FEBRUARY PCAS SPEAKER

Dr. Micah Hale

Adaptive Divergence Among Southern California Hunter-Gatherers

Southern California has seen much archaeological research over the last century. Indeed, the last few decades have put southern California in the fore with respect to explaining the origins of cultural complexity—the latter assumed to be represented by elaborate archaeological assemblages. However, the complexity of material culture is not evenly distributed in time or space, but is concentrated in the last 2,500 years and within Gabrielino and Chumash territories. A casual perusal of scholarly publication titles easily proves this to be true and conspicuously leaves outlying regions out of the discourse, save for curious inquiries. If material culture complexity has meaning, the attention deficit paid to, say, archaeology of the San Diego region seems (Continued on p. 3)

DINNER WITH THE SPEAKER

Please join this month’s speaker, Dr. Micah Hale, and PCAS members for dinner before the February 13th 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
February 13 - 7:30 pm

Speaker: Dr. Micah Hale
Topic: Adaptive Divergence Among Southern California Hunter-Gatherers
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
February 20 - 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.
JANUARY SPEAKER NOTES

Stature and Gender Projections from Pictograph Handprint Evidence in Southern California

Submitted by Megan Galway

Steve Freers presented his most recent research on handprint images in rock art. Handprints of various kinds are found in pictograph panels worldwide and no doubt carry many different cultural associations. Mr. Freers has drawn on his previous experience as a physical therapist (specializing in hands) to identify and analyze handprints in generally local rock art. He described three common types of handprints as simple positive impressions, stencil prints where paint is blown around the hand to create a negative image, and stylized prints. The latter were previously believed to have had the design painted onto the hand and then impressed on the rock creating a somewhat skeleton-like image. The development of digital image enhancement with programs such as DSTretch (decorrelation stretch) has now shown that the complete hand was painted and then areas of paint were removed. The enhanced images clearly show traces of dermal ridges (the ridges seen in fingerprints) in areas previously thought to be blank. A 1975 catalog of rock art used handprints as map symbols and included CAL-RIV-114 (the Motte Rimrock site) with the comment that the handprints “were not real, but drawn.”

Mr. Freers’ current study area includes sites identified as San Luis Rey, Rancho Bernardo and La Rumorosa. The San Luis Rey style sites are known for chevrons and diamond chains and have been ethnographically identified as girls’ puberty sites. The Rancho Bernardo style, known for maze elements, geographically overlaps the San Louis Rey concentrations but is older. La Rumorosa sites are most common in rock shelters and include digitalized anthropomorphs and use a wider range of colors than the usual red, black, and white.

The current study was an effort to determine the stature and gender of those making the various handprints. The default explanation of “girls’ puberty ceremony” was to be tested to see if it was plausible. Assumptions were that these girls would be in the lower one-third of their growth spurt and would have smaller hands. Pioneer anthropologist Franz Boas noted early puberty among southern Californian Natives and recorded hand measurements. Mr. Freers hoped to experiment with measurements and possibly correlate the results with these earlier findings. Formulas previously developed by others were also considered, and these were generally based on hand length and width which were used to extrapolate a proposed stature of the individual. In rock art images the length measurement is generally more reliable than the width, which can vary based on the amount of pressure applied in creating the image. Recent studies also point to a ring/index finger relationship that can suggest the gender of the individual.

In 2009 Mr. Freers studied 37 regional sites and recorded 219 handprints. He believes these prints include a wide range of ages and include both male and female. In the San Luis Rey sites the earlier interpretation of girls’ puberty sites may have been overstated. The Rancho Bernardo images also were most likely made by adult males. He believes earlier studies underestimated stature and that current measurements are more accurate due in part to improved digital capture of the images.

A number of new sites have recently been identified with DSTretch imaging and the most recent study includes 47 sites with 482 prints—216 of high quality. Of these 82.3 percent were simple impressions and 17.7 percent were stylized. Ninety percent were of red pigment, 6.71 percent black, and 3.3 percent white. The sites previously identified as girls’ puberty sites were noted to have multiple painting episodes over time and were public and chaotic, consistent with ethnographic accounts of the ceremonies. The Motte Rimrock pictograph site contains both male and female prints, and the Rancho Bernardino sites are adult and male.

(Continued on p. 5)
warranted. However, cast in a different light, the lack of material culture elaboration, especially in coastal San Diego, is very difficult to explain. My research considers the socioeconomic context of southern California, finding that cultural complexity is not always manifest in elaboration of material items. In fact, social institutions that can stabilize a relatively simple economic strategy to the point of resisting change from neighboring intensive economies must have been complex. I discuss theoretical models that make such an explanation possible and shed light on broad trends in human behavior, supported by data from southern California. Overall, my research concludes that social institutions have a more limiting effect on the rate and character of cultural evolution than the rate of technological innovation or other external factors.

Dr. Micah Hale is a California archaeologist originally trained in the Great Basin traditions of UC Davis and CSU Sacramento. Since early 2012, he has been Dudek’s cultural resources practice manager and lead archaeologist out of the Encinitas branch. Prior to that, Dr. Hale was a principal at ASM Affiliates where he worked throughout southern California and the Great Basin since 2001. Dr. Hale started his career at UC Davis, (BS, Ph.D.) and CSU Sacramento (MA), obtaining technical expertise as a lithic and groundstone analyst. Over the course of his career, he has served as a principal investigator in the public and private sector for all levels of archaeological investigation and assistant professor at UC Davis. Dr. Hale’s academic interest is rooted in cultural evolution and formal economics with most of his analytical work focusing on hunter-gatherer archaeology ranging from northwest Greenland to San Diego. However, he has applied similar theoretical concepts to explain other forms of human behavior ranging from the economics of early twentieth century desert settlement to renewable energy development in the desert southwest.

February Curation Workday

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

We plan to begin 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.
PCAS 2013 Financial Statement

INCOME
Donations
   Scholarship $9,527.25
   Other Donations $716.08
   Interest $119.45
Member Dues $4,865.00
Quarterly Sales $4,254.00
Subscriptions $2,494.00
Misc Income $62.00
TOTAL INCOME $22,037.78

EXPENSES
Curation $1,205.04
General Administration $149.19
Holiday Dinner $125.00
Lecture Program $581.90
Newsletter $1,331.74
Outreach $84.58
Quarterly $10,621.00
Scholarship $2,700.00
Web Site $179.95
Misc Expenses $21.99
TOTAL EXPENSES $17,000.39

TOTAL (INCOME - EXPENSES) $5,037.39

ASSETS
12/31/12 12/31/13
Checking, CD & Money $9,222.27 $9,494.61
Market Accounts $10,000.00 $8,000.00
Reserve for Curation $4,406.04 $4,406.04
C14 Fund $420.74 $11,020.99
Scholarship Fund $409.87 $325.29
Outreach Fund $33.65 $66.03
TOTAL ASSETS $28,275.57 $33,312.96

PCAS Scholarships Available

Applications are now being accepted for the Myrtle Soderberg Memorial Scholarship and Gloria Bogdan Memorial Scholarship as described in our January Newsletter. Applicants must have achieved junior or senior status by fall 2014, must live in or be attending university in California, and be able to display a proven interest in archaeology. Successful applicants will each receive an award of $1,000 on enrollment for the fall semester. Complete application guidelines and an application form are available on our website www.pcas.org/scholarships. Deadline for applications is April 30, 2014.

In addition to our undergraduate scholarship program, we have research and presentation grants available to upper division and graduate students. Guidelines for these awards may also be found on our website.

The Myrtle Soderberg Memorial Scholarship and PCAS grants are funded by donations from our members, including funds raised by our monthly donation-award table run by Joe Hodulik. The Gloria Bogdan Memorial Scholarship is fully funded by Tom Bogdan in memory of his wife.

Should you know any qualified students who may not have heard of our program, please direct them to our website. Questions may also be directed to scholarship@pcas.org or by telephone to 714-539-6354.

PCAS Field Trip

February 22-24, 2014
Anza-Borrego Desert State Park

We plan to visit several rock art sites within the park. The group will dry camp. Some rock art 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.
PCAS QUARTERLY UPDATE

The PCAS Publications Committee is pleased to announce the printing of PCAS Quarterly Volume 49, Numbers 1 and 2. The issue has been mailed or will be hand-delivered at the February PCAS meeting. If you do not receive this issue, please check your 2014 membership status by contacting membership@pcas.org or 714-539-6354.

We anticipate publishing Volume 49, Number 3, in the next few months. Dr. Mark Sutton is Guest Editor of this issue which will honor Dr. Philip J. Wilke. The following papers will be presented:

1. Communal Pronghorn Hunting in the Great Basin: What Have We Learned Over the Last 25 Years?
   Brooke S. Arkush

2. A Previously Undescribed Great Basin Goose Decoy
   Christopher E. Drover and Franklin F. Fenenga

3. Mortuary Remains Recovered in the 1932 Van Bergen Excavation at the Palmer-Redondo Site (CA-LAN-127), Redondo Beach, Los Angeles County
   Henry C. Koerper and Mark Q. Sutton

4. A Unique Early Ceramic Pipe from the San Bernardino Mountains
   Daniel F. McCarthy

The PCAS Publications Committee invites the submittal of original contributions dealing with regional history and prehistory. Please see www.pcas.org/InformationforAuthors or contact publications@pcas.org.

January Speaker Notes (continued from p. 2)

The four predictive equations tested in the study were:

Adel-Malek (1990)—tends to underestimate stature
\[ S = 34.5 + 5.77HL + 2.7HB \pm 5.1 \]

Thakur (1987)—the “Hand Index” predicts gender
\[ (HW ÷ HL) \times 100 \text{ male } > 44 \text{ female } < 44 \]

Bhatnagar (1984)—uses hand length only, very field practical
\[ S = 127.97 + (2.06 \times HL) \]

Jasuja (2004)—based on actual controlled handprints
male \[ R \] S = 101.991 + (3.767 \times HL) ± 4.627cm
female \[ R \] S = 133.458 + (1.473 \times HL) ± 5.127cm

References for the above predictive equations:


Bhatnagar, D. P., S. P. Thapar, and M. K. Batish

Jasuja, O. P., and G. Singh

Thakur, S. D., and K. S. Rai

Come to the February 13 Meeting!

Dr. Micah Hale will talk on Adaptive Divergence Among Southern California Hunter-Gatherers.

PCAS LIBRARY VOLUNTEER OPPORTUNITY

Do you have computer skills and a little time to help the PCAS Library?

In order to help fulfill our part of making the Old Courthouse the only place in Orange County where you can research everything from pre-history to yesterday with the PCAS and OCMS libraries and the OC Archives, we need to get our library holdings on line! Both other groups have already done so; we need to let people know the wealth of resources we have.

If you can help in this project, please contact Jane Gotthold, PCAS Librarian, at librarian-archivist@pcas.org.
DIG THIS...

Exhibits


Lectures


**Along the Ancient Fjords: A Sampling of Scandinavian Rock Art**, by Margaret Berrier. San Diego Rock Art Association, Kumeyaay-Ipai Interpretive Center, 13104 Ipai Waaypuk Trail (formerly Silver Lake Drive), Poway, February 9, potluck at 4 pm, presentation at 6 pm. Information: www.sandiegorockart.org.


Classes, Meetings, and Events

**Clark Lake Petroglyphs**, led by Chuck Bennett, February 1, 8:30 am, $35 (members $25); **Discovering the Archaeological History of the ‘Ehmuu Morteros**, led by Sam Webb, February 16, noon. Programs of the Anza Borrego Foundation. Information: theabf.org.

**Village of the Meti and Bancroft House**, a field trip of the San Diego Archaeological Center will visit the Kumeyaay village of Meti and the later center of Hubert Howe Bancroft’s Helix Farms in Spring Valley. Dr. Tim Gross and Robert Chase will discuss the site. February 22, 10 am-noon. Fee: $20. Information and registration: cstankowski@sandiegoarchaeology.org.

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 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 SPEAKER CALENDAR

March 13, 2014
Dr. Todd Braje
*The Intersection of Archaeology and Restoration Biology in the Age of the Anthropocene*

April 10, 2014
John Rafter

May 8, 2014
Cara Ratner
*Ritual Symbols in Rock Art: Cupules and Incised Grooves in the Lower Pecos Canyonlands, Texas*

Newly elected PCAS Board members (left to right) Scott Findlay, Rene Brace, and Jane Gothold. They were elected at the November 2013 meeting and will serve three-year terms.
2014 PCAS BOARD MEMBERS AND COMMITTEE CONTACTS

**Office** | **Name** | **Email** | **Phone**
--- | --- | --- | ---
*President* | Megan Galway | president@pcas.org | 714-539-6354
*Vice-President* | Scott Findlay | vicepresident@pcas.org | 714-342-2534
*Secretary* | Brian Steffensen | secretary@pcas.org | 714-348-9179
*Treasurer* | Rene Brace | treasurer@pcas.org | 714-544-6282
*Historian/Librarian/Archivist* | Jane Gothold | librarian-archivist@pcas.org | 562-947-6506
*Native American Liaison* | Steve O’Neil | nativeamericanliaison@pcas.org | 949-677-2391
*Newsletter Editor* | Sherri Gust | newsletter@pcas.org | 714-245-0264
*Refreshments* | Gail Cochlin | refreshments@pcas.org | 714-745-0815
*Voting member* | Linda Christison | lindachristison@pcas.org | 209-777-2613
Curator | Mark Roeder | curator@pcas.org | 714-299-4150
Donation-Awards Coordinator | Joe Hodulik | donation-awards@pcas.org | 949-300-1864
Field Trips | Scott Findlay | fieldtrips@pcas.org | 714-342-2534
Historian/Librarian/Archivist | Jane Gothold | librarian-archivist@pcas.org | 562-947-6506
Membership | Megan Galway | membership@pcas.org | 714-539-6354
Programs Co-Chair | Joe Hodulik | programs@pcas.org | 949-300-1864
Programs Co-Chair | Brian Steffensen | programs@pcas.org | 714-348-9179
Publicist | Joe Hodulik | publicity@pcas.org | 949-300-1864
Quarterly Editor | Hank Koerper | publications@pcas.org | 714-633-9287
Scholarship | Megan Galway | scholarship@pcas.org | 714-539-6354
Website | Rene Brace | info@pcas.org | 714-544-6282

*PCAS Board Member

PACIFIC COAST ARCHAEOLOGICAL SOCIETY

2014 Calendar Year Membership and Subscription Form

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Address: ____________________________________________________________________________

City: ____________________________________ State: _________ Zip Code ___________

Phone: __________________________________ Email: ______________ __________________

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_ __________________________________

Signature ____________________________________________________________________________

**Membership** (Includes Quarterly/Newsletter) **Subscription Only** **Scholarship Fund**

- □ Active Member - $45  □ Quarterly - $37  □ Donation $______
- □ Family Membership - $50  □ Newsletter - $18
- □ Supporting Member* - $55  □ Student Associate - $10 (email Newsletter only)
- □ Donor Member* - $75
- □ Lifetime Member* - $1000

* May be individual or family membership

[www.pcas.org](http://www.pcas.org)

Return form with payment to:

PCAS Membership
PO Box 10926
Costa Mesa, CA 92627-0926