

SAN DIEGO ASSOCIATION OF GEOLOGISTS

<http://www.sandiegogeologists.org/>

PRESIDENT

John Teasley
(760) 908-7740
jtea@cox.net

VICE PRESIDENT

Heather Reynolds
(540) 525-6475
heath88@vt.edu

SECRETARY

Neil Seitz
(419) 330-9511
neilseitz@hotmail.com

TREASURER

Tina Zeidan
(661) 733-9548
zeidan.tina@gmail.com

WEBMASTER: Carolyn Glockhoff carolyn@caro-lion.com

SDAG MEETING ANNOUNCEMENT

MONDAY, June 17, 2024

Where: El Adobe de Capistrano
31891 Camino Capistrano
San Juan Capistrano, CA

When: 6:00 pm - Social Hour
7:00 pm - Dinner
8:00 pm - Program

Dinner: Mexican Buffet

Cost: \$ 55.00 Member; Non-Member \$60.00; Student \$ 20.00

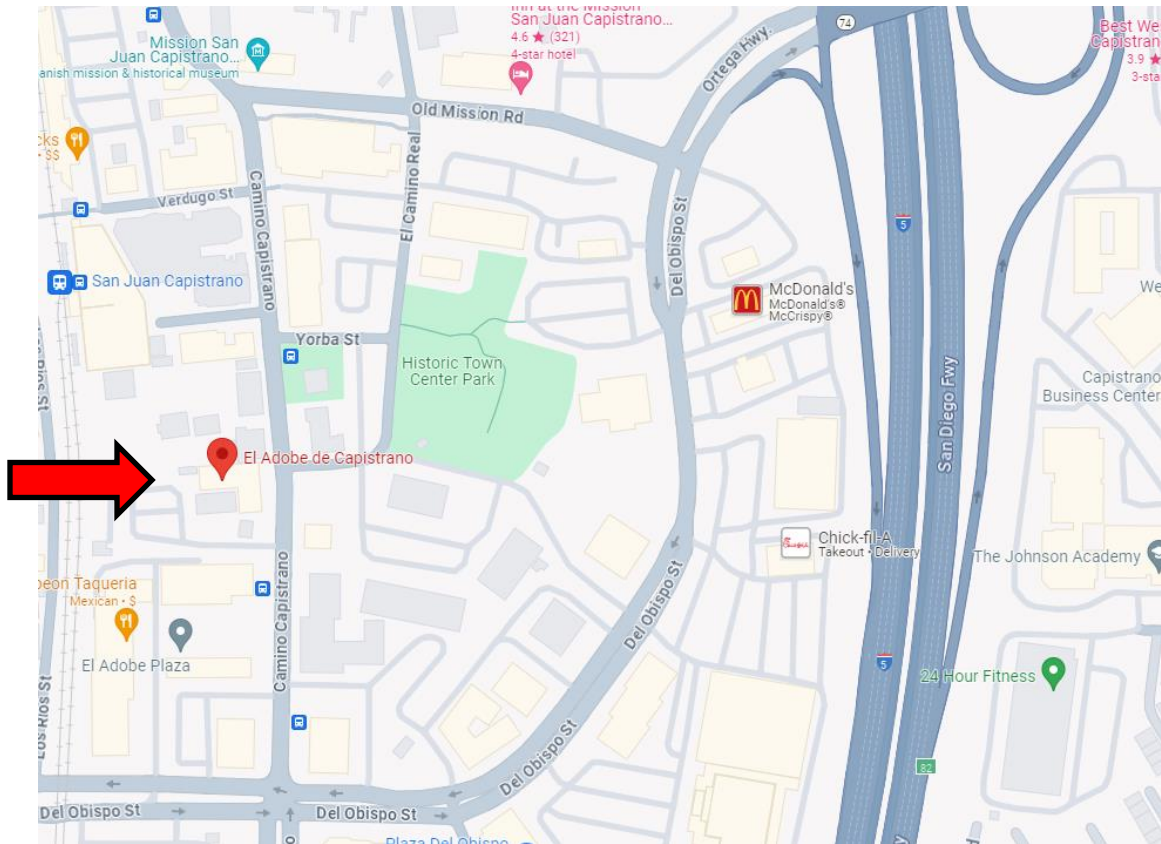
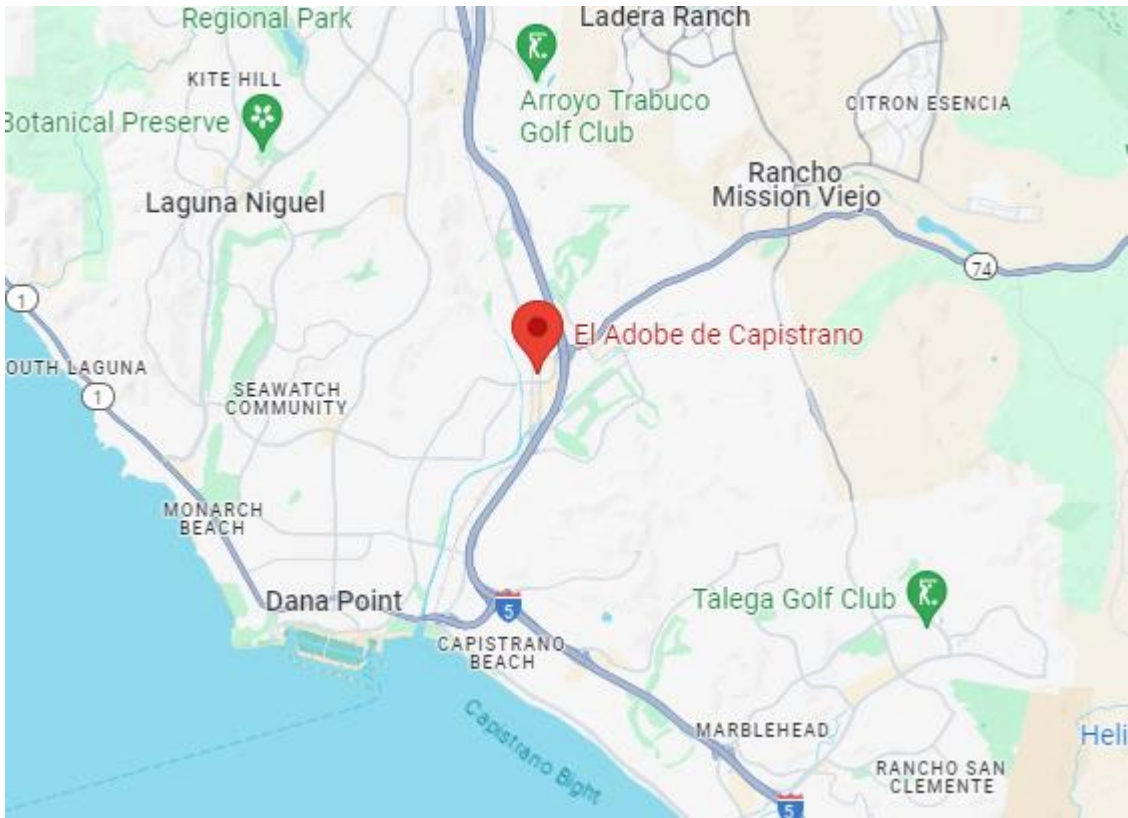
Reservations: Make/Pay your reservation [online](#) through the SDAG website, by **5:00pm Monday, June 10**. (*Please note beginning January 2024 all meeting reservations will require on-line pre-payment due to venue costs, venue contracts, and loss of money due to no shows.*)

Speakers: Dr. Susan Hough

Talk Title: A 30-Year Retrospective on the Impacts and Lessons Learned from the Northridge Earthquake

For the June Meeting, we return to El Adobe de Capistrano, for the annual joint SDAG/SCGS meeting. Join us for guest speaker **Dr. Susan Hough** as she presents **A 30-Year Retrospective on the Impacts and Lessons Learned from the Northridge Earthquake**. We hope you can join us for this terrific presentation!

Meeting Location Map:



Directions:

From I-5:

1. Take Exit 81 toward Camino Capistrano.
2. At the traffic circle, take the 3rd exit onto Valle Rd.
3. Turn left onto San Juan Creek Rd.
4. Use the right 2 lanes to turn right at the 1st cross street onto Camino Capistrano.
5. Continue for 0.5 miles and El Adobe de Capistrano will be on the left.

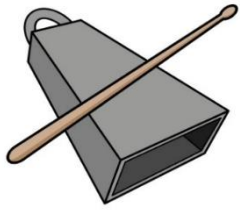


Dr. Susan Hough is Research Geophysicist with the United States Geological Survey, Pasadena, California field office. She received an AB degree with honors in geophysics from the University of California at Berkeley in 1982, and a PhD in Earth Sciences from Scripps Institution of Oceanography in 1987. Her research focuses on characterization of earthquakes and earthquake effects, the triggering of earthquakes by both human activities and other earthquakes, and historical earthquakes. She currently serves as lead Earthquake Response Coordinator for the USGS Pasadena office and has led numerous USAID-supported risk reduction projects in Myanmar, Haiti, and Nepal.

Speaker: Dr. Susan Hough

Abstract A 30-Year Retrospective on the Impacts and Lessons Learned from the Northridge Earthquake

The 17 January 1994 Northridge, California, earthquake was a watershed event, with far-reaching societal and scientific impacts. The earthquake, which occurred in the early days of both broadband seismic networks and the Internet, spurred advances in seismic monitoring, real-time systems, and development of data products. Motivated by the 30th anniversary of the earthquake, I present a brief retrospective of the earthquake and its impact, and reconsider both ground motions and the aftershock distribution using modern tools and best-available data. With improvements in instrumentation and analysis methodology, recent earthquakes continue to reveal increasing complexity of ground motions, fault systems, and earthquake ruptures. Even in the absence of data from state-of-the-art instrumentation, a retrospective consideration of ground motion data from the Northridge earthquake reveals complexities beyond what could be characterized (and modeled) thirty years ago. Aftershock relocations for both the 1971 Sylmar and 1994 Northridge earthquakes also reveal an updated view of fault complexity. I also describe outreach products produced as part of the anniversary commemoration.



President's Cowbell Corner

Greetings SDAG Members

SDAG had an epic meeting in May, with over 100 attendees, in the Catalina Room at Marine Village. Thanks largely to SDAG Treasurer Tina Zeidan's students from Southwestern College that made up a large portion of the audience. Don Barrie's presentation of Iceland geology and Will Buckley's recounting of his backpacking trip along the Mid Atlantic Ridge through central Iceland made for a truly entertaining and informative evening. More members and non-members than usual also attended, with a table-full of Geocon geologists enjoying the show. Thank you all for coming! If you missed it, check the SDAG website under the Meetings tab to access the videos of the presentation.

For June, we will depart from the usual meeting date (the 3rd Wednesday of the month), joining the South Coast Geological Society for our annual mid-year joint meeting at El Adobe Mexican Restaurant in San Juan Capistrano, on June 17th, the 3rd MONDAY of June.

We hope to see there, with Dr. Susan Hough, Research Geophysicist with the United States Geological Survey. Dr. Hough will present her talk titled: A 30-year Retrospective on the Impacts and Lessons Learned from the Northridge Earthquake.

-John

UPCOMING 2024 SDAG MEETINGS

July 17, 2024	Chuck Houser. Meeting at Sunbelt Publications.
August 21, 2024	Dr. Pat Abbott with his Kick-Ass Presentation: Upper Cretaceous through Eocene strata in San Diego: Stories they tell of paleoclimates and asteroid impact. At the Bali Hai Hawaiian Village.
*September 27-29, 2024	SDAG Annual Field Trip to the Transverse Ranges. (No meeting this month)
October 16, 2024	Mike Ziegler on gravitation. Meeting at Sunbelt Publications.
*November 6, 2024	Joint Meeting with AEG Inland Empire Section / Jahn's Lecturer Cynthia Palomares in Fallbrook.
December 18, 2024	Traditional Holiday Celebration at the NAT with Tom Demere.

*Departure in regularly scheduled meeting date (Highlights)

Geology Provides a Break From the Hectic World by Richard Halsey

No other topic of inquiry, no other physical entity, no other subject of discussion is more accessible, more receptive to new ideas, and more able to release us from our disquieted minds than **the study of rocks and the dynamic earth that creates them**. We know this from first-hand experience. In our effort to expand the depth of our [Chaparral Naturalist program](#) over the past few years, we have been participating in both local ([SDAG](#)) and national ([GSA](#)) geological organizations through conferences, informal gatherings, and most importantly, field trips. The inspiring takeaway from these experiences is that geologists seem to have transcended our species' myopic focus on ourselves and the hubris that fuels it. Consequently, the pervasive doom and gloom and contentious social conflicts that garners so much attention these days are absent. Political complaints, social grievances, and hand wringing over the fate of the world fail to find traction during conversations. Instead, social interactions are consumed by excited banter over the latest geological wonderment: animated disagreements over the extent of ice age floods, challenges to find the actual cause of hot spots on the earth's crust, and discussions about the opportunities provided by the numerous extinction events our planet has experienced over the past 500 million years. And then there's the recognized fact that rocks hold their historical secrets tightly. No one was around when they did what they did. So, informed speculation adds additional excitement to even the most casual discourse. Although rock hammers, excursions into wild places in search of rocks, faults, and fossils, and studying easily collectible things of beauty certainly contribute to the unique, jaunty nature of geologists, it is likely the Zen-like appreciation of [deep time](#) that has the most significant impact on how geologists see the world and themselves. Pretense and certainty have no place when one knows how insignificant humans are in the earth's 4.6-billion-year existence, and that much of what one believes can be turned upside down by a rock in someone's collection or the latest drill core. Curiosity is the watch word. Interestingly, the willingness and ability of geologists to consider new ideas was the reason why they were one of the most sought-after scientists during America's war effort in the 1940s. Of course, geologists, being human, suffer from the same tendency as everyone else - latching on to an idea as one's [intellectual child](#), refusing to let go despite clear signals to do so. But the debilitating consequences of such intransigence is still a fresh memory from when plate tectonics revolutionized geology in the late 1960s. Plate tectonics essentially created a brand-new scientific field. Geology is still called geology, but its fundamental foundations were burned to the ground and replaced by a new framework that has been able to answer questions that had perplexed us for thousands of years - why mountains, why earthquakes, and why rock layers twist in so many fascinating ways. So, geologists are like young entrepreneurs in a new industry, creating innovative solutions and discovering novel ideas that foster more of the same. It is an exciting time to love rocks. Once the geological experience begins to filter into the biologist's mind, it becomes clear why California's complex geology is a big reason biodiversity in the state is nearly seven times richer than anywhere else in the United States. It's on the rocks where life began, and it's on the rocks life is sustained. Therefore, it is impossible to truly understand life without understanding rocks. And so, join us as we continue expanding our understanding and appreciation of geology on both local and global scales. We will be adding more information to our website as we continue to learn. Please revisit the developing subpages listed below when you are not outside doing what you should be doing - collecting rocks. May, 2024 by Richard Halsey: California Chaparral Institute <https://californiachaparral.org/>

SDAG PUBLICATIONS

<https://www.sandiegogeologists.org/Publications.html>

JOB ANNOUNCEMENTS

<https://www.sandiegogeologists.org/Jobs.html>

2024 SDAG MEMBERSHIP

Renew or become a new SDAG Member - 2024 Member Dues are Due!

On-line Payment (\$25 Member; \$5 Student):

<https://www.sandiegogeologists.org/MemberForm.pdf>

Mail in or Bring FORM to Meeting:

<https://www.sandiegogeologists.org/MemberForm.pdf>

DID YOU KNOW THAT SDAG HAS A FACEBOOK PAGE?

Here is a link to the SDAG Facebook page:

<https://www.facebook.com/sandiegogeologists.org>

2024 Corporate SDGS Sponsors

Renew or become a new 2024 SDAG Sponsor - Minimum \$100 includes annual Membership.

<https://www.sandiegoeologists.org/Sponsors.html>

On-line Payment or Mail in Form:

<https://www.sandiegoeologists.org/SponsorForm.pdf>

DIAMOND Sponsors +\$1,000



<https://handpmg.com>

H&P Mobile GeoChemistry, Inc. is an industry leading provider of environmental lab services.



Kuper Consulting LLC specializing in aggregate characterization, reclamation & permitting.
tom@kupercon.com & dorian@kupercon.com



Geocon Incorporated <https://www.geoconinc.com>

A professional engineering consulting firm providing comprehensive geotechnical engineering.

Dr. Pat Abbott

<https://www.sdsu.edu/experts-directory/patrick-abbott>

To Promote Geologic Knowledge



GEOTOURS
EXPLORE THE WORLD

<https://www.geotours.us> Matt Ebner has led GeoTours groups to 82 countries.

**Anonymous
Sponsor**

RUBY Sponsors +\$500



ENGEO

— Expect Excellence —

ENGEO has an office in San Diego and offices throughout the United States, New Zealand and Australia. ENGEO offers geotechnical, environmental, water resources engineering and construction services.

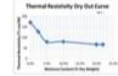
PROJECT X CORROSION ENGINEERING



Soil Corrosivity Lab
Corrosion Packages recommended by corrosion engineer & metallurgist or order "a la carte".
3-Day or Less Turn-Around-Time.
Only 400g soil sample needed!



Caltrans Accredited



Thermal Resistivity
Thermal Resistivity Dry-Out Curve from zero to 110% of proctor moisture with 3-Day or less Turn-Around-Time.
Only 3 lbs of soil needed!

<https://projectxcorrosion.com>

EMERALD Sponsors +\$100



Dave Bloom	Tom Lamb
Todd Wirths	Lowell E. & Diana Lindsay
Dr. Monte Marshall SDSU Geology Professor Emeritus	Chris Livesey http://www.geotekusa.com/
Larry Cann	Joan & Dave Kimbrough
Joe Corones	<u>San Diego Car Accident Attorneys</u>
Greg Cranham Consulting Geologist	Carolyn Glockhoff <u>Caro-Lion Enterprises</u>
<u>Dr. Vic Camp</u>	Tod Clark - <u>Pacific Drilling Co.</u>
John Hoobs	Gerald Shiller
Dr. Margaret R. Eggers <u>Eggers Environmental, Inc.</u>	Monte & Diane Murbach <u>Murbach Geotech</u>
Phil Farquharson - <u>Geology Guy</u>	Carole L. Ziegler
Eldon Gath <u>Earth Consultants International</u>	<u>Scott Snyder</u>
GEI - <u>Geotechnical Exploration Inc.</u>	<u>Starbucks Coffee Company Cardiff CA</u>
Cari Gomes - <u>Pinao Consulting</u>	David and Jan Steller
Rob Hawk	Dr. Anne Sturz
Stan Helenschmidt <u>Helenschmidt Geotechnical, Inc.</u>	Sue Tanges
Kip Hering	John Teasley
George H. Ramos Jr. & Associates <u>San Diego Criminal Defense Attorney</u>	Mark Holt <u>Discovering Lost America</u>
Randy Wagner	Mary Walke
Anonymous Sponsor	