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December PCAS Speaker

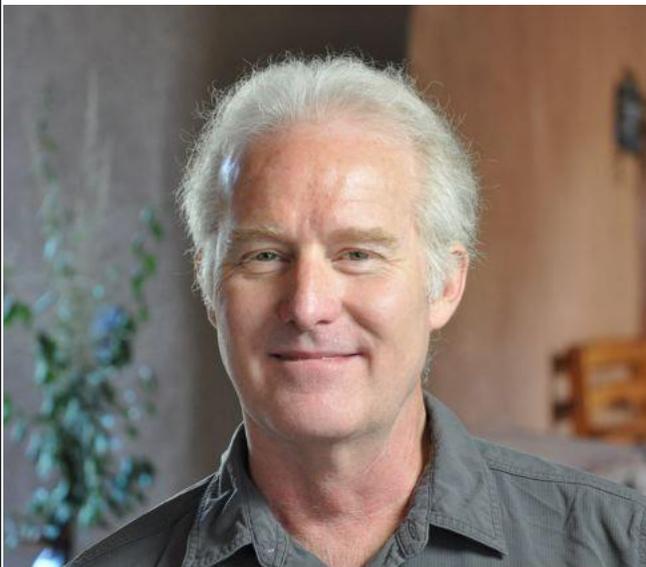
Dr. Timothy Rowe

A Surprise Encounter with 37,000-Year-Old Mammoths in My Backyard

**Holiday Duck Club Meeting—7 pm
and Zoom Meeting—7:30 pm
December 8 (See pp. 4&6)**

Please note: Speaker will not be present at the in-person meeting, but will appear via Zoom.

In 2013 a partial mammoth skeleton was discovered on land that Dr. Rowe and his wife had purchased years earlier on the Colorado Plateau in northern New Mexico. Approaching the site as a geologist and paleontologist, Dr. Rowe was surprised as excavation of the site revealed the systematically fragmented remains of a young adult female and a calf. Evidence from the excavation, from computed tomography scans (CT and μ CT) of bone breakage patterns, and matrix particles pointed to the strong likelihood that this is a butchering site. Although its age



challenges prevalent archaeological views on timing of the human occupation of the Americas, independent genomic analyses using modern and ancient human DNA had already provided evidence of at least one human dispersal into the Americas that predated the arrival of the Native American clade by millennia. The age of this site is congruent with molecular clock estimates of an early human dispersal into the Americas. It provides a deep point of chronologic reference for occupation of the Americas and for attainment by humans of a near-global distribution.



The Hartley site.

Dr. Timothy Rowe is a paleontologist who specializes in the vertebrate skeleton in all its forms, from fossils to recent species, and from embryos to adults. His research encompasses the theory and application of phylogenetic systematics, which he uses to explore co-evolution of the vertebrate genome and phenome. He is also a leader in developing and exploiting digital tools that augment and extend our ability to analyze and visualize the skeleton along with the “soft” tissues that the skeleton supports. Dr. Rowe is a co-founding Director of the University of Texas High-Resolution X-ray Computed Tomography Facility, an NSF Multiuser facility that has served a global audience for 25 years. He was the Founding Director of the Center for Instructional Technologies, he directed the Vertebrate
(Continued on p. 3)

**Renew your PCAS membership!
Pay online with PayPal—see page 3.**

November Speaker Notes

The Experimental Archaeology of Olivella Shell Bead Making

By Megan Galway

Mr. Barbier's presentation began with an overview of the different shells used and variety of bead types created over time. His studies focus on California coastal production. He lives and works in the Chumash region and has consulted with Chumash people regarding their traditional bead production.

Beads produced in the area were made of bone, stone of various kinds, and shell, predominately *Olivella*, but also including clam and abalone. While often thought of as a form of currency, beads were widely used as adornment and a sign of identity and social status. They have been found applied and inlaid to stone and wooden bowls, and in some cases small beads were applied to larger ones. Their use today among the Chumash is based on tradition.

The *Olivella biplicata*, or purple olive shell, is a marine snail found in abundance along the California coast, and different parts of its thick shell were used over time for different styles of beads. A graph of bead types shows how styles changed over time and were made in large quantities in certain time periods. In recent times there was an increase in the number of different styles being produced, but the material of choice continued to be the *Olivella*.



While evidence of bead making is found in many locations on the California coast, the greatest production appears to have occurred in the northern Channel Islands and in particular at the western end of Santa Cruz Island where large quantities of shell making debris is found in a number of villages. Microdrill production has been identified on the eastern end of the island. Some of the earliest beads were rectangular in shape, and both completed beads and bead blanks are found on Santa Rosa. It was noted



PCAS November speaker, Brian Barbier.

that the hole is drilled in the blank before the final shaping takes place.

A major question in Mr. Barbier's research was how much time it would have taken to manufacture the beads. To answer that question, he learned to replicate the various varieties. These were the earlier rectangular, the saucer, and the cupped, all taken from different parts of the shell and requiring different methods of breaking down the shell. Cupped beads are the ones we are familiar with as the "money" beads, although, like the other styles, they served a variety of purposes. Replication also provided the manufacturing detritus which could be used to identify the type of bead made at a site even if the finished bead was not present.



After becoming somewhat proficient at replication, Mr. Barbier determined the time taken to shape the blank, drill the hole, and perform the final shaping. He found that rectangular beads took the shortest amount of time overall, followed by the

(Continued on p. 3)

Speaker Notes *(continued from p. 2)*

saucer, and cupped beads took around twice as long. The greatest time increase was in drilling the hole due to the extra thickness of the part of the shell used. While the time expense per cupped bead was so much greater, on an equal length of strung beads, fewer of the thicker cupped beads were required, and therefore, the labor cost was actually less.

Beads appeared to become more important over time, and production trended up until Spanish contact, when it rapidly declined with the introduction of imported goods including glass and ceramic beads. Estimating bead production based on detritus produced similar results to the time investment percentages with the amount of waste increasing over time as the styles changed. Two sites studied by Mr. Barbier indicate a better than 500% increase in production in the Late period. Population estimates indicate a population crash in the late-Middle period with a rebound in the Late period, which would perhaps indicate a correlation with production and that the per capita production was constant over time.

Mr. Barbier is currently researching exchange patterns within the Chumash and with other local groups, different production techniques including methods and standardizations, along with interregional exchange. Studies are also being performed using stable isotope sourcing which has already shown distinctly different signatures in shells found north and south of Point Conception. This is due to different average sea surface temperatures. We look forward to the future results of these studies.

This presentation is available on the PCAS YouTube channel at https://www.youtube.com/watch?v=nTEkFE_tOco&t=2317s&ab_channel=PCAS-PacificCoastArchaeologicalSociety.

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1. On the "My Account" page, scroll to Community Rewards. Link your card by searching for "Pacific Coast Archaeological Society" or inserting the PCAS organization number, QT023.
2. Call 800-443-4438 for assistance.

Thank you for supporting PCAS!

December Speaker *(continued from p. 1)*

Paleontology Laboratory for 16 years, and is the Director of Digital Morphology (www.DigiMorph.org), an NSF Digital Library at the University of Texas.

Dr. Rowe's research and training efforts have been funded by the National Science Foundation continuously since 1985. He was also granted research awards by the Thomas J. Watson Foundation, W. M. Keck Foundation, Intel Foundation, National Chemical Society, and Texas Advanced Technologies Program.

Field research is a major part of Dr. Rowe's research interests. He has conducted field work in Mexico, Europe, and South Africa, but his specialty is the American Southwest, where he has worked in Permian, Triassic, Jurassic, Cretaceous, and Cenozoic terrestrial deposits from across the region. In 2013 he became involved in an ongoing early archaeological site in the Pleistocene of New Mexico.

Dr. Rowe joined the University of Texas faculty in 1986, after earning an AB degree (Geology major, with minor emphasis in Biology) from Occidental College (1975), an MS (Anatomy) from the University of Chicago (1981), and a Ph.D. (Paleontology) from the University of California, Berkeley (1986). He is a Fellow of the Thomas J. Watson Foundation and the US National Museum of Natural History. His publication record can be found on Google Scholar.

2023 Membership Renewals

We were hoping for a return to "normal" in 2022, but for PCAS it has been much the same as 2021. Our monthly Zoom presentations continue to be well received, both by our members and guests. We must thank other archaeological societies and supporters who share our announcements and enable us to reach a larger audience. We have been able to present speakers who could never have appeared in person. Our hybrid meeting format now allows for in-person meetings and Zoom attendance. We hope to see you in person at our Holiday Meeting at the Duck Club on December 8th.

Your annual PCAS membership expires on December 31, and it's time to renew! Remember, you may pay online with any credit card at <http://www.pcas.org/membrs.html>, or by check with the renewal form in this newsletter. This year's fundraising efforts, particularly for the Scholarship Fund, have been sadly limited. Please consider a donation in your year-end charitable giving plans.

If your mailing address, phone number, or email for PCAS membership have changed in the past year, please email membership@pcas.org with the correct information.

We appreciate your continued support of PCAS and look forward to receiving your renewal for 2023.

PCAS HOLIDAY MEETING

Thursday, December 8, 2022, 7 PM
IRWD Duck Club, 5 Riparian View, Irvine

- **Bring a dessert or snack to share.**
- **Lecture will begin at 7:30 pm. Speaker will not be present at the meeting, but will appear via Zoom.**

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.



Note: The entrance from Campus Drive is right turn only.

Directions from I-405

1. Exit the 405 Freeway on Culver Drive and go south.
2. Turn right on University Drive.
3. Turn right on Campus Drive.
4. Stay in the right lane and immediately turn right onto Riparian View which is marked by a dark green sign identifying it as the entrance to the San Joaquin Wildlife Sanctuary.
5. Proceed to Duck Club entrance on left. Signs will direct you.

If lost, call 714-290-1845.

DIG THIS ...



Lectures

Discovering a Lost Nubian City: Archaeology of Jebel Barkal, Sudan, by Dr. Geoff Emberling (Kelsey Museum of Archaeology, University of Michigan, Ann Arbor). An in-person and Zoom lecture of the Getty Villa, December 3, 3 pm. Free. Advanced ticket or Zoom registration required: www.getty.edu/visit/cal/events/ev_3706.html.

A Light to Do Shellwork By—Stories, Poems, and Cultural Memories, by Georgiana Valoyce-Sanchez (Chumash/O'odham). Dorothy Ramon Learning Center, 127 N San Geronio Ave, Banning, December 5, 6 pm. Fee: \$10. Information: 951-849-7736 or info@dorothyramon.org.

Airplane Crash on Japacha Ridge, by Alexandre D. Bevil, will use historic photographs and maps to reveal a forgotten monument to America's military aviation history in Cuyamaca Rancho State Park. A Zoom lecture of the Colorado Desert Archaeological Society, December 7, 7 pm (PST). Free. Registration: www.anzaborregoarchaeo.org/airplane-crash.

Old Spanish Trail from Mountain Springs, Nevada to Salt Creek, in California's Mojave Desert, by Steve Brown. An Old Schoolhouse Lecture, 6760 National Park Dr, Twentynine Palms, December 9, 7 pm. Fee: \$5. Information: 760-819-4714 or desertinstitute@joshuatree.org.

A Gateway into the Desert: History, Exploration, and Cyclical Rediscovery of Wadi Tumilat, by Dr. Aleksandra Ksiezak (University of Toronto/ Dr. W. Benson Harer Egyptology Scholar in Residence, CSU San Bernardino). An ARCE/Bowers Museum onsite lecture, December 10, 1:30 pm. Fee: \$13, Bowers and ARCE members free. Recorded lecture available one week after onsite event. Fee: \$10, Bowers and ARCE members free. Ticket purchase and information: www.bowers.org.

Petroglyphs and Pictographs of the Deep South, by Dr. Johannes (Jannie) Loubser. A virtual lecture of the San Diego Rock Art Association, December 11, 4 pm. Free. Information and required registration: www.sandiegorockart.org.

Classes, Meetings, and Events

Artifact Illustration Class, by Donna Walker. San Diego Archaeological Center, December 3, 10 am–1:30 pm. Fee: \$35. Registration: 858-829-5861, donnawalker05@gmail.com, or <https://walkerillustrations.blog>.

Winter Market at Malki Museum will feature local Native artists and creators. December 3, 11 am–3 pm. Information: <https://malkimuseum.org> or 951-849-7289.

Winter Solstice and Holiday Boutique, an event for all family members, will have Native vendors, frybread, storytelling. Chumash Indian Museum, 3290 Lang Ranch Pkwy, Thousand Oaks, December 10, 10 am–4 pm. Admission: \$7 adults; \$5 children and seniors. Information: www.chumashmuseum.org.

The 2023 Society for California Archaeology Annual Meeting will be held March 16–19 at the Oakland Marriott City Center. Early Bird registration deadline is December 16. Information: scahome.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.

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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.

In-Person Meeting

Location: **IRWD Duck Club –see p. 4.**
5 Riparian View, 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.

Zoom Meeting

- Email a **new** Zoom registration request by **noon on Thursday, December 8**, to membership@pcas.org. You will receive an emailed link to the meeting.
- Guests (non-PCAS members) are welcome with registration.
- When the presentation starts, please **mute your microphone and turn off your webcam**.

PCAS host **Steve Dwyer** will open the Zoom meeting at 7 pm to allow time to resolve any technical problems prior to the beginning of the PCAS General Meeting and lecture at 7:30 pm.

PCAS Speaker Calendar

January 12, 2023

Joyce Stanfield Perry
Where We Bow Our Heads

February 9, 2023

Dr. Vance T. Holliday

March 9, 2023

Dr. Edward J. Knell

April 13, 2023

Dr. James Snead
Relic Hunters: Archaeology and the Public in 19th Century America

May 11, 2023 TBA

June 8, 2023

Dr. Nathan Nakatsuka
Genetic Evidence for Ancient Population Shifts and Migrations in Central and Southern California

2022 PCAS Board Members and Committee Contacts

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PACIFIC COAST ARCHAEOLOGICAL SOCIETY

2023 Calendar Year Membership and Subscription Form

Name(s): _____

Address: _____

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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)

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

* May be individual or family membership

Subscription Only

- Quarterly* – \$40
- Newsletter* – \$20

Scholarship Fund

- Donation \$ _____

Join online:

www.pcas.org/membrs.html

Or return with payment to:

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Costa Mesa, CA 92627-0926

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