

SAN DIEGO ASSOCIATION OF GEOLOGISTS

SDAG MEETING ANNOUNCEMENT

WEDNESDAY, October 19TH, 2011

TOWARD A UNIFIED MODEL FOR THE GEOLOGIC AND TECTONIC HISTORY OF THE REGION BETWEEN INDIAN PASS AND PICACHO STATE RECREATION AREA, SOUTHEASTERN CALIFORNIA

Presented by

Dr. Gary Girty

- Where: Emiliano's Mexican Restaurant (Overlooking Admiral Baker Golf Course) 6690 Mission Gorge Road, San Diego, CA 92120 (619) 284-2460
- When: 5:30 pm Social Hour 6:30 pm – Dinner 7:15 pm – Program
- **Dinner:** Mexicano fantastico. Beverage station. Cash bar.
- **Cost:** \$30 per person, \$5 discount for members, STUDENTS: \$20. Add \$5 if you did not make a reservation
- **Reservations:** Try to make your reservation <u>online</u> at <u>www.sandiegogeologists.org</u> no later than noon, <u>Monday</u>, October 17th. Note reservations are always preferred over walk-ins.



SPEAKER ABSTRACT

TOWARD A UNIFIED MODEL FOR THE GEOLOGIC AND TECTONIC HISTORY OF THEREGION BETWEEN INDIAN PASS AND PICACHO STATE RECREATION AREA,SOUTHEASTERN CALIFORNIADr. Gary Girty, San Diego State University.

Between Indian Pass and Picacho State Recreation Area, exposures of an \sim 1.7 km thick lower Miocene volcanic and epiclastic unit are wrapped about the Chocolate Mountains anticlinorium. Lying unconformably beneath the lower Miocene volcanic and epiclastic rocks and forming the core of the anticlinorium is a regionally extensive metamorphic basement complex. Rocks of the lower Miocene volcanic and epiclastic unit are variably altered by hydrothermal metasomatism, and as a result, they cannot be classified using the total-alkali and silica classification scheme recommended by the IUGS. Hence, we used the Zr/Ti versus Nb/Y magma-series discrimination diagram as it utilizes elements that are commonly immobile.

Given that the rocks in the lower Miocene volcanic and epiclastic unit are metasomatically altered, any proposed stratigraphic terminology should not utilize an igneous-rock classification term such as dacite, rhyodacite, and rhyolite. Following this guideline we erected a working lithostratigraphic framework for the lower Miocene volcanic and epiclastic unit that includes from lowest to highest: (1) the 23.4 ± 0.4 Ma Quechan volcanics, (2) the Marcus Wash unit and its apparent stratigraphic equivalent the Rojo Grande unit, (3) the White Wash unit, (4) the 23.5 ± 1.0 Ma Taylor volcanics, and (5) the 23.2 ± 0.2 Ma ignimbrite of Ferguson Wash. Published regional paleotectonic patterns and the geochemical character of samples analyzed from the lower Miocene volcanic and epiclastic unit suggest eruption within a continental-margin island arc setting.

The Neogene Bear Canyon conglomerate unconformably overlies the lower Miocene volcanic and epiclastic unit. It can be subdivided into three unconformably bounded sequences that are designated from oldest to youngest I, II, and III. Though the exact timing of formation of the three sequences in the Bear Canyon conglomerate is difficult to constrain, stratigraphic and our new 40 Ar/ 39 Ar geochronologic data when viewed in the context of regional tectonic patterns suggest that sequence I probably was deposited after ~17 Ma and prior to ~ 9.45 Ma. In contrast, sequence II was folded prior to or after ~9.45 Ma while sequence III likely was folded after ~9.45 Ma and prior to deposition of flat-lying Quaternary alluvial sediments.

The EW trending Copper Basin reverse fault cuts Sequence II. In addition, key dextral components of a conjugate set of NW and NE trending dextral and sinistral strike-slip faults, respectively, transect the Copper Basin fault, the axis of the Chocolate Mountains anticlinorium, and the \sim 9.45 ± 0.27 Ma basalts of Black Mountain. However, neither the Copper Basin nor the conjugate faults disrupt flat-lying Quaternary alluvial sediments.

The episodic growth of the EW trending Chocolate Mountains anticlinorium during deposition of the Neogene Bear Canyon conglomerate, and subsequent formation of the EW trending Copper Basin fault and the conjugate set of dextral and sinistral faults all record transient NS shortening within the margin of the North America plate. These transient periods of NS shortening followed extensional deformation of early Miocene continental arc volcanic rocks, and are strain compatible with the 12-10 Ma to 6 Ma development of the Eastern California Shear Zone. Numerous other examples of late Cenozoic EW trending folds and reverse faults are reported in the literature to have formed during development of this 100-110 km wide zone of dextral shear. We therefore conclude that the geology between Indian Pass and Picacho State Recreation Area reflects changing continental margin strain patterns as the boundary between the Farallon and North American plates was transformed from a Paleogene convergent margin to a wholly Neogene transform setting.

SPEAKER: DR. GARY GIRTY

Gary has been a member of the faculty of the Department of Geological Sciences at San Diego State University since 1984. He served as the Chair of the department from 1998 – 2001 and then from 2003 – 2008. He also has served as the President of the Pacific Section SEPM (1996) and as the President of the Cordilleran section of GSA (2006), and was selected by the Academic Senate at San Diego State University for the *Excellence In Teaching Award – Recognizing Excellence As A Teacher-Scholar* for 2006-2007. In 2009 he was selected for the *President's Top 25 Award* at San Diego State University. He has supervised the successful completion of 71 Masters and 84 senior theses, and is currently supervising an additional 4 Masters and 4 senior theses. His current research projects are focused on the evolution and characteristics of the fault zone architecture of the San Jacinto fault, and the Paleogene to Neogene structural and tectonic evolution of the lower Colorado River region between Indian Pass and Picacho State Recreation Area.

2011 SDAG MEETING SCHEDULE - Mark your Calendars!

Meetings are usually on the 3rd Wednesday of the month but may change to accommodate speaker and meeting place schedules. Check here for updates!

November 16, 2011	Keith Meldahl - Rough-Hewn Land: A Geologic Journey from California to the Rocky Mountains
December 14, 2011	Tom Demere – San Diego Paleontology

2011 EXECUTIVE COMMITTEE

 PRESIDENT – Chuck Houser; SCS Engineers; Ph: (858) 571-5500; CHouser@scsengineers.com

 VICE PRESIDENT – Todd Wirths; TRC; Ph: (858) 505-8881, x4927; TWirths@trcsolutions.com or todd@wirths.com

 SECRETARY – Brian J. Olson; FSR Engineering; Ph: (858) 750-9243; bolson@fsrengineering.com or brianjolson@att.net

 TREASURER – Cari Gomes; sdagtreas@sandiegogeologists.org

 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

PRESIDENTS CORNER, JULY 2011

As always, Dr. Tom Rockwell delivered a truly quality presentation at our September meeting! Much "food for thought" as we look at earthquake prediction and preparation. Dr. Gary Girty will be presenting the talk at our October meeting, scheduled for Emiliano's in Grantville on the 19th. His talk will be about the areas we will visit on the upcoming annual fieldtrip. Speaking of the field trip, it IS just around the corner now, November 4 thru 6 is weeks away. Be sure to sign up as soon as you can so we can plan accordingly.

Be sure also to get the November meeting on your calendar. Keith Meldahl will be presenting, "Rough-Hewn Land: A Geologic Journey from California to the Rocky Mountains." That meeting will be November 16th. Note that both the October and November meetings are back to our typical third Wednesday. I look forward to seeing you this month and in-camp in early November! - Chuck Houser



HARGIS+ASSOCIATES, INC. HYDROGEOLOGY • ENGINEERING 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.

As a client service organization, we pride ourselves in being attentive and efficient in meeting our client's needs and solving their problems. In addition to our technical expertise, communication and responsive coordination are hallmarks of our reputation.

We invite you to explore our website to learn more about our firm and the services we provide. We welcome the opportunity to discuss our consulting expertise directly with you.

Contact: Dr. David R. Hargis



Cascade Drilling, L. P. Contact: Dan Chambers



2470 Impala Dr., Carlsbad, CA (800) 834-9888 *Contact:* **Suzie Reed**



ENVIRONMENTAL & GEOTECHNICAL CONSULTANTS

Since 1991, Mission Geoscience has provided consistent and reliable professional services with our dedicated staff of highly credentialed professionals, who are committed to both timeliness and cost-effectiveness as the cornerstones of their work. MISSION's staff remains amongst the most highly respected firms in the environmental and geotechnical industry, which is why many of our clients tend to assign us their most difficult and challenging projects.

Contact: Jim Ashby

TETRA TECH	C Cardno ERI		
CLEAR SOLUTIONS Tetra Tech is a leading provider of consulting, engineering, and technical services worldwide. We are a diverse company, including individuals with expertise in science, research, engineering, construction, and information technology. Our strength is in collectively providing integrated services—delivering the best solutions to meet our clients' needs. http://www.tetratech.com <i>Contact:</i> <i>Dave Bloom</i>	Shaping the Future At Cardno ERI, we're experts at providing safe, high quality, cost-effective solutions to environmental concerns. We're large enough to tackle extensive, complex projects, yet small enough to provide exceptional service in a timely manner while paying close attention to controlling costs. In short, we combine the expertise, technology, and dedicated service you need to receive the best possible solutions to your environmental concerns. http://www.cardnoeri.com <i>Contact:</i> Steve Zigan		
 <u>Dr. Pat Abbott</u> - SDSU Prof. of Geology and Geophysics, Emeritus Sally & Dennis Avery <u>Dr. Richard Berry</u> - SDSU Prof. of Geology and Geophysics, Emeritus Curtis Burdett Joe Corones - <u>City of San Diego</u> Greg Cranham - Consulting Geologist Dr. Margaret R. Eggers, CHG - <u>Eggers Environmental, Inc.</u> William J. Elliott, Engineering Geologist Phil Farquharson - <u>CG-Squared Productions</u> Carolyn Glockhoff - <u>Caro-Lion Enterprises</u> Cari Gomes <u>Dr. Sarah Gray</u> Rob Hawk <u>City of San Diego</u> 	 Jonas & Associates Lowell A. Lindsay and Diana Lindsay - <u>Sunbelt</u> <u>Publications/AESE</u> <u>Dr. Monte Marshall</u> - SDSU Prof. of Geology and Geophysics, Emeritus Monte and Diane Murbach - <u>Murbach Geotech</u> <u>Ninyo & Moore</u> - Jonathan Goodmacher Doug Peeler Les Reed – Geotechnical Exploration Inc. Bob Smillie – TerraCosta Consulting Group Inc. David and Jan Steller ("two-fer" - thanks!) <u>Dr. Anne Sturz</u> Sue Tanges -Southland Geotechnical Consultants Terra Costa Consulting Group, Inc. Mary Walke Carole L. Ziegler 		

Add yourself to this list - Sponsors, Corporate Sponsors, and Patrons provide a significant portion of SDGS's and SDAG's operating and scholarship budgets. SDGS is (a 501(c)3 public benefit nonprofit educational corporation). For more information, please see our Sponsorship Form

ANNOUNCEMENTS:

2011 SDAG FIELD TRIP "Picacho and the Cargo Muchachos" November 4, 5, & 6, 2011

In my opinion, the food and friends alone are worth the cost of the trip! Please sign up for the trip here: <u>http://www.sandiegogeologists.org/FieldTrip2011Reg.pdf</u>. Dr. Gary Girty will be leading us to the best geology outcrops in Picacho, and we will come away with an enlightened view of the tectonic processes that shaped the landscape. From there, we will draw upon our newfound

knowledge and view the mines of the Cargo Muchacho Mtns and/or the southern Chocolate Mtns with a sense of wonder and understanding. At least, that's the plan!

A quote to keep in mind while pondering the 23 Ma ignimbrite of Ferguson Wash:

"Geology, perhaps more than any other department of natural philosophy, is a science of contemplation. It requires no experience or complicated apparatus, no minute processes upon the unknown processes of matter. It demands only an enquiring mind and senses alive to the facts almost everywhere presented in nature. And as it may be acquired without much difficulty, so it may be improved without much painful exertion." - *Sir Humphrey Davy*

For the unenlightened, I shall provide a shortened interpretation of Sir Humphrey Davy's pronouncement: "Have another beer and you'll see the outcrop a whole lot better."



Please complete and submit the sign-up sheet as soon as possible, so that proper arrangements can be made regarding car pooling and such. Arrival on November 4 is optional but recommended. Last day for signing up: Friday, October 28. Call or email me with any questions: <u>todd@wirths.com</u>; 858-337-0098.

The JAWS are talking and they want to share their secrets with you.

Our fantastic collection of Jaws will be on display at our <u>Open House</u> at the Anza-Borrego Desert State Park celebrating National Fossil Day and the secret desert treasures in the Stout Research Center. Visitors will find out just what secrets jaws and teeth can reveal. Many of these fossils have never been on display and will include carnivores, herbivores, and omnivores that inhabited this region over the past 5 million years. Both our Paleontology Preparation Laboratory and Collection Hall will be open and volunteers from the Paleontology Society will be your guides. Come and join us to hear what secrets JAWS can tell us. <u>Where:</u> Meet at the ABDSP Visitor Center. A guide will meet you there for the short walk to the Stout Research Center Paleontology Laboratory and Collection Hall. <u>When:</u> October 22: 1pm to 4pm and October 23: 9am to noon. <u>www.anzaborregopaleo.org</u>



Get Ready to ShakeOut!

Have you practiced how to protect yourself in an earthquake? Participate in a ShakeOut drill near you and be ready to Drop, Cover, and Hold On!

▶ LEARN HOW TO PARTICIPATE

On October 20 at 10:20 a.m.*, millions of people will participate in the 2011 Great California ShakeOut!In 2010, more than 7.9 million Californians practiced <u>Drop, Cover, and Hold On</u> to practice how they will protect themselves during earthquakes, and increased their overall preparedness. Join us in 2011!



South Coast Geological Society Poster Session - Call for Presenters

The South Coast Geological Society will be holding our annual poster session on Monday, December 5th at our regular meeting location in Santa Ana, the Doubletree Club. All are encouraged to create a poster to share with the group. Posters in the past have focused on proposed work, completed research and sometimes good old fashioned show and tell!

Please submit your poster title and a brief abstract (3-5 sentences) by November 1 so that we can create a program for our December newsletter. For those that have not participated before, we find that this session is good practice for those with thesis projects that are almost done, a great way to get feedback from a variety of professionals, and a good opportunity to see some of what's going on in the "real world."

The information for your poster can be sent to Jeff Miller <u>jmiller@e2managetech.com</u>. We anticipate awarding a few prizes based on member polling.

The November Meeting will be Monday November 7. Dr. Nate Onderdonk of CSULB will be giving a talk on our impending San Andreas "big one" that we have all been waiting for.

Geothermal Resource Council's announces its 35th Annual Meeting and GEA Trade Show

To be held October 23 to 26, 2011 at the Town & Country Resort & Convention Center in San Diego. More information can be found at <u>http://www.geothermal.org/meet.html</u>

Plan to share your research with a presentation or a poster 2012 Desert Symposium

Presentation Theme: Life in the Desert: Adaptations to Environmental Extremes Field Trip Theme: Search for the Pliocene: Southern Exposures Desert Studies Center April 20, 21, 2012 Field Trip April 21- 23, 2012 Zzyzx, California

Additional information to follow. Please forward this information to other interested individuals and invite them to send their email addresses to <u>wpresch@fullerton.edu</u>. California State University, Fullerton



Association of Earth Science Editors 45th Annual Meeting "Expanding our Boundaries: Geoscience Editing in the Digital World" Governors Inn Hotel, Tallahassee, Florida

Governors Inn Hotel, Tallahassee, Florida November 14–17, 2011 Technical sessions November 15–16 Field trip on karst features November 17

For more information about the annual meeting, visit www.aese.org or contact Jane Eggleston, host chair, jegg@usgs.gov, or Carole Ziegler, AESE vice president, technical program chair, <u>sdageditor@gmail.com</u>. AESE is an organization of

editors, journal managers, and others involved with publication in the earth sciences. Its purpose is to facilitate cooperation among editors and to promote effective dissemination of earth-science information. AESE maintains liaisons with AGI, AAAS, CSE, EASE, and GSA. The registration fee for the annual meeting includes a one-year membership in AESE. Membership benefits include a subscription to AESE's quarterly digital newsletter, the *Blueline*, and access to a members-only listserv and jobs board. Follow us on our Web site at www.aese.org, on our blog at geoeditors.wordpress.com, on Facebook at tinyurl.com/3n2vrxw, on Twitter at twitter.com/#!/AESErocks, and LinkedIn at tinyurl.com/3scpt7e

SEEKING JOB OPPORTUNITIES

Seeking a Career in Southern California - Motivated and enthusiastic mid-level geotechnical project engineer with 4 years of experience in linear, underground and maritime infrastructures, seeking to leverage her diverse project experiences to continue her technical career development in a dynamic growing firm. Knowledge of geotechnical calculations and numerical simulations to study the behavior of the interaction of soil-structure with 2D and 3D software, to design the foundation in the safest and most economical manner. Wide experience in preparing and writing proposals and technical reports.

Experience in leading and conducting geological and geotechnical field work. Used to working in a team environment to successfully deliver projects. Interested in informational interviews as well employment opportunities. Contact: Carme Cervantes, <u>carmecervantes@hotmail.com</u>, 4250 4th Avenue, San Diego 92103, CA. (858) 888-3716

Qualifications Summary and Objective: I have 14 years experience directing surface water quality monitoring programs with a proven record of excelling in monitoring plan implementation, quality control, public notification and continuous improvement in operational effectiveness and efficiency. I have built and maintained relationships with key staff in academia, industry, and all levels of government in San Diego and California. I have a widely applicable skill set which includes: analytical thinking, communication and writing skills, data analysis and management, inter and intra- agency project coordination, and staff supervision and training. My objective is to obtain a career position with an industry leader where I can contribute my skills to build the success of my employer as well grow professionally. Detailed work experience, education and more at www.linkedin.com/in/cbclifton2010. Email cbc2006@cox.net or 619-964-1776. Contact: Clay Clifton

"ENGINEERING GEOLOGIST- MS in Geology, 13 years of the industry experience (CA, NY/NJ, overseas), California P.G., proficient in methods of subsurface exploration and geotechnical hazard evaluations, geophysical surveys, construction quality control, geotechnical engineering analyses, special interest in earthquake-hazard and seismic design related applications, strong problem solving and organizational skills, enjoy being challenged. I worked in San Diego in 1998-2004 and would love to move back. Detailed resume available upon request. Anna Fyodorova, <u>Afyodorova103@gmail.com</u>."

JOB OPENINGS!

Hargis + Associates, Inc is looking for motivated entry level hydrogeologists with relevant course work in hydrogeology, geochemistry, and environmental sciences to join our San Diego and Phoenix Offices. http://www.hargis.com/jobs-hydrogeologist.html, http://www.hargis.com/jobs-hydrogeologist-mesa.html. We are looking for a motivated and experienced Staff/Senior Engineer with demonstrated writing, design, and field implementation experience to join our San Diego Office, http://www.hargis.com/jobs-seniorstaff-engineer.html. We are also seeking an engineer with extensive experience in the mining industry for a position in our Tucson office. This position is well suited to a self starting individual with strong ambitions for success and promotion within Hargis + Associates. http://www.hargis.com/jobs-seniorstaff-engineer-mining.html.

Seeking a Career in Southern Vice President Environmental Services (VPES) Seeking a successful VPES (seller/doer) to help grow an environmental consulting company in San Diego, CA. The main focus is new client sales and client retention. Other duties will include technical direction and management for client projects. The primary focus for sales and technical project management are in the areas of air quality, CEQA permitting, water discharge, stormwater permitting, regulatory compliance, hazardous materials and waste management, and environmental mitigation management. 5+ years of experience, minimum Bachelor's Degree, and the ability to bring in and retain a large book of business is required. Candidates from the Orange County, CA, area will also be considered. Inquiries and resumes to: resumes@proconnectweb.com

ENVIRONMENTAL DATA ANALYST, JOB CODE: MEP20110826-064, POSTED: AUGUST 26, 2011 LOCATION: SAN DIEGO, CALIFORNIA OFFICE (<u>VIEW MAP</u>) <u>HTTP://WWW.DDMSINC.COM/ABOUT_US/CAREERS_CURRENT_OPENINGS.HTML</u>

Description: de maximis Data Management Solutions (ddms) is currently seeking a full-time Environmental Data Analyst for our San Diego, California office. The successful candidate will work as part of a multi-office project team which includes a single and multi-party (e.g., Superfund) Project Coordinators and support staff, one or more Analysts, Technicians, Programmers, Engineers, Geologists and Data Validators. Analysts perform data management and analysis services on large industrial environmental remediation projects. Day-to-day duties include the tasks associated with managing, analyzing and reporting analytical and field measurement data collected through various groundwater, surface water, sediment, soil and "O&M" sampling events. Duties also include environmental database management, GIS maintenance and development, hydrogeologic and fate and transport analysis, table and map report preparation, and significant contributions towards frequent team meetings, project management and client communications. This position requires the ability to commit to some light infrequent travel throughout the year.

Requirements include:

- Strong Work Ethic
- Ability to communicate effectively with co-workers and clients
- Ability to manage data management related tasks, projects and budgets
- Bachelors degree preferably in one of the physical sciences (e.g., geology, chemistry, environmental sciences), engineering or geography
- Experience in the environmental remediation industry
- Minimum 5 years experience using Esri ArcGIS® software products required
- Minimum 5 years experience managing environmental databases (EQuIS® Professional and schema experience desired but not required)
- Experience using environmental visualization packages desired but not required (e.g., C-Tech MVS®, RockWorks etc)
- Proven fluency in modern office software programs (i.e. Microsoft Windows® and Office® including Word® and Excel®)
- Strong experience using database applications and related languages (e.g., Microsoft Access®, SQL syntax)
- Positive attitude and ability and desire to learn new technical skills quickly
- Must be a self motivator and able to work independently
- 40 Hour Hazwoper Training a plus but not required

Environmental Staff/Sr. Staff Professional – E2 ManageTech - We are seeking a dynamic team member with a background in environmental consulting. The ideal candidate will be an individual who has focused on conducting and completing Phase I Environmental Site Assessments (ESAs) for the past 2 years and is looking to advance and develop further in their career. The candidate can expect to spend an average of 25-50% of their time on providing the full scope of services related to Phase I ESAs and the remainder of the time on projects related to environmental compliance and/or Phase II Site Investigations and Remedation. The ideal candidate will possess the following:

- Bachelor's degree in Geology, Environmental Sciences, or Civil Engineering with a focus in Environmental Engineering
- 2+ years of experience conducting the full scope of services related to Phase I Environmental Site Assessments which include conducting site walks, reviewing EDRs, identifying RECs on industrial/commercial sites, preparing reports, and client communication.
- Registered Environmental Assessor (REA) a plus, but not required
- Detail oriented individual with advanced technical writing skills

Benefits: We value our employees' time and efforts. Our commitment to your success is enhanced by our competitive salary and an extensive benefits package including paid time off, medical, dental and vision benefits and future growth opportunities within the company. Plus, we work to maintain the best possible environment for our employees, where people can learn and grow with the company. We strive to provide a collaborative, creative environment where each person feels encouraged to contribute to our processes, decisions, planning and culture.

To Apply: To respond to this opportunity, please go to: <u>https://insperity.ats.hrsmart.com/cgi-bin/a/highlightjob.cgi?jobid=68796</u>

Request for Sponsors: 2011/2012 SDAG/SDGS and 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 at our San Diego Association of Geologists (SDAG)

The list of paid Sponsors and the forms to become a Sponsor are located on the SDAG web site at: <u>http://www.sandiegogeologists.org/Sponsors.html</u>.

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.

Parting Lineation...

<u>Biblical Uniformitarianism</u>: That which hath been is that which shall be; and that which hath been done is that which shall be done; and there is no new thing under the sun. *Ecclesiastes* 1:9 (Revised Version) (c. 100 BC)