

# SAN DIEGO ASSOCIATION OF GEOLOGISTS

<http://www.znet.com/~sdag>

## 2000 EXECUTIVE COMMITTEE

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## MEETING ANNOUNCEMENT

Wednesday, February 16, 2000

**Where:** **Qwiigs Bar & Grill**  
5091 Santa Monica Avenue  
Ocean Beach  
Phone: 619/222-1101

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

**Dinner:** Choice of one of the following entrees: Fresh fish or prime rib with tossed salad, fresh vegetables, and coffee. A vegetarian entrée is also available and will be a Basil Couscous. Please indicate your choice when making your reservation.

**Cost:** \$ 24.00 per person (Students with ID: \$ 15.00)

**Reservations:** Make your reservation online through the SDAG website at <http://www.znet.com/~sdag> or call the SDAG Reservation Line at Ninyo & Moore: 858/974-6994, Ext. 1760, before 5:00 pm Monday, February 14. Contact Bob Stroh at Ninyo & Moore with any questions.

**Program:** **The Izmit (Turkey) and Hector (California) Earthquakes: Characteristics of Faulting and Prospects for Earthquake Forecasting**

**Speaker:** **Dr. Thomas Rockwell, SDSU Geological Sciences**

Dr. Thomas Rockwell, professor at SDSU and principal in Earth Consultants International, is world renowned for his work in neotectonics and paleoseismology. He is also currently the group leader of the Earthquake Geology Group of the Southern California Earthquake Center (SCEC), and serves on both the SCEC and SCIGN Board of Directors. Rockwell has published over 200 articles and abstracts on active faulting and paleoseismology during the past 20 years, and currently has projects underway in Turkey, Israel, Argentina, Mongolia, India, Nepal, and Mexico, as well as California. Rockwell led the SCEC effort in earthquake response for both the August Izmit earthquake in Turkey and the October Hector Mine earthquake in the Mojave desert, which are the focus of his SDAG talk.

## Program Abstract:

The M7.4 earthquake that struck the Izmit Bay region of Turkey on August 17 was an anticipated event that occurred on the North Anatolia fault zone (NAFZ) in northwestern Turkey. The NAFZ accommodates about 23 mm/yr of strain, as the Anatolian Plateau translates westward towards Greece with respect to Europe. Most of this strain accumulation is released during large earthquakes, such as in 1999, and this is simply the most recent of a sequence of large earthquakes that have sequentially ruptured over 1000 km of the NAFZ from east to west since 1939. The 1999 Izmit earthquake produced about 120 km of surface rupture, with locally up to 5 m of right-lateral slip. Much of the destruction from this earthquake had to do with local soil failure and deltaic collapse, as well as locally poor construction. Based on a long and rich historical record, the August 1999 earthquake appears to be a repeat of a large event in 1719, which itself was part of a sequence of large earthquakes that ruptured the western half of the NAFZ between 1719 and 1766. An older earthquake in 1509 appears to have broken not only the Izmit Bay section of the NAFZ, but continued to the west across the Marmara Sea to the Gallipoli peninsula, making it one of the largest earthquakes to strike the Middle East in the past 1000 years. The current sequence suggests a failure mode of moderately large (M7-M7.5) earthquakes, with 1-2 additional earthquakes in the Marmara Sea near Istanbul likely in the very near future.

The M7.1 Hector earthquake occurred on the Lavic Lake fault in the Eastern California Shear Zone (ECSZ) on October 16, 1999. In contrast to the Izmit Bay earthquake, the Hector event occurred on a fault that had not broken in several tens of thousands of years and was not anticipated. It produced a 40-km-long surface rupture, also with up to 5 m of right-lateral slip, indicating a relatively high stress drop. Geomorphic expression of this fault prior to the earthquake indicates a substantial amount of time has passed since the prior event, and State hazard maps classified it as a relatively inactive fault. It was not zoned as there was no evidence of prior Holocene activity. However, recent paleoseismic studies of the ECSZ show that most of the faults in the Mojave desert have low slip rates and long return periods for large earthquakes, including the group of faults that produced the 1992 Landers earthquake. Of substantial interest, however, is that strain release appears to cluster in the ECSZ; that is earthquakes come as clusters of closely-timed large events (<1-2 thousand years) followed by several thousand years of quiescence or inactivity. Cast in this perspective, faults in the Mojave region that have failed recently are not expected to produce an earthquake in the near future, whereas the faults that have not failed for extended periods of time are more likely. Thus, the Hector earthquake should potentially have been an anticipated event, although considering the likely average return time, the likelihood would still have been considered low. Our understanding of local and regional fault behavior is leading to more effective ways to forecast the likelihood of future earthquakes, both in California and elsewhere in the World.

## UPCOMING 2000 MEETINGS:

March 6	Joint meeting with the South Coast Geological Society (SCGS) at the El Adobe Restaurant, San Juan Capistrano, Speaker: TBA
April 19	Student Papers Presentation, Location TBA
May 17	TBA
June 3-4	Tentative weekend for the 2000 SDAG Field Trip: Geology and Enology in the Temecula Valley
July 19	Joint meeting with the Inland Geological Society at the Hungry Hunter, Temecula, Speaker: Paul Remeika, Anza-Borrego paleontology
August 16	TBA
September 16 (tentative)	SDAG / ASCE / SDSU Alumni picnic. Ski Beach, Mission Bay
October 18	Joint meeting with the Society of Mining Engineers, location TBA, Speakers: David Peterson and George Jefferson on The Hydrothermal Origin of the Fish Creek Gypsum Deposit
November 15	TBA
December 20	Tom Deméré, San Diego Natural History Museum Paleontology Update, Scholarship announcements and SDAG elections.

## 2000 CORPORATE SPONSORSHIP

To all of our corporate sponsors, thank you very much! Their generosity allows us to plan the annual field trip and produce field guides, to host the SDAG/SDSU picnic on Mission Bay, support student participation at a greatly reduced price, produce this monthly newsletter, and to provide scholarship funds to local geology students.

### 2000 Corporate Sponsors

Bill Elliot	Geotechnics Incorporated
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Please consider becoming a Corporate Sponsor of SDAG. In addition to monthly recognition for your contribution, you will be entitled to a free internet "link" from the SDAG Website, and we plan to list our sponsors at the front of the SDAG Field Trip Volume.

#### SDAG NEWSLETTER:

If you have any information, announcements, ads or suggestions for an upcoming newsletter, please submit it to Bob Stroh (2000 SDAG Secretary). Any news regarding upcoming events that may be of interest to the Association or news of your business can be submitted. The submittal deadline for the March SDAG newsletter is Friday February 18, 2000.

#### ANNOUNCEMENTS:

**Membership Dues are due for 2000.** If "exp" appears on your mailing address label, then it's time to renew your dues with SDAG. A membership form is included with this newsletter, so please fill it out and mail it in as soon as possible to our Treasurer. As always, please fill out a membership form with your current information, even if there is no change from last year, thank you.

**Last month's joint meeting** at the 94<sup>th</sup> Aero Squadron Restaurant had nearly 85 attendees. The joint meeting between the SDAG and the San Diego Section of ASCE included a delicious dinner with our choices consisting of shrimp & scallops, fresh salmon or filet mignon kabob. By all accounts the dinner choices were all excellent. Our evening concluded with an excellent presentation given by Woody Higdon of Geo-Tech Imagery, Inc. His topic of discussion was GIS now and into 2000. For many of us that night, Woody enlightened us to the endless possibilities that GIS has to offer.

**The San Diego State University Department of Geological Sciences Annual Banquet** will be hosted by the SDSU Geology Alumni Association on Friday, February 25, 2000, at the Holiday Inn on Murphy Canyon Road in San Diego. **Shannon O'Dunn** is this year's honored alumna and will also be the featured speaker. Her presentation is titled **Western Impressions: The Artists' Eye**. Everyone is welcome to join us. For more info, contact Sue Tanges or Barbara Johnston at 619-442-8022 or [s.tanges@worldnet.att.net](mailto:s.tanges@worldnet.att.net).

**SDAG is sorry to inform** its members of the passing of the following well-respected geologists who greatly influenced our local geologic community:

**Rollin Eckis** passed away this past November 1999. He enjoyed a 40-year career as a petroleum geologist and helped discover the major North Slope oil field in Prudhoe Bay, Alaska. He had attended San Diego State University (then known as San Diego Normal School) in 1923-4 and

returned to San Diego County after his retirement from ARCO as vice chairman in 1974. He endowed the Rollin and Caroline Eckis Chair in Seismology at SDSU in 1986 and also funded a scholarship fund for undergraduate majors. Donations are suggested to the geology departments at SDSU or Pomona College, or to the Alzheimer's Disease Research Center at UCSD.

**Edwin C. Buffington** passed away this past December 1999. He enjoyed a 32-year career in marine geology. He was once the head of marine geology at the Naval Undersea Center in San Diego and worked with the US Geological Survey in Menlo Park from 1974-80 as the Associate Chief of the Pacific Arctic branch in charge of scientific cruises. He was a fellow of the Geological Society of America and the American Association for the Advancement of Science. He was a resident of Point Loma and active in Holy Trinity Episcopal Church and the Peninsula Shepherd Senior Center.

**Baylor 'Skip' Brooks** passed away this past January 2000. He is known for being the pioneering educator of geology at San Diego State University. After studying at Stanford University, Oxford University in England, Harvard University and the University of Chicago, he joined the faculty at San Diego Teachers College (now known as San Diego State University) in 1931. During his tenure at SDSU, he helped expand the geology curriculum from being offered as an elective to one of the ten largest and most respected undergraduate/graduate programs in the nation. Donations are suggested to the Baylor Brooks Scholarship at the SDSU Department of Geological Sciences which is awarded to the best freshman geology major each year (or to a charity of choice).

**Grand Canyon Raft Trip** - There are still a few spaces available for an 8-day motorized raft trip through the Grand Canyon scheduled for June 9-16, 2000. For more info, contact Sue Tanges at 619-442-8022 or [s.tanges@worldnet.att.net](mailto:s.tanges@worldnet.att.net).

**CHEERS!** The SDAG beer pint glasses are in and are available for \$10.00 each. They're great-looking, sturdy, and a "must" for every SDAG member! Buy one (or a few!) at the next meeting.

**SDAG website:** Carolyn Glockhoff continues to update and manage our ever-evolving website. If you haven't yet seen this excellent and useful resource, check it out at: [www.znet.com/~sdag](http://www.znet.com/~sdag). Also, send the URLs of your favorite geology sites to Carolyn ([carolion@aznet.net](mailto:carolion@aznet.net)) for listing on the Geologic Links page.

**South Coast Geological Society (SCGS):** The SCGS usually meets on the first Monday of every month, in Orange County. For more SCGS information, visit their new website at: [www.southcoastgeo.org](http://www.southcoastgeo.org), or contact this year's SCGS President, Bill Goodman at (949) 442-2442.

**Sincere thanks to Daryl Streiff**, who generously donated a copy of every volume of SDAG publications from the SDAG founding in 1972 through 1995, with the exception of the years 1983 and 1984. These volumes are currently housed in the SDAG archive/library, which is located at Sunbelt Publications (contact Lowell Lindsay). These volumes are available to any SDAG member for perusal and research. Additionally, if you have any information leading to the identification and/or recovery of the 1983 or 1984 volumes, it would be greatly appreciated.

**The Gordon Gastil Endowed Scholarship Fund** continues to seek donations of any amount. Gifts of \$ 500.00 or more will be recognized on a plaque to be placed in the remodeled Geology Building. Donations can be sent through SDAG, or contact Pia or Marie, Department of Geological Sciences, SDSU, at (619) 594-5586.

**Short Course Announcement:** Dr. Roy Shlemon will be teaching a short course in Soils, with emphasis in Quaternary Geology, Soils, and Geoarchaeology. The course will be held during five (5) consecutive Saturday sessions tentatively beginning on March 4<sup>th</sup>, 2000, and will consist of 2 to 3 hours of instruction followed by lunch, then examination of specific sites in the field. Class size will be limited to 15 individuals. The course will be held at GeoSoils, Inc. in Carlsbad, California, and is co-sponsored by the International Foundation for Applied Research in the Natural Sciences (IFARNS), Gallegos and Associates, and GeoSoils, Inc. of Carlsbad. Fee for the course is \$150.00, payable to IFARNS. For further information contact: Gerry Kuhn, Executive Director of IFARNS, at (760) 942-6163.

**2000 SDAG Field Trip:** This year's field trip will be held during the first weekend in **June**, so mark your calendars now! We will be visiting the wine country in Temecula, so we want to avoid the wine "crush" in Fall, and free geologists up to attend other field trips in October! Please see the Call for Papers (in this newsletter) and contact Barbara Birnbaum (SDAG Vice President & Field Trip Chair) with any questions, suggestions, or ideas for this year's field trip!

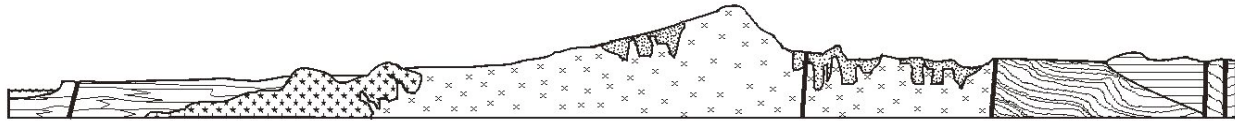
## POSITIONS AVAILABLE:

- ENVIRONMENTAL BUSINESS SOLUTIONS, INC. Growing, dynamic consulting firm seeks individual with minimum 3-4 years experience in San Diego County site assessment, subsurface investigations, and hydrogeology. Strong writing and communication skills a must. B.S. in geology/hydrogeology or related field. M.S. a plus. Send resume and salary history to Environmental Business Solutions, Inc., 8799 Balboa Avenue, Suite 290, San Diego, 92123. No phone calls please.
- ENVIRONMENTAL TECNICIAN - BBC Environmental, Inc. is an environmental consulting company specializing in groundwater monitoring, sampling, and remediation. We are looking for a field technician to perform groundwater and soil sampling and general equipment maintenance. This is a full-time, entry-level position with great potential for growth in our company. Science background, computer skills, mechanical abilities and 40 hour HAZWOPER training are a plus. Please send a resume to BBC Environmental, Inc., 1291 Simpson Way, Suite G, Escondido, CA 92029 or fax: (760) 740-1193 or e-mail [info@bbcenvironmental.com](mailto:info@bbcenvironmental.com). No phone calls please.
- CAL STATE UNIVERSITY, SAN BERNARDINO. The Department of Geological Sciences seeks a department chair (1/3 time-base) and petrologist at the level of Associate Professor or Professor for a position that will begin in September 2000. Primary teaching responsibilities (2/3 time-base, roughly two courses per quarter) will include Mineralogy, Optical Mineralogy, Igneous and Metamorphic Petrology, and Geochemistry, and other general geology courses as needed. A Ph.D. in the geological sciences and prior leadership experience are required. For more details and for application instructions, please see [http://geology.csusb.edu/geo\\_chr99.htm](http://geology.csusb.edu/geo_chr99.htm) or contact Sally McGill at [smcgill@csusb.edu](mailto:smcgill@csusb.edu) or at (909) 880-5347. Application deadline is February 14, 2000.
- FIELD TECHNICIAN – Ogden Environmental and Energy Services is looking for a field technician to conduct soil and water sampling, drilling oversight, groundwater monitoring, well construction and O&M of remediation systems. Must have satisfactorily obtained a HS diploma, some relevant experience/training, be mechanically inclined in the areas of piping, electrical components, and common computer software. Must be 40 hour HAZWOPER trained. If interested, please submit resume to OEES, 5510 Morehouse Drive, San Diego CA 92121 or fax: (858) 458-0943. EEO/AA.
- PETRA GEOTECHNICAL, INC. The Environmental Division of Petra Geotechnical, Inc. has an immediate opportunity for a senior level Environmental Professional for its corporate office in Costa Mesa, which serves all of Southern California. Ideal candidate will play a key role in the positive development and growth of the division. Requirements include California Registered Geologist, as well as excellent communication skills, motivation, and ability to work as a team player is essential. Please send your resume (in confidence) to Marlaigne Hudnall @ Petra Geotechnical, Inc., Environmental Division, 3185-A Airway Avenue, Costa Mesa, CA 92626. EOE
- ANTHONY-TAYLOR CONSULTANTS, a full-service engineering and architectural firm, is currently seeking senior staff and project-level geologists and engineers for our northern S.D. county office. The ideal candidates will have experience in engineering and/or environmental areas and have good people skills. We offer an excellent compensation package as well as a pleasant work environment. We also have opportunities for soils technicians and special inspectors. For immediate consideration, please fax resume to (760) 738-8232; Attn: Bruce Taylor.
- GEOCON Incorporated is searching for talented people to help handle their ever-increasing workload. Currently openings:
  - ◇ Senior Staff Geotechnical Engineer with 2-4 years experience. BSCE required, MSCE preferred. Registration desirable. Previous experience in land development a plus.
  - ◇ Project Geotechnical Engineer with 3-5 years experience. BSCE required, MSCE preferred. Registration required. Experience in land development a plus.
  - ◇ Engineering Field Technician with 2+ years experience desired but not mandatory. Land development and/or hillside experience a plus.

Please send resumes to: James E. Likins, President. Geocon Incorporated, 6960 Flanders Drive, San Diego, CA 92121-2974. Fax (619) 558-6159. No phone calls please. Geocon is an equal opportunity employer. **(Geocon, Inc. is an SDAG Corporate Sponsor)**

- GEOSYNTEC CONSULTANTS, a National environmental consulting firm, seeks individuals for our San Diego office with a BS or MS in geology or hydrogeology, with 1-3 years experience in environmental field work. Specific experience should include: lithologic logging; monitoring well installation; soil, sediment, surface water, and ground-water sampling; aquifer pumping test; slug tests; and management of subcontractors. Ideal candidate will have good oral/written skills. Travel required; physically fit & clean driving record. Competitive salary with excellent benefit package. Fax resumes to (858) 674-6586 or email to [twest@geosyntec.com](mailto:twest@geosyntec.com) EOE M/F/V/D
- STAFF ENGINEERS & SOIL TECHNICIANS – Southern California Soil & Testing, Inc. (SCST) has positions available for experienced staff engineers and soil technicians. SCST is trying to fill 2-3 positions with geotechnical professionals with several years experience towards registration and certification. SCST offers a comprehensive compensation and benefit package, and the opportunity to work on a wide range of projects. Resumes should be forwarded in confidence to SCST, 6280 Riverdale Street, San Diego, CA 92160-0627, Attention: Steve Jensen, or fax to (619) 280-4717.

As a service to our members, SDAG welcomes job postings - either for jobs wanted or open positions. Please submit any geo-type Want Ads to the SDAG newsletter editor (current SDAG Secretary), Bob Stroh.



## SAN DIEGO ASSOCIATION OF GEOLOGISTS

### CALL FOR PAPERS – 2000 Field Trip Volume

#### *Geology and Enology of the Temecula Valley*

This is to announce that the 2000 San Diego Association of Geologists (SDAG) volume theme, associated with the annual field trip, will be ***Geology and Enology of the Temecula Valley***. The Field Trip chair will be Barbara Birnbaum, Vice President of SDAG.

**OVERVIEW:** The field trip is tentatively scheduled for the weekend of June 3-4, 2000 (the weekend after Memorial Day), and will focus on the Temecula Valley in Riverside County. The trip will look at the geology of the region, including adjacent fault zones and unique features. There will be an emphasis on local soil conditions and how they influence the quantity and quality of wine grape production.

**PAPERS:** All papers (of any length) relating to the geology, tectonics, sedimentology, geomorphology, hydrology, hydrogeology, or engineering aspects of these regions are welcome. Also welcome are any papers relating to vineyard site selection, grape-growing, wine production, etc. Historical and non-site-specific papers on this general theme are also welcome. If you are interested in writing or submitting a paper for the field guide, please contact Barbara Birnbaum, the 2000 Field Trip Chairman and SDAG Vice President (see newsletter header for contact info).

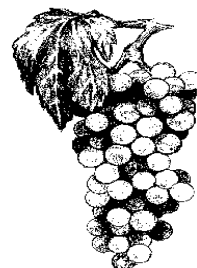
**FORMAT:** Text and tables should be provided by 3.5" diskettes in Microsoft Word or text format, with an identical hard copy included. Final page size will be 6" x 9", with black and white illustrations, photographs and tables. Illustrations should be print quality and camera-ready hard copy, legible when reduced to 6 x 9" format. Oversize maps will be considered, but this and other issues that may modify the volume should be discussed with the General Editor in advance. Photos may be color prints or slides, but black and white originals typically result in a higher quality print in the final volume.

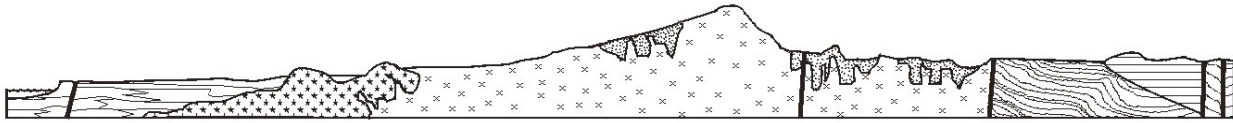
For guidance on matters of style and composition, consult the *U.S. Geological Survey Suggestions to Authors* (now in its 7<sup>th</sup> edition), and/or the *Chicago Manual of Style* (now in its 4<sup>th</sup> Edition). For technical matters, it is anticipated that an informal peer reviewer will read a draft of each paper and provide comments and suggestions to the author(s).

**DEADLINES:** Submittal deadline for papers is Friday, March 24<sup>th</sup>, 2000. This is an accelerated volume production schedule, with the intention of having the volume available for the field trip in June 2000. Please contact Barbara Birnbaum as soon as possible if you are considering submitting a paper for this volume, especially if you would like to discuss any special schedule considerations.

#### **QUESTIONS & SUBMITTALS:**

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# SAN DIEGO ASSOCIATION OF GEOLOGISTS

## 2000 MEMBERSHIP FORM

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 \_\_\_\_\_  
\_\_\_\_\_

**Field(s) of Interest:** \_\_\_\_\_

**Phone: Home:** ( ) \_\_\_\_\_ **Work:** ( ) \_\_\_\_\_

**Fax:** ( ) \_\_\_\_\_ **e-mail:** \_\_\_\_\_  
Check here if interested in newsletters via e-mail:

<b>Dues:</b>	_____	<b>Student Member</b>	<b>\$ 10.00</b>
	_____	<b>Regular Member</b>	<b>\$ 20.00</b>
	_____	<b>Corporate Sponsor</b>	<b>\$100.00</b>

New Member  Continuing Member

Date: \_\_\_\_\_ Check for change of mailing address:

Please enclose a check payable to SDAG, and mail to:

Patrick Brooks  
Kleinfelder, Inc.  
1230 Columbia Street, Suite 400  
San Diego, CA 92101

*Dues may also be paid  
at monthly meetings.*

**Thank you!** rev. 2/00