Dr. Thomas Deméré

The 130 ka (MIS 6-5) Cerutti Mastodon Site: History of Investigations, Present Status of Research, and the Debate

Zoom Meeting
April 8, 7 pm
Registration required
Please see instructions on p. 3.

Dr. Deméré will focus on the Cerutti Mastodon (CM) site, which yielded remains of a single American mastodon (Mammut americanum) associated with evidence indicating hominins used stone hammers and anvils to break limb bones and molars 130.7 ± 9.4 ka during the MIS 6 to 5 transition. Taphonomic evidence for human agency will be presented and includes bone impact features (cone flakes, bulbs of percussion, and an arcuate impact notch); stone impact and usewear features (negative flake scars, Hertzian initiations, and angular fractures); bone, tusk, and stone distribution patterns (femoral diaphysis fragments clustered around a single large cobble, detached femoral heads positioned side-by-side, and a vertically oriented tusk); differential bone breakage (intact fragile ribs vs. fragmented limb bones); and bone, molar, and stone re-fits (80 cm displacement of pieces of a partial femoral diaphysis, 3 m displacement of pieces of a single molar, 3 m displacement of pieces of a single large cobble). Significantly, most CM bones and stones were enclosed within crusts of pedogenic carbonate that establish a “chain of evidence” showing that breakage and positioning of objects at the site occurred many thousands of years ago before burial of the site. No knapped stones or cut-marked bones were recovered at the CM site, which is hypothesized to represent a bone-processing site occupied for a short period of time for a limited set of activities (expedient stone hammers and anvils used to break mastodon bones for marrow extraction and/or production of raw materials). Reaction to the hypothesis for human agency also will be discussed, as well as the results of a recent follow-up study documenting the presence of bone residues on CM cobble hammerstones and anvils.  

(Continued on p. 3)

PCAS Scholarship applications are due by April 30. See www.pcas.org.
MARCH SPEAKER NOTES

Gault and the Peopling of the Americas

By Megan Galway

Dr. Wernecke began his presentation with an entertaining overview of the long-held “Clovis First” and early migration hypothesis. Hunters were depicted crossing the frozen tundra wearing little more than an animal hide loin cloth, and the ice-free corridor down which they traveled was a paved two-lane highway. These small groups of early immigrants were somehow able to populate most of the Americas within a few hundred years. The oldest dates from the research of that period were placed at around 13,500 years ago. When Tom Dillehay first suggested a date of 14,500 years ago for the Monte Verde site in Chile, he was ridiculed. Work at the site has since pushed this date back to possibly 18,500 years ago or even earlier. Other sites around the Americas are currently being dated within this range including Meadowcroft, Buttermilk Creek, and Paisley Cave, where human coprolites have been dated to 14,300 years ago.

The Buttermilk Valley, Texas, is located in an area of geological uplift, a source of Edwards chert which was a favored material in the area for the manufacture of chipstone tools. The Gault site is located on Buttermilk Creek about 40 miles north of Austin. The area was heavily collected as far back as the early 1900s, and the first true archaeological research was by J. E. Pearce of the University of Texas in 1929. Excavations by the university from 1999 to 2002 reached a level containing Clovis points, the remains of a juvenile mammoth, a floor which appeared to indicate a habitation structure, and a collection of incised stones believed to be the earliest known art in the Americas. This level was dated to 13,500 years ago.

The Gault site was acquired by the Archaeological Conservancy in 2007 with an arrangement for its management to be under the Gault School of Archaeological Research, which provides tours and educational opportunities. The school subsequently excavated a 56 m² unit down to bedrock by 2013. Material from the lower levels of this unit have been shown to date to 16,000 to 20,000 years ago and perhaps earlier, far pre-dating the Clovis period. Dr. Wernecke noted that much of the excavation was done with chopsticks and bamboo picks to avoid any damage to artifacts by metal tools. This enabled the microscopic analysis of stone tools. Researchers were surprised to find that Clovis points were pre-dated by a smaller projectile point similar to those used later for arrows. They are unlike any that have been previously found attached to spears or atlatls. Faunal remains among the artifacts indicate a broad spectrum diet including bison, horse, mammoth, and turtle. Pollen and seed samples do not preserve well, so there is little evidence of the vegetation of the period. No groundstone artifacts, which would indicate seed grinding, were found.

(Continued on p. 3)
April Speaker  (Continued from p. 1)

Dr. Thomas Deméré is Curator of Paleontology and Director of PaleoServices at the San Diego Natural History Museum located in San Diego’s historic Balboa Park. He received his BS in geology from San Diego State University, his MS in geological sciences from the University of Southern California, and his Ph.D. in evolutionary biology from the University of California, Los Angeles. Dr. Deméré has worked at the museum since 1979. He oversees paleontological research and collection activities, as well as the paleontological mitigation program. His research broadly involves documenting the Cenozoic biological and geological history of the southern California region, with special focus on the evolutionary history and comparative anatomy of marine mammals and the regional Plio-Pleistocene record of marine and terrestrial biotas and paleoenvironments.

Speaker Notes  (Continued from p. 2)

One surprising find was evidence of American chestnut which is not currently native to the area. Excavation of the site was finished in 2015, and the lab work began. With approximately 2.6 million artifacts from around 3% of the overall site, we were reminded that the rule of thumb is that one day in the field equals 40 days in the lab.

The Gault School works on sites around the Americas, and it and other researchers are finding pre-Clovis evidence. There is no clear migration route yet identified, but these sites seem well established throughout the continent, so earlier migration is indicated. The Kelp Highway along the Pacific Coast seems well documented, and many feel a northern route from Europe to the US or Canadian Maritimes is possible.

SCHOLARSHIP REMINDER

Applications for our annual undergraduate scholarships are due by April 30th. Because of the generosity of our members and supporters, we are again able to make three $1,000 awards this year.

The Myrtle Soderberg Memorial Scholarship is named in honor of a founding member and funded in great part by the donation award activity at our monthly meetings. Because the meetings have been virtual these past 12 months, our generous members have stepped up and donated a total of $1,045, guaranteeing funding for this award for the next year. Donations may always be made through the link on the Membership page of our website.

The Gloria Bogdan Memorial Scholarship is named for a late Life Member and is generously funded by her husband, Tom.

The Sherri Gust Memorial Scholarship is named for another late Life Member and past Board President. This award is funded by Cogstone Resource Management, the company which Sherri founded.

Eligibility guidelines and application forms may be found at www.pcas.org/scholarships. Due to ongoing delays in the postal system, we strongly recommend submitting your application package electronically to scholarship@pcas.org.

Award winners will be chosen and announced by May 30th and funds will be distributed in August on receipt of proof of enrollment for the 2021/2022 school year.

We also have funding available for presentation and research grants. Application guidelines for these grants may also be found on the Scholarship page of our website.

PCAS ZOOM MEETING

- Email a registration request by noon on Thursday, April 8, to membership@pcas.org.
- You will receive an email with a link to the Zoom 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.

Shop at AmazonSmile
and Amazon will make a donation to:
Pacific Coast Archaeological Society

Or go to: smile.amazon.com/ch/95-2685178
DIG THIS ...

Lectures


*Ritualized Stone and Public Art on Easter Island: Highlights and Insights of Recent Excavations in Statue Quarry*, by Dr. Jo Anne Van Tilburg (Director, Easter Island Statue Project and Rock Art Archive, UCLA Cotsen Institute), April 9, 11 am; online presentation of the Cotsen Institute. Free. Information and required registration: [ioa.ucla.edu/events/upcoming](http://ioa.ucla.edu/events/upcoming). Past events can be viewed on the Cotsen Institute YouTube channel: [www.youtube.com/channel/Cxt96YAosmk](http://www.youtube.com/channel/Cxt96YAosmk).


*Redeeming Demons: Coopting Demonic Forces for Good in Ancient Egypt*, by Dr. Rita Lucarelli (UC Berkeley), Dr. Joshua A. Roberson (University of Memphis), Bryan Kraemer (CSU San Bernardino), and Dr. Kasia Szpakowska (CSU San Bernardino). An ARCE, Bowers Museum, and RAFFMA event streaming on YouTube, April 10, 1:30–3:30 pm. Free. Information: [www.bowers.org](http://www.bowers.org).

*A One-Day Walk Through the McConkie Ranch Petroglyph Site*, by Lawrence Baca. A San Diego Rock Art Association Zoom lecture, April 11, 4 pm (meeting opens at 3:30 pm). Required registration: [www.sandiegorockart.org](http://www.sandiegorockart.org).


*The Skeletons of La Consentida, Oaxaca México*, by José Pepe Aquilar. Online lecture of the San Diego County Archaeological Society, April 27, 7:30 pm. Information and registration: [https://sdcas.org](https://sdcas.org).

**Editor’s Note:** Please confirm time and place of listing prior to the event. Submit items for Dig This to newsletter@pcas.org.

Visit [www.pcas.org](http://www.pcas.org) for all the latest news.
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.

PCAS SPEAKER CALENDAR

May 13, 2021
Dr. Jon Erlandson
Peopling the Americas: The Channel Islands and the Kelp Highway Hypothesis

June 10, 2021
Dr. Donn R. Grenda
A Railroad Runs Through It: Historical-Period Ethnic Chinese and Mexican Communities in Downtown Redlands, California

No meetings in July and August.

September 9, 2021
Dr. Richard J. Chacon
The Turquoise Corridor—Mesoamerican-Southwestern Prestige Technologies and Social Networks

Join us for a live PCAS Zoom lecture with Dr. Thomas Deméré speaking on “The 130 ka (MIS 6-5) Cerutti Mastodon Site: History of Investigations, Present Status of Research, and the Debate.”

Thursday, April 8, 2021, 7 pm

See p. 3 of this newsletter for Zoom registration instructions.
Name(s): ______________________________________________________________________________
Address: ______________________________________________________________________________
City: ____________________________________ State: _________ Zip Code ___________
Phone: __________________________________ Email: ________________________________

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

Membership (Includes Quarterly/Newsletter)  Subscription Only  Scholarship Fund
☐ Active Member – $45  ☐ Quarterly – $40  ☐ Donation $________
☐ Family Membership – $50  ☐ Newsletter – $20
☐ Supporting Member* – $55
☐ Donor Member* – $75
☐ Lifetime Member* – $1000
* May be individual or family membership

www.pcas.org

PACIFIC COAST ARCHAEOLOGICAL SOCIETY
2021 Calendar Year Membership and Subscription Form

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

Signature

Join online: www.pcas.org/members.html
or
Contact Membership Chair Megan Galway at membership@pcas.org or 714-539-6354 for mailing address.