



MARCH 2011

PCAS NEWSLETTER

THE MONTHLY PUBLICATION OF THE
PACIFIC COAST ARCHAEOLOGICAL SOCIETY

www.pcas.org

Volume 50 Number 3

ISSN 0270-6776

MARCH PCAS SPEAKER

Dr. Nancy Anastasia Wiley

Bolsa Chica Archaeology:
Part Three: Bolsa Bead Sequence

In 1987 James Bennyhoff and Richard Hughes presented a bead chronology for California based mostly on northern California, Nevada and Great Basin materials but also including data compiled by Chester King on southern California beads. Thousands of shell beads have been recovered from the extensive excavations on Bolsa Chica archaeological sites. The third talk in the series on Bolsa Chica Archaeology presents a brief profile of the 20+ bead types recovered from Bolsa Bay. These will be classified according to the Bennyhoff and Hughes typologies where possible; however, new bead types found during these investigations will also be discussed. In addition, a chronological sequence will be presented in two ways: first, by using a seriation technique ranking the beads from oldest to youngest based on their presence, absence and quantities at five sites of different and overlapping time periods. The second technique will include ranking the beads by the results of direct radiocarbon dating of the actual specimens. The presentation will also investigate possible prehistoric use of the beads through an analysis of stringing techniques and use-wear patterns.

Dr. Nancy Anastasia Wiley is the Principal Investigator and Research Director (*continued on page 3*)

DINNER WITH THE SPEAKER

Please join this month's speaker, **Dr. Nancy Anastasia Wiley**, and PCAS members for dinner before the March 10th 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

March 10 - 7:30 pm

Speaker: Dr. Nancy Anastasia Wiley

Topic: *Bolsa Chica Archaeology:*
Part Three: Bolsa Bead Sequence

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

March 17 - 7:00 pm

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

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FEBRUARY SPEAKER NOTES

Mojave Desert Petroglyph Dating and the Peopling of the Americas

Submitted by Megan Galway

Dr. David Whitley, a foremost expert on Native American rock art, updated us on recent developments in the field of petroglyph dating and how these dates may relate to other archaeological dating techniques.

Rock art dating had previously been based on subject matter and ethnography. Panels depicting horse and rider motifs are generally considered to date from the 19th century, and the bow and arrow are known to have replaced atlatls around 1,500 YBP. Ethnographic reports tell us rock art was still being made in recent times. Both of these methods tell how young a panel may be but not how old.

More recent dating methods are based on the study of rock varnish, a thin layer of wind-blown dust that becomes attached to the rock over time. Petroglyphs are created by incising through the varnish, and age may be determined by how much varnish has been re-deposited. Two dating methods are currently showing promise: cation ratio (CR) studies are based on the concept that cations present in the varnish leach out at varying rates; varnish micro lamination (VML) is a process similar to tree-ring dating, where microscopic layers can be identified. These layers are ascribed to specific climatic periods over many thousand years, rather than being annual as in tree-rings.

In a recent study these methods returned conservative dates for the area of 11,200–250 Y BP. Eighteen percent were older than 9,000 YBP and 13 percent younger than 1,000 YBP. The earliest iconic motif, a bighorn sheep, was dated at 11,200 YBP. A heavily re-varnished concentric circle returned a CR age of $16,500 \pm 1,500$ and a VML age of 14,000–21,000 YBP.

If these panels do, indeed, date to the Pleistocene why are we not seeing depictions of extinct Pleistocene megafauna? Dr. Whitley noted that the bighorn, in fact, dates to that time, and a panel in the Rodman Mountains possibly depicts an extinct camelid. This panel has been dated to CR $13,400 \pm 2,000$ and VML 17,150.

Two aspects are being considered in these studies—how the petroglyphs relate to the ethnographic



Program Chair Joe Hodulik with February speaker Dr. David Whitley

evidence and indications of continuity through time. Dr. Whitley believes the ethnography points to petroglyphs being a feature of sacred sites, created by shamans during vision quests. He also identifies the Coso area as a pilgrimage location visited by shamans from a large geographic area. Dr. Whitley noted that if shamanism is considered to be a religion and religions are known to change very little over time, we could expect a consistency in the design and use of shamanistic petroglyphs. The Coso petroglyph motifs appear to be consistent over time, with an increase in human figures in more recent times. Quartz crystals have been identified in many petroglyphs, indicating the use of quartz hammerstones for some 11,000 years. Quartz is known to be a common item in a shaman's toolkit, and rubbing crystals together creates a glow (triboluminescence) believed to bring rain.

Mojave Desert petroglyphs dating to 15,000 YBP would be the oldest in the Americas, and we must then ask whether rock art use arrived with the first immigrants or developed later. Although almost identical forms of shamanism have been found in Siberia and the New World, it only seems to first appear in Siberia around 4,000 YBP. Dr. Whitley suggests cultural concepts that developed in North America were carried back to Siberia in a reverse migration around this time. Other artifact forms, such as toggle-headed harpoons, also appear to be part of this migration, having appeared first in North America.

Those of us with an interest in rock art found this to be a most interesting presentation and look forward to hearing more of Dr. Whitley's research.

FEBRUARY BOARD MEETING SUMMARY

President Scott Findlay called the meeting to order on February 17, 2011, at 7:05 pm at the Old County Courthouse, Santa Ana, California. Board members present: **Scott Findlay, Megan Galway, Bob Brace, Hank Koerper, and Kathleen Shada.** Members present: **Rene Brace and Joe Hodulik.**

The January 2011 minutes were approved. The treasurer's report and expenditures were approved.

The Board unanimously voted to appoint **Joe Hodulik** to fill the vacant Board position. Joe committed to be a working Board member. Our March curation workday has been moved from March 12 to March 26—a number of members will be attending the SCA Annual Meeting which conflicts with the March 12 date. The annual Garfield Academy outreach day has been scheduled for Wednesday, May 4th, and volunteers will be solicited. The May 4th event will begin at approximately 10:30 am—later than previous outreach days. The Board voted to return culturally sensitive material from ORA-236 (Coyote Canyon Cave) and ORA-234 (the Spring site). The Native American Heritage Commission will be contacted.

Speakers for PCAS meetings have been scheduled through November. **Joe Hodulik's** Donation-Award table generated \$120 in February! Joe will test a new procedure for the Donation-Awards table at the next meeting—on a first come basis, any item on the table can be purchased for a \$20 donation. Tickets will continue to be sold as usual. A field trip to Anza Borrego for February 19-21 was postponed until the following weekend because of weather. A trip to the Mojave National Preserve is scheduled for March 19-21—members hope to view rock art spring equinox events. Curation volunteers have completed the inventory of ORA-236 and are currently working on ORA-190 (the Buck Gully site).

Prior to the meeting, Board members prepared *PCAS Quarterly* Volume 44, Number 3, for mailing. Board members will attempt to hand-deliver as many issues as possible to save postage fees. *Quarterly* Volume 44, Number 4, is expected within a few months, and we have an additional single issue and two double issues in process. Potential authors and reviewers will be solicited at the SCA information and Quarterly sales table.

The meeting was adjourned at 8:15 pm.

IMPORTANT REMINDERS

Membership Renewals

PCAS memberships are calendar-year based. Renewals for 2011 were due January 1st. Membership forms are in this newsletter and also available on our website. Mailing costs are expected to increase again this year, and we encourage members to choose the email option for receipt of their newsletters. Questions about your membership status may be emailed to membership@pcas.org.

Annual Scholarship Awards

Applications are now being accepted for two \$750 undergraduate scholarships. Complete details, guidelines, and application forms are available on the PCAS website. If you are (or know) a student who will be achieving junior year status and with a committed interest in archaeology, please let us hear from you. The application deadline is April 30th, and awards will be announced by May 31st.

PCAS Quarterly Volume 44, Number 3

This issue has been mailed to members and subscribers—except for those members who generally attend our monthly meetings. If you've not received your copy, it will be available for pick-up at the March meeting. If you're not at the meeting, your copy will be mailed.

March Speaker *(continued from page 1)*

for Scientific Resource Surveys, Inc. Dr. Wiley was part of an international research team at Franchthi Cave in Greece during the late 1970s and early 1980s, just prior to her work on the Bolsa Chica archaeological sites. Her research contributions included examining and categorizing thousands of land snail shells recovered from the Mesolithic component of that site. Stratigraphic layers of land snail remains at least one meter deep are found at cave sites throughout the Mediterranean from this time. Land snails played an important role in the economy about 13,000 years ago when they replaced the marine shellfish as a critical food source. As a result of this work, Dr. Wiley has investigated the use of land snails in all cultural contexts including decorative, medicinal and culinary uses. Her specialty regarding mollusks has been carried over to shellfish studies at the archaeological sites surrounding Bolsa Bay. Her current emphasis is on the social, economic and political aspects of the Bolsa shell bead industries.

CURATION WORKDAYS

March Workday

When: March 26, 1 pm

Where: Red Car Building

Everyone is welcome. No experience necessary! Please contact **Mark Roeder** (714-241-8880, curator@pcas.org) or **Rene Brace** (714-544-6282, info@pcas.org) for directions and to let us know you will be coming.

February Workday

We began an inventory and the reboxing and re-bagging of PCAS's collection from CA-ORA-190 (the Buck Gully site), which was excavated by PCAS in 1970. February volunteers: **Bob and Rene Brace, Scott Findlay, Megan Galway, Ardy Haworth, Steve O'Neil, and Mark Roeder.**



Ceramic pipe fragment from the CA-ORA-190 collection.



Artifacts from the CA-ORA-190 collection from top, left: a bone tool, two local chestnut cowries, two points, and a tablet fragment with three rows of an incised sawtooth design.

MARCH FIELD TRIP

When: March 19-21, 2011

Where: Mojave National Preserve

We plan to visit rock art and habitation sites within the preserve. Some sites we plan to visit will require cross-country hiking. This can be a 1 to 3 day trip. We plan to dry camp within the preserve. For information on the Mojave National Preserve, visit www.nps.gov/moja/index.htm.

Please sign up for this field trip by contacting **Scott Findlay** at 714-342-2534 or fieldtrips@pcas.org. Please be aware that you will be required to sign a code of ethics and waiver of liability, which acknowledges that some areas we plan to visit have inherent natural dangers. If you are unable to attend a field trip for which you have signed up, contact Scott as soon as possible. For contact the day of the field trip, call cell phone 714-342-2534.

January Field Trip

The January 29-31 PCAS field trip visited several rock art site. Corn Springs petroglyphs are shown below.



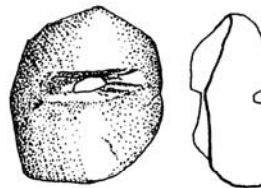
ORA-83, 85, 365 & 368 N1 - Type



83-70456



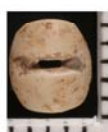
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N2 - Type



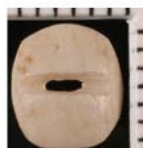
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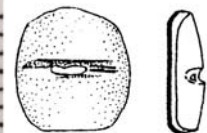
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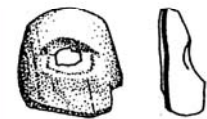
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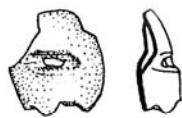
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85-10101



365-10115



365-10998



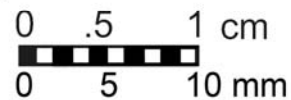
N3 - Type



85-59779



85-59780



OLIVELLA GROOVED RECTANGULAR BEADS FROM BOLSA BAY SITES
Courtesy of Scientific Resource Surveys

DIG THIS...



Lectures

The Prehistoric Mound Builders of the Southeastern United States, by Julia Weaver, a lecture of the Coachella Valley Archaeological Society. Cathedral City Community Center, 37-171 West Buddy Rogers, March 1, 6:30 pm. Free. Information: www.cvarch.org.

Forensic Pathology, by Dr. Elizabeth Miller (CSULA and LA County Department of the Coroner), part of the "Strange Bones" Lecture Series. Gill Auditorium, San Diego Museum of Man, March 12, 11 am-1 pm. Free with museum admission. Information: www.museumofman.org or 619-239-2001.

The End of Egypt's Pyramid Age from Space, by Dr. Sarah Parcak. A lecture of the AIA, Orange County Chapter. Beckman Center, Irvine, March 17, 7 pm. Fee: \$5; members, students free. Information: <http://aia-oc.org>

GIS: Mapping the Past for the Future, by Mark Jumps. A San Diego Archaeological Center Lunch Time Lecture, March 18, 12 noon. Information and reservations: www.sandiegoarchaeology.org or 760-291-0370.

Confining a People within a Map, by Paul Apodaca, Ph.D. The Autry in Griffith Park, March 19, 1-2:30 pm. Free with museum admission. Information: 323-667-2000 or <http://theautry.org/>.

Fish Traps: Facts and Fiction, by Leslie Mouriquand (Riverside County Archaeologist and Cultural Liaison). A lecture of the Old Firehouse Lecture Series, Portola Community Center, 45-480 Portola Ave, Palm Desert, March 25, 7 pm. Fee: \$5. Information: desertinstitute.homestead.com or 760-367-5535.

The Goddess Isis, by Dr. Francesco Tiradritti (Director of the Italian Archeological Mission in Luxor), an ARCE lecture. Bowers Museum, March 26, 1:30 pm. Free. Information: www.bowers.org or 714-567-3677.

Classes, Meetings, and Events

The Society for California Archaeology 2011 45th Annual Meeting will be held March 10-13 at the Doubletree Hotel, Rohnert Park. Information: www.scahome.org.

Calico Early Man Site Picnic, with Adella Schroth (Curator of Anthropology). A field trip of the San Bernardino County Museum, March 26, 8:30-4:30 pm. Fee: \$50; members \$40 (includes transportation and snacks). Must register by March 22. Information: 909-307-2669 or www.co.san-bernardino.ca.us/museum.

Artifact Casting Workshop, by Juliana Gay. San Diego Archaeological Center, April 9, 10 am-12:30 pm. Fee: \$40, members \$25). Limited seating - enroll early. Information: www.sandiegoarchaeology.org. Registration: acox@sandiegoarchaeology.org or 760-291-0370.

Artifact Photography at the San Diego Archaeological Center (SCAC), by Adolfo Muniz, SCAC, May 14, 10 am-2pm; and ***Rock Art Photography at the Kumeyaay Ipai Interpretive Center (KIIC)***, by James Respass. KIIC, Poway, October 15, 8:30 am-12:30 pm. Both classes by SCAC and KIIC. Fee: Both classes \$100 or one class \$65; members \$75 and \$50. Register early—limited seating. Information: Dan Cannon at 858-922-8043 (KIIC) or An-nemarie Cox (SDAC) at 760-291-0370 or acox@sandiegoarchaeology.org.

The American Rock Art Research Association (ARARA) Annual Meeting will be held at the Shilo Inn Conference Center, Idaho Falls, Idaho, May 27-30. Information: www.arara.org.

Websites

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 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.

HANDBOOK OF THE KAWAIIISU

Book signing and celebration March 5 from 1-4 pm at Tehachapi Museum, 301 S. Green St., Tehachapi. Contact Charles White 661-972-0958 for info.

The authors, Kawaiisu Elder Harold Williams and archaeologist Alan Garfinkle, will be present to sign copies of the book, available for \$30 at the event.

The free event includes native drumming and dancing, Kawaiisu language talk, flintknapping demonstration and Kawaiisu basket weavers. Indian fry bread tacos available for purchase. Tours of the Kawaiisu exhibit in the Milano Gallery will be conducted.

PCAS SPEAKER CALENDAR

April 14, 2011

Dr. Nancy Anastasia Wiley, Andrew Garrison, and Destiny Colocho

*Bolsa Chica Archaeology:
Part Four: Mesa Production Industries*

May 12, 2011

Dr. Mark Sutton

The Takic Expansions and a New Interpretation of Southern California Prehistory

June 9, 2011

Russell L. Kaldenberg

Honoring the Life's Accomplishments of Jay von Werlhof

2011 PCAS BOARD MEMBERS AND COMMITTEE CONTACTS

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Website	Rene Brace	info@pcas.org	714-544-6282

*Denotes PCAS Board Member

PACIFIC COAST ARCHAEOLOGICAL SOCIETY

2011 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
PO Box 10926
Costa Mesa, CA 92627-0926**

www.pcas.org