Sacramento Archeological Society, Inc.
Newsletter

www.sacarcheology.org. March/April – **2026**

UPCOMING EVENTS CALENDAR

March 2026

March 7, 2026 – Saturday 2:00 – 4:00 PM PT **SAS Webinar** Scholar Presentations Zoom: **Bella Garcia,** Graduate student at University of Dundee, "Juvenile Osteology Workshop", **Janel Pleskac,** Graduate student at Sonoma State University and **David Nelson**, Student at Las Positas College, "Castles in Communities Field School, Ireland"

April 2026

April 4, 2026 - Saturday 2:00 – 4:00 PM PT - **SAS Webinar** Scholar Presentation Zoom: **Kiana Hugins**, Chico State Master's student, "Culturally Modified Trees Created by Basque Sheepherders"

April 7- 14, 2026 Jornada Region Tour (New Mexico)
April, 15 – 18, 2026 Paquimé Tour (Mexico)
April 30, 2026 – **Scholarship Applications due**

May 2026

May 2, 2026 – Saturday 2:00 – 3:30 PM PT - **SAS Webinar** Scholar presentation Zoom: **Daniel Goring** UC Davis Graduate Student, "Neanderthal Extinction impacted by paleoclimate?"

June 2026

June 6, 2026 - Saturday 2:00 – 3:00 PM PT - **SAS Webinar** Scholar Presentations Zoom **Madison McCartin**, UC Davis Graduate Student, "Hunting Preferences deduced from Proteomic Analysis of faunal remains found at Paleolithic sites in Spain" and **Hayley Kievman**, Graduate Student University of Utah, "Analysis of teeth from CA Ohlone burials"

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.

The seminars will start at 2:00 PM PT generally on the first Saturday of the month and formally conclude at about 3:30 PM. All presentations are provided via Zoom. Some will be held in Davis, CA at Pena Archaeology Facility (607 Pena Dr. Suite 600. Friends are welcome and also invited to join our organization. There is no participation fee. All are invited to attend the webinar before 2:00 PM PT 1:45) for chat time.

UPCOMING EVENTS

SAS Webinar

Saturday, March 7, 2026

2:00 – 3:30 PM PT

Scholar Seminar

"Juvenile Osteology Workshop"

by

Bella Garcia, Graduate student at University of Dundee

and

"Archaeology Field Research School Ireland"

by

Janel Pleskac, Graduate student at Sonoma State University and

David Nelson, Student at Las Positas College

Abstract: Bella Garcia who attended the Slavia Field School in 2024 continued her training in forensics by attending the Juvenile Osteology Research Laboratory Workshop in Romania. In this talk she will describe her experiences working with a set of 69 juvenile remains for the 17th century. Advanced technologies, such as histology and CT imaging are employed to advance this research.

About the speaker: **Bella Garcia** is a graduate student with a BA in Anthropology from CSUSB and is enrolled in the Anatomy & Forensic Anthropology MSc program at the University of Dundee. She was a recipient of SAS scholarship in both 2024 and 2025. In 2025 she gave SAS a presentation on her experiences at Źelewo Bioarchaeology Field School in Poland.

Abstract: At the Castles in Communities, Irish Archaeology Field School at Ballintober Castle, Ireland, both **Janel Pleskac** and **David Nelson** lived and worked in a small Irish village while participating in a six-week research and excavation project at Ballintober Castle. The program blended archaeological training in surveying, geophysical techniques, and excavation with lab analysis, giving them real experience in uncovering and interpreting the past. Beyond the fieldwork, they connected with the local community and culture through shared meals, village life, and excursions, making the experience both academically enriching and **personally meaningful.**

About the speaker: **Janel Pleskac** is a graduate student in Cultural Heritage Resource Management at Sonoma State University, specializing in community-engaged archaeology and oral history. She conducted an independent oral history project in Ballintober, Ireland, during

the Castles in Communities Archaeology Field School, documenting local musical life, memory, and place-based heritage alongside archaeological research. Her work integrates oral history, archival research, and landscape archaeology to examine how living communities produce and sustain cultural heritage. She has also worked on archaeological projects in California and Ireland and currently serves as a Museum Archives Assistant at Sonoma Historic Park.

Janel will present research in progress from "Listening to Roscommon", my community-based oral history project documenting the musical heritage of County Roscommon, Ireland, which was conducted in collaboration with the Castles in Communities Archaeology Field school. Through interviews with local musicians across multiple genres, the project treats oral histories as intangible artifacts, revealing how music, memory, and place function as layers of living cultural landscape. Her presentation will reflect on the methodological possibilities and challenges of integrating oral history into archaeological practice.

About the speaker: **David Nelson** is a student at Las Positas College. He is a retired electrician who is passionate about archaeology. He attended a field school through Las Positas College where he gained initial experience with excavation. In 2025 David attended the Irish Archaeology Field School at Ballintober Castle. He also attended the California Archaeology Field School at Foothill College where he participated in the excavation at Hidden Villa Farm in 2024.

Castles in Communities, Irish Archaeology Field School at Ballintober Castle, Ireland

SAS Webinar

Saturday, April 4, 2026

2:00 – 3:30 PM PT

Scholar Seminar

"Use of Culturally Modified Trees to Study Basque Sheepherder Movement and Carving Habits"

Kiana Hugins, Chico State University Graduate Student

Abstract: During the 19th-20th centuries Basque sheepherders across the American West inscribed images, names, and messages on aspen trees at seasonal campsites. These Culturally Modified Trees were the subject for Kiana Hugins' Master's thesis at Chico State. To accomplish this research she used geospatial data from 55 site records in Lassen National Forest and applied GIS-based methods such as least-cost path to deduce sheepherders' movement and carving habits. She conducted this research to enrich California's archaeological narratives about placemaking, land use and immigrant histories.

About the speaker: Kiana Hugins is in her final year at Chico State. Beyond her research at Lassen National Forest, she also served as an archaeology technician there in 2024. She worked on a hazard tree removal project, which included surveying and identifying cultural resources on the Eagle Lake Ranger District. She also cataloged curated pre-contact and historic artifacts from the area. As a research associate at the Northeast Information Center she reviews incoming site records from northeastern California and follows guidelines for their proper maintenance and processing. She is also a repatriation assistant at Chico State's Office of Tribal Relations where she assists staff in complying with the CalNAGPRA and NAGPRA process, as well as the management of an ethnographic teaching collection.

Kiana Hugins in Lassen National Forest

SAS Tour
April 7 – 18, 2026

Combined Jornada Region Tour (April 7-14, 2026) and Paquimé, Mata Ortize and area surrounding Casas Grandes, Chihuahua, Mexico (April 15-18, 2026)

This tour is offered Sacramento Archeological Society, Inc. and provided jointly by Jornada Research Institute and Fiesta Tours International. The Jornada Mogollon tour features

- White Sands exhibits, laboratory and dune field
- Jornada Mogollon culture: Creekside Village site
- Petroglyphs: Hueco Tanks, Alamo Mountain, Three Rivers, Willow Springs
- Pueblos: Gran Quivira, Abó, Quarai, Tenabo, Twin Serpents (time allowing), Pilabó
- Museums: El Paso Archaeological Museum, Geronimo Springs Museum, NM Museum of Space History
- Frontier Fort: Fort Craig

Photo: Stabilized Dune Segment at WSNP (David H Greenwald)

The Paquimé Tour goes south of the border to visit the Cueva de la Olla and other Mogollon culture cliff dwelling and Trincheras culture sites in the Sierra Madre and the renowned archaeological city of Paquimé, AKA Casas Grandes.

Photo: Adobe ruins of Paquimé (Fiesta Tours)

For more information and a flyer with color photos about the above-listed activity contact Sacramento Archeological Society, Inc. at sacarcheology@gmail.com.

PAST EVENTS

SAS Webinar "Archaeology in the American Southwest and Irish Midlands: An Educational Experience" by Allison Champ

On Saturday, January 3, 2026 to an audience of 15 SAS members and friends Allison Champ, a UC Berkeley student/scholarship recipient gave a presentation on two field schools that she attended during the summer of 2025: the Crow Canyon College Field School in Cortez, Colorado and the Monastic Midlands program in Birr, Ireland.. At Crow Canyon, she participated in the excavation near a turkey pen at pueblo I Haynie site and surveyed a Pueblo I site at Knuckles Preserve. Her archaeological training included excavation, screening, projectile point analysis, floatation methodology, paperwork, survey methodology, pottery and chip stone analysis and exposure to the cultural history of the Mesa Verde region, research Ancestral Pueblo life-ways. Also she worked on a project to establish grinding efficiently of various manos and mutates.

In contrast at the Monastic Midlands field school she was introduced to the cultural history of the Midlands (5th to 12th century CE) During the Monastic Midlands program, she utilized geographical survey and excavation to study medieval Irish culture and lifestyles, used photogrammetry to documental medieval gravestones and monastic artwork, and completed a community service project at St. Bendan's Monastery and cemetery. This involved cleaning grave stones and excavating a dirt mound.

SAS Webinar "Indigenous Peoples of California's Bay-Delta Region" by David Stuart, Anthropologist and former Museum Director

On Saturday, February 7, 2026 to an audience of 30 SAS members and friends at Pena Archaeology facility and via Zoom, David Stuart relayed the history of Indigenous people in the Delta Bay area of California. As a historian who has focused on Native cultures and the history of the Bay-Delta region he was well qualified to talk about these people and their history. He started by explaining the geology of the Delta and emphasized that it was mostly wetlands in contrast to the mostly agricultural use today. It was a food rich area and was a barrier to movement north or south.

Dave then talked about the multitude of languages spoken in California (90 separate languages, 300+ dialects) and indicated that there were hundreds of sovereign nations in California (40 in the Delta and 40 in the Bay area). Root languages included: Penutian, Hokan, Uto-Aztecan, Althapascan, Yukian, and Algonquian. Nations or tribelets in the Delta area included: Miwok, Yukuts, Ohone, Patwin and Nisenan. Their language or dialects are key to their tribal nation identity. It ties them to their homeland.

Dave followed with a discussion of the history of the peoples of the Delta area starting with their initial arrival in the Late Pleistocene. They lived as hunter gatherers. About 5000 their culture was affected by immigrants who probably arrived from Nevada (Lovelock Culture). Other cultural expansions are designated as Windmiller Pattern, Berkeley Pattern, and Augustine Pattern. Prior to the arrival of the Spanish the Delta had the highest population density in North America except for central Mexico. Year-round town were home to 200 to 500 people. They managed their environment through controlled burns and pruning. Five hundred important wild species of plants were used. Oak woodlands were managed for their important crop of acorns. Small seeds were also an important food source. Trade was a way of life.

Dave continued the discussion of Delta's history. Bay-Delta Native nations were disrupted by the missionaries and soldiers that invaded the Bay Area on behalf of the Spanish monarchy. The natives were conscribed to work in the missions and the missions became death traps for them. The Delta was initially a barrier to Spanish incursions into the interior heartland, became a place of refuge that helped preserve Native cultures and autonomy, then became a base for Indigenous armed resistance. Dave highlighted the resistance of Cucunuchi/Estanislao and his skirmishes with the Spanish. Indigenous people directly and indirectly assisted the USA victory over Mexico, only to suffer state- and federal-sponsored genocide during and after the Gold Rush. Nevertheless, California Indians survived and continue to be our neighbors. The history discussion ended with the mention of today's status of the federally recognized nations.

MEMBER'S CORNER

Membership

We are pleased to welcome new members: Milly Urieff, Aleta Lawrence, Andrew McLeod and Cathy Romero and Patricia Nikkel who will be attending the April tour.

Major Donors

We are pleased to acknowledge our major contributors for 2025/2026. These donations support our scholarship program.

Patron (**$1000** or more, listed in alphabetical order)
Paul K. Davis and Knuti VanHoven
Jan and Tom Johansen
Dennis Fenwick and Martha Lewis
Ruth McElhinney
Carolyn and Gordon McGregor

Sponsor ($100 - $999)
George W. Foxworth
Jeremy Johansen
Teresa Steele

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 **2026** 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 2026

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

_____ Email: _____ **Phone:** _____

Address:

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

Total enclosed $_____

ARCHAEOLOGICAL REFERENCES

Recent Articles

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

- "Mystery owner of African hominin foot identified"
- "Palaeometabolomes yield biological and ecological profiles at early human sites"
- "Earliest evidence of making fire"
- "Early hominins from Morocco basal to the *Homo sapiens* lineage"
- "DNA from wooly rhino found in ice age wolf pup's stomach"
- "*Homo sapiens*-specific evolution unveiled by ancient southern African genomes
- "Handprints from the distant past"
- "Defining an American Upper Paleolithic"
- "Early Holocene human cremation in Africa"
- "Genomic and morphometric evidence for Austronesian-mediated pig translocation in the Pacific"
- "Clues about mysterious prehistoric city in China"

"Mystery owner of African hominin foot identified - Fossils newly discovered in Ethiopia indicate that previously unidentified foot bones belong to the ancient human relative *Australopithecus deyiremeda*"

"New finds shed light on diet and locomotion in *Australopithecus deyiremeda*"

"The naming of *Australopithecus deyiremeda* from Woranso-Mille (less than 3.59 to more than 3.33 million years ago) indicated that presence of a species contemporaneous with *Australopithecus afarensis* in the Ethiopian Afar Rift. A partial foot (BRT-VP-2/73) and several isolated teeth from two Burtele (BRT) localities, however, were not only the taxonomic affinity of the BRT hominin specimens but also shed light on the diet and locomotion of *A. deyiremeda*. In this article the researchers present a comparative description of these specimens and show that they are attributable to *A. deyiremeda.* They also find it parsimonious to attribute the BRT foot to this species based on the absence of other hominin species at BRT. The new material demonstrates that overall, *A. deyiremeda* was dentally and post cranially more primitive than *A. afarensis*, particularly in aspects of canine and premolar morphology and in its retention of pedal grasping traits. Furthermore, the low and less variable distributions of its dental enamel $\delta^{13}C$ values are similar to those from *Ardipithecus ramidus* and *Australopithecus anamnesis,* indicating a reliance on C_3 foods. This suggests that *A. deyiremeda* had a dietary strategy similar to the earlier *A. ramidus* and *A. anamnesis*. The BRT foot and its assignment to A. *deyiremeda* provide conclusive evidence that arboreality was a significant component of the positional behavior of this australopith." (Yohannes Haile-Selassie *et al*, *Nature,* V 648 2025-12-25 pp. 546-544, 634-648)

"Palaeometabolomes yield biological and ecological profiles at early human sites"

"The science of metabolic profiling exploits chemical compound byproducts of metabolism called metabolites that explain internal biological functions, physiological health and disease, and provide evidence of external influences specific to an organism's habitat. In the article the researchers report on their assessment of palaeometabolomes from fossilized mammalian hard tissue as a strategy to deduce the organism' relationship with its environment. They studied six fossils from Olduvai Gorge, Tanzania, one from Chiwondo Beds, Malawi, and one from Makapansgat, South Africa. Endogenus metabolites document biological function and exogenous metabolites render environmental details including soil characteristics and woody cover, and enable annual minimum and maximum rainfall and temperature reconstructions at Olduvai Gorge, supporting the freshwater woodland and grasslands of Olduvai Gorge Bed I and the dry woodlands and marsh of Olduvai Gorge Upper Bed II." (Timothy G. Bromage *et al*., *Nature,* V 649 2026-01-29 pp. 1197-1205)

"Earliest evidence of making fire"

"Fire-making is a uniquely human innovation that stands apart from other complex behaviors such as tool production, symbolic culture and social communication. Controlled fire use provided adaptive opportunities that had profound effects on human evolution. Benefits included warmth, protection from predators, cooking and creation of illuminated spaces that became focal points for social interaction. Fire use developed over a million years, progressing from harvesting natural fire to maintaining and ultimately making fire. However, determining when and how fire use evolved is challenging because natural and anthropogenic burning are hard to distinguish. Although geochemical methods have improved interpretations of heated deposits, unequivocal evidence of deliberate fire-making has remained elusive. In this article the researchers present evidence of fire-making on a 400,000-year-old buried land surface at Barnham (UK), where heated sediments and fire-cracked flint hand axes were found alongside two fragments of iron pyrite-a mineral used in later periods to strike sparks with flint. Geological studies show that pyrite is locally rare, suggesting it was brought deliberately to the site for fire-making. The emergence of this technological capability provide important social and adaptive benefits, including the ability to cook food on demand-particularly meat thereby enhancing digestibility and energy availability, which may have been crucial for hominin brain evolution" (Rob Davis *et al*, *Nature,* V 649 2026-01-15 pp. 563, 631-637)

"Early hominins from Morocco basal to the *Homo sapiens* lineage"

"Palaeogenetic evidence suggests that the last common ancestor of present-day humans, Neanderthals and Denisovans lived around 765-550 thousand years ago (ka). However, both the geographical distribution and the morphology of these ancestral humans remain uncertain. The *Homo antecessor* fossils from the TD6 layer of Gran Dolina at Atapuerca, Spain dated

between 950 ka and 770 ka have been proposed as potential candidates for this ancestral population. However, all securely dated *Homo sapiens* fossils before 90 ka were found either in Africa or in the gateway to Asia, strongly suggesting an African rather than Eurasian origin of our species. In this article the researchers strongly suggest an African rather than a Eurasian origin of our species. The researchers describe new hominin fossils from the Grotte à Hominidés at Thomas Quarry I (THI-GH) in Casablanca, Morocco, dated to around 773 ka. These fossils are similar in age to *H. antecessor*, yet are morphologically distinct, displaying a combination of primitive traits and derived feature reminiscent of later *H. sapiens* and Eurasian archaic hominins. The THI-GH hominins provide insight into African populations predating the earliest *H. sapiens* individuals discovered at Jebel Irhoud in Morocco and provide strong evidence for an African lineage ancestral to our species. These fossils offer clues about the last common ancestor shared with Neanderthals and Denisovans" (Jean-Jacques Hublin *et al*, *Nature,* V 649 2026-01-22 pp. 902-908)

"DNA from wooly rhino found in ice age wolf pup's stomach - rare sample revels how the population changed in the lead-up to woolly rhino's extinction"

"Roughly 14,400 years ago in what is now Russia, a wolf pup feasted on the meat of a woolly rhinoceros (*Coelodonta antiquitatis*) that probably belonged to one of the last populations of the species. A genomic analysis of the woolly rhino tissue found inside the stomach of an ice age wolf (*Canis lupis*) revealed that the woolly rhino's extinction occurred rapidly soon after. The analysis suggests that the woolly rhino, which lived in northern Europe and Asia, went extinct because of a swift population collapse that might have been caused by a warming climate. " (Rachel Fieldhouse, *Nature,* V 649 2026-01-22 p. 810)

"Homo sapiens-specific evolution unveiled by ancient southern African genomes"

"*Homo sapiens* evolved hundreds of thousands of years ago in Africa; later spreading across the globe, but the early evolutionary process is debated. In the article the researchers present whole-genome sequencing of data for 28 ancient southern African individuals, including six individuals with 25x to 7.2x genome coverage, dated to between 10,200 and 150 calibrated years before present (cal BP). All ancient southern Africans dated to more than 1,400 cal BP show a genetic make-up that is outside the range of genetic variation in modern-day humans (including southern African Khoe-San people, although some retain up to 80% ancient southern African ancestry), manifesting in a large fraction of *Homo sapiens*-specific variants that are unique to ancient southern African. *Homo sapiens*-specific variants at amino acid-altering sites fixed for all humans-which are likely to have evolved rapidly on the *Homo sapiens* branch-were enriched for genes associated with kidney function. Some *Homo sapiens* specific variants fixed in ancient southern African-which are likely to have adapted rapidly on the southern African branch-were enriched for genes associated with protection against ultravieolt light. The ancient southern African show little spatiotemporal stratification for 9,000 years, consistent

with a large, stable Holocene population transcending archaeological phases. While southern Africa served as a long-standing geographical refugium, there is outward gene flow over 8,000 years ago; however, inward gene flow manifests only after around 1,400 years ago. The ancient genomes reported here are therefore key to the evolution of *Homo sapiens*, and are important for advancing our understanding of human genomic variation." (Mattias Jakobsson *et al*, *Nature,* V 649 2026-02-5 pp. 156-163)

"Handprints from the distant past"

"Brown-pigmented hand stencils found on the walls of caves on the Indonesian island of Sulawesi may be the oldest known examples of rock art in the world. Measurements of uranium decay in calcium deposits on top of and beneath the pigment show they are at least 67,800 years old - predating the oldest known Neanderthal paintings in Europe by about 1000 years. The Sulawesi stencils are about 15,000 years older than similar imprints found on other cave walls in the region, indicating a remarkable degree of continuity in the culture of the islands' early inhabitants" (Michael Price, *Science*, 2026-01-22 p. 334)

"Defining an American Upper Paleolithic"

"Speculation about an "American Paleolithic" having a similar antiquity to that of Europe was common in the 19th century. The discovery of Clovis sites dating to 13,500 calibrated years before present (cal yr BP) slowed research on the topic; however, a new archaeological and genetic data have led to reconsideration of an earlier human presence in North America. Madsen et al. reviewed evidence of stone tool manufacture from pre-Clovis sites and found similarities to sites in the Paleo-Hokkaido-Dakhalin-Kuril region of Northeast Asia. They hypothesize that the bearers of this technology migrated along the coast of North America by 18,000 cal yr BP and dispersed across the continent by 15,000 cal yr BP. They argue that the term "American Upper Paleolithic" should be adopted to describe these archaeological cultures." (Mark Alderderfer, *Science,* 2025-10-23 p. 348)

"Early Holocene human cremation in Africa"

"The complete cremation of a human body is difficult, requiring sufficient fuel, very high temperatures, and the labor to create a pyre suitable for this process. Therefore, deliberate cremations were relatively rare in human history until the advent of more complex societies. However, Cerezo-Román *et al*. report the discovery of a cremation feature in Africa from the Hora 1 site in Malawi, a community of hunter-gatherers that dates to about 9500 years ago. The site's inhabitants built an open pyre that required constant maintenance and cremated a single adult. The authors suggest that subsequent returns to the site memorialized this cremation and created a persistent, ritually focused place upon the landscape." (Mark Alderderfer, *Science,* 2026-01-01 p. 43)

“Genomic and morphometric evidence for Austronesian-mediated pig translocation in the Pacific”

“Humans have long moved animal species beyond their native ranges, drastically altering ecosystems, especially on islands. The translocation of vertebrates eastward across the Wallace Line into Wallacea, a biogeographic region between the Asian and Australasian biotas, has had major environmental impacts. The initial dispersal was a natural and/or human-mediated translocation of Island Southeast Asian endemic pigs from Java (*S. verucosus*) into present-day Bali likely over 4,000 years ago. The indigenous suid on Sulawesi, *S. celebensis* then dispersed over water to the Lesser Sunda Islands, including Flores and Timor, potentially as a result of hunter-gatherer translocation more than 4000 years ago. More recently, domestic *S. scrofa* pigs from southern China and the Philippines were introduced across most islands of Wallacea and Oceania sometime after 3500 to 3000 years ago. Many of these introduced pigs later became feral on islands across the region. Finally, during the colonial period, pigs with European ancestry were introduced broadly across the region, including in the Lesser Sundas and Papua New Guinea. ” (David W. G. Stanton *et al*., *Science,* 2026-01-01 p. 49)

“Clues about mysterious prehistoric city in China”

“In 2012 archaeologists started excavating a site called Shimao, located in the Yellow River valley in the northern part of China’s Shaanxi province. This massive and socially stratified settlement dates to the late Neolithic period—around 3,800 - 4,300 years ago. The authors started by reconstructing the genetic make-up of the people of Shimao and their predecessors (pre-Shimao populations). By comparing these genomic data to published ancient-DNA data from other populations in northern China, the authors found that the Shimao people mostly derived from a population that inhabited the local area about 300 years earlier. The pre-Shimao populations were closely tied, culturally and genetically, to the Yangshao population of the Central Plains. Shimao was also influenced by cultures from the steppe regions farther to the north, as evidence by stone figurines, some bronze artifacts and the extensive use of sheep, goats and cattle instead of the pig-centered animal husbandry of the Central Plains.. ” (Yu Don & Ripan S. Malhi, *Nature,* V 648 2025-12-25 pp. 548-549)

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