October is Archaeology Month! See inside for local events
SCAS General Meeting Schedule

General Meetings take place on the second Thursday of the month, 7:30 p.m., at the Santa Cruz Live Oak Grange Hall at 1900 17th Ave, Santa Cruz, CA 95062.

This building is on 17th Avenue between Capitola Road and Mattison Lane.

October 12, 2017      Jesse Phillips, B.A. In-Context
                      “A New Perspective On Bone Tools—What We Might Be Missing.”

October 26, 2017      California Archaeology Film Festival

November, 9 2017      Sarah Peelo, Ph. D, Albion Environmental

December 14, 2017     Mark Hylkema, M.A. RPA California State Parks

January 11, 2018      John Pryor, Ph.D. CSU Fresno

February 8, 2018      Margie Purser, Ph.D. Sonoma State University

March 2018            No General Meeting this month.
                      SCA meeting in San Diego

Society for California Archaeology

Northern Data Sharing Meeting—8:30 am September 30th, 2017
Vallejo Naval and Historical Museum in Vallejo, California. There is group camping at the Mare Island Heritage Preserve Friday and Saturday nights. There is a Saturday night BBQ planned at the preserve.

Southern Data Sharing Meeting—9:00 am October 21st, 2017
San Luis Obispo County Archaeological Society Headquarters, Building 1522 O’Conner Way, Camp San Luis Obispo. There will be group camping Friday night at El Chorro Regional Park Campground, free for attendees. Additionally, on Friday, Oct 20, there is a barbeque at Morro Bay State Park campground.

For more info, see: https://scahome.org/future-meetings/

SCA 52nd Annual Meeting, Crowne Plaza Hotel, Mission Valley 2270 Hotel Cir N, San Diego, CA 92108. Thursday, March 8-Sunday March 11, 2018
**ADDITIONAL ARCHAEOLOGY MONTH ACTIVITIES**

**UCSC Anthropology Lunchtime Talks**

Wednesdays at Noon in Rm 261 of Social Science I

October 18—Sarah Cowie  
Nov 1, Chelsea Blackmore  
October 25—Field School Workshop  
Nov 15, Alan Garfinkel

**Earthquakes and the Adobe**

**Castro Adobe State Park Open House**

October 14, 2017, 11 a.m. to 3 p.m.  
134 Old Adobe Road, Watsonville.

Kid friendly, parking limited. For more information, see  
http://www.thatsmypark.org/event/earthquakes-and-the-adobe/2017-10-14/

**FREE TOPO MAPS!**

**SATURDAY, OCTOBER 14, 2017**

**JOIN US AT THE CABRILLO FARMERS MARKET**

**FROM 7 A.M. TO NOON**

**On-Going Archaeology Demo Program**

**Santa Cruz Mission State Historic Park**

November 2016-May 2017

For details, see www.parks.ca.gov/?page_id=548

**Wilder Ranch Heritage Harvest Festival**—Saturday, Oct 21, 2017 from 11 a.m. to 4 p.m.

See tractor, draft horse and living history demonstrations, and participate in harvest-time activities at the Wilder Ranch Cultural Preserve.
OTHER UPCOMING EVENTS

SAN LUIS OBISPO COUNTY ARCHAEOLOGICAL SOCIETY

Archaeology Day—Saturday, September 20, 2017 at the San Luis Obispo Mission Plaza. For more information, contact Christina MacDonald at christina@slocas.org

INTERNATIONAL ARCHAEOLOGY DAY—OCTOBER 21, 2017

LOCAL CALENDAR OF EVENTS:

Saturday, Oct 21, from 11:10 am to 3:11 pm: Stanford University Museum Collections—Cantor Center for the Visual Arts, Sponsored by AIA Stanford: One hour lecture educational tours at 11 am and 1 pm of Stanford Archaeology and Art Collections, especially Egyptian, Greco-Roman and Chinese Collections. Contact Dr. Patrick Hunt, phunt@stanford.edu for more information.

Saturday, Oct 21, at 11 am: Presidio Trust—Presidio Officer’s Club at 50 Moraga Ave, San Francisco, CA. Have you ever wondered what an archaeologist actually does? Did you know that there are archaeologists working and studying right here in San Francisco? To find out more, come join Presidio archaeologists at International Archaeology Day. The team will host activities for all ages. See archaeology in action as Presidio Trust archaeologists uncover the foundations of the Spanish colonial settlement that was El Presidio de San Francisco, and don’t forget to view the adobe walls of the original Spanish fort that are still standing inside the Presidio Officers’ Club. You will have the chance to follow the journey of an artifact after it is discovered to our outdoor lab, through our state-of-the-art lab, and into our collections storage. We will also have a craft that the whole family can do together, and you will have the chance to get YOUR hands dirty making adobe bricks!

Registration is not required.

Clarke Historical Museum—240 E. Street Eureka, CA 95501

Archaeology and Cultural Awareness Day
October 21, 2017

11 a.m.—3 p.m. Partnering with CA State Parks, Redwood National Park and Humboldt State University’s Anthropology Club, the Clarke Museum offers a free day to celebrate our country’s heritage. There will be demonstrations on local American Indian basket weaving, flint knapping and indoor and outdoor activities for all ages. There will be a street fair out front with refreshments. Sponsored by the SCA and Morgan Stanley. For more information:

At the de Young Museum, SF: Teotihuacan: City of Water, City of Fire, Sept. 20, 2017 through Feb. 11, 2018


On View

At the de Young Museum, SF: Teotihuacan: City of Water, City of Fire, Sept. 20, 2017 through Feb. 11, 2018


Some of you know the story of Scotts Valley City Hall. On October 15, 1981, the Santa Cruz Sentinel reported that “the oldest recorded archaeological site in Central California was destroyed with the grading of land near City Hall, the city’s archaeological consultant has charged.” On Memorial Day weekend 1983, over 100 archaeologists converged on the site to do salvage archaeology. This was not the end of the story. Read on for an understanding of why we need environmental laws protecting cultural resources.

Indian find costs Scotts Valley

SCOTTS VALLEY—An additional cost of $70,000 was added to the renovation and refurbishing of the new city hall Wednesday night as the council members agreed the city has to pay the cost of sifting disturbed soil for Indian artifacts.

The city building, named Friend’s Hall after former City Administrator and Councilman Friend Stone, sits on one of the oldest Indian sites in Central California.

City Administrator August Caires told the council the $70,000 budget could increase by as much as $40,000 for the archaeological work, added to the present $700,000 to make the building livable for city staff and to provide the council with a permanent place to meet. [The building was not constructed to code.-Editor]

Archeologist Robert Cartier said the only way the city could avoid paying the $70,000 was to follow the process laid out by state legislation that allows community to hold public hearings and seek volunteers to sift the soils for artifacts. He said the process could take months before the work begins.

Mayor Phil Liberty said that wasn’t a good option—”We wanted to get the hall open this summer.”

During the construction of the hall in 1981, then-Mayor Stone ordered bulldozing to pave a parking lot. His decision resulted in crude exhumation and destruction of thousands of pieces of Indian tools and weapons. The city faced a court suit from local archaeological groups but settled out of court with a guarantee the council would enact a preservation ordinance and set up a preservation committee, which it has done. The artifacts were taken by archeological groups for cleaning, sorting and recording.

The council agreed to pay the $70,000 with little discussion. They will pay local architects [sic] to sift through soil that will be removed to build a driveway to the new hall. Mayor Phil Liberty wanted to know if any of the artifacts expected to be found were worth money “so the city can be compensated.”
Cartier said the artifacts would be “precious” and “of great antiquity”. He said they could be sold by anyone of a mind to look at them “monetarily”. But he assured the council the city is being compensated “in scientific wealth… for the artifacts are scientifically priceless.”

Cartier said that 70 cubic yards of earth would have to be carefully sifted and “much more” would have to be checked out for possible finds. Liberty asked him for assurance that anything found at the site belonged to the city. Cartier said they did. He also said that the artifacts found when the building was built belong to the city. When those artifacts were found, they were removed to laboratories in San Jose, where Cartier said they are being carefully preserved. “I’m responsible for them,” he said, assuring the city could have them back on request.

From the audience, Planning Commission Chairman Hal Medo advised the council to avoid paying the money by simply building the driveway and paving over the artifact rich ground. He said the city could preserve the site until science has better technology for archaeological digs. “Let our children do it,” he said. Cartier agreed with him, that some sites are better paved over and preserved for future generations to discover and uncover. However, that couldn’t be done for all of the city hall site as engineers were saying some of the ground had to be dug and the soil remover or the driveway would be too steep.

Cartier said the work of sifting the soil would take at least three months. Caires said the sifting of soil wouldn’t delay completion of Friend’s Hall as contractors would run a temporary work-road down the center of the property.
On the eve of North America’s first solar eclipse in the 21st century, a pair of astronomers say that an obscure piece of rock art in New Mexico’s Chaco Canyon may depict a similar celestial event that took place 920 years ago.

The glyph, made on a sandstone boulder known as Piedra del Sol, portrays a circle bursting with curved tendrils and curlicues, which the researchers say resemble the filamentous fringe of an especially active sun when it disappears behind the moon.

“It looks like a circular feature with curved tangles and structures,” said J. McKim Malville, an astrophysicist at the University of Colorado, in a recent press statement. “If one looks at a drawing by a German astronomer of the 1860 total solar eclipse during high solar activity, rays and loops similar to those depicted in the Chaco petroglyph are visible.”

During an eclipse, curls and whorls can sometimes be seen, formed by giant jets of plasma — known as coronal mass ejections, or CMEs — that the sun releases when it is at or near the peak of its 11-year cycle. And the astronomers report that on July 11, 1097, an eclipse passed directly over the Chaco Canyon area when the Ancestral Puebloan culture in the canyon was burgeoning — and when the sun was, indeed, near its peak.

“This was a testable hypothesis,” Malville said. “It turns out the sun was in a period of very high solar activity at that time, consistent with an active corona and CMEs.” Malville and his colleague, José Vaquero of Spain’s University of Extremadura, drew on a number of diverse sources to determine whether the eclipse of 1097 occurred during a time of intense solar activity.

First, they checked the chemical record enshrined in tree rings. The ongoing bombardment of Earth by cosmic radiation — from sources other than the sun — results in the production of the isotope carbon-14. But periods of intense solar activity interferes with this process. So, higher solar activity shows up in the rings of trees as lower amounts of carbon-14.

The duo also reviewed historical records from around northern Europe in the 11th century, to assess the
number of nights that the region experienced auroras, the Northern Lights caused by solar emissions. They also consulted the reports of ancient Chinese astronomers, who used naked-eye observations to record the sun’s annual patterns of sun spots — cool spots that indicate less solar activity.

In their report of their findings, Malville and Vaquero say that chemical evidence and human documents alike support the theory that a solar maximum occurred near the 1097 eclipse. “Both kinds of information suggest that the date of maximum of the solar cycle is close to 1098,” they write. “This fact is, therefore, a support for the hypothesis of the solar corona represented in the petroglyph of the Piedra del Sol.” The findings fit within the well-known astronomical uses of Chaco Canyon’s rock art, the researchers add.

Malville and Vaquero initially reported their research in 2014, in the *Journal of Mediterranean Archaeology and Archaeometry*. 

Coronal Mass Ejection captured by SOHO
Photo courtesy of SOHO Consortium, ESA and NASA

'Striking' Face of 4,500-Year-Old English Man Revealed
By Owen Jarus, Live Science Contributor | July 10, 2017 07:14am
(excerpted for the SCAN)

The face of a man who died in England around 4,500 years ago has been reconstructed, revealing a "striking" image that should help humans alive today feel a personal connection, researchers said.

The man's remains were excavated in the 1930s and 1980s at Liff's Low bowl barrow, a burial mound located in Derbyshire, England. He was found buried with a type of pot called a beaker and a stone pendant that was likely worn on a necklace, the researchers said. Anthropological analysis done in the 1980s found that the man was about 5 feet, 7 inches (1.7 meters) tall and was between the ages of 25 and 30 when he died, said Claire Miles, a collections assistant at the Buxton Museum. The anthropologists at the time found that the man had a fracture in his left elbow that had "healed poorly," Miles said, noting that the cause of the man's death is unknown.

Using a mix of technology, including an Artec 3D scanner, the Face Lab forensic experts reconstruct the faces of people who died many centuries ago as well as those who died recently and are the subject of police investigations.
On Thursday, September 14, a large and attentive crowd was treated to a presentation by Al Schwitalla, M.A. RPA, on the evidence for female Native Californian combatants in the historic and bioarchaeological record.

Schwitalla is the creator of a bioarchaeological database containing information on 16,820 individuals that were exhumed during the past 100 years. Most of these individual skeletons were found during ground disturbing activities – grading for roads, houses, and utilities, for instance. He says there are gaps in the data due to preservation issues, and earlier destruction of archaeological sites. Also, most of the data comes from places where there is active development, so there is less data available in rural counties.

The database records information about the age, sex, health, measurements, location, and any evidence of injury, both peri- and ante-mortem, as well as taphonomy for each individual. This database covers central California from Monterey County, to Tuolumne County and north to Tehama and Shasta counties, from 3050 B.C. to A.D. 1899. The database does not contain data from southern California or the north coast.

Schwitalla walked us through six time periods starting with 3050 B.C., divided among the eight archaeological sub regions proposed by Moratto (1984). He described the injuries by type, location and trajectory. In each case except anterior and facial injuries, female injuries had a similar ratio to male, and, although female injuries were fewer in number, they appeared to represent injury during the same activities as the males. It appeared that the women were participating in warfare or defense of home and families. Schwitalla and colleagues set out to test the possibility of women warriors in California.

Although there has been little in the ethnographic literature about female warriors, and historical accounts are few, they do occur, and Palmer (1851) writing home to his father, made light of the possibly chivalrous sparing of a woman combatant, who then grabbed a bow and arrow and shot another of Palmer’s companions three times.

Why have there been so few reports of women warriors? Schwitalla posits that the early ethnographers, with their own cultural biases, failed to ask their informants. In traditional Western societies, men are the combatants, and women and children run away (although this has been changing), so we don’t think about how other cultures with other value systems might act. There are many reports about female warriors or defenders among other Native American tribes, so why would California be any different?

Some have suggested that female warriors appeared only after the arrival of the Spanish. However, Schwitalla’s database shows the same patterns of injuries for women throughout time.

Schwitalla and his colleagues are continuing to add to the database as information becomes available, and are finding new questions they can pose to the database. We look forward to hearing about their findings in the future.
### SCAS Officers and Contact Info

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**MEMBERSHIP:** We have 119 members, with 33 in good standing and 67 not in good standing (Please Renew!). There are 19 life or comp members.

**ELECTION Reminder:** Ballots for Vice President and Treasurer for the Society must be returned by Oct 9. You can bring your ballot to the General Meeting on Oct 12th

### Committee of Affiliated Societies (CoAS):

Last spring, by unanimous vote, the board of the Society voted to join the Society for American Archaeology’s (SAA) Committee of Affiliated Societies (CoAS). In July, we learned that our application to join CoAS had been accepted. CoAS member societies now number 30, including our Society. CoAS also publishes a newsletter. If you wish to read the spring newsletter, visit: [http://ecommerce.saa.org/SAA/SAAdocs/CoAS/Spring%202017%20Newsletter.pdf](http://ecommerce.saa.org/SAA/SAAdocs/CoAS/Spring%202017%20Newsletter.pdf)  

If you want to contribute to their newsletter, please contact Christopher Rowe, newsletter editor, at crowe2@uwyo.edu, before Oct 2.

Your submission can include information about, but is not limited to; recent awards given or received, research related to your society, field trips taken, outreach events conducted, or guest speakers hosted. If your submission includes images, we require written permission from the photographer and from everyone pictured in the photograph in order to publish it. The following statement can be included at the end of the submission or email body; "[Your Society Here] grants permission for the images contained herein to be reproduced by the Council of Affiliated Societies Newsletter."
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- Renewal
- Gift Membership (from) ________________________________

Name: ____________________________________________________________

Street Address / Apt.#: ______________________________________________

City, State, ZIP: _____________________________________________________

Email Address: ______________________________________________________

Phone: _____________________________________________________________

Please share any archaeological interests or experience:

________________________________________________________________________

Mail completed application with dues to: SCAS Membership, P.O. Box 85, Soquel, CA 95073, or visit our website: http://www.santacruzarchsociety.org/join