MARCH 2017

PCAS NEWSLETTER

THE MONTHLY PUBLICATION OF THE
PACIFIC COAST ARCHAEOLOGICAL SOCIETY

www.pcas.org

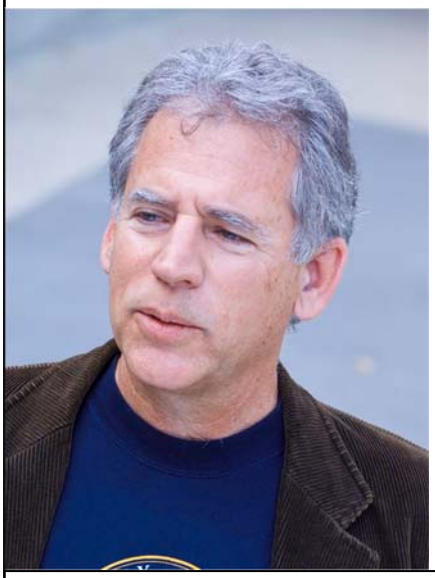
Volume 56 Number 3 ISSN 0270-6776

MARCH PCAS SPEAKER

Dr. Thomas E. Levy

At-Risk World Heritage and Digital Humanities: The UC Office of the President Catalyst Grant

Cyber-archaeology combines archaeology, computer science, engineering, and the natural sciences, and it offers twenty-first century solutions to safeguard the past for the future. At-Risk World Heritage and the Digital Humanities, a cyber-archaeology project, was awarded a $1.07 million UC President's Research Catalyst Award from the University of California (UC) Office of the President to a consortium of archaeologists and information technologists on four UC campuses: UC San Diego, *(Continued on p. 3)*



Dr. Thomas E. Levy.

DINNER WITH THE SPEAKER

Please join this month's speaker, Thomas Levy, for dinner before the March 9 meeting at 6 pm at Mimi's Café, 4030 Barranca Parkway, Irvine.

PCAS MEETINGS CALENDAR

GENERAL MEETING

Free and Open To the Public

March 9 - 7:30 pm

Speaker: Dr. Thomas E. Levy

Topic: *At-Risk World Heritage and Digital Humanities: The UC Office of the President Catalyst Grant*

Location: IRWD Community Room
15500 Sand Canyon Ave., Irvine

The Irvine Ranch Water District neither supports nor endorses the causes or activities of organizations that use the District's meeting rooms which are made available for public use.

BOARD MEETING

All Members Welcome

March 18 - 12 noon

Location: PCAS Curation Facility
Contact Scott Findlay for directions:
714-342-2534 or fieldtrips@pcas.org.

INSIDE THIS ISSUE

This will be your last Newsletter if you haven't renewed your membership! Use the membership form in this Newsletter or pay online at www.pcas.org.

FEBRUARY SPEAKER NOTES

Archaeological Excavations and Stabilization at Swordfish Cave

By Megan Galway

Clay Lebow brought us the results of recent studies at Swordfish Cave. This is a well-known and well-documented rock art site on Vandenberg Air Force Base in Santa Barbara County, California. Most of the images in the cave are pictographs including that of the swordfish for which the cave is named. Swordfish are important in Chumash mythology and are seen as the "people" of the ocean. The cave is located in a sandstone outcrop on the base, and prior to this project had a small entrance and low roof. Much of the fill in the cave was thought to be recent. Avocational archaeologist Clarence Ruth reported in 1967 that he had once ridden a horse into the cave. Runoff from the surrounding outcrop was known to run through the cave.

It became obvious that because of the cave's limited space visitors were brushing against the rock art and causing damage. Applied Earthworks, Inc., was contracted to stabilize the cave and create a safe viewing area. The fill was known to contain cultural deposits, so a decision needed to be made whether to preserve the deposits or the rock art. Ultimately, the fill was excavated down to bedrock within the viewing area, and the remaining fill and walls were stabilized.

Work on the project began in 1999 and had to be completed between March and May because the cave was used by bats later in the year. Excavation revealed three distinct cultural levels, the third being much older than anticipated and returned dates older than 3,500 years ago. The upper level was determined to be historic dating between 1787 and 1804 and contained a high density of cultural material. It appeared to have been occupied during spring and summer because fish bones were found but no marine shell. Shell fish would not have been gathered during the period of "red tides," algal blooms, because shellfish during those periods can be toxic.

The cave's middle, apparently single, occupation occurred around 2,500–2,740 years ago and also appears to have been in spring and summer. While fire-affected rock was found in this deposit, no hearth was located. The hearth is thought to have been located outside the cave on inaccessible private land adjoining the base.

Clay Lebow and PCAS Programs Co-Chair Brian Steffensen at the February meeting.

The cave's lower level down to bedrock returned dates of 3,335–3,705 years ago and included a hearth, an asphaltum stain, and a bedrock mortar. Such mortars were previously believed to be no older than 700 years so this was a unique find. The excavation also revealed petroglyphs that had been covered by the fill lower on the rock face, and the tools likely used to create the rock art were nearby along with ochre.

After the front central area of the cave was excavated down to bedrock, the remaining fill was stabilized with cross-braced redwood walls. Drainage pipes were placed to carry off water entering from the back and roof of the cave, and the floor was covered with pea gravel and flagstones. Redwood was used as the material for bracing the remaining fill because it is stable and resistant to decay. No preservatives or chemicals were introduced into the cave. A bench was built outside the cave for the benefit of tribal visitors to whom the cave is sacred.

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March Speaker *(continued from p. 1)*

UCLA, UC Berkeley and UC Merced. This four-campus project is lead by Thomas E. Levy.

The project leverages the recently announced Pacific Research Platform—a networking platform led by UC San Diego and UC Berkeley—to curate, analyze and visualize 3D data from at-risk archaeological sites in Egypt, Turkey, Jordan, Israel, Greece, Morocco, and Cyprus. The work, which is being done in collaboration with archaeology faculty at UC Berkeley (Benjamin Porter), UC Merced (Nicola Lercari) and UCLA (Willeke Wendrich), incorporates more than 10,000 years of cultural materials, architecture and landscapes. It includes site and artifact identification, cataloging, and digital preservation of complex data and other content derived from satellite imagery, drones, sensors, 3D data capture, and other techniques. The platform is expected to enable correlative studies of regional climate/environmental data and demographic, cultural, and technological changes, as well as the creation of 3D models using new kinds of geospatial data. It will also enable studies of how human conflicts, climate change, pollution, natural disasters, and looting affect archaeological sites, and it will forecast what sites will become critically endangered places. This lecture will present a summary of the recent Catalyst research activities carried out by the Center for Cyber-Archaeology and Sustainability in Israel, the Palestinian territories, and Greece.

Thomas E. Levy is Distinguished Professor and holds the Norma Kershaw Chair in the Archaeology of Ancient Israel and Neighboring Lands at the University of California, San Diego. He is a member of the Department of Anthropology and Judaic Studies Program, and he leads the Cyber-archaeology research group at the Qualcomm Institute, California Center of Telecommunications and Information Technology.

Dr. Thomas E. Levy.

February Board Meeting Summary

Vice President **Hank Koerper** called the meeting to order at 12:10 pm at the Red Car Building. PCAS Board Members present: **Bob Brace, Gail Cochlin, Steve Dwyer, Joe Hodulik** (via speaker phone), **Hank Koerper, Kathleen Shada**, and **Brian Steffensen**. PCAS members present: **Rene Brace, Scott Findlay, Jane Gothold** (via speaker phone), and **Mark Roeder**.

The January minutes were approved with corrections. The Treasurer's report was approved. The Board approved a minute order so that signatories on our bank accounts can be changed to the current officers.

Megan Galway is circulating a spreadsheet to determine interest in PCAS T-shirts so that a decision can be made on how many to order. The Board considered a grant application from Robert Grenda for an AMS date for the Muscupiabit site. The Board unanimously approved an award of $375. The March Board meeting and curation workday will be moved to March 18 so as not to conflict with the SCA Meeting.

Joe Hodulik received $135 in donations for the Scholarship fund in February! Ten people attended the field trip to the Colorado River area the previous weekend. The weather was perfect for looking at rock art and ancient trails. The next *PCAS Quarterly*, Volume 53, Number 1, will contain articles by Mark Sutton on the Mojave Desert and by Hank Koerper on selected Palos Verdes Peninsula artifacts from the Kohler Collection. The issue will be printed soon and available at the SCA Meeting in March.

The meeting was adjourned at 12:55 pm.

March Curation Workday

When: **March 18, 2017, 1 pm**
Where: **Red Car Building**

Everyone is welcome. No experience necessary! Please contact **Mark Roeder** (714-299-4150, curator@pcas.org) or **Scott Findlay** (714-342-2534, fieldtrips@pcas.org) for directions and to let us know you will be coming

A Possible Toy Digging Stick Weight from Coastal Southern California

Henry C. Koerper

Through its newsletter (Anonymous 2012a) and journal (Anonymous 2012b; Koerper et al. 2014) the Pacific Coast Archaeological Society has acknowledged gifts received from Mrs. Ann Farmer, widow of fondly remembered and many-times published anthropologist, Malcolm French Farmer, whose professional affiliations once included the Southwest Museum, Soils Conservation Service, San Diego Museum of Man, Museum of Northern Arizona, and Whittier College. This present note features another gift from Professor Farmer's estate, a Chumash or Gabrielino donut-shaped artifact, but lacking specific provenance (Figures 1 and 2).

For several years, the consolidated sandstone object has been curated at the PCAS storage facility, a former Pacific Electric Red Car Transformer Station in Santa Ana, and was only recently retrieved for close examination. It will soon be placed on permanent display at the Blas Aguilar Adobe and Acjachemen Cultural Center, located one block south of Mission San Juan Capistrano.

The artifact weighs only 84 g (just under 3 oz.). It appears to have taken shape largely through pecking using a hammerstone. Most of its surfaces retain a textured appearance, not smoothed. Broad rotational drilling possibly accounts for the somewhat more finished look at both entrances to the central perforation.

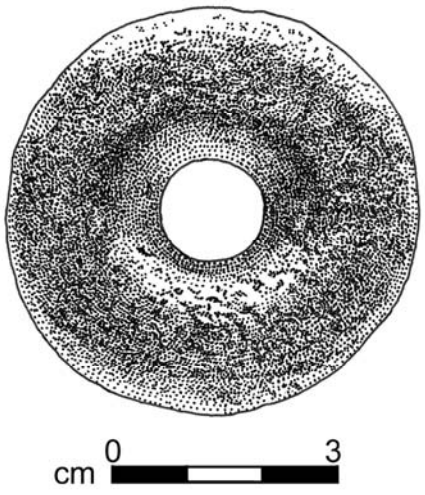

Figure 1. Plan view of possible toy digging stick weight. Drawing by Joe Cramer.

Figure 2. Oblique view of Chumash or Gabrielino donut stone.

Overall, its morphology projects a pleasing symmetry. Maximum diameter (54.4 mm) is little different from minimum diameter (53.4 mm). Maximum thickness is 22.2 mm, and minimum thickness measures 19.2 mm. The hole directly at the center of the piece appears almost perfectly circular; its diameter is 13.1 mm.

From 14 decades back and to the present, Chumash and Gabrielino (Tongva) artifacts of toroidal to quasi-toroidal design, known popularly as "donut stones," have elicited questions turning on functional assignment. The employment most frequently mentioned is "digging stick weight," that purpose solidly affirmed by the ethnographic record (see e.g., Hudson and Blackburn 1982:247–251). There are other proposed applications, primary and secondary, utilitarian and ceremonial, that are reasonably entertained.

When a relatively rare, diminutive "donut" is encountered, it is typically suspected as having served vocational play, especially as a toy digging stick weight (see, e.g., Schumacher 1878:268; Putnam 1879:161; Koerper and Gust 2009). The ethnographic record attests that in Chumash culture all objects of adult employment were crafted in miniature for children (Henshaw 1887:8; Heizer 1955:153–154). The specimen illustrated might evoke in the mind's eye a little girl, her short stick with an attached tiny donut stone in hand, following and mimicking an adult engaged in unearthing roots, bulbs, or corms. *Continued on p. 5*

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1878 The Method of Manufacture of Several Articles by the Former Indians of Southern California. *Eleventh Annual Report of the Trustees of the Peabody Museum of Archaeology and Ethnology*:264–265. Cambridge, Massachusetts.

FEBRUARY FIELD TRIP

Submitted by Stephen Dwyer

Ten members of the PCAS visited the Needles area in February and explored several interesting archaeological sites. Sites visited included intaglios, springs, a Native American trail to the Colorado River with boulders containing petroglyphs on both sides of the trail, and a short segment of the Mojave Road.

Photos below—rock art in the Needles vicinity.

DIG THIS...

Exhibits

Sacred Earth is a series of exhibits that highlight the diversity of cultures in San Bernardino County since prehistoric times**.** San Bernardino County Museum, continuing. Fee. Information: www.sbcounty.gov/museum.

Living with Animals will trace human interaction with animals from the ancient past to the present. San Diego Museum of Man, opens March 11. Fee: varies. Information: www.museumofman.org.

Lectures

Secrets of the Ness of Brodgar: A Stone-Age Complex in the Heart of Neolithic Orkney, a World Heritage Site, by Nick Card (UCSB). A Santa Barbara County Archaeological Society lecture, Santa Barbara Museum of Natural History, Farrand Hall, March 2, 7:00 pm. Fee: $12; members $10.. Information: www.sbnature.org/education/918.html or scoleman@sbnature2.org.

The Ahmose Tempest Stela – An Ancient Account of a Natural Catastrophe?, Dr. Nadine Moeller (University of Chicago), an ARCE lecture. Bowers Museum, March 11, 1:30 pm. Fee: $12; Bowers and ARCE members free. Information: www.bowers.org or 714-567-3677.

Ethnicity in the Archaeological Record: A View from Tall al'Umayri and other Recent Excavations, by Dr. Kent Bramlett (La Sierra University), a lecture of the AIA, Orange County Chapter. DeNault Auditorium in Grimm Hall, Concordia University, March 12, 2–4 pm. Fee: $5; students and members free. Information: www.aia-oc.org.

Fire on the Mojave: Stories from the Deserts and Mountains of Inland Southern California, by Ruth Nolan (author, professor, photographer), will present impacts of wildfire including use by Native Americans for resource management. Coachella Valley Archaeological Society, Portola Center, 45480 Portola, Palm Desert, March 16, 6:30 pm. Free. Information: www.cvarch.org.

Classes, Meetings, and Events

Archaeology Weekend at Anza-Borrego Desert State Park will celebrate 21 years of Colorado Desert Archaeological Society volunteers and will include lectures, field trips to Native American features, tours of the Begole Archaeological Research Center, etc., March 25–26. Information: www.theabf.org.

Malki Museum's Annual Agave Harvest, led by Daniel McCarthy, will be held April 1 and April 2. Meet at Cahuilla Tewanet Overlook on the Palms to Pines Hwy 74. Fee: $10 donation. ***The Agave Roast*** will be held at the Malki Museum, April 8. Food tasting will begin at noon. Fee: Free admission, $10 for food plates. Reservations recommended for both events: 951-849-7289. Information: www.malkimuseum.org.

Cronise Basin Archaeological Field School, with Dr. Des Lauriers, CSU Northridge. July 26–August 23. Fee: $3,450 (8 semester unites plus field cost fee). March 20 application deadline. Information: Anthropology Department, 818-677-3331; Dr. Des Lauriers, mdeslaur@scun.edu or 818-677-3329.

Websites

The Legacy of Ancient Palmyra, a Getty online exhibit: www.getty.edu/research/exhibitions_events/exhibitions/palmyra/index.html.

Western Digs: Dispatches from the Ancient American West is a science news site about archaeology, anthropology, and paleontology of the American West: http://westerndigs.org.

Visit www.pcas.org for all the latest news.

Editor's Note: Please confirm time and place of listing prior to the event. Submit items for Dig This to newsletter@pcas.org.

PCAS CODE OF ETHICS

The Pacific Coast Archaeological Society (PCAS) is a nonprofit group of professional and avocational people dedicated to proper management of our cultural resources, public education, and the protection and preservation of archaeological materials and collections.

The following principles have been adopted by the PCAS:

1. Professional methods and forms will be used on all archaeological field surveys, excavations, and laboratory sessions.
2. A complete record of field and laboratory work will be filed with the PCAS Curator and stored at a facility approved by the Society's Board of Directors.
3. No archaeological materials will be removed without proper permits, landowner permission, and a field research design.
4. Unless otherwise legally stipulated before activity commences, all materials collected will be deposited for further research with the Curator at a facility approved by the Society's Board of Directors.
5. All generated reports will be the property of the Society and distributed as deemed appropriate.
6. All Society field activities will be performed only under the direction of a qualified field archaeologist (Principal Investigator) and the supervision of field or site directors.
7. The above principles will be observed on both Society approved projects and projects performed under the direction of an authorized institution or organization.
8. The Society and its members will strive to educate the public of the importance and proper management of our non-renewable cultural resources and to discourage the collection and commercial exploitation of archaeological materials.
9. PCAS members shall not benefit from the acquisition, purchase, sale, or trade of archaeological artifacts, materials, or specimens.
10. All members shall adhere to City, County, State, and Federal antiquities laws.

Thomas E. Levy (left) interacting with 3D archaeological data in the Qualcomm Institute StarCAVE.

Come to the March 9 meeting to learn about At-Risk World Heritage and the Digital Humanities, a cyber-archaeology project.

PCAS SPEAKER CALENDAR

April 13, 2017
Stephen O'Neil
The 1778 Acjachemen Revolt at Mission San Juan Capistrano

May 11. 2017
Martin Jespersen and George Kline
Compare and Contrast Two Sites in the Palen-McCoy Wilderness

June 8, 2017
Nathan Acebo
Re-Assembling the Black Star Canyon Village

September 14, 2017
Dr. James S. Kus

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I have read and agree to abide by the PCAS Code of Ethics _____
Signature

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☐ Donation $_____

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