Sacramento Archeological Society, Inc.

Newsletter

www.sacarcheology.org. Nov/Dec - **2019**

UPCOMING EVENTS

- November 4-6, 2019 – FSRA - Overnight outing to Rock Hill near Exeter, CA For more information contact Bill Drake at billdrake2@gmail.com.
- December 7, 2019, Saturday, 12:00 - 5:00 pm – **Annual meeting** featuring **"Is there evidence for human occupation in the Tule Lake/Kettleman City, California area as much as 30,000 years ago. Could it be 130,000 years ago?** by **Dennis Fenwick** and **"Are you Aryan? What we now know about the Proto-Indo-Europeans and why they still matter."** by **Martie Lewis** at Carolyn and Gordon McGregor's
- January 25, 2020 Saturday, 1:00 - 4:30 p.m. – **SAS Scholar Symposium (1)** at North Highlands – Antelope Library, 4235 Antelope Road, Antelope, CA 95843
- February 29, 2020, Saturday, 1:00 - 5:30 p.m. – **SAS Scholar Symposium (2)** at North Natomas, 4660 Via Ingoglia, Sacramento, CA 95835
- March 14, 2020 Saturday, 1:30 - 4:30 p.m. – **SAS Scholar Symposium (3)** at Sylvan Oaks Library, 6700 Auburn Boulevard, Citrus Heights, CA 95621

See calendar in www.sachaeology.org for complete set of events.

Sacramento Archeological Society, Inc.'s Annual Meeting

Featuring

"Is there evidence for human occupation in the Tule Lake/Kettleman City, California area as much as 30,000 years ago. Could it be 130,000 years ago?"

By Dennis Fenwick

"Are you Aryan? What we now know about the Proto-Indo-Europeans and why they still matter."

By Martie Lewis

Saturday, December 7, 2019

12:00 – 6:00 p.m. at

Carolyn and Gordon McGregor's home

At our annual meeting we are pleased to have two members present on topics dear to their hearts.

Annual Meeting Program

The schedule for the event is as follows:

12:00 – Meet and Greet
12:30 - Lunch
1:30 - SAS Annual Meeting with election of officers
3:00 – Dennis Fenwick, "Is there evidence for human occupation in the Tule Lake/Kettleman City, California area as much as 30,000 years ago. Could it be 130,000 years ago?"
4:00 – Martie Lewis, "Are you Aryan? What we now know about the Proto-Indo-Europeans and why they still matter."

Lunch will be provided by Carolyn McGregor. The lunch is complementary from the McGregors but a contribution to our scholarship fund of $15 per person would be appreciated. This event also provides you an opportunity to pay dues for 2020.

For Carolyn to manage her catering PLEASE provide your **RSVP** by Monday, December 2 to Carolyn McGregor at 916-487-6218 or sabrina53@earthlink.net.

Don't miss this annual meeting. Bring a friend.

PREVIOUS EVENTS

SAS Potluck Social

We thank Dan and Victoria Foster for hosting a Society Social on **Saturday, September 7** at their farm. At this informal event we had time to socialize with the members.

Santa Cruz Archaeological Tour

September 11 through 13th twenty one SAS members enjoyed an archaeological pre-history and history tour in the Santa Cruz area. We visited several sites and we thank the very knowledgeable leaders for their information.

On Wednesday, September 11 Rich Fitzgerald led a tour of Sand Hill Bluff and Pigeon Point. At Sand Hill Bluff we observed a huge shell mound dating back some 6000 years. At Pigeon Point we learned about Portuguese whaling and saw the bay where whales were brought in by small boats.

On Thursday, September 12 Sky Biblin led a tour of Cultural Preserve at Wilder Ranch State Park. After visiting the museum we toured Wilder houses and farm buildings. Six generations of Wilders ran a dairy farm from 1871 to 1969. That evening we enjoyed a pot luck with Santa

Cruz Archeological Society at Live Oak Grange. A slide show by John Foster and a movie presented by Santa Cruz Archaeological Society capped the lovely evening.
On Friday, September 13 Patricia Paramoure, Santa Cruz Archeological Society (SCAS) led a tour of Cowell Lime Works District, located. It was so interesting to see the evidence of 100 years of lime processing within the campus of UCSC.
To end the informative tour Robyn Houts (SCAS) led a tour the Chitactac site at 10001 Watsonville Road, Gilroy. There we viewed petroglyphs and rock mortars from Native American inhabitation.

See https://sacarcheology.org/archaeology-activities/sas-archives/ for photos from Santa Cruz tour.

FSRA Outing for SAS Members

Friends of Sierra Rock Art (FRSA) (www.sierrarockart.com) hosted a one-day field trip on Thursday, September 26th to two Sierra rock art sites for SAS members. Nolan Smith retired archaeologist for the Tahoe National Forest and FSRA board member and Bill Drake, FSRA president led nine SAS members.

Sky Castle photo by Bill Drake

This is a very interesting archaeological site that was not known to the Forest Service until relatively recently. It contains a small but nice selection of rock art images, a rock shelter, lithic scatter, and a possible hunting blind. The petroglyphs are considered "Style 7, High Sierra Abstract-Representational" per archaeologist Louis (Sam) Payen, and are attributed to the Martis Complex (500 AD-2000 BC). Some artifacts found at the site pre-date and post-date the Martis and might go back to "early Archaic" (6,000 BC-3,000 BC).

Sky Castle photo by Jan Johansen

SAS Hikers photo by Jan Johansen

After hiking back to our vehicles some of the group went to Donner Summit site, another Martis site. As well as petroglyphs, this location features the China Wall (built by the Chinese for the railroad), a view of Donner Lake, rock climbers, old Hwy. 40 with modern traffic, the Lincoln Highway from the early 1900s, and a painted advertisement from the 1920s that is situated to be seen by drivers of the old Model As and Ts that rode up the Lincoln Hwy.

Now We're Cooking:

The Role of Fire and Cooked Food in Neanderthal Extinction

By Anna Goldfield, PhD Archaeologist

On Saturday, October 19th **Sacramento Archeological Society** featured a presentation on Neanderthal by **Anna Goldfield, PhD**, Archaeologist and host of The Dirt Podcast at **Maidu Museum & Historical Site.** The presentation centered on a model for Neanderthals and Anatomically Modern Humans that she developed for her dissertation. She asserted that physiological differences between Neanderthals and Anatomically Modern Humans in an environment of competition for food humans required less than Neanderthals. Humans also benefited from the use of fire to obtain more nourishment from cooked food than raw meat, for example; hence the use of fire and a cooked versus a raw diet might have hastened the extinction of Neanderthal populations.

MEMBER'S CORNER

. Election of 2020 Board of Directors

During the Annual Meeting the 2020 Board of Directors will be elected. The following slate of officers is proposed. We invite additional members to become involved. Serving on the Board of Directors is a way to influence the content and timing of events. Come to the annual meeting and consider participation on the Board.

The slate of the board is:

Candidate	Office	Candidate	Office
Tom Johansen	**President**	Lynette Blumhardt	**Member at Large**
Knuti VanHoven	**Vice-President**	Paul K. Davis	**Member at Large**
Diane Sangster	**Secretary**	Jeremy Johansen	**Member at Large**
Doug La Rocca	**Treasurer**	Jan Johansen	**Member at Large**
John Foster	**Past President**	Ruth McElhinney	**Member at Large**
		Carolyn McGregor	**Member at Large**
		Lydia Peake	**Member at Large**
		Roger Peake	**Member at Large**

Welcome New Members

We welcome Marc Shargel and Josie Smith as new members. Marc, thanks for joining us on our Santa Cruz excursion.

The Dirt – A podcast for all ages and backgrounds about archaeology, anthropology, and our shared human story
http://thedirtpod.com

SAS Members Participate in an Excavation

In August Michael Barham and Diane Sangster participated in an excavation at Champaign Springs, a Dave Dove site near Cortez, Colorado. They worked on two sections that produced unusual things such as an ash pit and other depressions yet to be determined by Dave Dove. They found a mano and matate which appeared to be placed there by whoever closed the site centuries ago, as it was not in a position of actual use. By observing the artifacts found Dave estimated the site at about A.D. 950 (the Pueblo I/Pueblo II period).


Champaign site – Photos by Michael Barham


Artifacts – Photos by Diane Sangster

Renewal of Annual Memberships

All memberships are renewable on **January 1** annually except for those who join recently (after September of the previous year). Please support the society by promptly paying your **2020** dues. Remember your dues make **scholarships** possible. We keep overhead low so that the funds can be used to support students. You may now use our web site http://sacarcheology.org/society-membership/ to renew and make payment using a credit card or Paypal.

The annual dues are:

Student/Limited Member	$15
Individual Membership	$30
Family Membership	$40
Sponsor	$100 - 499 (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

Thank you in advance for your prompt payment. We really appreciate your support.

****

Annual Dues for 2020

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

The intent of this section is to summarize of recent archaeological articles. Some of these in various forms have been forwarded to SAS members by email.

"A 3.8-mllion-year-old hominin cranium from Woranso-Mille, Ethiopia"

"The cranial morphology of the earliest known hominins in the genus *Australopithecus* remains unclear. The oldest species in this genus (*Australopithecus anamensis*, specimens of which have been dated to 4.2-3.9 million years ago) is known primarily from jaws and teeth, whereas younger species (dated to 3.5-2.0 million years ago) are typically represented by multiple skulls. In this article they describe a nearly complete hominin cranium from Woranso-Mille (Ethiopia) that they dated to 3.8 million years ago. They assigned this cranium to *A. anamensis* on the basis of taxonomically and phylogenetically informative morphology of the canine, maxilla and temporal bone. This specimen thus provides the first glimpse of the entire craniofacial morphology of the earliest known member of the genus *Australopithecus*. They also demonstrate that *A. anamensis* and *Australopithecus afarensis* differ more than previously recognized and that these two species overlapped for at least 100,000 years – contradicting the widely accepted hypothesis of anagenesis." (Yohannes Haile-Selassie *et al*, *Nature,* V. 573, 2019-9-12, pp. 214-219)

"Age and context of mid-Pliocene hominin cranium from Woranso-Mille, Ethiopia"

"In this article they show the analyses of chemically correlated volcanic layers and palaeomagnetic stratigraphy, combined with Bayesian modeling of dated tuffs, yielding an age range of 3.804 ± 0.013 to 3.777 ± 0.014 million years old (mean ±1σ) for the deltatic strata and fossils for the fossil hominin cranium that was discovered in the mid-Pliocene deltaic strata in the Godaya Valley of northwestern Woranso-Mille study area in Ethiopia. They also document deposits of a perennial lake beneath the deltaic sequence. Mammalian fossils associated with the cranium represent taxa that were widespread at the time and data from botanical remains indicated that the vegetation in the lake and delta catchment was predominantly dry shrubland with varying proportions of grassland, wetland and riparian forest. In addition, they reported high rates of sediment accumulation and depositional features that are typical of a steep topographic relief and differ from younger Woranso-Mille fossil localities, reflecting the influence of active riff processes on the palaeolandscape." (Beverly Z Saylor *et al*, *Nature,* V. 573, 2019-9-12, pp. 220-224)

"Iconic finger fossil reconstructed

Virtual restoration of Denisovan finger bone reveals surprisingly human-like digits"

"A new analysis of a finger bone used to study the Denisovans- a group of ancient humans identified in 2010 describes the very tip of a right-hand little finger, which was separated from the rest of the finger bone after it was excavated 11 years ago. A digital reconstruction of the

complete finger bone, or phalanx, reveals that the Denisovans' fingers were much more similar to those of modern humans than expected. In 2008 Russian archaeologist Anatoly Derianko, leader of the excavation found a finger bone belonging to a group of ancient humans in the Denisova Cave. He divided the bone and sent the pieces to two labs to see whether DNA could be extracted from either half. One of the fragments went to Svante Pääbo, an evolutionary geneticist at the Max Planck Institute for Evolutionary Anthropology in Leipzig, Germany. This team sequenced its DNA and discovered that the bone belonged to a lineage distinct from those of modern humans and Neanderthals. The other half went to Edward Rubin, a geneticist that at Lawrence Berkeley National Laboratory in California. Here the attempt to extract nuclear DNA failed. The fragment was sent to Eva-Maria Geigl, a palaeogeneticist at the Institute Jacques Monod in Paris who co-led the study. She was able to sequence the mitochondrial genome and showed that it exactly matched the other sequence that Pääbo had published in 2010." (Ewen Callaway, *Nature*, V 573, 2019-9-12, pp, 175-176)

"Face of the mysterious Denisovans emerges

New method uses epigenetics to infer anatomy of Neanderthals' extinct cousins"

"A new method based on epigenetics was used to analyze gene regulation in long-extinct hominins, specifically Denisovans. A chemical modification called methylation, which silences gene expression degrades over thousands of years into a different end product. By tracking that degradation scientists can create a methylation "map". This technique was applied by Liran Carmel and David Gokhman, geneticists at the Hebrew University of Jerusalem to DNA in the girl's pinkie from Denisova Cave. They compared the girl's methylation map with similar maps of modern humans, Neanderthals, and chimpanzees, focusing on areas where the degree of methylation differed by more than 50%. To find out how Denisovans' unique methylation patterns might have influenced their physical features, the researchers consulted the Human Phenotype Ontology database of genes known to cause specific anatomical changes in modern humans when they are missing or defective. Because methylated genes are "turned off" they may have effects comparable to those of the genes in the database, making it possible for researchers to infer Denisovan anatomy. In total, the researchers discovered 56 Denisovan anatomical features that may have differed from humans or Neanderthals, 34 of them in the skull. As expected the Denisovan girl looked fairly similar to a Neanderthal, with a similarly flat cranium, protruding lower jaw, and sloping forehead. Yet she also had key differences. The reconstructed face was notably wider than that of a modern human or Neanderthal, and the arch of teeth along the jaw bone was longer" (Michael Price, *Science*, 2019-9-20, 365 p 1232)
(Ewen Callaway, *Nature*, V 573, 2019-9-26, pp, 475-6)

"Ancient Proteins Tell Their Tales

Where DNA degrades, proteins might persist. So scientist are looking to fill in early human history using some very old amino acids"

"Proteins remain in fossils much longer than DNA. Now these ancient proteins can be analyzed by use of mass spectrometry. Mass spectrometry involves breaking down proteins into their constituent peptides (short chains of amino acids) and analyzing their masses to deduce their chemical make-up. Researchers have used this method to sift through hundreds of bone fragments to identify the types of animal they came from. In this approach, called zooarchaeology by mass spectrometry or ZooMS, researchers analyze one kind of collagen. The

mass of collagen's components differs in various groups and species, providing a characteristic fingerprint that allows researchers to identify the bone's source. Once a bone has been identified as belonging to a hominin, for example, other techniques are needed to delve deeper. One technique is to identify all the protein sequences in the sample—its protome. The composition of the proteome depends on the kind of tissue being examined, but often includes various forms of collagen. This method spits out thousands of signals, which makes it more informative than ZooMS but also trickier to interpret. By matching these signals to known sequences in databases, researchers can identify the exact sequences of collagen or other proteins in their sample. (Matthew Warren, *Nature*, V 570, 2019-6-27, pp, 433-36)

"New middle chapter in the story of human evolution

Analyzing genomic data from ancient humans illuminates South Asian ancestry" and "The formation of human populations in South and Central Asia"

Vagheesh M. Narasimhan *et al*. built on previous large-scale studies of human migration history conducted with ancient DNA obtained from human remains across Eurasia. They sequenced more than 500 genomes of humans belonging to ancient culture from archaeological sites across a large part of Asia. They used an array of allele frequency-based statistics and algorithms to model human populations across time as mixtures of other, earlier populations and investigated outstanding questions about human dispersal in South and Central Asia.

The primary ancestral population of modern South Asians is a mixture of people related to early Holocene populations of Iron and South Asia. After the Indus Valley Civilization declined, this population mixed with north-western groups with Steppe ancestry to form the "Ancestral North Indians" and also mixed with south-eastern groups to form the "Ancestral South Indians" whose direct descendants today live in tribal groups in southern India.

Earlier work recorded massive population movement from Eurasian Steppe into Europe early in the third millennium BCE, likely spreading Indo-European languages. This study reveals a parallel series of events leading to the spread of Steppe ancestry to South Asia, thereby documenting movements of people that were likely conduits for the spread of Indo-European languages." (Nathan K. Schaefer and Beth Shapiro, *Science*, V 365, 2019-9-6, pp 981-2) (Vagheesh M. Narasimhan *et al*., *Science*, 2019-9-6, V 365 p 999)

"Late Upper Paleolithic occupation at Cooper's Ferry, Idaho, USA, ~16,000 years ago"

"Radiocarbon dating of the earliest occupational phases at the Cooper's Ferry site in western Idaho indicates that people repeatedly occupied the Columbia River basin, starting between 16,560 and 15,280 calibrated years before the present (cal yr BP). Artifacts from these early occupations indicate the use of unfluted stemmed projectile point technologies before the appearance of the Clovis Paleoindian tradition and support early cultural connections with northeastern Asian Upper Paleolithic archaeological traditions. The Cooper's Ferry site was initially occupied during a time that predates the opening of an ice-free corridor (<=14,800 cal yr BP) which supports the hypothesis that initial human migration into the Americas occurred via a Pacific coastal route." (Loren G Davis, *et al*., *Science*, 2019-8-30, V 365 p 891-897)

"Ancient reshaped skulls found in China

Fossils may be some of the oldest examples of the practice"

"At a site called Houtaomuga, scientists found 25 skeletons dating from about 12,000 to 5,000 years ago. Eleven had artificially elongated braincases and flattened bones at the front and back of the head. Skull modification occurred over a longer stretch of time there than at any other site. Permanent reshaping of a skull early in life, when the bones are soft, can be achieved by compressing an infant's head with one's hands. Binding the head with hard, flat surfaces or tightly wrapping the head in cloth also remodeled the bones." (Bruce Bower, *Science News*, 2019-8-17, p. 9)

"Early American had far-flung ties

Distant hunter-gatherers had direct contact 4,000 years ago"

"Ancient hunter-gatherers in North America are believed to have had direct contacts with people living halfway across the content. A ceremonial copper object and related evidence of burial customs at a roughly 4,000 year-old human grave site encircled by a massive ring of sea shells in southeastern United States (St. Catherine's Island, off Georgia's coast) closely correspond to those previously found at hunter-gatherer sites near the Great Lakes.. Excavations in the center of the shell ring uncovered a burial pit filled with more than 80,000 ash-encrusted bone and tooth fragments, a copper band and remnant stone tools. An analysis of the copper band's chemical composition by Matthew Danger of Binghamton University in New York indicates that the metal came from any of several ancient copper mines bordering Lake Superior and located on islands in the lake. Copper mining there dates to as early as 7,900 years ago. Radiocarbon dating of burned material in the McQueen Shill Ring burial pit places the copper band between 4,300 and 3,800 years old." (Bruce Bower, *Science News*, 2019-10-12, p. 18)

Sacramento Archeological Society, Inc.
P.O. Box 163287
Sacramento, CA 95816-9287