

## SAN DIEGO ASSOCIATION OF GEOLOGISTS

http://www.sandiegogeologists.org

### SDAG MEETING ANNOUNCEMENT

Wednesday, November 20, 2019

# The Path of the Vikings

Presented by: Dr. Monte Marshall (Montek the Terrible)

Where: Marina Village – Catalina Room

1936 Quivira Way

San Diego, CA 92109 (See Map)

When: 5:30 pm – Social Hour

6:30 pm - Dinner

7:30 pm – Presentation

Dinner: Seasoned Baron of Beef, Roasted Chicken, Mashed Potatoes, Grilled

Vegetables, Spring Mix Salad **Cash Bar –** Walawender Tavern

Cost: \$30 Member, \$35 Non-Member, \$20 Students.

**Reservations:** Make your reservation **online** at http://www.sandiegogeologists.org/Meetings.html

**no later than noon, Monday November 18, 2019**. Reservations cannot be guaranteed after Friday at noon but are always preferred over walk-ins. **EARLY** 

reservations well before the deadline are MUCH appreciated.

#### **Directions:**

**FROM INTERSTATE 5:** Take the SEA WORLD DRIVE exit. From SEA WORLD DRIVE, take WEST MISSION BAY DRIVE on your right. When you see the large green sign that says QUIVIRA ROAD, get in the farthest left of the two left turn lanes. Turn left, go one very short block and turn left again. Drive about one-half mile and MARINA VILLAGE will be on your right.

FROM INTERSTATE 8: Take the WEST MISSION BAY DRIVE exit to the right. You will be on INGRAHAM STREET for a short distance from which you will take the next exit marked WEST MISSION BAY DRIVE on your right. When you see the large green sign that says QUIVIRA ROAD, get in the farthest left of the two left turn lanes. Turn left, go one very short block and turn left again. Drive about one-half mile and MARINA VILLAGE will be on your right.

#### Мар:



#### **ABSTRACT**

This talk will be a return to the series of talks I gave in my early years, (i.e., where did Monte go last summer?) Having learned through National Geographic's DNA program that my genes match most closely those of the people of Denmark and Norway—making me a true Viking, I decided to take a cruise that traced the spread of the Vikings from Iceland to Greenland to Newfoundland. Of course, I couldn't ignore the rocks along the way. This talk will be a mixture of pictures of rift valleys, beautiful fiords, Viking long houses, and one of the biggest and best ophiolite complexes in the world.

#### BIO

Monte began his college career in philosophy and astronomy at Villanova (BA, 1961), was converted to geology by Baylor Brooks at SDSU (BA, 1966) and received his PhD in geology and geophysics at Stanford (1971). After 4 years of doing research for the USGS, he returned to SDSU and taught and did research until his retirement in 2015. His principal courses were structural and petroleum geology, geophysics, and paleomagnetism and plate tectonics. His research interests were applying paleomagnetism to structural problems in southern California and detailed gravity surveys of the faults of metropolitan San Diego. Since 2005, he has devoted his time to geologic community service and travel.

### **UPCOMING MEETINGS**

Meetings are usually held on the 3<sup>rd</sup> Wednesday of the month may change to accommodate the speaker and meeting place schedules. Check the SDAG website for updates

December 4, 2019 *1st Wednesday*	Tom Demere
Natural History Museum	*Surprise Talk*
January 16, 2020 *3 <sup>rd</sup> Thursday* Mission Trails Visitor Center	Pat Abbott Geology of Mission Trails (w/newly produced video)
February 19, 2020	Jeremey Faker (Group Delta)
Marina Village – Catalina Room	Geotechnical Aspects of Infiltration

### 2019 SDAG EXECUTIVE COMMITTEE

PRESIDENT: Ken Haase; haase@geoconinc.com

<u>VICE PRESIDENT:</u> Adam Avakian; <u>armenianmenace1@gmail.com</u>

<u>SECRETARY:</u> Nadja Scholl; <u>secretary@sandiegogeologists.org</u>

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PUBLICATIONS: Lowell Lindsay; Sunbelt Publications; Ph: (619) 258-4911, x111;

<u>Ilindsay@sunbeltpub.com</u>

#### SDAG PRESIDENT'S CORNER

Hello SDAG,

Glad to see so many turn out to Ron Blakey's talk, such a cool insight to map building!

Our meeting on November 20<sup>th</sup> brings us a crowd favorite, Monte Marshall! He will be giving a talk on tracing his Viking heritage to Iceland, Greenland and Newfoundland while admiring the great geology along the way. Monte has provided great talks over the years and we hope to have him do so into the future! We will be at our old favorite, the Marina Village Catalina Room.

As a reminder, our annual Natural History Museum meeting is a brief 2 weeks after the November meeting so please sign up for that right after our next meeting. The meeting will be on December 4<sup>th</sup> at 6:00 pm and Tom Demere will be presenting the talk for that evening.

We are also looking for our 2020 Treasurer so if you are interested, we can discuss at our next meeting or shoot me an email at <a href="mailto:haase@geoconinc.com">haase@geoconinc.com</a>.

Send in your 2020 memberships and sponsorships soon! It helps us provide great talks every month as well as student scholarships.

See you on November 20th!

Ken Haase 2019 SDAG President Geocon, Inc.

haase@geoconinc.com

## SDAG VICE PRESIDENT'S CORNER

Hi Friends! First off, I would like to send out my appreciation again for getting to lead such a great group of people around the Owens Valley. It was really an honor for me, getting to coordinate a field trip to Owens Valley and Eastern Sierra, and then to have such a great turn out of people really made it exciting and fun. Everyone did a great job hustling to each stop, which allowed us to see everything that was planned and also have a little free time at the end of the day. It could have never been done without all the help from the guest speakers, SDAG and SDGS officers and board members, and other volunteers. It was a huge group effort all around. Below is the group photo taken at Lone Pine Fault Scarp on Day 1. Photos from the trip are posted on SDAG's Facebook page ("San Diego Association of Geologists"). We will be figuring out an online dropbox type drive for SDAG photos soon. Once we do, I will send out the path/invite to that drive so people can access photos and that way we don't have to worry as much about storage issues. Also, just a reminder that once the published guidebook comes out, everyone that was on the trip is entitled to a copy. This was part of your trip fee. I have everyone's email address and will reach out when the guidebook is finished. Give me about a year or so though \(\frac{1}{2}\). I hope to see you all again on future trips!

-Adam Avakian

SDAG Vice President



# One Stop Wonder – Weekend Edition November 9<sup>th</sup> and 10<sup>th</sup> "Fish Creek Wash Geology Trip" – Anza-Borrego State Park Hosted by: Dan Garren – garren54@gmail.com



**Meeting Location:** Fish Creek Primitive Campground (33.0240, -116-1101) 10:00 am Saturday November 9, 2019

**Camping:** Camping is FREE on first come basis. Fire rings, pit toilets onsite. You will need to provide all provisions (food, water, camping gear, firewood). SDAG will not be providing any supplies.

**Outing:** Car expedition to Wind Caves (1/4 Mile Moderate Hike), Elephant Knees (1 Mile Easy Hike), Blackwood Basin (2 Mile Easy Hike). High Clearance 4x4 recommended.

**Geology:** Fish Creek once ran through a tropical savannah over which roamed pre-historic animals who are known to us today only through their fossilized bones in the soil. At various other times, the salt waters of the Gulf of California and the fresh water of the Colorado River Delta made appearances in the area. The changes of scene and shifts in the landscape were marked by volcanoes, powerful earthquakes, and giant landslides.

https://darkwing.uoregon.edu/~rdorsey/Downloads/DorseyChaperNov05.pdf

If you are interested in this trip and would like to contribute your geology knowledge please email Dan at <a href="mailto:garren54@gmail.com">garren54@gmail.com</a> and Ken Haase at <a href="mailto:haase@geoconinc.com">haase@geoconinc.com</a>.

## **SDAG December Winter Banquet**



The annual SDAG Winter Banquet is almost here! Once again we will be hosting the event at the San Diego Natural History Museum. Tom Deméré will once again be giving a talk in the comfort of the indoor amphitheater. We have a great menu lined up for this year and signups are available immediately following our November meeting! We will have access to the 2nd floor exhibits and a cash bar will be available. E-mail Ken Haase (SDAG President) <a href="mailto:haase@geoconinc.com">haase@geoconinc.com</a>, or Nadja Scholl (SDAG Secretary) secretary@sandiegogeologists.org, with any questions. See you there!

When: December 4, 2019 (1st Wednesday)

6:00 pm – Social Hour 7:00 pm – Dinner 8:00 pm – Program

Where: San Diego Natural History Museum

1788 El Prado, San Diego, CA 92101

Cost: \$50 for members

\$55 for Non-Members \$30 for Students

Graciously
Sponsored by:



Menu: -Holiday Turkey w/ Gravy

-Honey Pineapple Glazed Ham

-Quinoa Stuffed Peppers (Vegetarian)

-California Field Greens w/Gorgonzola Cheese, Dried Cranberries, Grapes, Cucumbers, Candied Walnuts and a Raspberry Vinaigrette

-Tri Color Carrots with brown sugar/cinnamon glaze

-Garlic smashed Red Potatoes

-Assorted Rolls

-CASH BAR

## **2020 SDAG OFFICER**

We are looking for our 2020 SDAG Officer for the Treasurer position. If you are interested please email Nadja, <a href="mailto:secretary@sandiegogeologists.org">secretary@sandiegogeologists.org</a> or Ken at <a href="mailto:haase@geoconinc.com">haase@geoconinc.com</a>.

# Support SDAG/SDGS using AmazonSmile



#### What is AmazonSmile?

AmazonSmile is an automatic way for you to support the <u>"San Diego Geological Society"</u> (SDGS) SDAG's 501(c)(3) as your favorite public charitable organization every time you shop on Amazon at no cost to you at <u>smile.amazon.com</u>.

# How do I select a charitable organization to support when shopping on AmazonSmile?

On your first visit to AmazonSmile <a href="mailto:smile.amazon.com">smile.amazon.com</a>, you need to select a charitable organization to receive donations from eligible purchases before you begin shopping. Please select the <a href="mailto:san Diego Geological Society">San Diego Geological Society</a>. Amazon will remember your selection, and then every eligible purchase you make at <a href="mailto:smile.amazon.com">smile.amazon.com</a> will result in a donation to SDGS (SDAG).

## How much of my purchase does Amazon donate?

The AmazonSmile Foundation will donate 0.5% of the purchase price from your eligible AmazonSmile purchases.

#### How can I learn more about AmazonSmile?

Please see complete AmazonSmile program details.

#### **SDAG Research Tool**

**SDAG RESEARCH TOOL** - A comprehensive listing of all papers published by SDAG, whether as annual field trip guidebooks or special publications, is now available on our website. Entries are sorted by primary author, or chronologically by date of publication, starting with our first guidebook in 1972, from Coast to Cactus in 2014, and finally on the Julian 'Road to Gold' in 2017. These can be accessed or downloaded as .pdf files. They are fully searchable in Adobe Reader or Acrobat, so if you are researching a topic, "oikocryst" for example, you can search for that keyword. This listing will be updated as new books are published. Thanks to Greg Peterson and Hargis + Associates, Inc., for making this possible. See the links below:

http://www.sandiegogeologists.org/SDAG\_Pubs\_authors.pdf

http://www.sandiegogeologists.org/SDAG\_Pubs\_chronological.pdf

## Interactive Fault Map for San Diego - Tijuana

As part of the update for the San Diego-Tijuana Earthquake Planning Scenario, Working Group No. 1's "Fault Map Subcommittee" completed the first publicly available bi-national active and potentially active fault map (<a href="http://sandiego.eeri.org/?page\_id=265">http://sandiego.eeri.org/?page\_id=265</a>). This interactive GIS map includes the first publicly available active and potentially fault map locations from the City of San Diego. The map also integrated the faults south of the border for a bi-national cross border view. This map is an on-going project as our knowledge increases about local active and potentially active faults.

You can expand the map legend on the left side to select layers that can be turned on or off for the map view. You can also select from 1 of 12 base maps at the base map icon. You can click on the fault line in your map layer view to see the meta-data source. In addition, the City of San Diego Seismic Safety Study Geologic Hazards & Faults Maps are available in the layer titled "GeoHaz SD City." Please note that the City "Zone 12 Potentially Active" fault layers was not included in this data, therefore you will need to use the City Maps to find Zone 12.

The Fault Map link is available at: <a href="http://www.sandiegogeologists.org/Faults">http://www.sandiegogeologists.org/Faults</a> map.html

Please contact Diane Murbach (<u>dianemurbach@gmail.com</u> 619-865-4333), Chair for the SDTJ Earthquake Scenario Working Group #1 - Earth Science, if you have any questions, or see any errors on this new fault map.

I would like to thank Carolyn Glockhoff for her endless GIS work, Jim Quinn and the City for providing their data and time, Jerry Treiman with CGS for his time preparing the Surface Rupture and providing their new State fault data layer, and Luis Mendoza at CICESE for providing the faults south of the border. Please contact Diane Murbach (dianemurbach@gmail.com), Chair for the SD-TJ Earthquake Scenario Working Group #1 - Earth Science, if you have any questions, or see any errors on this new fault map.

**Diane Murbach** (619) 865-4333

Engineering Geologist, C.E.G.

www.murbachgeotech.com

## Request for 2019 SDAG/SDGS Publication Sponsors

On behalf of the San Diego Geological Society, Inc. (SDGS), a public benefit 501(c)3 nonprofit educational corporation, we would like to request tax deductible Donations for our San Diego Association of Geologists (SDAG) group. The list of paid Sponsors and the forms to become a Sponsor are located on the SDAG web site at: <a href="http://www.sandiegogeologists.org/Sponsors.html">http://www.sandiegogeologists.org/Sponsors.html</a>.

Your donation will further the SDGS mission to promote geology and related fields in the greater San Diego region, operating through the San Diego Association of Geologists (SDAG), a committee of SDGS. To achieve our primary educational objective, we organize frequent field trips and maintain a program of monthly meetings featuring speakers on current geological topics. We also publish field trip guidebooks and other publications related to geology and natural history. We encourage scholarship and research by awarding scholarships from the elementary through graduate levels. With your \$100 "EMERALD" donation, your name/business will be listed as a sponsor on the SDAG web site (http://www.sandiegogeologists.org/) and in the monthly SDAG meeting newsletters. With your \$500 "RUBY" or \$1,000 or more "DIAMOND" level donation, your business card will also be included on the SDAG web site and in the monthly SDAG meeting newsletters. In addition, as a "\$1,000 or more DIAMOND" level donation you will be presented with a thank you plaque.

Should you have any questions regarding a Sponsorship, please contact our non-profit SDGS Secretary (Diane Murbach) at 619-865-4333.

## **Call for Articles**

SDAG invites members to submit articles on their current research or an interesting project they are working on for publication in the monthly newsletter. The article should be no more than 1 page in length. Photos are welcomed; too. Please submit articles to the SDAG secretary via email.

# **Geo Job Listings**

## **Project Geologist Wanted**

R. T. Frankian & Associates, Inc.

R. T. Frankian & Associates, Inc., a geotechnical engineering and engineering geology consulting firm since 1963, seeks a qualified individual for Project Geologist position. This position is to work on medium to large size land development-type projects, as well as to develop work within the public sector. The successful candidate must meet the following criteria.

The Project Geologist must -

- Possess BS/BA in Geology, with classes in geologic field mapping, stratigraphy/sedimentology, and structural geology
- Have 1-3 years experience in hillside grading in L. A. County or Southern California
- Be able to perform downhole boring logging, test pit logging, field supervision, slope stability analysis
- Be able to assist CEG with various aspects of land planning and development projects,
   especially field-related aspects
- Be willing to work in various aspects of the job (field, office, and as needed inspection)
- Possess excellent written and verbal communication skills, as well as excellent interpersonal skills
- Being a PG in the State of California is preferred but not required

#### **Senior Engineering Geologist Wanted**

R. T. Frankian & Associates, Inc.

R. T. Frankian & Associates, Inc., a geotechnical engineering and engineering geology consulting firm since 1963, seeks a qualified individual for the Senior Engineering Geologist position. This position is to work on medium to large size land development-type projects, as well as to develop work within the public sector. The successful candidate must meet the following criteria.

The Senior Engineering Geologist must -

- Possess BS/BA in Geology, with classes in geologic field mapping, stratigraphy/sedimentology, and structural geology
- Have 3-5 years experience in hillside grading in L. A. County or Southern California
- Be able to perform downhole boring logging, test pit logging, field supervision, slope stability analysis
- Possess excellent written and verbal communication skills, as well as excellent interpersonal skills
- Be willing to work in various aspects of the job (field, office, and as needed inspection)
- Be a CEG in the State of California

R. T. Frankian & Associates, Inc., offers a competitive salary, commensurate with experience and abilities, and a benefits package.

Email resumes to resumes@rtfrankian.com.

**GEI Consultants, Inc.** is a leading consulting engineering and environmental firm ranked #92 in the ENR top 500 (2018), with over 800 employees in multiple offices throughout the U.S. and Canada. We serve hundreds of government, energy, industry and institutional clients, and have completed 50,000 project engagements throughout the United States, Canada, and more than 20 other countries. Our technical experts are involved in dozens of specialty services emanating from our core solutions in water, energy, buildings, infrastructure and industrial.

We are seeking a full-time **Senior Engineering Geologist** for our Carlsbad, CA office. Experience in geologic investigations for dams and other water infrastructure projects is a plus.

#### **Essential Responsibilities & Duties**

- Manage the technical, financial, and client relationship aspects of a variety of geologic/geotechnical engineering projects throughout the country, with a geographic emphasis in California.
- Prepare technical scopes of work and budgets for proposals, and prepare requests for proposals for subcontractor services.
- Plan and lead the implementation of geologic/geotechnical site assessments and subsurface investigations, which include: field mapping, aerial photograph interpretation, rock and soil borings, surface and downhole geophysics, LiDAR analysis, preparation of technical reports, and providing technical oversight of subcontractors including review/approval of invoices and work proposals.
- Participate actively in professional organizations and conferences; deliver presentations, and write technical papers.
- Generate new business.
- o Prepare and deliver technical presentations to clients and regulators.
- This position has a field component; travel, and some overnight travel are required.

#### **Minimum Qualifications**

- B.S. in Geology; M.S. is a plus.
- P.G. and C.E.G. with registration in California.
- 10+ years of previous professional experience in engineering geology.
- Excellent technical report writing and communication skills.
- Willingness and ability to travel on short-term assignments as needed.
- Valid U.S. driver's license.

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#### MP Materials, Mountain Pass, CA

Seeking Industrial Hygienist/Radiation Safety Officer

Please contact:

Chris Baker
Senior Environmental Specialist
m: 562.331.4507
cbaker@mpmaterials.com | www.mpmaterials.com

# PHOTO OF THE MONTH

If you would like to submit a photo, email them to <a href="mailto:secretary@sandiegogeologists.org">secretary@sandiegogeologists.org</a> and I will try and put them in the newsletter. Provide a short description of the picture.



Photo of the SDAG 2019 Owens Valley Field Trip group standing on and perpendicular to the 7.1 Ridgecrest Earthquake fault scarp. Photo courtesy of Jen Morton.



Hargis + Associates, Inc. is an environmental consulting firm specializing in hydrogeology and engineering. We are headquartered in San Diego, California and have offices in Mesa and Tucson, Arizona. Our practice areas include all aspects of hydrogeology and engineering.

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Contact: Dr. David R. Hargis



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(800) 834-9888

Contact: Louise Adams or Suzie Nawikas



Contact: Rupert Adams, CEG

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Leighton is a multidiscipline engineering firm, providing geotechnical, environmental, and testing and inspection services. Founded in 1961, Leighton provides engineering solutions to public agencies, property owners, and facilities. With offices located in San Diego, Irvine, Los Angeles, Temecula, Rancho Cucamonga, Palm Desert, Santa Clarita, Ventura, and Bakersfield, we efficiently service any region of Southern California. Our professional staff of Registered Geotechnical Engineers, Professional Geologists and Certified Engineering Geologists, Registered Hydrogeologists, and Registered Environmental Assessors and Certified Inspectors provide decades of local experience for the successful completion of your projects.

For additional information, please contact Bob Stroh (<a href="ref:rstroh@leightongroup.com">rstroh@leightongroup.com</a>)

Website link: <a href="http://www.leightongroup.com">http://www.leightongroup.com</a>

- <u>Dr. Pat Abbott</u> SDSU Professor of Geology, Emeritus
- Marty and Sherry Bloom
- Joe Corones
- Greg Cranham Consulting Geologist
- Dr. Margaret R. Eggers, CHG <u>Eggers</u> <u>Environmental, Inc.</u>
- Karen Evans for Jim Evans (Deceased)
- Phil Farquharson Geology Guy
- Carolyn Glockhoff <u>Caro-Lion Enterprises</u>
- Rob Hawk
- Tom Lamb
- Leighton Group
- Carole L. Ziegler
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- Dr. Monte Marshall—SDSU Prof. of Geology & Geophysics, Emeritus
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