



SAN DIEGO ASSOCIATION OF GEOLOGISTS

www.sandiegogeologists.org

SDAG MEETING ANNOUNCEMENT Wednesday, February 15, 2006

GEOLOGY OF THE PICACHO AREA

presented by
Doug Stephenson
Petra Geotechnical

Where: Tom Ham's Lighthouse Restaurant
2150 Harbor Island Drive
San Diego, CA 92101
(619) 292-9110

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



Directions: Tom Ham's is located at the west end of Harbor Island. From Harbor Drive turn south onto Harbor Island Drive. At the second light turn right. Go to the end.

Dinner: A yummy buffet spread. The buffet includes Roast Beef, Roast Chicken, Pasta Alfredo, veggies, rice, a huge salad and fruit spread, dessert, and a beverage.

Cost: \$25.00 per member/guests, \$15 per student. Add \$5.00 if you make no reservation.

Reservations: Make your reservation **online** at www.sandiegogeologists.org or call the SDAG Reservation Hotline at (619) 255-8380, **no later than 5:00 p.m. Monday, February 13th**.

**RESERVATIONS CANNOT BE ACCEPTED AFTER Monday AT 5 PM.
IF YOU DO NOT MAKE A RESERVATION, WE CANNOT GUARANTEE YOU A MEAL.**

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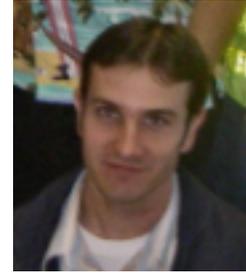
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PUBLICATIONS-Lowell Lindsay; *Sunbelt Publications*; Ph:(619)258-4911 x111; fax:(619)258-4916; llindsay@sunbeltpub.com

WEBMASTER – Carolyn Glockhoff; *Caro-Lion Enterprises*; Ph: (858) 549-3396; carolyn@caro-lion.com

BIOGRAPHICAL SUMMARY: DOUG STEPHENSON

Doug Stephenson was born in and grew up in the South Bay of Los Angeles, where his family still resides. He received his bachelor's degree in Marketing from San Diego State University in 1999. After spending three years in the Marketing Department of Makita Power Tools, The Leader In Lithium Ion Power Tools And Cordless Technology, he decided to pursue what he found to be a more interesting subject: Geology. He is currently completing his Masters thesis under Dr. Gary Girty in the Department of Geological Sciences at San Diego State University.



Doug has many interests outside of geology including music, television, and most importantly, Los Angeles Kings hockey and USC Trojan football. He currently lives in San Diego, and is employed by Petra Geotechnical, Inc. as a staff geologist.

SUMMARY:

THE OROCOPIA SCHIST IN PICACHO STATE PARK, SOUTHEASTERN CALIFORNIA

The Orocochia Schist and its lateral equivalents are a primarily quartzofeldspathic Late Cretaceous – early Tertiary metagraywackes of oceanic origins. Current day exposures of the schist occur along the San Andreas fault system and within the core of the Chocolate Mountains anticlinorium. The latter structure extends eastward from the San Andreas fault some 70 km into southwest Arizona. The marine origin of the Orocochia Schist have led to numerous models for schist emplacement, most involving subduction of marine sediments of either the Franciscan Complex or Great Valley sequence along the low angle trajectory of the thickened Farallon plate during the Laramide orogeny.

In SE California, Picacho State Recreation Area lies along the northern limb of the Chocolate Mountains anticlinorium. Just south of Picacho State Recreation Area, the Orocochia Schist has been exhumed along a series of low angle detachment faults, and is exposed in two distinct belts, separated by the Taylor Lake fault. The primary foliation, S_1 , dips to the west in the western belt, but dips to the east in the eastern belt. Twenty nine representative samples of the Orocochia Schist collected from the western and eastern belts were chemically analyzed for major and trace elements. Using conventional tectonic discrimination diagrams, the compositions of analyzed samples are suggestive of deposition in both continental island arc and active continental margin settings. Such an interpretation is consistent with the view that the Orocochia Schist was dragged from a trench or fore arc basin setting along a low angle trajectory beneath the North American plate margin during the Laramide orogeny.

Chemical data reported in the literature for graywackes analyzed from the Franciscan Complex and the Great Valley sequence revealed a distinctive north to south compositional variation that parallels the mafic to silicic changes in the compositions of likely arc sources. This north to south trend culminates in the granodioritic/dacitic compositions of nine samples analyzed during this study from the fore-arc deposits of the Late Cretaceous Point Loma Formation. Moreover, the compositional similarities between the analyzed samples of the Point Loma Formation and the Orocochia Schist suggest that the schist was likely derived from sediments shed from the northern Peninsular Ranges batholith. In short, observations made during this study imply that sediments now recrystallized as the Orocochia Schist were initially under thrust during the low angle subduction of the Farallon plate and were probably fore-arc basin deposits derived largely from the northern Peninsular Range batholith.

Note that this talk conveniently precedes the 20th Annual Alumni Field Trip to Picacho State Recreation area on February 25 and 26, also organized by Doug!!!

2006 SDAG MEETING SCHEDULE - Mark your Calendars!

We'll fill out the schedule as we get speaker confirmations and finalize meeting places. Meetings are usually on the 3rd Wednesday of the month but may change to accommodate speaker and meeting place schedules. Check here for updates!

March 15	TBD at Acapulco in Old Town
April 19	TBD

PRESIDENT'S CORNER:

First meeting of 2006 - Thank you Gary Peterson for a fine presentation on the capture of the moon. Your talks are always a treat! We had an intimate gathering at Emiliano's, where we never worry about running out of food.

February Meeting – We can look forward to great food in a great location, when we return once again to Tom Ham's Lighthouse. We have reserved the big room (minimum guarantee: 65 people), so there will be plenty of room for all. The theme will be the Picacho State Recreation area, location of the SDSU Geo-alumni field trip later in the month. Gary Girty and his students have been studying this area for some time now, so it should be interesting to see what they've come up with.

Field Trip Planning – We just held our first planning meeting for the annual trip, which several of us will be reconnoitering this coming weekend. It may well be a sort of continuation of the 2005 trip, heading off to the north and east of where we finished. Stay tuned!

OSW's - Several possibilities for one-day field trips have been mentioned, including Valley of the Moon. OSW stands for "One Stop Wonder", a field trip for just a day or part of a day, to just one place. Last year, we had an OSW to my house, to see the slope "stabilization" that was going on across the canyon. they tend to be impromptu, and we'll notify the membership via E-mail with as much lead time as possible.

See you at the lighthouse!

Phil Farquharson

ANNOUNCEMENTS:

The San Diego Chapter of AEG is holding its February meeting Tuesday, February 21, at 6 pm. Werner Landry will present an update on the status of the proposed City of San Diego guidelines for performing fault hazard studies in the downtown fault hazard study zone. The meeting will be held at the offices of Ninyo & Moore, 5710 Ruffin Road, San Diego. Contact Jonathon Goodmacher at Ninyo & Moore jgoodmacher@ninyoandmoore.com.

The 20th Annual SDSU Geology Department Alumni Field Trip /Campout. This years trip will be Feb. 25th & 26th, 2006 at Picacho State Recreation Area about 25 miles north of Yuma, AZ. Doug Stephenson, of Petra Geotechnical, will be our Field Trip Leader this year and will also be the February SDAG Speaker. His talk, conveniently staged two weeks before the Field Trip, is titled..... "The Geology of the Picacho State Recreation Area". Flyers should be available at the February SDAG meeting. Contact Joe Coronas at (858) 492-5034 Day, (858) 484-3582 Eve. for further information.

GSA GeoHostel: **The Tectonic Development of Southern California**, from the Beaches of San Diego to the San Andreas Fault, **11-16 March 2006**, Best Western Seven Seas, San Diego, Best Western Date Tree Hotel, Indio, (5 days, 6 nights). Scientific Co-Leaders: Monte Marshall, SDSU, Emeritus. Mario V. Caputo, Mt. San Antonio College, Walnut, California. Michael J. Walawender, SDSU, Emeritus. US\$1495 for GSA members; US\$1545 for spouses; US\$1595 for nonmembers.

The national **Association of Earth Science Editors (AESE)**, a GSA and AGI affiliate organization, is holding its 40th annual meeting in San Diego at the Hacienda Hotel in Old Town November 8-11, 2006. The mission of AESE is to enhance the communication of earth science information and education and to strengthen the profession of earth science editing. Membership is \$35/year and offers a Web page www.aese.org <[http://www.aese.org/](http://www.aese.org)> to members who freelance within the profession. Please contact Lowell Lindsay or Phil Farquharson for further information.

Annual conference of the California Mission Studies Association (CMSA) will be held at **Mission San Diego on February 17-19, 2006**. The Friday evening program will include a keynote address by engineering experts on seismic damage and proposed retrofitting to Mission San Miguel. Saturday's program will be a series of talks on the history, ethnology and archaeology of various California Missions and other Spanish colonial settlements. The Sunday program will be a series of short field trips around San Diego County, including a walking tour of the Mission Dam and Flume system in Mission Trails Regional Park led by Bill White and Greg Cranham (reference the 1999 SDAG field volume). Registration materials and other information is also available at the CMSA web site, <http://www.ca-missions.org/conf.html>. SDAG members welcome -- see you there!- *Greg Cranham*

The **Department of Geological Sciences at San Diego State University** is providing an opportunity for professionals in Southern California to further their understanding of these concepts through a two-weekend workshop. This workshop will be offered on March 25-26 and April 1-2, 2006 by David Huntley, Professor of Geological Sciences and Associate Editor of both Ground Water and Ground Water Monitoring and Remediation, and a specialist in NAPLs. Interested students may enroll in this class through SDSU Open University through March 25. The cost is \$585. The Open University enrollment form can be obtained directly from Dr. Huntley (dhuntley@geology.sdsu.edu), as well as more detailed directions for enrollment.

The **2006 Roy J. Shlemon Specialty Conference** is being held May 3-5, 2006 in Durango, Colorado at the Historic Strater Hotel. The conference subject is "Mass Wasting in Disturbed Watersheds" chaired by Bill Haneberg, Sue Cannon, Paul Santi, and Jeff Coe. To receive more information and to register for the conference, go to the web site: www.haneberg.com/watersheds or go to AEG's web site (aegweb.org) and click on the Mass Wasting logo.

You are invited to join the **Seismological Society of America in San Francisco** to commemorate the 100th anniversary of the 1906 earthquake and kick off the SSA's centennial celebration at the "The 100th Anniversary Earthquake Conference". SSA will be meeting jointly with the Earthquake Engineering Research Institute for their 8th National Earthquake Conference and the California emergency management community for their annual Disaster Resistant California conference at the Moscone Convention Center on April 18-22. The conference is also being co-sponsored by more than 50 organizations from around the world, including AEG. Registration and hotel information is online at the 100th Anniversary Earthquake Conference website: www.1906eqconf.org.

The **Inland Geological Society** and **Inland Empire of AEG** have announced their 6-month schedules of meetings through June 2006. See their website for more details about locations, topics and speakers, www.inlandgeo.org and www.aegsc.org/chapters/inlandempire

Study Group for March 2006 PG Examination: Please contact Becky Cardoso (rcardoso@hargis.com) if you are interested in forming a study group for any or all parts of this exam.

San Diego Association of Geologists Announces Call for Papers For the SDAG 2006 Annual Field Trip Guidebook

Southern Anza-Borrego Desert and Coyote Mountains, California
SDAG seeks new manuscripts based on original work in the broad fields of regional geology, tectonics, neotectonics, hydrogeology, paleontology, engineering geology, petrology, geothermal resources, mineral resources, and related fields.

Deadline for submission of titles is April 26, 2006.

Please submit the following information when submitting titles:

- Title,
- Authors and affiliation,
- Address, e-mail, and telephone and fax numbers for the corresponding author.

Submit title by e-mail to vp@sandiegoogeologists.org

Deadline for submission of abstracts is May 9, 2006.

The **Anza-Borrego Foundation & Institute** (ABF&I) is featuring the newly published "Fossil Treasures of the Anza-Borrego Desert" at a lecture and book signing at 1:00 pm at the ABDSP Visitor Center on February 12, 2006 on the occasion of Charles Darwin's birthday (1809). Popular speaker and field trip leader Paul Remeika will present "Paleontology in the Park." Other book contributors will be present including CSP paleontologist and lead editor George T. Jefferson. Information is available at ABF&I (760) 767-4063 or Sunbelt Publications (619) 258-4911.

2006 CORPORATE SPONSORS - THANK YOU!!

Corporate sponsors provide a significant portion of SDAG's operating and scholarship budget. In addition to monthly recognition for your contribution, you are entitled to a free Internet "link" from [SDAG's Website](#). We also list Corporate Sponsors in our annual SDAG Field Trip Volume. **Please consider SDAG sponsorship in 2006!**

A special thank you to **Ninyo & Moore** for sponsoring the preparation, duplication, and mailing of the newsletter for 2006 and 2007!

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JOB OPENINGS!

Hargis + Associates, Inc., a San Diego based consulting firm specializing in **hydrogeology and engineering**, and **SDAG Corporate Sponsor** currently has opportunities in our San Diego, California and Mesa Ari office. We are currently looking to fill the following positions:

Hydrogeologist/GIS Environmental Scientist: Candidate would have a B.S. Degree in Geology or related field, and expertise in ArcView GIS and related applications. Ideal candidate would have experience with sampling, well installation, aquifer test analysis, and/or groundwater modeling. Position will be based in Mesa, Arizona, and may require some travel and field work. OSHA 40-hour training preferred. Entry level candidates with a strong GIS background will be considered.

Project Hydrogeologist: Candidate would have a B.S. Degree in Geology, and 5 to 7 years relevant experience, including experience with sampling, well installation, work plan and report preparation, project management, cost estimating and scheduling. California Professional Geologist (PG), or ability to obtain within one year preferred. Masters degree or computer groundwater modeling experience is a plus. Candidate should possess strong organizational, writing and presentation skills. Position will be based in San Diego, and will require some travel and field work. OSHA 40-hour training required.

Hargis + Associates offer competitive salaries and benefits, and a challenging work atmosphere. Hargis + Associates in an Equal Opportunity Employer. To learn more about Hargis + Associates, please visit our website at: www.hargis.com.

No phone calls please. Qualified candidates should send resumes, along with a cover letter summarizing experience and salary requirements to:

Hargis + Associates, Inc., Attention: Phil Rosenberg, 2365 Northside Drive, Suite C-100, San Diego, CA 92108

Rincon Consultants, Inc. is an environmental sciences, planning, and engineering consulting firm with offices in Ventura, San Luis Obispo, and Carlsbad, California. The firm, a leader in environmental impact assessment, planning, biological resources, and soil assessment and remediation, seeks **Mid-Level** and **Senior Level Environmental Scientists** to work in the **Carlsbad** office.

Mid-Level Requirements:

- Bachelor's degree in Geology, Biology, Environmental Science, Environmental Engineering, or related field (advanced degrees welcomed).
- 3-6 years experience in Phase I ESAs and soil/groundwater assessment/remediation.
- Excellent verbal and written communication skills.
- Field capabilities including logging borings, collecting soil and groundwater samples, and mapping and collecting soil samples for large remediation projects.
- OSHA health and safety training for hazardous waste sites.
- Well-organized, analytical, hard-worker, sense of humor, and good team player/leader.

Senior Level Requirements:

- In addition to fulfilling the Mid-Level Requirements above:
- Manage projects and personnel: prepare proposals, job assignments and schedules, track budgets, coordinate personnel and subcontractors, attend meetings, interact with clients and agencies, enforce use of guidelines and proper permits, troubleshoot problems, etc.
- Professional registration preferred.

E-mail your Microsoft Word cover letter and resume to Julie Marshall at jmarshall@rinconconsultants.com

ARCADIS presently has a number of open positions for entry level and more senior positions.

Please have anyone interested contact:

Christopher Taylor Sharpe, Staff Scientist, ARCADIS

6 Terry Drive, Suite 300, Newtown, PA 18940

Phone: (267) 685-1800

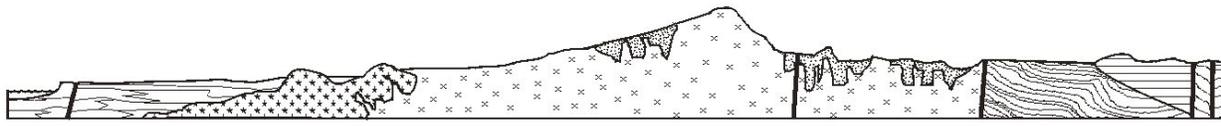
Fax: (267) 685-1801

Petra Geotechnical is currently seeking experienced geotechnical engineers, geologists, environmental scientists and soils technicians in our Costa Mesa, Santa Clarita, Murrieta and San Diego offices. We offer competitive salaries and excellent benefits. Contact Linda Becker, Human Resources Manager, at 714/549-8921 or submit your resume by email to lbecker@petra-inc.com

GEOLOGISTS AND GEOTECHS WANTED

Avalon Development Corp. is a Fairbanks, Alaska-based mineral exploration consulting firm that requires senior geologists, junior geologists and geotechs or several short and long-term field positions on gold, base metal and PGE projects in Alaska and the Yukon Territory. Several position currently are available for work beginning immediately, others for positions opening up over the next 3-4 months. Salary depending on experience, travel and per-diem expenses paid by Avalon.

Interested parties should send their resume, with references to avalon2@alaska.net, attention Curt



SAN DIEGO ASSOCIATION OF GEOLOGISTS

www.sandiegogeologists.org

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