



LOS ANGELES BASIN GEOLOGICAL SOCIETY

May 2024 Meeting Announcement, Newsletter &
STUDENT SCHOLARSHIPS! Special Edition

The Geology and Geomorphology of Bonebed Formation, with Recent Examples from Southern California

Wayne Bischoff, Ph.D., Director of Cultural Resources, Envicom, Ventura, CA

Thursday, May 23rd, 11:30AM

**Signal Hill Petroleum, 2633 Cherry Ave., Signal Hill
2nd floor Conference Room,**

Abstract

Paleontologists have long identified that geology and geomorphological actions play an important role in the formation of bonebed features. In this talk we will briefly discuss how the most common fossil bonebeds form in the geological record, followed by recent examples from southern California highlighting less common geological conditions that lead to bonebed formation. The southern California case studies include a large terrestrial Late Pleistocene bonebed discovered by Dr. Bischoff in Sherman Oaks in 2022, and an extensive Late Miocene marine bonebed discovered by Dr. Bischoff in San Pedro in 2023.

Biography

Dr. Bischoff is the Cultural Resources Director at Envicom, and in that capacity manages cultural resource compliance projects in Los Angeles, Ventura, Santa Barbara, San Luis Obispo, Kern, Riverside, and San Bernardino Counties. He received a doctorate in anthropology from Michigan State University and since then has overseen projects for cultural resource compliance in California and throughout the Midwest. The projects involve the National Historic Preservation Act, the California Environmental Quality Act, the National Environmental Protection Act, and the Native American Graves Protection Act. He works with multiple federal,

state, and local agencies and has coordinated Native American Tribal consultation with most Central and Southern California Tribal Groups.

Luncheon prices, cash or check

Lunch and Talk (pre-registered)	\$25.00
Retired:	\$20.00
Student:	\$10.00
Walk-ins:	\$35.00

Reservations are required by noon, May 20th, at labgs.org/meeting_info.html or directly contact LABGS Secretary Joseph Landeros at (626) 497-1710 or landerosjd@gmail.com.

The J.P Chauvel book and paper collection giveaway continues...

As we have done with previous lunch meetings of the Society – JP's (and others, you know who you are) books, publications, maps, and reports, will be laid out and free for the taking for anyone who finds them worthy of a place in your collection.

The Society needs a Treasurer

If you have been considering ways to be more involved and engaged in your local geological community, being directly involved as a member of the Society's executive committee is an excellent way to accomplish that. Contact daniel@ironhorseenergy.com, or any of us below, if you are interested, thinking about it, or seek more information about the role.

Thank You Signal Hill Petroleum!

The Society would like to sincerely thank Signal Hill Petroleum for their gracious and steadfast support of our monthly meetings by providing a very nice and roomy venue.

STUDENT SCHOLARSHIPS

From our Scholarship Chair, Karla Tucker

This year the Los Angeles Basin Geological Society, in partnership with the Pacific Section AAPG, gave \$500-\$1000 scholarships to eight CSU Long Beach undergraduate geology students. These scholarships will help to support them in their summer field classes. In their own words the recipients share their experiences.

Natalia Gutierrez



My favorite geology experience so far has been the alumni trip I attended, hosted by my school's geology department. We got to visit several locations around Morro Bay and I was able to enjoy and absorb the information that my professors and graduate students were presenting. My favorite part was learning more about the Franciscan assemblage and visiting Morro Rock. I enjoyed this trip because it was attended by former CSULB students and I was able to interact with a few of them and learn about the cool projects they worked on post-graduation and projects they have worked on at their jobs.

Lena Wilson

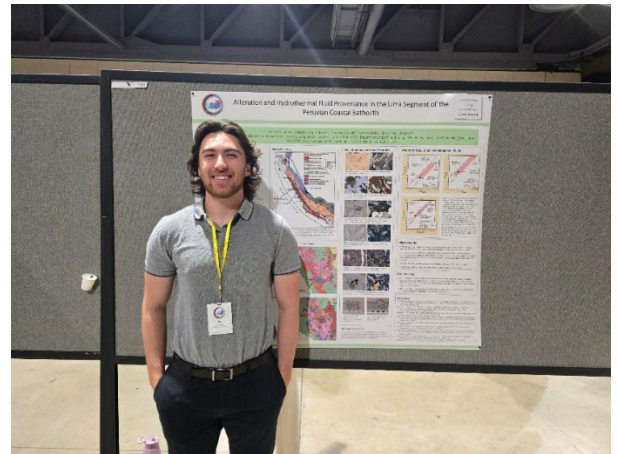


Learning about the various subjects within geology has been deeply rewarding, but the hands-on challenges of fieldwork take the spotlight. During my second week of spring field camp I experienced a significant boost in my self-confidence as a scientist. By the beginning of this trip, I had developed a deeper understanding of pertinent subjects such as structural geology and petrology. Additionally, my mapping and note-taking skills had significantly improved compared to my previous field experiences. Over five days, I transitioned from being unfamiliar with the area to confidently anticipating the locations of geological units and features. I was able to document them more efficiently and formulate plausible hypotheses with confidence. Nothing compares to the feeling of accomplishment after successfully completing fieldwork, where you truly feel you've achieved your goal.

I value the fact that this experience served not only as a geology lesson but also as an opportunity for

self-discovery and self-improvement. It allowed me to better understand myself while honing important skills such as time management, organization, and preparation for multiple days without amenities.

Alex Scandore



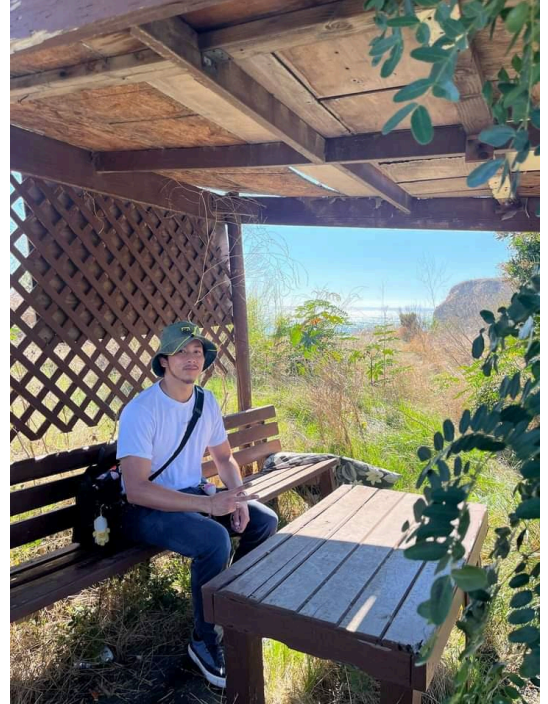
My most memorable geology experience was a summer field course I took at Pasadena City College. My favorite moments of the trip were in Wyoming, where we collected green schist samples from a greenstone belt near South Pass City and visited the great unconformity in the Owl Creek Mountains. Geology gives me a real sense of time and completely changed my perspective of Earth. I love being able to hike anywhere or look at a roadcut and be able to interpret a story that occurred long ago. Every rock is a little puzzle piece of the Earth's history, just lying on the ground, ignored by the untrained eye.

Juan Gonzalez



My favorite geology experience is surveying deformed Quaternary terraces in the Rainbow Basin area of the Mojave Desert with Dr. Onderdonk. We spent a couple of days collecting detailed GPS data using a laser range-finder. I enjoyed being at one of my favorite places, finding and losing the contact of the Quaternary terraces, and even the couple of slips and falls throughout the trip. This experience allowed me to apply what I have learned at Cal State Long Beach and remind me why it is that I love geology.

Daniel Rice



My favorite geology experience so far would be the unexpected hiccups we encounter on our field trips. Whether it's unexpected snow hiking, scorching heat, dealing with car breakdowns, flat tires, or getting stuck in the sand, there's always something that goes wrong! Despite the mishaps, I wouldn't have it any other way. These hiccups make our trips memorable, and sharing these experiences with classmates creates lasting memories we will cherish for years to come.

Sabrina Ansari



My name is Sabrina Ansari, and I am so very thankful to be receiving this scholarship from the LABGS. I started my geology journey after taking a break from college and coming back with a passion for being outdoors and enjoying nature. I've always had a love for volcanoes and once we covered volcanoes in Physical Geology, I was hooked. I knew that I would need to pursue higher education, after the completion of my bachelor's degree. I am happy to say that I have been accepted to a master's program at Central Washington University to study volcanic geochemistry and eruption dynamics of Cascadian volcanoes!

My favorite field experience so far would be a trip I took to Owens Valley back in 2019. I was taking an independent study class at my community college and went to Owens Valley to collect volcanic rocks. I would then take those samples that I collected back to a lab and use an XRF machine to look at their chemical makeup and relate that to Bowen's Reaction Series. I had so much fun doing this, I was able to take my first deep dive into the chemistry of some volcanic rocks and it sparked a fire that has yet to be put out.

Candice De Anda



My favorite geology experience was getting to intern at the NASA Johnson Space Center in the Astromaterials Research and Exploration Science department. I got the opportunity to work in a lab with sediment samples from a Mars analog environment, helping to expand our understanding of the mineralogy and surface processes of Mars. I also got to play with meteorites, talk to scientists who helped with the collection of samples from the moon and engage with other scientists and students who share a passion for planetary geology. It was amazing and I am so grateful to have had the opportunity.

Richard Altamirano



Over the years I've had the opportunity to see a multitude of geologic mysteries. One of my most memorable experiences was taking my first multi-day mapping field trip to Santa Cruz Island. I was nervous but I was filled with joy to be able to experience something new and adventurous. The geology was breathtaking, and much more complex than other locations that I had previously seen. This trip introduced me to the application of geologic tools such as a Brunton compass and a hand lens outside of a classroom setting. Utilization of these tools became so crucial to field work that they become an extension of myself. Looking back, it feels like an out of body experience to know how far I've come.

Editorial from Dan Steward

After reviewing these wonderful accounts of novel geological experiences from excited and motivated geologists-in-the-making, the following quote is apropos:

“We shall not cease from exploration. And the end of all our exploring will be to arrive where we started and know the place for the first time.”

- T.S. Elliot (1888 – 1965)
Collected Poems, Four Quartets, Little Gidding

Congratulations to these deserving students and a big “Thank You!” to Karla Tucker for her dedicated service to the LABGS and the handling of these annual awards, which are the most important mission the Society performs in promoting earth science with the next generation.

In The News

Ringside: The Case for Oil Drilling in California

Writing for the California Globe, Edward Ring makes the reality-based case that the world, which includes California, will not stop using oil for the foreseeable future and hence the State's regulatory-driven destruction of the oil and gas industry is misguided. Rather than squash the industry, the idea should be to set an example for oil-producing nations and states, demonstrating that responsible environmental stewardship, efficient oil and gas production, and innovation, can work harmoniously together.

California's latest numbers on fuel demand: 1.38 million barrels per day; or 58,000,000 gallons; 83% used for transportation.

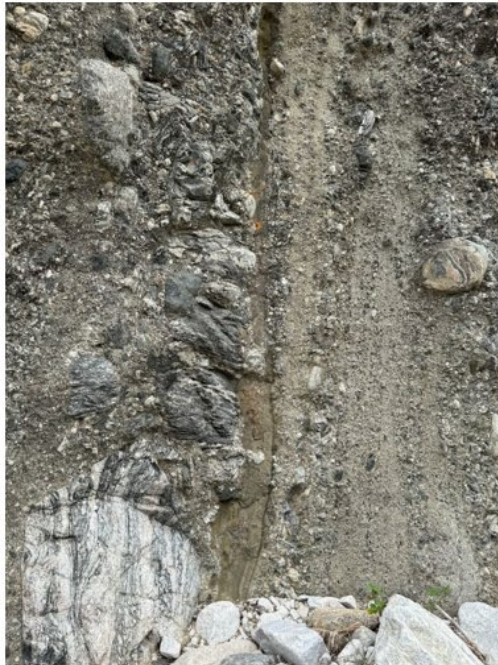
Society President Dan Steward published an affirmative reply and comment to his LinkedIn account, see it [here](#); included is a link to Mr. Ring's original piece.

In February Mr. Ring wrote a compelling piece entitled "California's Impossible War on Oil and Gas" for City Journal – see it [here](#).

ExxonMobil to soon close on Pioneer Natural Resources purchase

Independent, Permian Basin-focused Pioneer Natural Resources, will soon be absorbed by ExxonMobil (XOM) in a \$60 billion deal echoing XOM's purchase of Cross Timbers Resources (XTO) for \$41 billion in 2010. From the macro view, these acquisitions from XOM reflect Big Oil's reentrance to the U.S. onshore unconventional resource plays which were ignored and/or missed completely as US-based XOM and fellow supermajor Chevron, along with the European trio of Shell, BP, and Total, plus other large oil companies, focused on international prospects, specifically in deep water. The late Aubrey McClendon, former CEO of Chesapeake Energy, harnessed the capital of several land- and deal-starved majors by signing them up in joint ventures where land had to be drilled to be held. There is a long and interesting story here – suffice to say XOM has persisted in getting value from their purchases where others have stubbed their toes. One final word on Pioneer: in the early 2000s they assembled a 32-OCS block position in the East Breaks (EB) area of the deepwater Gulf of Mexico dubbed the "Falcon Corridor". Their first successful well, Falcon #1 in EB block 579, produced 195 million cubic feet per day of natural gas. Pioneer had three additional successful wells behind that one. According to a geologist I talked to several years ago, "Falcon was really good for us". Indeed: it funded future ventures which included the Permian.

Latest from the Field



Clockwise from top left: the Violin Breccia at the western extremity of the Ridge Basin in prominent outcrop at the contact with the San Gabriel Fault. The canyon is formed at the confluence of Piru Creek (left) and Buck Creek (right), then flowing south into Pyramid Lake. A pseudo dip-section of the Violin illustrating the no-bedding to slight bedding transition away from (from right to left) the San Gabriel Fault. A well-exposed section of the early Pliocene Towsley Fm. near Pico Canyon (67-deg. north dip, west strike). The near-vertical aspect of the Violin's beautiful mixed breccia and sandstone amalgam at the Piro Creek-Buck Creek confluence of Piru Gorge.

LABGS Board Members

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Blast from the Past: Standard Oil's Picnic grounds in Pico Canyon



At least as far back as May 1947, the above location was the site of the Pacific Section AAPG Annual Spring Picnic. Harold Rader, with Standard Oil, was in charge, with Herb McMasters (1914-1999), Honolulu Oil Corp. being an assistant. Harold "Ratz" Rathwell (1895-1966) was in charge of the "beer department." At the 1947 event, the Kern County Land Co. donated a ½ beef with Lane-Wells and McCullough Tool furnishing the ingredients. "Dutch" Matter reportedly intended to defend his horseshoe pitching title from 1946. More than 200 people attended the '47 Picnic, with poker and domino games going almost all night.