MARCH PCAS SPEAKER

Dr. Todd Braje

The Intersection of Archaeology and Restoration Biology in the Age of the Anthropocene

Earth’s ecosystems are rapidly changing, driven largely by human activities, including the overexploitation of wildlife, habitat degradation, and climate change. These anthropogenic impacts are occurring on such a large scale that they have fueled the assertion that we now live in the Anthropocene, an epoch dominated by human influence. To help understand and confront these environmental challenges, researchers increasingly recognize the need for new data and approaches. One such approach is historical ecology—broadly defined as the use of paleobiological, archaeological, and historical data to better understand ecological (Continued on p. 3)

PCAS MEETINGS CALENDAR

GENERAL MEETING
Free and Open to the Public
March 13 - 7:30 pm
Speaker: Dr. Todd Braje
Topic: The Intersection of Archaeology and Restoration Biology in the Age of the Anthropocene
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 27 - 7:00 pm
Location: Old Orange County Courthouse
PCAS Library, Ground Floor
211 W. Santa Ana Blvd., Santa Ana

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Have you renewed your membership?
Use the membership form in this Newsletter.
Please note Board Meeting date change.

DINNER WITH THE SPEAKER

Please join this month’s speaker, Dr. Todd Braje, and PCAS members for dinner before the March 13th General Meeting. We will meet at 6 pm at Mimi’s Café, 4030 Barranca Parkway, Irvine.

Dr. Todd Braje.
FEBRUARY SPEAKER NOTES

Adaptive Divergence Among
Southern California Hunter-Gatherers

Submitted by Megan Galway

Dr. Micah Hale discussed the concept of cultural complexity, how it is measured, and its relevance in anthropological study. He compared the Chumash and their extensive tool kit with the people of the San Diego area whose technology changed very little over many centuries, and raised the question as to whether one culture was more advanced than the other. He notes that recent conceptions acknowledge that hunter-gatherers can be socially complex, but there is still a bias that greater technological complexity means greater cultural complexity.

Dr. Hale noted that progressivism as defined by Herbert Spencer stated that cultures developed from “primitive” to “barbaric” to “civilized.” This progression was attributed to increased technological complexity. Twentieth century anthropologists rejected much of this theory and believed that population density produces stress and leads to cultural change. Lewis Binford defined two types of population—foragers who move across the landscape to find resources and collectors who settle in one place and bring resources back to the village. Each of these groups may employ different technologies relevant to their particular lifeways, but neither group can be considered more or less culturally developed because of this. While early archaeologists concentrated on monumental archaeology and collection of the more impressive artifacts, Binford paid attention to the small stuff and believed that population dynamics led to cultural complexity and technological advances.

Technological development is controlled by either time or energy, which in turn controls whether a tool is generalized or specialized. A generalized tool requires less time to produce and is effective for its intended purpose. Other than the bow and arrow, there have been very few technological advances in recent times among hunter-gatherer societies. The tools these people have always used serve as well today as they have in the past. A population favoring energy over time will gradually develop more specialized technology.

When groups become more sedentary, their resources require both population and cooperation.

Dual inheritance theory maintains that people don’t invent complex tools, populations do. Complexity evolves slowly, but the rate of accumulation is exponential—information builds on itself. The capacity to store information at the population level is defined as culture. The Neanderthal had very little technological variability, but Paleolithic man had a tool kit resulting in flaked and ground tools, beads, figurines, and cave art. These technologies changed little for 30,000 years, but the archaeological record appears to show an exponential increase in technological complexity with a dramatic increase beginning about 500 years ago.

Dr. Hale questions our definition of complexity using the Chumash and San Diego area comparison, with San Mateo Creek as the dividing line. The San Diego tool kit, consisting of unshaped, well-used, informal tools, was little changed over 10,000 years. The Chumash people were making mortars and pestles at least 5,000 years ago, and their tool kit increased in formality over time to include boats and more sophisticated fishing techniques. Both groups had access to similar resources, including oak trees and fisheries, and local geographic and climatic conditions were similar. So why were their lives so different? Dr. Hale attributes this to the time versus energy concept. The San Diego area people valued time and minimized the time spent in subsistence. The Chumash valued energy and social institutions including access to mates, food sharing, politics, defense, and social justice. With all these attributes we might suggest they were more culturally advanced, but are they any more technologically advanced than a culture whose tool kits had adequately provided for their needs for thousands of years?
February Speaker (continued from p. 1)

change and human-environmental interactions over the longue durée.

Archaeological research on California’s Northern Channel Islands is offering new perspectives on the deep historical patterns of human adaptations and impacts on marine and terrestrial ecosystems. These include possible trophic cascades triggered in kelp forest ecosystems by intensive human hunting of sea otters beginning as early as 8,000 years ago, a measurable decline in the average size of key shellfish prey species through time, changes in the relative abundances of many sea mammal species, and the introduction of dogs and foxes to fragile island biota. Ultimately, these data can offer important baselines for the modern management of marine fisheries and coastal ecosystems around the globe.

Dr. Todd Braje is an anthropological archaeologist and assistant professor at San Diego State University. Over the last ten years, the majority of his archaeological field research has been conducted on California’s Northern Channel Islands where he investigates the 13,000 year history of human-environmental interactions and the application of archaeological records to modern fisheries management. His diverse research includes fieldwork at some of the oldest sites along the New World Pacific Coast, occupied by Pleistocene maritime voyagers, and 19th century commercial abalone processing camps, created by Chinese immigrants during the California gold rush. Along with over 50 academic journal articles, Dr. Braje has published a book, Modern Oceans, Ancient Sites, and a co-edited volume, Human Impacts on Seals, Sea Lions, and Sea Otters. His current research projects include a large-scale survey for historic abalone fishing camps on Santa Rosa and Santa Cruz islands and an excavation project at a large Native American village, Qshiwqishiw, on Santa Rosa Island.

March Curation Workday

When: March 15, 2014, 1 pm
Where: Red Car Building

We will continue work on the very large CA-ORA-291 collection. ORA-291 was located on Huntington Beach Mesa. Everyone is welcome. 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.
Koerper and Strudwick’s (2006) article on mineral pigments used in Native coastal southern California gave special attention to a 209.5 g nodule of galena, or lead sulfide (PbS), recovered from CA-ORA-269 in the San Joaquin Hills. Pictographs and petroglyphs adorned this rockshelter’s walls. The chunk of lead sulfide seemed not out of place at this obviously sacred location since the mineral is ethnohistorically documented as a paint pigment and as having magico-religious importance (e.g., Wagner 1929:233, 237; Priestly 1937:36; Simpson 1938:52, 110, note 29; Woodward 1959:14).

The regional archaeological record also identifies the San Pedro Harbor site, or CA-LAN-283, as yielding a 3.4 g piece of “fairly pure” galena (Butler 1974:70). Best guesses are that the LAN-283 specimen had been traded from Santa Catalina Island (see Probert 1982:486) and that the ORA-269 specimen had been acquired in the Santa Ana Mountains (see Randolph 1935:7–8; Morton et al. 1976:193; Simpson 1983:52).

Additional evidence for the special status of galena is the recent find of a 30 g piece of the mineral (Figure 1) within a box containing human bone, teeth, and matrix soil. There is no information regarding provenance save for the remembrance that the burials came from somewhere in or near the Los Angeles Basin. The bone was generally highly stressed (several thousand small fragments). Few skeletal elements were complete or even nearly complete. The box held skeletal and dental parts of a minimum of three individuals. The crushed mortuary remains possibly resulted from impacts by heavy equipment on a construction site, an event that may have taken place in the 1950s, but absolutely no later than 1962.

The 30 g piece of galena is reasonably inferred to have been a burial good. The specimen’s maximum diameter is 25.5 mm. It has vibrant metallic luster, but below the level of “dazzling,” even when seen in direct sunlight. Its isometric crystals show cubic cleavage. The cleavage planes appear somewhat flaky and curving, indicating a relatively high silver impurity for what is the major ore for lead. The galena talismanic piece, bones, and teeth are soon to be reinterred by representatives of a regional Native American group. Parenthetically, galena bore some “magic” for the 1920s generation of children who built crystal radio sets and then again for many boys and girls particularly in the 1950s, when there was a resurgence in making these radios that required no electrical line or battery.

References Cited

Butler, William B.

(Continued on p. 5)
Koerper, Henry C., and Ivan H. Strudwick

Morton, Paul K., Russell V. Miller, and James R. Evans

Probert, Alan

Randolph, G. C.

Simpson, Lesley Byrd (translator)
1938  *California in 1792: The Expedition of José Longinos Martinez*. Huntington Library Publications, San Marino, California.

Wagner, Henry R. (editor)

Woodward, Arthur
1959  *The Sea Diary of Fr. Juan Vizcaino to Alta California, 1769*. Glen Dawson, Los Angeles.

**PCAS Field Trip**

**March 29–31, 2014**

**Piedras Grandes Area**

**Anza-Borrego Desert State Park**

The group will dry camp. Some sites will require cross-country hiking. For those with time constraints, this may be a two-day trip, but it is not recommended as a one-day trip. Please be aware you will be required to sign a code of ethics and waiver of liability.

Contact Scott Findlay (fieldtrips@pcas.org or 714-342-2534) for additional information and to sign up for this field trip.
DIG THIS...

Exhibits


Lectures


Soulful Creatures: Animal Mummies in Ancient Egypt, by Dr. Edward Bleiberg (Brooklyn Museum and co-organizer of the exhibition). Bowers Museum, March 22, 1:30 pm. Fee: $10 or $5 with paid admission. Information and to purchase tickets online: www.bowers.org.

The Ancient Synagogue and Village at Huqoq, Israel, by Susan Heuck Allen (Visiting Scholar, Brown University), presented by the AIA, Orange County Chapter. DeNault Auditorium in Grimm Hall, Concordia University, March 23, 2 pm. Fee: $5; members and students free. Information: http://aia-oc.org.


Lectures (continued)


The Ramesside Period in Egypt and a Sneak Peek at the Newly Restored Serapeum, by Dr. Aidan Dodson (University of Bristol). An ARCE lecture, Bowers Museum, March 29, 1:30 pm. Free. Information: www.bowers.org or 714-567-3677.

Classes, Meetings, and Events

The Society for California Annual Meeting will be held at the Visalia Convention Center, Visalia, March 20–23. Information: http://scahome.org/2014-annual-meeting.

Tom Dillard Flintknapping Workshop will be held March 28–30 at the Desert Studies Center, Zzyzx, and focus on antler-billet percussion to make bifaces. Cost including accommodations and meals is $225. For information, contact Jeanne Binning, 559-433-1424 (hm), 559-445-5793 (wk), Jeanne_binning@juno.com.

Between a Rock and a Hard Place: Geology and Stone Tool Workshop, with Patrick Abbott, Ph.D, Jim Bowden, and Jenny Adams, Ph.D. San Diego Archaeological Center, March 29, 8am–4 pm, $60 (members and students $40). Advance registration required and available online: www.sandiegoarchaeology.org, click on events.

The 28th Annual Desert Symposium will be held at California State University’s Desert Studies Center at Zzyzx, April 18–21 (presentations, April 18–19; field trips, April 20–21). This year’s theme: Environmental Monitoring and Reconstruction: Linking causes and biological consequences. Fees vary. Information: http://biology.fullerton.edu/dsc/school/symposium.html.

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

Editor’s Note: Please confirm time and place of listing prior to the event.
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.

SIGN UP FOR RALPHS’ COMMUNITY REWARDS

Please sign up for Ralphs’ Community Rewards. PCAS thanks Ralphs and all our participants for this opportunity to earn a donation of at least 1 percent of your Ralph’s purchases.

1. Go to www.ralphs.com and create an account or sign in (email and password) to your account.
2. Click on “My Account.”
3. Link your card to PCAS by clicking on “Community Rewards.” The PCAS organization number is 90417.

You can also designate PCAS as your choice by using a “scan letter” that you simply give to the Ralph’s cashier along with your Ralphs card (or phone number linked to your card). You only need to present the scan letter one time to link PCAS to your account. “Scan letters” are available at monthly meetings or by contacting info@pcas.org.

PCAS SPEAKER CALENDAR

April 10, 2014
John Rafter
_The Tortoise Intaglio Mystery_

May 8, 2014
Cara Ratner
_Ritual Symbols in Rock Art: Cupules and Incised Grooves in the Lower Pecos Canyonlands, Texas_

June 12, 2014
Dr. Matthew Boxt
_Post-Olmec Archaeology at La Venta, Tabasco, Mexico_
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<thead>
<tr>
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<th>Name</th>
<th>Email</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>*President</td>
<td>Megan Galway</td>
<td><a href="mailto:president@pcas.org">president@pcas.org</a></td>
<td>714-539-6354</td>
</tr>
<tr>
<td>*Vice-President</td>
<td>Scott Findlay</td>
<td><a href="mailto:vicepresident@pcas.org">vicepresident@pcas.org</a></td>
<td>714-342-2534</td>
</tr>
<tr>
<td>*Secretary</td>
<td>Brian Steffensen</td>
<td><a href="mailto:secretary@pcas.org">secretary@pcas.org</a></td>
<td>714-348-9179</td>
</tr>
<tr>
<td>*Treasurer</td>
<td>Rene Brace</td>
<td><a href="mailto:treasurer@pcas.org">treasurer@pcas.org</a></td>
<td>714-544-6282</td>
</tr>
<tr>
<td>*Historian/Librarian/Archivist</td>
<td>Jane Gothold</td>
<td><a href="mailto:librarian-archivist@pcas.org">librarian-archivist@pcas.org</a></td>
<td>562-947-6506</td>
</tr>
<tr>
<td>*Native American Liaison</td>
<td>Steve O’Neil</td>
<td><a href="mailto:nativeamericanliaison@pcas.org">nativeamericanliaison@pcas.org</a></td>
<td>949-677-2391</td>
</tr>
<tr>
<td>*Newsletter Editor</td>
<td>Sherri Gust</td>
<td><a href="mailto:newsletter@pcas.org">newsletter@pcas.org</a></td>
<td>714-245-0264</td>
</tr>
<tr>
<td>*Refreshments</td>
<td>Gail Cochlin</td>
<td><a href="mailto:refreshments@pcas.org">refreshments@pcas.org</a></td>
<td>714-745-0815</td>
</tr>
<tr>
<td>*Voting member</td>
<td>Linda Christison</td>
<td><a href="mailto:lindachristison@pcas.org">lindachristison@pcas.org</a></td>
<td>209-777-2613</td>
</tr>
<tr>
<td>Curator</td>
<td>Mark Roeder</td>
<td><a href="mailto:curator@pcas.org">curator@pcas.org</a></td>
<td>714-299-4150</td>
</tr>
<tr>
<td>Donation-Awards Coordinator</td>
<td>Joe Hodulik</td>
<td><a href="mailto:donation-awards@pcas.org">donation-awards@pcas.org</a></td>
<td>949-300-1864</td>
</tr>
<tr>
<td>Field Trips</td>
<td>Scott Findlay</td>
<td><a href="mailto:fieldtrips@pcas.org">fieldtrips@pcas.org</a></td>
<td>714-342-2534</td>
</tr>
<tr>
<td>Historian/Librarian/Archivist</td>
<td>Jane Gothold</td>
<td><a href="mailto:librarian-archivist@pcas.org">librarian-archivist@pcas.org</a></td>
<td>562-947-6506</td>
</tr>
<tr>
<td>Membership</td>
<td>Megan Galway</td>
<td><a href="mailto:membership@pcas.org">membership@pcas.org</a></td>
<td>714-539-6354</td>
</tr>
<tr>
<td>Programs Co-Chair</td>
<td>Joe Hodulik</td>
<td><a href="mailto:programs@pcas.org">programs@pcas.org</a></td>
<td>949-300-1864</td>
</tr>
<tr>
<td>Programs Co-Chair</td>
<td>Brian Steffensen</td>
<td><a href="mailto:programs@pcas.org">programs@pcas.org</a></td>
<td>714-348-9179</td>
</tr>
<tr>
<td>Publicist</td>
<td>Joe Hodulik</td>
<td><a href="mailto:publicity@pcas.org">publicity@pcas.org</a></td>
<td>949-300-1864</td>
</tr>
<tr>
<td>Quarterly Editor</td>
<td>Hank Koerper</td>
<td><a href="mailto:publications@pcas.org">publications@pcas.org</a></td>
<td>714-633-9287</td>
</tr>
<tr>
<td>Scholarship</td>
<td>Megan Galway</td>
<td><a href="mailto:scholarship@pcas.org">scholarship@pcas.org</a></td>
<td>714-539-6354</td>
</tr>
<tr>
<td>Website</td>
<td>Rene Brace</td>
<td><a href="mailto:info@pcas.org">info@pcas.org</a></td>
<td>714-544-6282</td>
</tr>
</tbody>
</table>

*PCAS Board Member

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Newsletters will be sent by email unless a mailed copy is requested.

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

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- □ Family Membership - $50
- □ Supporting Member* - $55
- □ Donor Member* - $75
- □ Lifetime Member* - $1000

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**Subscription Only**

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- □ Newsletter - $18

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- □ Student Associate - $10 (email Newsletter only)

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