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PCAS Newsletter

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June PCAS Speaker

Dr. Nathan Nakatsuka

Genetic Evidence for Ancient Population Shifts and Migrations in Central and Southern California

In-Person and Zoom Meeting
June 8, 7:30 pm. See p. 3.

Speaker will not be present at the in-person meeting.

California, prior to European contact, harbored more linguistic diversity than all Europe, and studies of language relationships, archaeological evidence, and traditional oral histories have led to many hypotheses about movements of people over the minimum of 13,000 years this region has been occupied. In the absence of ancient DNA, it has not been possible to test directly alternative hypotheses about the spread of groups with distinct biological ancestry. Working collaboratively with local Indigenous groups in California and Mexico, we report genome-wide data from 87 ancient Californian individuals and 40 ancient Mexican individuals ranging from 7,600 to 200 years old (BP), which we co-analyze with previously reported data. We find evidence for movement of ancestry related to ancient and present-day individuals from northwest Mexico, who would have likely spoken Uto-Aztecan languages, arriving in southern and central California from at least 5,300 BP that ultimately reached its highest level in regions where Uto-Aztecan speakers currently reside. Ancient individuals from Baja California share more alleles with the earliest (5,200 BP) central California individual than with later Indigenous Californians, potentially reflecting the first "Hokan" language associated populations in central California having a high degree of relatedness with groups like those in Baja, and subsequent mixture transforming much of their ancestry. We find that ancient California individuals harbor increased affinity to the ~12,800 year old Anzick-1 individual associated with the Clovis culture compared to ancient northwest Mexico groups, which are on a different ancient lineage. Lastly, we find that some of the ancient groups from California and northwest Mexico had very small population sizes, similar to that of ancient Patagonian groups and significantly lower than ancient groups from the Andes and the Caribbean Ceramic period. *(Continued on p. 3)*

This is the combined June/July Newsletter. There are no General Meetings in July and August. The August/September Newsletter will announce the September speaker.

May Speaker Notes

Archaeological Investigations at CA-ORA-423, a Multicomponent Site in the Lower Aliso Creek Drainage, Orange County, California

By Megan Galway

Lauren Biltonen and Aimee Montenegro presented the history and findings of investigations at CA-ORA-423. The site has been excavated and studied over many years and is believed to have been occupied during various periods for over 4,000 years. The presentation identified these occupations based on the material remains found in each stratum.

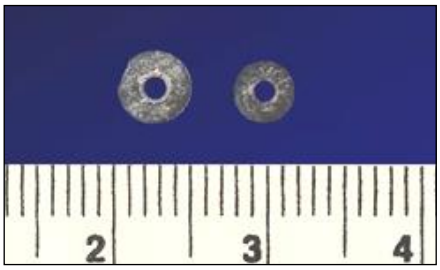
The site is in the lower Aliso Creek drainage where it is joined by another creek, The deeply eroded channel has long stretches of midden revealed in its banks The full extent of the site is unknown, and much of it is still buried under alluvium and park related construction. Several projects over the years have recovered bone, shell, chipped stone artifacts, groundstone, hearths, fire-affected rock, a dog burial, and human burials. The artifacts represent intermittent occupations from the Milling Stone through late Prehistoric periods. It appears to have been a seasonally occupied village during earlier occupations and a seasonal camp more recently.

Aliso Creek was originally considered the boundary between the Acjachemen (Juaneño) people and the Tongva (Gabrielino), but now it is understood that the Acjachemen had lived farther north. The boundaries likely shifted over time and created shared use territories, and intermarriages are indicated in mission records. Inhabitants during the earlier occupations are believed to have been Hokan speakers and not necessarily ancestral to modern-day Acjachemen and Gabrielino.

The site was first reported in 1973, and in 1979 Aliso Water Management Agency described it in a report, but the site was not investigated. In 1992 and 1993, heavy rainy seasons increased the bank erosion, and three human burials were exposed, and they were recovered in 1994. Cypress and Saddleback Colleges conducted field schools in the area in 2000, and later a fourth burial was exposed but washed downstream before it could be recovered. In the field school excavations, the fill was dry and wet screened, and artifacts were sorted and counted in the lab. These items were identified to the various levels in the stratigraphy, showing the progression from the Milling Stone period in the lower levels to more recent occupations nearer the top.

Resources identified in the sites are consistent with surrounding areas: groundstone for grinding acorns found in oak woodland, faunal remains of small animals from coastal sage scrub, and fish and invertebrate remains from the nearby rocky shoreline. The most prolific species throughout the site were invertebrates, mostly mussels.

PCAS May speakers, Aimee Montenegro and Lauren Biltonen.



Steatite beads.

Most of the artifacts found were locally sourced with the exception of some obsidian and steatite, which must have been traded in from elsewhere. A number of radiocarbon dates were recorded, primarily from items associated with the burials, with the human burials returning dates of around 3,068 BC to 2,276 BC The dog burial was more recent, dating to 100 BC to AD 30.

Paul Langenwalter examining lithics.

2023 Scholarship Report

The PCAS Board met with the Scholarship Committee on Tuesday, May 16, and decided on this year's awards. Many thanks to those students who applied, and we wish you all well with your future studies. The following students have been selected to each receive a scholarship of $1,000:

Grace Eriksen is attending the University of California, Merced. Like many of our applicants, Grace grew up fascinated with the hidden treasures around her and under her feet. In first grade when her classmates were setting traditional careers goals like astronauts, presidents, princesses, etc., Grace wanted to be a paleontologist. High school history classes turned her focus to archaeology. The pandemic has so far limited her access to field school, but she hopes to either intern at Yosemite or attend a field school in New Mexico this summer. After graduation Grace expects to gain some experience in CRM or with the Forest Service before applying to graduate school. Grace will receive the **Sherri Gust Memorial Scholarship**.

Kylie Moore is attending California State University, Fullerton (CSUF), majoring in anthropology with a focus on archaeology. She does not yet have any field experience but plans to attend the CSUF field school sometime in the next two years. She may go further afield to obtain her master's degree, possibly to Arizona State University. In the future Kylie hopes to work as an archaeologist with the National Park Service or the US Forest Service. She will receive the **Myrtle Soderberg Memorial Scholarship**

Elyssa Venerable is attending the University of California, Santa Cruz. While at a community college, with a strong interest in social justice, she discovered anthropology and then archaeology as a way to study various cultures. Her academic interests focus on bioarchaeology and archaeology with an interest in cultural resource management. She is participating in the California Field School through Foothill College, which she hopes will lead to a Certificate of Proficiency in Archaeology Field Work. This summer she plans to participate in a 35 day archaeology field school in Benin, West Africa. As a first generation black student, Elyssa appears determined to make a successful career in archaeology. She will receive the **Scott Findlay Memorial Scholarship.**

Along with our three undergraduate scholarships, the PCAS Board also awarded a **Presentation Grant** to **Sarah Noe**, a PhD candidate at UC Santa Barbara. Sarah participated in the symposium "Recent Advances in Zooarchaeological Methods" at the 2023 Society for American Archaeology Conference in Portland, Oregon, where she presented her paper, "Deer, Drought, and Warfare: An isotopic investigation of shifts in deer hunting from the eleventh through the fourteenth centuries in the Central Illinois River Valley." Sarah will receive a grant of $250 toward travel expenses.

Our annual scholarships and grants are made possible by the generous donations of our members and supporters. We thank them all.

In-Person Meeting

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.

Zoom Meeting

- Email a **new** Zoom registration request by **noon on Thursday, June 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.

June Speaker *(continued from p. 1)*

Nathan Nakatsuka was born and raised in Honolulu, Hawai'i. He graduated from Kamehameha Schools Kapālama High School then attended Harvard College, earning an AB in Chemical and Physical Biology. He then attained an MPhil in Genetics from University of Cambridge on a Gates Cambridge scholarship, working at the Wellcome Trust Sanger Institute with Inês Barroso. Nathan received his MD at Harvard Medical School in the Harvard-MIT Health, Sciences, and Technology MD track and his PhD from the Systems, Synthetic, and Quantitative Biology PhD program working in the laboratory of David Reich on population genetics of South Asia and the Americas. During his PhD study, the majority of his work focused on studying ancient DNA to uncover the ancient history of North, Central, and South America. He currently is a postdoctoral fellow at New York Genome Center in the laboratory of Rahul Satija working on single cell analyses of neuropsychiatric traits.

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Exhibits

Maya: The Exhibition features more than 250 artifacts. California Science Center, through January 15, 2024. Cost varies. Timed tickets and information: californiasciencecenter.org.

Lectures

Archaeology Outside the Box, by Dr. Hans Barnard (Cotsen researcher and author). A lecture of the Cotsen Institute, UCLA, Luskin Conference Center, June 1, 6 pm (reception 7 pm). Free. Registration required: ioa.ucla.edu/events/upcoming. In-person RSVP by May 25: mjacobson@ioa.ucla.edu.

Local Native American Use of SoCal's Native Plants, by Stephen O'Neil (anthropologist/archaeologist, PCAS President). Tree of Life Nursery, 33201 Ortega Highway, San Juan Capistrano, June 3, 9:30 am. Free. Information: californianativeplants.com.

Distilled California, Santa Ana's Chinatown Revisited: Ashes and Resolution, by Dylan Almendral (historian). Bowers Museum, June 3, 6 pm. Cocktail reception and museum access, 6 pm; courtyard lecture, 8 pm. Fee: $50; members $40. Information: www.bowers.org.

Kairos: Reflections on The Dawn of Everything and Prospects for a New History of Humanity, by David Wengrow (University Colege London) An in-person and Zoom Breaking Ground/Groundbreaking lecture of the Cotsen Institute, Lenart Auditorium, Fowler Museum, UCLA, June 8, 6 pm (reception 7 pm). Free. Registration required: ioa.ucla.edu/events/upcoming. In-person RSVP: mjacobson@ioa.ucla.edu.

Mohave Nation Version of the Formation of Amboy Crater, by Bruce Bridenbacker (Copper Mountain College). An Old Schoolhouse Lecture, 6760 National Park Dr, Twentynine Palms, June 9, 7 pm. Fee: $5. Information: 760-819-4714 or desertinstitute@joshuatree.org.

Many Ways to Paint a Coffin: The Relationship Between Coffin Decoration and Functionality at Akhmim and Thebes After the New Kingdom, by Dr. Kea Johnston (UC Berkeley). An ARCE/Bowers Museum onsite lecture, June 10, 1:30 pm. Fee: $15; Bowers and ARCE members free. Recorded lecture

Lectures *(continued)*

available one week after onsite event. Fee: $10, Bowers and ARCE members free. Ticket purchase and information: www.bowers.org.

Rock Art in Wyoming by Mavis Greer (archaeological consultant). A virtual lecture of the San Diego Rock Art Association, June 11, 4 pm. Free. Information and registration: www.sandiegorockart.org.

Two Spirit Artists Imagining Otherwise, by Paul Montaño (Yoeme/Papago/Purepecha). Bowers Museum onsite lecture, June 17, 1:30 pm. Fee: $15; members $10. Recorded lecture available one week after onsite event. Fee: $10, members $5. Ticket purchase and information: www.bowers.org.

Islands Through Time: A Human and Ecological History of California's Northern Channel Islands, by Dr. Todd J. Braje (San Diego State University). A lecture of the San Diego County Archaeological Society, Rancho Penasquitos Adobe, 12122 Canyonside Park Driveway, San Diego, June 27, 7:30 pm. Information: sdcas.org.

Past PCAS lectures are available on YouTube at *www.youtube.com/@pcas-pacificcoastarchaeolo9403*.

Classes, Meetings, and Events

The California Indian Basketweavers' Gathering will be held June 30–July 2 at the Middletown Rancheria, Twin Pine Casino and Hotel, Middletown. Information: https://ciba.org.

2023 Pecos Conference will be held in the Flagstaff area, Arizona, August 10–13. Information: www.pecosconference.org.

The 38th Great Basin Anthropological Conference will be held October 18–21 at Riverhouse on the Deschutes in Bend, Oregon. Early fee pricing through September 15: $125; member $112.50; student $75. Information and registration: greatbasinanthropologicalassociation.org.

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 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

PCAS thanks Ralphs and all our participants for this opportunity to earn a donation of at least 1 percent of your Ralphs' purchases. Go to www.ralphs.com and sign in or create an account.

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**!**

PCAS Speaker Calendar

No meetings in July and August.

September 14, 2023
Dr. Philip de Barros
Exciting Pottery Discoveries in the Coachella Valley: 14th Century Ceramic Firing Pits in the City of Coachella?

October 12, 2023
Dr. Ian Straughn
Archaeology in Interim Spaces: Excavation and Pedagogy at the Historic Bonita Camp Site on the UCI campus

November 9, 2023
Dr. James Kennett
Massive effects and consequences of the Younger Dryas Cometary Impact with Earth 12,800 years ago

December 14, 2023
Dr. Scott Sunell
TBA

2023 PCAS Board Members and Committee Contacts

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*PCAS Board Member

PACIFIC COAST ARCHAEOLOGICAL SOCIETY

2023 Calendar Year Membership and Subscription Form

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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 _____
Signature

Membership (Includes Quarterly/Newsletter)

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☐ Family Membership – $50

☐ Supporting Member* – $55

☐ Donor Member* – $75

☐ Lifetime Member* – $1000

* May be individual or family membership

Subscription Only

☐ *Quarterly* – $40

☐ *Newsletter* – $20

www.pcas.org

Scholarship Fund

☐ Donation $_____

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