



APRIL 2012

# PCAS NEWSLETTER

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PACIFIC COAST ARCHAEOLOGICAL SOCIETY

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## APRIL PCAS SPEAKER

**Stephen O'Neil**

### The Cave of Áy-li-ca and Acjachemen Traditional Knowledge

The field notes of anthropologist and linguist John P. Harrington contain a drawing of a prominent ravine and landslide that can still be seen today looking across Trabuco Creek from the grounds of Mission San Juan Capistrano. The sketch has "Ái-li-ca" and "Iu-cú-i-ca" written across the bottom, but nothing else. Scattered pages of Harrington's notes tell part of the story behind these landmarks that includes caves, the ocean, and shamans. Seeing the partial story was motivation to seek out Acjachemen elders who still knew about this place of power. A further search of Harrington material led to his original field book from 1917, which included a map and information on the features. This made possible a field investigation in the hills and along the coast to search for the location of these places. New ethnographic work both confirmed the older data and uncovered modern accounts of these places demonstrating that they still retained spiritual significance. Combining the Harrington field notes and recent interviews presents a picture of the coastal Acjachemen tribe and its spiritual link to the ocean expressed through a set of topographical features forming a complex linked by spiritual forces. Literature on the surrounding Takic peoples places the Áy-li-ca complex within a larger context of shamanic practices and cosmological beliefs as expressed by sacred aspects of caves and springs throughout the region. *(Continued on p. 3)*

## DINNER WITH THE SPEAKER

Please join this month's speaker, Stephen O'Neil, and PCAS members for dinner before the April 12th General Meeting. We will meet at 6 pm at Mimi's Café, 4030 Barranca Parkway, Irvine.

## PCAS MEETINGS CALENDAR

### GENERAL MEETING

*Free and Open to the Public*

**April 12 - 7:30 pm**

**Speaker:** Stephen O'Neil

**Topic:** *The Cave of Áy-li-ca and  
Acjachemen Traditional Knowledge*

**Location:** Irvine Ranch Water District  
15600 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*

**April 19 - 7:00 pm**

**Location:** Old Orange County Courthouse  
PCAS Library, Ground Floor  
211 W. Santa Ana Blvd., Santa Ana

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**If you have not renewed your membership for 2012, this will be your last PCAS Newsletter. Use the form in this Newsletter and mail today!**

## FEBRUARY SPEAKER NOTES

### *Bolsa Chica Archaeology Part Six: Foodstuff*

#### *A Comprehensive Zooarchaeological Investigation of the Bolsa Chica Mesa*

*Submitted by Megan Galway*

Our March speaker, Matthew Weatherbee, presented Park Six of our series on SRI's study of Bolsa Chica Mesa. This presentation featured the large quantity of faunal remains found on the site, with a focus on those identified as foodstuffs. Mr. Weatherbee noted that six previous studies had been carried out on the mesa, and data from these studies had been incorporated in his report. His primary interest in this study was to identify hunting and butchering techniques used by the various groups that inhabited the mesa over time.

The final analysis included over 300,000 specimens, most of them well preserved. The deposits were found to be most dense between 20 and 60 cm deep at ORA-83, and between 40 and 50 cm at ORA-85. Eighty-five percent of the specimens were mammals, with small mammals predominating; 205 specimens were identified as artifacts. Marine mammals were present, with sea otters predominating. Twenty-one bird species were identified, but there were not a significant number of reptile remains. Fish species from bay, estuary and sandy beach environments were noted in the earlier occupations, and total fish species increased during the later occupation.

While faunal remains were recovered throughout the site, there were two main concentrations at ORA-83, indicating areas of higher activity. Vertebrae were the most prevalent bones, but whole animals were represented, including mandibles, suggesting animals such as deer were brought back to the camp or village for butchering. Some bones displayed cut marks and had been burned. Bone awls, gorges, and beads were also found in these concentrations, and some appeared to have been repaired or coated with asphaltum.

Similar concentrations found at ORA-85 contained large numbers of burned bone—mostly of small mammals such as rabbit and hare with lesser numbers of rodents. Larger mammal bones displayed butchering marks indicative of skinning and dismembering, and long bones were fractured suggesting the extraction of marrow. Likely tools and weapons used



**PCAS Program Chair Joe Hodulik with March speaker, Matthew Weatherbee.**

for hunting these animals would have included nets, throwing sticks, and deadfall traps for the smaller animals, and atlatl and bow-and-arrow for deer. Sea mammals would have been hunted with harpoons, spears, and clubs. The variety of faunal remains indicates the sites were occupied year-round, and all species could have been found within 3 km of the mesa.

The faunal and artifact assemblages found in these two sites are very similar to other sites on the mesa, except for bone awls which appear to be unique to ORA-83 and ORA-85.

## COOPER CENTER UPDATE

The John D. Cooper Center for Archaeology and Paleontology recently appointed a new Associate Curator of Archaeology, Jeannine Pedersen. Jeannine has her MA in Curatorial Studies and has over 15 years of experience working with artifacts. She will be managing the Archaeology Lab at the Cooper Center, curating the archaeological collections, working with students and volunteers, and assisting with outreach efforts. If you are interested in volunteering at the lab, please contact Jeannine at [jpedersen@fullerton.edu](mailto:jpedersen@fullerton.edu) or 714-647-2111.

## 2012 PCAS SCHOLARSHIPS

The application deadline for two \$750 PCAS scholarships is April 30. Candidates must obtain upper division status by fall 2012. Guidelines and application forms are available on our website at [www.pcas.org](http://www.pcas.org). Please direct questions to [scholarships@pcas.org](mailto:scholarships@pcas.org).

## MARCH BOARD MEETING SUMMARY

*Submitted by Kathleen Shada*

President **Scott Findlay** called the meeting to order at 7:07 pm at the Old Orange County Courthouse, Santa Ana, California. Board members present: **Bob Brace, Gail Cochlin, Sherry Gust, Joe Hodulik, Hank Koerper, Kathleen Shada** and **Jane Gothold**. Members present : **Rene Brace** and **Megan Galway**.

The February 2012 minutes were approved. The treasurer's report and expenditures were approved. Bob Brace reported Chase Bank was waiving minimum balance fees for one year.

**Rene Brace** and **Scott Findlay** accessed the new PCAS server. R. Brace will send out user names and passwords so records can be archived. **Sherry Gust** reported that 100 Lavinia Knight collection commemorative bookplates have been formatted and printed. She will deliver them to the library. **Jane Gothold** located and donated historical society newsletters to the Orange County Archives. The board will continue to review the EIRs we have on file and offer any that do not directly relate to our collections. All this material will continue to be available through the OC Archives. **Mark Roeder** will continue to check with Jim Brock's brother regarding the return of a collection of Quarterly issues that had been loaned to Brock for outreach activities after his home and library burned in a wildfire.

**Scott Findlay** reported that the Garfield outreach date was selected to accommodate the school's testing cycle. Archaeology Day is scheduled for Tuesday, June 5, 2012.

The Board unanimously resolved to condemn the televising of pot hunting shows. Information will be included in the next PCAS newsletter to allow members to voice their opinions. **Hank Koerper** reported that a researcher wanted permission to study PCAS otolith collections. The Board determined it needed more information regarding the research design and needed to create a policy for granting permission for this and future requests. Mark Roeder will gather more information regarding the study's research design.

The Board discussed inclusion of a Grierson report (part of the Malcolm Farmer Collection) in a Quarterly publication. **Scott Findlay** and **Hank**

**Koerper** provided background information. A Board majority voted to include the report in a future Quarterly. Curation workdays continued with the inventory of a number of small collections, including ORA-189 (Buck Gully #2) and Bonita Mesa 4 (BM4 or ORA 134).

**Joe Hodulik's** donation/award table generated \$155 in March! **Hank Koerper** may donate two display cases to PCAS. **Jane Gothold** will consult with OC staff regarding their possible placement in the hall outside the PCAS library. PCAS will have a Quarterly table at the SCA Meeting, March 29-April 1. The March 17-19 field trip to the Mojave Preserve was canceled due to weather conditions. Quarterly Volume 46, Numbers 1 and 2 (double issue), and Number 3 is expected to be published in April.

The meeting was adjourned at 8:25pm

### April Speaker *(Continued from p. 1)*

The presentation will detail the evidence for locating the sea cave and its connection to ancient cosmological beliefs.

Stephen O'Neil received a BA in anthropology from CSU Long Beach in 1979 and a MA in cultural anthropology from CSU Fullerton in 2002. He has 30 years of experience as a cultural anthropologist in California. He has researched and written on ethnography, archaeology, and history.

The greater part of his work has concentrated on the ethnohistory of southern California tribal peoples. This work has entailed the use of directed and open-ended interviews with Native community members, as well as archival research. He has particular expertise in the use of mission records for the study of population and social networks. He is also familiar with ethnobotany, family reconstruction, and rock art.

Mr. O'Neil also has archaeological experience in excavation and survey, mostly on Native American prehistoric sites, but also with Spanish, Mexican, and American period adobe structures. He has worked for several cultural resource management firms, including SWCA, Chambers Group, and currently UltraSystems Environmental, as well as for government agencies and Native American entities. He has published articles in the *Journal of California and Great Basin Anthropology*, the *Pacific Coast Archaeological Society Quarterly*, *News from Native California*, and the *Society for California Archaeology Newsletter*. Topics have ranged from village place names to cosmology and medicinal plants.

## NOTES ON ABORIGINAL PRODUCTIONS OF FIRE

*Ivan Snyder*

Henry Koerper's *PCAS Newsletter* article (2012) regarding crystals ended with an admonition: "...do not accept Kroeber's (1925:249-250) assertion that pre-contact Pomo understood how to make fire by rubbing together or striking together lumps of quartz and showering the sparks onto tinder." Koerper indicated that such friction or percussion results merely in a display of triboluminescence and is insufficient to produce heat necessary to start a fire. The retired college professor offered no further observation, thus prompting some of what follows.

The so-called "sparks" are piezoelectric flashes which are simply not hot. The piezoelectric effect will occur when certain kinds of nonconducting crystals are subjected to compression or stretching along an axis. Such mechanical strain makes them electrically polarized, and an electrical charge develops on surfaces.

Others have uncritically passed along Kroeber's (1925:249-250) incorrect information (e.g., Brown and Andrews 1969:26-27). Barrett (1952:271) was skeptical of Kroeber's information (1925:249-250). He wrote that the action using "two lumps of quartz" was "such an unusual method that we may question its accuracy." He suspected that there may have been "a confusion in the mind of the informant...[that] may actually refer to the flint-and-steel method which came to the Pomo with the advent of whites."

Interestingly, Hudson and Blackburn (1983:357, 359) reported that J. P. Harrington was told by a Kitnemuk informant that both the Kitnemuk and the Gabrielino made fire by striking rocks together. Flint and iron pyrite struck together will produce hot sparks, but no record exists of pre-contact California Indians having observed such.

A prevailing misconception is that hot sparks issue from the flint rather than the pyrite or steel. The spark is a minute burning speck of pyrite or steel produced through being sheared off with great force when striking the sharp edge of the flint, usually a piece of chalcedony or chert.

Hugo Reid provided a Gabrielino account, perhaps apocryphal, of their early encounter with Spaniards that involved witness to the strike-a-light.

The Indians were sadly afraid when they saw the Spaniards coming on

horseback. – Thinking them gods, the women ran to the brush, and hid themselves, while the men put out the fires in their huts. They remained still more impressed with this idea, when they saw one of the guests take a flint, strike a fire and commence smoking, having never seen it produced in this simple manner before. [Heizer 1968:69]

The only device to make fire in the entire pre-contact California culture area was the friction-fire two stick hand-drill – a hearth piece (often noted as the female element) and the rod-shaped drill (male) piece. No pre-contact California tribe knew of the bow drill (see Campbell 1999:4-10; see also Hudson and Blackburn 1983:355-358).

The traditional fire drill fell into disuse with the historical introduction of the flint striker. Harrington's Chumash consultants provided accounts of employment of this new technology (see Hudson and Blackburn 1983:359-360). Flint and steel eventually gave way to the match, the earliest of which was the 1827 invention of English pharmacist John Walker.

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## PCAS Curation

### April Curation Workday

**When:** April 21, 2012

**Time:** 1 pm

**Where:** Red Car Building

We are continuing the inventory and rebagging of some small PCAS collection. Many of these collections are from the very early days of PCAS excavations, the 1960s. Workday volunteers found some very interesting artifacts within the Bonita Mesa collections (see photos below); a particularly interesting artifact is not pictured, but it will be featured in an upcoming *PCAS Quarterly* article.

Everyone is welcome. Please contact **Mark Roeder** (714-299-4150, [curator@pcas.org](mailto:curator@pcas.org)) or **Rene Brace** (714-544-6282, [info@pcas.org](mailto:info@pcas.org)) for directions and to let us know you will be coming.



**Biconically drilled pendant, Bonita Mesa collection.**



**Plummet-like charmstone, Bonita Mesa collection.**

## FIELD TRIPS

PCAS members enjoyed blue skies, mild temperatures, beautiful oak woodlands, and wildlife sightings on the February 25th field trip into the Weir Canyon Wilderness Area. The hike was graciously led by Brian Steffensen, a PCAS member and docent for the Irvine Ranch Conservancy (IRC). We were rewarded for our eight-mile, roundtrip hike by visits to several sites of prehistoric habitation with bedrock mortars and heavy midden soil. The Santiago Petroglyph style was abundant—with manmade grooves and gouges much more discernible in person than in photographs. A plaque within the canyon commemorated the canyon's use in historic times: *Through this canyon in Mexican days, oxen-drawn carretas carried hides to the embarcadero at San Juan Capistrano.* Weir Canyon was most likely such a corridor in prehistory as well.

Check the PCAS website for information on upcoming field trips.



**Weir Canyon field trip participants.**



**Santiago Petroglyph style in Weir Canyon.**

## DIG THIS...



### Exhibits

**California Gold** presents specimens, coins, bullion, and recovered material from sunken ships. Bowers Museum, through September 30. Fee: \$9-\$12. Information: [www.bowers.org](http://www.bowers.org) or 714-567-3600.

**The Word: Ink & Blood—Dead Sea Scrolls to Gutenberg.** The Muzeo, Anaheim, through September 9. Fee: \$13. Information: [www.muzeo.org](http://www.muzeo.org).

### Lectures

**Catalina Trails and Their Connection to the Southern California Mainland and Beyond**, by Wendy Teeter (Curator of Archaeology, UCLA Fowler Museum), Desiree Martinez George (Gabrieleño, Cogstone Resource Management archaeologist), and Karimah Richardson (Southwest Museum archaeologist). A lecture of the Coachella Valley Archaeological Society, Cathedral City Community Center, 37-171 West Buddy Rogers, April 3, 6:30 pm. Free. Information: [www.cvarch.org](http://www.cvarch.org).

**Pre-Columbian Treasures and Traditions: From Mesoamerica to the Andes. Part I: The South American “Mother Cultures” (Olmec - Inca)**, April 4, 1:30-2:30 pm; **Part II: Sacred Gold Burial Sites: Panama, Colombia and Peru**, April 11, 1:30-2:30 pm. Both lectures by Cynthia MacMullan, Bowers Museum. Fee: Series \$25, single lecture \$15 (members \$20, \$12). Information [www.bowers.org](http://www.bowers.org) or 714-567-3600.

**The Art of Interior Design for the Afterlife: The Private Tomb of Menna on the West Bank of Luxor**, by Dr. Melinda Hartwig (Georgia State University). An ARCE lecture, Bowers Museum, April 14, 1:30 pm. Free. Information: [www.bowers.org](http://www.bowers.org) or 714-567-3677.

**Go Spartans: Girls’ Athletics in Ancient Greece**, by Jenifer Neils (Case Western Reserve University, Cleveland), an AIA, Orange County Chapter, lecture. DeNault Auditorium, Grimm Hall, Concordia

University, Irvine, April 14, 3-5 pm. Fee: \$5; members free. Information: <http://aia-oc.org>.

**Stone Tools: Origins of Technology**, by Dave LeCocq. Black Rock Visitor Center, Yucca Valley, April 20, 7 pm. Free. Information: 760-367-5535 or <http://desertinstitute.homestead.com>.

**Gold, Glorious, Gold! The Meaning of Pre-Hispanic Gold in Columbia**, by Cameron Jean Walker, Ph.D. (CSUF), will discuss the role of artisans in prehispanic South American society. Bowers Museum, April 29, 1:30-2:30 pm. Free with museum admission or \$8. Information [www.bowers.org](http://www.bowers.org) or 714-567-3600.

### Classes, Meetings, and Events

**Archaeology Weekend at Anza-Borrego Desert State Park** will be April 14-15. Tours of the archaeology lab, displays, demonstrations, and lectures will be at the ABDSP Visitors Center in Borrego Springs. Field trips are scheduled for April 15.

**The Science and Art of Atl-Atl.**, a two-part workshop by the San Diego Archaeological Center (SDAC) and the Kumeyaay-Ipai Interpretive Center (KIIC). Class I: Dr. Tim Gross and Bruce Gallagher will present the mechanics of the atlatl and participants will for practice outdoors, SDAC, May 12, 10 am - 1 pm; Class 2: James Wylie will teach a knapping class, KIIC, June 9, 8:30 am -12:30 pm. Fee: \$40 for one class, \$65 for both (members \$25, \$40). Information: <http://www.sandiegoarchaeology.org>.

### Websites

Visit [www.pcas.org](http://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](mailto:newsletter@pcas.org).**

## PCAS CODE OF ETHICS

The Pacific Coast Archaeological Society (PCAS) is a non-profit 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.

### PCAS Board Resolution on *Diggers/American Diggers*

Our members are likely aware of the current outcry regarding two new TV shows— *Diggers* on National Geographic Channel and *American Diggers* on Spike TV. Major archaeological and anthropological groups across the country are unanimous in their condemnation of these shows. Both shows appear to glorify the uncontrolled excavation of artifacts and their subsequent valuation and sale. The PCAS Board passed a unanimous resolution to condemn these two shows and encourages members to make their voices heard.

The Society for American Archaeology (SAA) has posted letters regarding both shows. These letters contain useful contact information. See <http://www.saa.org/ForthePress/SAAnews/tabid/139/Default.aspx>.

### PCAS SPEAKER CALENDAR

**May 10, 2012**

**Dr. Nancy Anastasia Wiley**

***Bolsa Chica Archaeology***

***Part Seven: Culture and Chronology***

**June 14, 2012**

**To be announced**

**No Meetings in July and August**

**September 12, 2012**

**Dr. Alan Gold**

**October 11, 2012**

**Dan Reeves**

## 2012 PCAS BOARD MEMBERS AND COMMITTEE CONTACTS

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\*Denotes PCAS Board Member

## PACIFIC COAST ARCHAEOLOGICAL SOCIETY

### 2012 Calendar Year Membership and Subscription Form

Name(s): \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

**Yes, I would like to receive my Newsletter by email. Please be sure email above is legible.**

*I have read and agree to abide by the PCAS Code of Ethics* \_\_\_\_\_

Signature

**Membership** (Includes Quarterly/Newsletter)

- Active Member - \$45
- Family Membership - \$50
- Supporting Member\* - \$55
- Donor Member\* - \$75
- Lifetime Member\* - \$1000

\* May be individual or family membership

**Subscription Only**

- Quarterly* - \$37
- Newsletter* - \$18
- Student Associate - \$10 (email Newsletter only)

**Scholarship Fund**

Donation \$ \_\_\_\_\_

**Return form with payment to:**

**PCAS Membership**  
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**Costa Mesa, CA 92627-0926**

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