



Sacramento Archeological Society, Inc. Newsletter

www.sacarcheology.org.

June /July/Aug - 2023

UPCOMING EVENTS CALENDAR

Access calendar: <https://sacarcheology.org/archaeology-activities/calendar-of-events/> for the complete set of events in our website: www.sacarcheology.org.

June 2023

June 12, 2023, Monday 5:00 – 6:00 PM PDT – **SAS Webinar** Melissa Darby, archaeologist at Lower Columbia Research and Archaeology, “Sir Francis Drake landed in California?”

July 2023

July 29, 2023 – Saturday, 1:00 – 6:00+ p.m. PT - **Fifth Annual SAS Pool-Party/Pot-Luck/Social** at Dan and Victoria Foster’s home

August 2023

August 14, 2023, Monday 5:00 – 6:00 PM PT - **SAS Webinar** Jessica Weinmeister, graduate student at New Mexico State University – “X Marks the Spot: Mapping as the Key to Unlocking the Crosspatch Site's Past”

August, Saturday – Flintknapping at Roger and Lydia Peake’s home

See announcements: <https://sacarcheology.org/announcements/> for **webinar access information**.

SCHOLARS ANNOUNCED

Yearly Sacramento Archeological Society has the pleasure to award scholarship to students who are pursuing a career in anthropology/archaeology. This year we received 23 applications from which a record nine scholarships were awarded. The scholarships in amounts varying from \$300 to \$1500 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 2024. The scholarship recipients are listed as follows in alphabetical order.

Lauren Castaneda-Molin, Graduate student at University of California, Davis

She will be attending a field school at Blue Oaks Ranch Reserve. In addition to receiving training in archaeological survey and excavation methods, data generated during this excavation will form the basis for her MA project. She is interested to understand how early cattle ranchers (ca. 1838 – early 1900s) and their cattle impacted the local ecosystem. The SAS scholarship supports her attendance at this field school.

Edgar Huerta, PhD Candidate at University of California, Davis

He will be continuing work on his dissertation which with the established permission from the Ohlone tribe focuses on the effects of population pressure and drought in the Middle Period (2,100 to 930 cal B.P.) and the Middle-Late Transition Period (930 to 685 cal B.P.) in the San Francisco Bay region. By extracting collagen and apatite from bone and teeth from two archaeological sites in the San Francisco Bay region, CA-ALA-554 and CA-ALA-695 and submitting the samples to the UC Davis Stable Isotope Facility for $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ analysis he plans to identify dietary variations of juvenile and adults; hence, he can assess the impact of an abundance or lack of resources during these periods. The SAS scholarship supports the isotope analysis.

Emily S. Johnson, PhD student at University of California, Santa Barbara

She will continue her dissertation research and expand archaeological knowledge of the relationship among agricultural intensification, climate change, and social difference by excavating wetland agricultural fields at Rio Azul and the Three Rivers Region in Guatemala and Belize. She will collect soil samples that will be analyzed in the field for macrobotanical remains and ship 100 mL of select soil samples to the Integrated Subsistence Laboratory at UC Santa Barbara to be analyzed for microbotanical remains such as starch granules and phytoliths. In Mexico previously excavated ceramic sherts from Tres Zapotes will be sampled for food residues that have the potential to suggest changes in foodways that took place at the site across a period of 2,000 years. The SAS scholarship supports her collection of soil samples.

Katilin Jones, Junior at California State University Sacramento

She is planning to attend the San Juan Totah Archaeological Project Field School in 2024. This field school fits her interests to study prehistoric and indigenous archaeology. The SAS scholarship supports her attendance at this field school.

Roxanne Lois Lamson, Graduate student at University of California, Davis

She will work on her dissertation by using isotope analysis to investigate the climatic impacts on the spatial distribution of burial goods at Ban Non Wat, an archaeological site located in northeast Thailand which was occupied from 1750 BC to AD 500 and contains 700 burials including associated grave goods such as shell beads. An isotopic study on these beads indicated freshwater and saltwater sourcing correlated with distinctive morphology.

Furthermore, individual burials contained shells from different sources indicating the presence of an exchange system. She proposed to use Strontium isotope analysis to indicate the sourcing of these shells and $^{13}\text{C}/^{18}\text{O}$ isotope analysis for climatic reconstruction. The SAS scholarship supports the isotope analysis.

Diana Malarchik, PhD candidate at University of California, Davis

She continues 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.

Thomas J. Synder, PhD student at University of California, Davis

He expands his dissertation research by traveling to Peru and studying the human skeletal remains excavated from the archaeological site, Yaracachi, a cemetery site used from the 13th to 15th centuries, during a period of sociopolitical and ecological reorganization. This dissertation proposes to provide bioarchaeological reconstructions of diet, violence and demography to suggest how subsistence strategies changed during periods of drought. The SAS scholarship supports his travel to Peru to work with the human skeletal collection.

Brianna Rairez, Senior at New Mexico State University

This summer she will be attending the Blackfriary Archaeology Field School for the Certificate in Archaeological Excavation and Recording with osteology. This field school is specialized to further her interest in bioarchaeology, forensics, and human skeletal biology. SAS supports her attendance at this field school.

Noor Sullivan, Graduate student at University of Maryland, College Park

Noor received the Barham scholarship to attend the Gallina – Puebloan Rebels of the Southwest archaeology field school. He wants to expand his technical skills in archaeology to pursue a career in community collaboration and consultation for cultural resource management. SAS supports this attendance at this field school.

UPCOMING EVENTS

SAS Webinar

“Sir Francis Drake Landed in California?”

by

Melissa Darby

Monday, June 12, 2023

5:00 PM – 6:00 PM PT

English Navigator and sometime pirate Francis Drake and his crew of eighty men, and one Black woman named Maria, were in peril in the early summer of 1579. Their ship, the *Golden Hind*, was leaking, and they were searching an uncharted coast for a safe harbor. Though Drake had captured several tons of Spanish treasure, this voyage was not a piratical adventure: Drake was on a secret mission for Queen Elizabeth. He was to explore the west coast of America to find lands to claim for England in regions beyond the possessions of any ‘Christian Prince’; and to ‘seek the strait’ — the entrance to the fabled Northwest Passage. Failing to find the passage, and in danger of sinking, they had to find a bay or harbor that fit the necessary requirements for careening a wooden ship. Sailing south, they found a ‘fair & good bay’ where they spent most of the summer. Though Drake’s logs and charts are long lost, various narratives of the landing survive. Some of the confusion about where Drake landed is because the original sources don’t agree on the location of the fair bay. So the debate has come down to what original source was considered more authoritative; the official account by Queen Elizabeth’s appointed publisher, Richard Hakluyt, who put the bay at 38° north around San Francisco or two contemporary manuscripts that describe that Drake came in on the prevailing winds and currents at about 48° north and his fair bay stood at 44° north latitude.

Melissa Darby is an award-winning historian and anthropologist, and affiliated research faculty in the Anthropology Department at Portland State University. She is principal investigator and sole proprietor of Lower Columbia Research & Archaeology. Darby has worked for over forty years in the Northwest and is a noted authority on the ethnohistory of the Native people of the lower Columbia River region. Her research on Native American cultures of the area includes important works on settlement patterns, plankhouse architecture, and plant foods used by the indigenous people of the region. She has contributed substantially to our understanding of the Native peoples and the world they inhabited prior to European colonization. Her book *Thunder Go North the Hunt for Sir Francis Drake’s Fair & Good Bay* was published by the University of Utah Press in 2019 and is about the mysterious and vexed question of where Francis Drake landed the *Golden Hind* in the summer of 1579.

Friends are welcome and also invited to join our organization. There is no participation fee.

The webinar will start at 5:00 PM PT and formally conclude at 6:00 PM. You may join starting at 4:40 PM to say “Hello” and enjoy a social time. See announcements:

<https://sacarcheology.org/announcements/> for **webinar access information**

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

Saturday, July 29, 2023

1:00 – 6:00+ p.m.

Dan and Victoria Foster's home

Dan and Victoria Foster have again offered their home for this event.

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. Friends are welcome and also invited to join our organization.

SAS Webinar

“X Marks the Spot: Mapping as the Key to Unlocking the Crosspatch Site's Past”

by

Jessica Weinmeister

Monday, August 14, 2023

5:00 PM – 6:00 PM PT

The Crosspatch Site (5DL858, formerly Carvell Site and Berry Ruin) is a large Ancestral Pueblo community center with Basketmaker through Pueblo II components. Crosspatch is located between the Central Mesa Verde region and southeast Utah and has influence from Kayenta and Chaco. **Jessica Weinmeister's** Master's thesis addresses the question whether flaked stone tools were made at the site and/or exchanged and whether these behaviors changed over time. To gather data for this research Jessica and crew conducted field work at Crosspatch including site mapping and collecting of ceramics and lithics in June 2022. In this presentation Jessica will introduce the Crosspatch Site and share her research results.

Jessica Weinmeister graduated from New Mexico State University (M.A. May, 2023). She received her B.A. *Summa cum Laude* in Anthropology from Western Colorado University. She will be pursuing her PhD at Binghamton University under Ruth Van Dyke's supervision starting this fall. Her professional experience includes Museum Graduate Assistant at the University Museum, New Mexico State University, Los Cruces, NM; Public Archaeology Intern at Crow Canyon Archaeological Center, Cortez, NM, and Cultural Resource Management at Woods Canyon Archaeological Consultants, Cortez, CO and Western Colorado University, Gunnison, CO. Her field work included Maya Archaeological Field School and Haynie and Dillard excavation sites through Crow Canyon Archaeological Center, Cortez. Her independent research included Ceramics Analysis Research Project and Lithic Analysis Honor Thesis, and Lithic Analysis Research Project where she analyzed flaked stone tools from the Crosspatch site. She has two publications.

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SAS Flintknapping

A flintknapping hands-on event is being planned. As the details develop additional information will be provided to members.

SAS Tour *“Mission San Jose”*

This tour is rescheduled for Saturday, October 7, 2023. Mark your calendar.

PAST EVENTS

SAS Webinar - “Glittering and Glassy: Understanding the Intersection of Colonial Mineral Extractivism and the Production of Late Rio Grande Lead Glaze-Painted Pottery in Seventeenth-Century New Mexico” by **Danielle Marie Huerta**

On Monday, May 8 unfortunately Danielle was ill and could not give her presentation. It will be rescheduled. Stay tuned.

Instead, **Paul K. Davis** gave a very informative talk on the history of the discovery of elements. The presentation concluded with a delightful song sung by Paul naming all of the elements.

SAS Webinar - “Understanding Hunter-Gatherer Mobility Using Isotopes in Ostrich Eggshell” by **Patricia McNeill** is a PhD candidate at University of California, Davis. On Saturday, May 13, 2023 Patricia was scheduled to share her dissertation research. She was unable to present due to a family emergency. Her talk will be rescheduled.

SAS Webinar - “Early Later Stone Age at Knysna Cave, South Africa: Analysis of lithic assemblages” **Sara Watson** is a graduating PhD candidate at University of California Davis.

On Saturday, May 13, 2023 Sara discussed the Early Later Stone Age. The beginning of the Later Stone Age is argued to correspond to the introduction of subsistence, mobility, and land use patterns documented in the ethnographic record. However, the earliest technologies of this

period, known as the Early Later Stone Age, or ELSA, are poorly defined. The ELSA can be found as early as 40 ka and as late as about 19 ka. There are very few sites with well-described ELSA assemblages, with some researchers suggesting that the apparent variability between assemblages would reflect a shift in occupation to the now submerged continental shelf to follow the receding coastline. In this presentation Sara defined the Stone Age periods, described the environment in South Africa during the last Stone Age, and provided a first look at the beginnings of the Later Stone Age along the southern coast through a discussion of two excavation sites: Boarder Cave and Knysna Eastern Heads Cave.

SAS Tour

“Nevada Caves, Rock Art, Fossils, and Mining”

Saturday, May 20, 2023 through Friday, May 26, 2023

Thirteen SAS members experienced the variety of geological, prehistoric, and historic aspects of central and eastern Nevada through the SAS “Nevada Caves, Rock Art, Fossils, and Mining” tour on May 20 through May 26, 2023. Even though the winter rains prevented us from visiting Toquima Cave, Gatecliff Shelter and Rainbow Canyon/Etna Caves, we added Ash Springs and Kershaw Ryan sites. All in all we saw excavated sites inhabited by Native Americans at Baker, extensive rock art in caves and rock outcroppings at six sites, Ichthyosaur and Trilobite fossils, glorious formations in Lehman Cave, Berlin ghost mining town, Ward Charcoal ovens and rode steam engine railway at Nevada Northern Railroad. An added plus was geological descriptions of the terrain and fossils by a member geologist.

MEMBER’S CORNER

Major Donors for 2023

We are pleased to acknowledge our major contributors for 2022/2023. These donations support our scholarship program.

Patron (\$1000 or more)

Carolyn and Gordon McGregor

Sponsor (\$100 - \$999)

OSISoft a division of AVEVA

Paul K. Davis and Knuti VanHoven

Jan and Tom Johansen

Roger and Lydia Peake

Diane Sangster

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 **2023** 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

or **pay at the annual meeting.** We really appreciate your support.

Annual Dues for 2023

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

_____ Email: _____ Phone: _____

Address: _____

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

Total enclosed \$ _____

ARCHAEOLOGICAL REFERENCES

Recent Articles

The reviewed article(s) are:

- “A weakly structured stem for human origins in Africa”
- “The woman with the deer pendant”
- “Ancient DNA upends European prehistory”
- “Oldest evidence of abundant C₄ grasses and habitat heterogeneity in eastern Africa”
- “Prehistoric trips: Cave remains show hallucinogen use”

“A weakly structured stem for human origins in Africa”

“Despite broad agreement that *Homo sapiens* originated in Africa, considerable uncertainty surrounds specific models of divergence and migration across the continent. Progress is hampered by a shortage of fossil and genomic data, as well as variability in previous estimates of divergent times. In this study they review models by considering linkage disequilibrium and diversity-based statistics, optimized for rapid, complex demographic inference. They infer detailed demographic models for populations across Africa, including eastern and western representatives and newly sequenced whole genomes from 44 Nama (Khoe-San) individuals from southern Africa. They infer a reticulated African population history in which present-day population structure dates back to Marine Isotope State 5. The earliest population divergence among contemporary populations occurred 120,000 to 135,000 years ago and was preceded by links between two or more weakly differentiated ancestral *Homo* populations connected by gene flow over hundreds of thousands of years. Such weakly structured stem models explain patterns of polymorphism that had previously been attributed to contributions from archaic hominins in Africa. In contrast to models with archaic introgression, they predicted that fossil remains from coexisting ancestral populations should be genetically and morphologically similar and that only an inferred 1-4% of genetic differentiation among contemporary human population can be attributed to genetic drift between stem populations. They show that model misspecification explains the variation in previous estimates of divergence times and argue that studying a range of models is key to making robust inferences about deep history.” (Aaron P. Ragsdale *et al.*, *Nature*, V 617, 2023-5-25 pp. 755-763)

“The Woman with the deer pendant

Pioneering technique gleans DNA from a Stone Age ornament, revealing its last wearer”

“Twenty thousand years ago, someone dropped a deer-tooth pendant in a cave in southwestern Siberia, where it laid until archaeologists found it in 2019. Now, researchers have caught a glimpse of its last wearer. After years of effort, Elena Essel, a graduate student at the Max Planck Institute for Evolutionary Anthropology (EVA), developed a way to extract DNA

embedded in an artifact's porous surface by sweat and skin cells. Her team's analysis of the ornament, reported in *Nature*, shows it once adorned a woman whose ancestry lay far east of the cave." (Ann Gibbons, *Science*, V 380, 2023-5-5 p. 446)

"Ancient DNA upends European prehistory

Genes reveal striking diversity within similar ice age culture"

"Thirty thousand years ago, Europe was a land of open steppes with herds of grazing mammoths and other megafauna—and a strikingly uniform human culture. Its inhabitants, who archaeologists call the Gravettians, dwelled in caves or in shelters built of mammoth bones. They carved palm-size sculptures from mammoth tusk, depicting mammoths, cave lions, and stylized female figurines with elaborate headdresses and exaggerated breasts and buttocks, and left their distinctive art and artifacts from Spain to western Russia. But despite appearances, the Gravettians were not a single people. New DNA evidence, published in *Nature*, shows Gravettians in France and Spain were genetically distinct from groups living in what is now the Czech Republic and Italy. The sweeping study analyzed 116 newly sequenced genomes and hundreds of previously published ones, ranging from about 45,000 years ago, when the first modern humans reached the continent, to about 6000 BCE and from the Iberian Peninsula to western steppes of modern-day Russia." (Andrew Curry, *Science*, V 380, 2023-3-2 pp. 865-866)

"Oldest evidence of abundant C₄ grasses and habitat heterogeneity in eastern Africa"

"The assembly of Africa's iconic C₄ grassland ecosystems is central to evolutionary interpretations of many mammal lineages, including hominins. C₄ grasses are thought to have become ecologically dominant in Africa only after 10 million years ago (Ma). However paleobotanical records older than 10 Ma are sparse, limiting assessment of the timing and nature of C₄ biomass expansion. This study used a multiproxy design to document vegetation structure from nine Early Miocene mammal site complexes, across eastern Africa. Results demonstrated that between ~21 and 16 Ma, C₄ grasses were locally abundant, contributing to heterogeneous habitats ranging from forests to wooded grasslands. These data push back the oldest evidence of C₄ grass-dominated habitats in Africa—and globally—by more than 10 million years, calling for revised paleoecological interpretations of mammalian evolution." (Daniel J. Peppe *et al.*, *Science*, V 380, 2023-4-14 pp. 173-177)

"Prehistoric trips: cave remains show hallucinogen use"

"Hair collected in a cave on a Mediterranean island provides rare direct evidence that people in prehistoric Europe consumed hallucinogenic plants. The strands of hair, which were probably cut from dead individuals as part of a funerary ritual, were found inside a wooden container hidden in a small subterranean chamber on the Spanish island of Menorca. The chamber was sealed from around 800 BC to 1995, when it was discovered.

Elisa Guerra-Doce at the University of Valladolid in Spain and her colleagues found three mind-altering substances in the hair: the hallucinogens atropine and scopolamine, and the stimulant ephedrine. The substances are found in plants native to Menorca, such as thorn apple, (*Datura stramonium*), henbane (*Hyoscyamus albus*) and mandrake (*Mandragora autumnalis*) and joint pine (*Ephedra fragilis*). The individuals could have consumed these plants up to one year before their death." (*Nature*, V 616, 2023-4-20 p. 414)

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