall murals in North America. Painted by Navajo Little Lamb in the 1830s to 1840s, the scene shows Spanish Lieutenant Antonio Narbona on January 18, 1805 with his army that attacked and killed more than 100 Navajo women and children in Massacre Cave. The Ute Raid panel, at a nearby location, shows Ute horse riders attacking Navajo on foot in January 1858.

These detailed narrative scenes contrast with three horses on a Navajo star ceiling near Cuba, New Mexico. These horses and riders carry lances in pursuit of bison, in a hunting theme that is common at many rock art sites.

In the quest to find the oldest pictures of horses in the world, the magnificent examples in Chauvet Cave were presented with some discussion as to the controversy about their age. Because horses evolved in North America, there are horse bones in several contexts that are dated from the Miocene through the Pleistocene. Natural Trap Cave, a site with numerous horse bones, was described in the talk. Natural Trap is a sinkhole in Wyoming’s northern Bighorn Mountains that has recently come into the news because of new research into the DNA of the cave’s faunal remains.

Natural Trap Cave was initially investigated by a team of archaeologists under my direction, completing research in the Pryor Mountains of Montana and Wyoming. The first work in the Trap was in 1971 when we rappelled in to find ourselves standing in bones to our knees. In 1972, Carol Jo Rushin completed some test excavations in the Trap as part of her Master’s thesis at the University of Montana. Following this testing work, B. Miles Gilbert, University of Missouri and Larry Martin, University of Kansas, undertook major excavations to recover hundreds of bones that included four species of horses.

Some of these Pleistocene-age horses were hunted by Clovis peoples, but no rock art images of Paleoindian horses have ever been identified. There are some petroglyphs that might show camelids and perhaps mammoths, so there is always the chance that a rock art image of a Paleoindian horse will be found one day.
DENDROCHRONOLOGY IS SUBJECT OF NEXT AAS SEMINAR

The next AAS seminar will cover wood as an archaeological material. Tom Windes will discuss the fine points of his research using dendrochronology on Saturday morning, June 2. Signup for this seminar, limited to AAS members, will begin at the next monthly meeting on May 15.

MEMBERSHIP DIRECTORY FOR 2018–2019 TO BE DISTRIBUTED SOON

Mary Raje, Membership Chair, is preparing the new Membership Directory and asks that anyone who has not renewed for 2018 and wishes to remain a member send dues ($25 for digital Newsletter, $30 for print) to the Treasurer at Albuquerque Archaeological Society, PO box 4029, Albuquerque, NM 87196-4029. Include name, address, phone number and email. Membership forms are on the website or the last page of recent newsletters. Please be sure to indicate if you do not wish to be included in the Membership Directory.

NEXT AAS FIELD TRIP PLANNED FOR JULY 21, SIGNUP AT JUNE MEETING

Pat Harris, Field Trip Chair, announces that Forked Lightening Pueblo ruin at the Pecos National Monument is the destination of the next scheduled trip, July 21. It will be an early morning departure so that the visit can be enjoyed in the cool of the morning. Attendance is limited to 20 current AAS members. The trip involves a short walk on a road and then crossing Glorieta Creek (probably dry, but Pat will check) to reach the pueblo. She will have more details about it for the June newsletter. Again, there will be a $10 charge to sign up but signup will begin at the June meeting.

Pat reports that she has a number of idea and has been discussing some trips for the fall with Steve Patchett and Steve Rospopo.

SAPAWE CONFERENCE PLANNED FOR SEPTEMBER 7–9 IN EL RITO

“From Sapawe to Casitas” is the theme of a conference planned for September 7–9 at the El Rito Campus of Northern New Mexico College. The event, sponsored by El Rito Public Library, New Mexico Humanities Council, and the National Endowment for the Humanities, is free and open to the public, but advance registration, starting July 1, is required. The program includes presentations by Hayward Franklin (Ceramics), Tim Maxwell (Agriculture), Alan Skinner (Public Archaeology), David Snow (History of Casitas), Jun Sunseri (Community-Engaged Archaeology), and Tom Windes (Sapawe Archaeology). There will be field trips to Sapawe and Casitas, public participation and panel discussions, and Saturday evening keynote talk and dinner. Register after July 1: elritolibrary.org or call (575) 581-4608.

NEWS AND NOTES FROM HERE AND THERE

Footprints preserve terminal Pleistocene hunt? Human-sloth interactions in North America. Predator-prey interactions revealed by vertebrate trace fossils are extremely rare. The authors present footprint evidence from White Sands National Monument in New Mexico for the association of sloth and human trackways. Geologically, the sloth and human trackways were made contemporaneously, and the sloth trackways show evidence of evasion and defensive behavior when associated with human tracks. Behavioral inferences from these trackways indicate prey selection and suggest that humans were harassing, stalking, and/or hunting the now-extinct giant ground sloth in the terminal Pleistocene. [The full text is available at http://advances.sciencemag.org/content/4/4/eaar7621.]
CALENDAR CHECK

Conferences

Pecos Conference August 9–12 in Flagstaff, location TBA. Check the website <pecosconference.org> for announcements coming soon.

Sapawe Conference “From Sapawe to Casitas” September 7–9, El Rito Campus, Northern New Mexico College. Free and open to the public, but advance registration required. Register after July 1: elritolibrary.org or call (575) 581-4608. You can show your interest on Facebook: www.facebook.com/pages/El-Rito-Public-Library/.

Mogollon Conference October 11–13 at Corbett Center, New Mexico State University, Las Cruces. Call for papers on the archaeology of the Mogollon region. Deadline for submissions August 1. See the website <lonjul.net/mog2018/> for details.

New Mexico Archeological Council Fall Conference “The Archaic Period,” November 10 at the Hibben Center, UNM Campus. Call for papers.

ALBUQUERQUE ARCHAEOLOGICAL SOCIETY

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