



Sacramento Archeological Society, Inc. Newsletter

www.sacarcheology.org.

July/August - 2024

UPCOMING EVENTS CALENDAR

Please note the following events for the next two months.

July 13, 2024 – Saturday 2:00 – 3:30 PM PT **SAS Webinar** “Diving into the Archaeological Mystic – A Taíno Underworld and Sacred Landscape in the Caribbean”, John Foster at UCD, Young Hall, Room 224 and Zoom

July 27, 2024 - Saturday 1:00 – 6:00 PM PT Sixth Annual **SAS Pool-Party/Pot-Luck/Social**
Dan and Victoria Foster’s home

July 27, 2024 – Saturday 11:00 – 1:00 **SAS Board Meeting** Dan and Victoria Foster’s home

August 10, 2024 – Saturday 2:00 – 3:30 PM PT **SAS Webinar** “Mimbres Culture – Past and Present” by participants of SAS Mogollon Tour

See announcements: <https://sacarcheology.org/announcements/> for **webinar access information** and calendar: <https://sacarcheology.org/archaeology-activities/calendar-of-events/> for the complete set of events in our website: www.sacarcheology.org.

For all SAS Webinars friends are welcome and also invited to join our organization. There is no participation fee.

SCHOLARSHIPS AWARDED

Each year Sacramento Archeological Society is pleased to award scholarship to students who are pursuing a career in anthropology/archaeology. This year we received 22 applications from which nine scholarships were awarded. The scholarships in amounts varying from \$500 to \$1000 will be used by students for their graduate research or attendance at field schools.

These scholarships are funded by generous donations from members of the society. Without the support of these donors the scholarships would not be possible. Thank you!

The scholars who received scholarship will be giving talks on their research/archaeological experiences to SAS in 2025. The scholarship recipients are listed as follows in alphabetical order.

Katie Bakun, University of California, Berkeley Graduate and student at Peralta Community College

Katie will be attending the Range Creek Field School held in Utah. This school will provide her a key step toward graduate school and a career in archaeology.

Annabella Garcia, Senior at California State University San Bernardino

Annabella will be attending the Slavia Field School in Mortuary Archaeology in Poland. Her career goal is to become a Forensic Anthropologist. This field school will provide the opportunity to identify skeletal remains and procedures associated with the field of forensics.

Morgan Hall, Graduate student at University of California, Davis

Morgan will be accompanying Luis Flores Banco, principal investigator of an excavation at the site of Kaillachura, Peru. This 4000-year-old site consists of several mounds used for burial purposes. Her focus during this excavation will be faunal assemblages. Given this is her first year in the PhD program at UC Davis, this fieldwork opportunity will serve as training for her research interest in zooarchaeology and Andean archaeology.

Hayley Kievman, Graduate student at University of Utah

A recent discovery of a ~10,500-year-old site in the California Bay Area with a substantial record of human skeletal material including 40 burials and faunal remains provides a unique opportunity to compare two distinct measures of past diet: isotopes and fauna. Hayley will use UCD Lab to analyze 10-15 samples from third molars from 20 individuals to reconstruct diet the period of third molar development. The Muwekma Ohlone Tribe of San Francisco Bay Area has agreed to the research of this material.

Diana Malarchik, PhD candidate at University of California, Davis

Diana is continuing the research for her dissertation which addresses life history and health patterns in different ethnic and economic classes in the San Francisco Bay area during the 19th century. She will use proteomic analysis of the teeth enamel to assess sex of 10 individuals buried in the Santa Clara Valley Medical Facility. The SAS scholarship supports this proteomic analysis.

Erin Mooneyham, Graduate student at University of California, Davis

Erin will be volunteering at the UC Davis archaeological field school at Blue Oaks Ranch Reserve. As a volunteer she will be able to use her understanding of archaeology and experience in mapping and survey to assist students the field school. Since she has primarily done lab work in her career, this volunteer work will help her gain field experience.

Jessica Morales, PhD candidate at University of California, Davis

Jessica is continuing the research for her dissertation which reconstructs the human-canid relationship in prehistoric California. She has used a combination of zooarchaeology, geometric morphometrics, and archaeometry to do this research. The SAS scholarship supports the proteomic analysis of to access sex of a sample of eight prehistoric canids.

Brooke Morey, Master's student in Egyptology at Indiana University

Booke is exploring the early childhood diet patterns at a Roman period (30 BCE – 641 CE) site on El-Hesa Island, Egypt. She will be using the scholarship to fund isotopic and proteomic analysis of teeth from 32 individuals buried on El-Hesa. A sample of teeth from four will be used to access dietary composition and age at weaning. Another sample of five individuals will be analyzed to identify their sex. The work will be performed in the UCD Lab.

Brandon Yam, Junior at Hamilton College, New York

Brandon received the Memorial Scholarship. He will be attending the Crow Canyon Field School and will be participating in the further excavation of the Haynie site, Cortez, Colorado.

UPCOMING EVENTS

SAS Webinar

“Diving into the Archaeological Mystic – A Taíno Underworld and Sacred Landscape in the Caribbean”

by

John Foster

Saturday, July 13, 2024

2:00 PM – 3:30 PM PT

John Foster, past-president of SAS, retired California Senior State Archaeologist, and Adjunct Faculty at Indiana University will discuss a fascinating submerged archaeological site in the Dominican Republic. Working with underwater archaeologists and Dominican National Park specialists, a deep water sinkhole was documented and selected artifacts were recovered some 27 years ago. In a remote setting deep within the tropical forest, Manantial de la Aleta proved to be a Taino offering site with excellent preservation conditions that allowed a deeper understanding of Taino culture and beliefs. It remains the only “cenote” known from the Caribbean.

The presentations will be presented at Young Hall, Room 224 and available via Zoom. The webinar will start at 2:00 PM PT and formally conclude at 3:30 PM. You may join starting at 1:45 PM to say “Hello” and participate in a social time.

Sixth Annual SAS Pool-Party/Pot-Luck/Social

Saturday, July 27, 2024

1:00 – 6:00 PM PT

Dan and Victoria Foster's home

Dan and Victoria Foster have again offered their home for this event. This is a chance to socialize with fellow SAS members. Friends are of course welcome.

Bring your favorite dish and swimming suit. Please **RSVP** to Dan Foster at calfirearchy@gmail.com or (279) 444-2099 to log your attendance, obtain a parking map and sign up for a dish. There will be plenty of parking close to their house. Dan can offer a map showing the best places to park (really close to their home). A reminder with Dan and Victoria's address will be provided before the event.

SAS Webinar

“Mimbres Culture – Past and Present”

by

Mogollon Tour Participants

Saturday, August 10, 2024

2:00 PM – 3:30 PM PT

Learn about the Mimbres Culture as it flourished in southwestern New Mexico and adjacent areas in Arizona and northern Mexico. The roots of Mimbres culture beginning around 200 CE when residents lived in pit houses. Between 1000 CE and 1130 CE, the Classic Mimbres period people produced the famous Mimbres Black-on-white pottery and lived in pueblo villages. After 1130 CE potters stopped making the Black-on-white pottery and dispersed.

Several participants of the June SAS Mogollon Tour will discuss Mimbres culture as it developed, ended and lives on today. This panel will highlight their visits to several major Mimbres sites including Mimbres Old Town, Mattocks, Elk Ridge, Mitchell, Treasure Hill, and Gila Cliff Dwellings. Pictures of beautiful Mimbres pottery from two museums will also be included. Rock art from Pony Hills and China Draw will be featured. Don't miss this opportunity to delve into the Mimbres aspect of the Mogollon Culture.

The presentations will be presented via Zoom. The webinar will start at 2:00 PM PT and formally conclude at 3:30 PM. You may join starting at 1:45 PM to say “Hello” and participate in a social time.

PAST EVENTS

SAS Tour – “Locke, California - *America’s Last Remaining Rural Chinatown*”

On Saturday, May 4, 2024 in spite of rain 17 SAS members ventured to Locke, California to enjoy a tour of the Chinese town. They assembled in the Locke Boarding House Museum to hear first about the history of Locke by historian and member of the Locke Foundation, Alfred Yee. He relayed that Locke was established in 1915. It provided a location for Chinese farm workers to stay during the harvest season. Over the years it expanded to support all aspects of local agriculture including harvesting, canning, packing and shipping. The area was prime for agriculture and drew support from railroads to take the products to market. The town with 600 residents at its height in 1920s was primarily occupied by Chinese (90%). Chinese discrimination segregated the Chinese into this location. It had 5 gambling houses, brothels, an opera, restaurants, and markets. Now it is a National Historic Landmark and its population is about 70. After exploring the boarding house in the rain we walked down Main Street and visited the Chinese school and two gambling houses turned into museums. The tour ended at Al’s, a restaurant where all enjoyed lunch.

Pictures taken on the tour can be found in our website, <https://sacarcheology.org/archaeology-activities/sas-archives/>.

Webinar – “On the Origins of Maize”

On Saturday, May 11 Dr. Jeffery Ross-Ibarra, Evolutionary Biologist at University of California, Davis discussed the evolution of maize to an audience at Young Hall, UCD and a remote group via Zoom. He first talked about the diversity of corn in height of stock, size, number and color of kernels, and adaptability of the plant to growing conditions. Then he discussed how the model describing the evolution of maize may be more complicated than originally thought. Maize evolved from a wild grass, *Zea mays ssp. parviglumis* (lowland teosinte) in southwest Mexico about 9000 years ago. But there is revealing evidence of gene flow from another wild relative, *Zea mays ssp. mexicana* (highland teosinte) around 4000 years post-domestication. A teosinte ear is only 2 to 3 inches long with five to 12 kernels--compare that to corn's 12-inch ear that boasts 500 or more kernels. Teosinte kernels are also encased in a hard coating, allowing them to survive the digestive tracts of birds and grazing mammals for better dispersal in the wild. Dr. Ross-Ibarra discussed the domestication gene *tga1*, using population genetic analysis and simulations to show that relevant diversity at this key locus likely predated domestication.

SAS Tour - *Mogollon Culture: Arizona and New Mexico*

The tour started on Monday, June 10 and ended on Saturday, June 15. A group of seven SAS members participated in the tour. The tour was led by Jan Johansen and Denise Ruzicka. We thank the tour guides: Mike for Casa Malpais; Trinity, Paula and Martin for Old Town; Marilyn for Mimbres Culture Heritage Site, Elk Ridge, Mitchell, and Treasure Hill; Dana and Jonah for TG; Marianne for Western New Mexico University Museum and Peggy for Deming-Luna Museum.

Their commentary truly amplified the experience. We also thank Archaeological Conservancy for their site accesses. A list of the 19 sites visited and their location near modern cities follows.

Besh Ba Gowah, Globe, AZ

Kinishba Ruins, Fort Apache, AZ

Casa Malpais, Springerville, AZ

Mogollon, NM

Old Town Mimbres, near Deming, NM

Mimbres Culture Heritage site (Mattocks Archeological Site, Mimbres Museum), Mimbres, NM

Elk Ridge (GNF and Archaeological Conservancy site), Mimbres Valley, NM

Mitchell (Nature Conservancy site), Mimbres Valley, NM

Gila Cliff Dwellings, Trail to the Past and TJ site NM

Lake Roberts Vista Site near Gila Cliff Dwellings NM

Treasure Hill (Archaeological Conservancy site) Silver City, NM

Western New Mexico University Museum, Silver City, NM

Deming-Luna Mimbres Museum, Deming, NM

City of Rocks Rock Mortars, near Deming, NM

Dragonfly Petroglyphs, near Silver City, NM

Pony Hills Petroglyphs, near Deming, NM

China Draw Petroglyphs near Deming, NM



Group at Old Town



Mattocks Archeological Site



Gila Cliff Dwellings



Dragonfly petroglyph



Pony Hills petroglyph



China Draw petroglyph

Photos are provided by Jan Johansen. More information on the tour can be found in our website, <https://sacarcheology.org/archaeology-activities/sas-archives/>.

MEMBER'S CORNER

Memberships

We thank everyone who has renewed your membership and welcome new members: Jack Gouge and Joe Hodulik.

Annual Memberships

All memberships are renewable on **January 1** annually except for those who joined recently (after September 1 of the previous year). Please support the society by promptly paying your **2024** dues. **Remember your dues help make scholarships possible.** We keep overhead low so that the funds can be used to support students. You may now use our web site <https://sacarcheology.org/society-membership/pay-dues/> to renew and make payment using a **credit card or Paypal.** Remember a membership benefit is email receipt of archaeological/anthropological articles and notices of related events.

The annual dues are:

Student/Limited Member	\$15
Individual Membership	\$30
Family Membership	\$40
Sponsor	\$100 - 999 (individual) \$500 - 999 (business)
Patron	\$1000

Alternatively, please make out your check to “**Sacramento Archeological Society, Inc.**” and mail it to:

Sacramento Archeological Society, Inc.
P.O. Box 163287

Sacramento, CA 95816-9287

We really appreciate your support.

Annual Dues for 2024

Name(s): _____ Email: _____ Phone: _____

_____ Email: _____ Phone: _____

Address:

Student/Limited Member	\$15	_____	\$_____
Individual Membership	\$30	_____	\$_____
Family Membership	\$40	_____	\$_____
Sponsor	\$100	_____	\$_____
Scholarship Donation			\$_____

Total enclosed \$_____

Major Donors for 2023/4

We are pleased to acknowledge our major contributors for 2023. These donations support our scholarship program.

Patron (\$1000 or more)

Dennis Fenwick and Martha Lewis
Jan and Tom Johansen
Ruth McElhinney
Carolyn and Gordon McGregor

Sponsor (\$100 - \$999)

OSISoft a division of AVEVA
Lynette Blumhardt
Jeannie Coy
Penelope Coy
Paul K. Davis and Knuti VanHoven

George W. Foxworth
Jeremy Johansen
Tori Lyon
Roger and Lydia Peake
Diane Sangster

ARCHAEOLOGICAL REFERENCES

Recent Articles

The reviewed article(s) chronologically presented (oldest subject first) are:

- “Lucy’s World – Fifty years after her discovery, the 3.2-million-year-old fossil still reigns as mother of us all. But she now has rivals”
- “East-to-west human dispersal into Europe 1.4 million years ago”
- “Rare wooden artifacts show the smarts of early Neanderthals”
- “When Neanderthals met moderns”
- “Family lines and political shifts in the Avar empire – Genetic pedigrees spanning nine generations uncover the social organization of a nomadic empire that dominated much of central and eastern Europe from the sixth to the early ninth century
“Network of large pedigrees reveals social practices of Avar communities”
- “Rice’s trajectory from wild to domesticated in East Asia”
- “Deep history of the Blackfoot Confederacy”
- “U.K. boosts digitization of museum specimens – London’s Natural History Museum gets nearly \$200 million to scan country’s collection”

“Lucy’s World – Fifty years after her discovery, the 3.2-million-year-old fossil still reigns as mother of us all. But she now has rivals”

“The 3.18-million-year-old Lucy reigns as the matriarch of the human family ever since she was discovered to be the earliest known ancestor of our genus, *Homo*. On 24 November 1974, Lucy was found by Don Johanson, an American paleoanthropologist at the Cleveland Museum of Natural History. Don had joined an expedition at Hardar organized by late French geologist, Maurice Taieb. Johansen and student Tom Gray were ending a day when Johansen saw a bit of Lucy’s arm bone on a hill in a dry gully. Next he spotted a skull piece, a thighbone, part of a pelvis, and vertebrae: a rare partial skeleton.

Since the discovery of Lucy, more than 400 newer fossils of males and females,, as well as the Kikika child, have revealed how her species, *Australopithecus afarensis*, grew, socialized, and evolved during its million-year-span on the planet, from perhaps 3.85 million to 2.95 million years ago. Members of her species didn’t take their first upright steps in open savanna grasslands, as her discoverers thought, but walked first in grassy woodland with deciduous trees. She and her kind weathered climate change, adapted to different habitats over the millennia. Most important she wasn’t alone in the landscape. Yohannes Haile-Selassie, director of the Institute of Human Origins at Arizona State University think that 3 million to 4 million years ago, the human family tree was more like a bush than a bonsai, with multiple stems growing side by side rather than a single trunk.” (Ann Gibbons, *Science*, V384, 2024-4-5 pp. 19-25)

“East-to-west human dispersal into Europe 1.4 million years ago”

“Stone tools stratified in alluvium and loess at Korolevo, western Ukraine have been studied by several research groups since the discovery of the site in the 1970s. Although Korolevo’s importance to the European Palaeolithic is widely acknowledged, age constraints on the lowermost lithic artifacts have yet to be determined conclusively. In this article, using two methods of burial dating with cosmogenic nuclides the researchers report ages of 1.42 ± 0.10 million years and 1.42 ± 0.28 million years for the sedimentary unit that contains Mode-1-type lithic artifacts. Korolevo represents the earliest securely dated hominin presence in Europe and bridges the spatial and temporal gap between the Caucasus (around 1.85-1.78 million years ago) and southwestern Europe (around 1.2-1.1 million years ago). Their findings advance the hypotheses that Europe was colonized from the east, and their analysis of habitat suitability suggests that early hominins exploited warm interglacial periods to disperse into higher latitudes and relatively continental sites—such as Korolevo—well before the Middle Pleistocene Transition.” (R. Garba *et al.*, *Nature*, V627, 2024-3-28 pp. 805-810)

“Rare wooden artifacts show the smarts of early Neanderthals - Complex tools from 300,000-years-old deposit at Schöningen in Germany point to a “wood age””

“About 300,000 years ago, bands of early hominins visited the shores of an ancient lake to hunt, sometimes dropping tools or weapons into the shallow water and mud. *Proceedings of the National Academy of Science* present information from the site, called Schöningen 13. Excavation at Schöningen 13 ended in 2008, although research continued. Starting in 2021, researchers took a close look at more than 700 pieces of wood from the site, from broken spear shafts to twigs. They used microscopes and photographed the wood under carefully angled lights to highlight traces of wear or cut marks, constantly spraying the artifacts with water to prevent drying and cracking. The team eventually identified 187 pieces of wood that showed signs of carving or splitting. Of those more than 50 were identifiable tools. Twenty were related to hunting including more spears but also finely balanced throwing sticks for downing small game or birds. Another 35 pieces were domestic tools: rounded split sticks probably used for smoothing animal skins, pointed tools for piercing or working hides and shafts that likely served as handles for axes or stone blades.

Close analysis of the artifacts revealed the early woodworkers made careful decision and planned ahead at nearly every step. A reexamination of the spears, for example, shows that their makers followed a specific sequence of steps: They stripped bark, removed branches, sharpened and smoothed the spears, and hardened them in fire. They used dense wood closest to the tree base as the end of the spear. They weren’t using any old sticks. The spears and other tools were carved from spruce, larch and pine, species that grew many kilometers away from the lake and combined hardness with elasticity.

The site lacks hominin bones, but most scholars assume the toolmakers were early Neanderthals or their immediate ancestor *Homo heidelbergensis*, because it coincides with the earliest evidence for Neanderthals elsewhere in Europe. Ample animal bones leave no doubt they were hunting horses.” (Andrew Curry, *Science*, V384, 2024-4-5 pp. 13-14)

“When Neanderthals met moderns”

“Most people alive today carry traces of genes inherited from Neanderthals—the enduring legacy of prehistoric hookups with our extinct cousins. But researchers have debated when and how often that interspecies mingling happened. Now an extensive analysis of ancient and modern genomes suggest contemporary people’s Neanderthal DNA came from a single pulse of mixing about 47,000 years ago lasting about 6000 years. The research team examined genomes from 59 ancient *Homo sapiens* individuals, mostly from Western Europe and Asia, dating from between 45,000 and 2200 years ago. The scientists identified regions of Neanderthal DNA contained in them and in genomes from 275 present-day individuals from around the globe; they then computed how many generations would be needed for the genomes to evolve as they did. The finding, reported in *bioRxiv preprint*, may help pin down the timing of major migration events, such as when *H. sapiens* arrived in Australia. Because Indigenous Australians today carry the same Neanderthal DNA as other non-African populations, it suggests they arrived no earlier than 47,000 years ago.” (*Science*, V384, 2024-5-24 p. 831)

“Network of large pedigrees reveals social practices of Avar communities”

“From AD 567-568, at the onset of the Avar period, populations from the Eurasian Steppe settled in the Carpathian Basin for approximately 250 years. Extensive sampling for archaeogenomics (424 individuals) and isotopes, combined with archaeological, anthropological and historical contextualization of four Avar-period cemeteries, allowed for a detailed description of the genomic structure of these communities and their kinship and social practices. The researchers present a set of large pedigrees, reconstructed using ancient DNA, spanning nine generations, and comprising around 300 individuals. They uncovered a strict patrilineal kinship system, in which partilocality and female exogamy were the norm and multiple reproductive partnering and levirate unions were common. The absence of consanguinity indicates that this society maintained a detailed memory of ancestry over generations. These kinship practices correspond with previous evidence from historical sources and anthropological research on Eurasian Steppe societies. Network analyses of identify-by-descent DNA connections suggest that social cohesion between communities was maintained via female exogamy. Finally, despite the absence of major ancestry shifts, the level of resolution of their analyses allowed them to detect genetic discontinuity caused by the replacement of a community at one of the sites. This was paralleled with changes in the archaeological record and was probably a result of local political realignment.” (Guido Alberto Gnecci-Ruscione *et al.*, *Nature*, V629, 2024-5-9 pp. 287 376-383)

“Rice’s trajectory from wild to domesticated in East Asia”

“Rice (*Oryza sativa*) serves as a staple food for more than one-third of the global population. However its journey from a wild gathered food to domestication remains enigmatic, sparking ongoing debates in the biological and anthropological fields. In this article researchers present evidence of rice phytoliths sampled from two archaeological sites in China, Shangshan and Hehuashan, near the lower reaches of the Yangtze River. They demonstrate the growth of wild rice at least 100,000 years before present, and its exploitation as a gathered resource at about 24,000 years before present, its predomestication cultivation at about 13,000 years before present and eventually its domestication at about 11,000 years before present. These developmental stages illuminate a protracted process of rice domestication in East Asia and extend the continuous records of cereal evolution beyond the Fertile Crescent ” (Jianping Zhang *et al. Science*, V384, 2024-5-24 pp. 901-906)

“Deep history of Blackfoot Confederacy”

“Genomic analysis of the ancient Indigenous peoples of North America has proven invaluable in charting the peoples of the continent. By studying the genomes of modern Blackfoot individuals and historical remains and then comparing them with other ancient genetic lineages. First Rider *et al.* discovered a previously unidentified genetic lineage that diverged from others in the late Pleistocene. These findings are consistent with the oral traditions of Blackfoot peoples that assert their deep temporal presence in North America. The authors further suggest that by demonstrating the antiquity of their presence, their findings may assist members of the Blackfoot Confederacy in enhancing treaty negotiations and expanding indigenous rights. *Sci. Adv.* (2024 10.1126/aciadv.ad16595)” (*Science*, V384, 2024-4-5 p. 44)

“U.K. boosts digitization of museum specimens - London’s Natural History Museum gets nearly \$200 million to scan country’s collections”

“Beginning in 2026 the U.K. government will provide £155 million over 10 years for the natural History Museum in London to put the majority of the country’s natural history collection online. The U.K. funding should help boost an EU-funded effort called the Distributed System of Scientific Collections. It hopes to put online an estimated 1.5 billion specimens, including U.K. species, belonging to 170 museums, universities and botanical gardens across 23 counties.” (Elizabeth Pennisi, *Science*, V384, 2024-4-5 p. 17)

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