

## ASSOCIATION OF ENGINEERING GEOLOGISTS

Southern California Section
"Serving Professionals in Engineering, Environmental,
and Groundwater Geology Since 1957"

#### NEWSLETTER - FEBRUARY 2001

#### MONTHLY DINNER MEETING

Date:

Tuesday, February 13, 2001

Location: Time:

Stevens Steak House, 5332 Stevens Place, Commerce, CA

5:30 p.m. - Social Hour; 7:00 p.m. - Dinner and

Presentation

**Reservations:** 

Call (949) 253-5924 ext. 564 by 5:00 p.m., Friday,

February 9, 2001

Cost:

\$25.00 per person with advance reservations, \$30.00 at

the door, and \$12.00 for students w/ valid I.D., "No-

shows" will be billed \$10.00

**SPEAKER:** 

Michael W. Hart

TITLE:

**Bedding-Parallel Shear Zones as Landslide Mechanisms in** 

**Horizontal Sedimentary Rocks** 

#### **ABSTRACT:**

The occurrence of large translational paleolandslides in horizontally-bedded sediments can not be completely explained by the presence of "weak" day rocks and oversteepened natural slopes. When the shear strength of a landslide's basal rupture surface is back-calculated, residual shear strengths are usually required for failure. This is because peak strengths are too high to allow failure even assuming the most conservative estimate of groundwater levels. Data obtained during geologic mapping and downhole logging of large-diameter borings suggest that the principal factor leading to translational landsliding within horizontally bedded sediments is the presence of a pre-existing shear zone. A new term, bedding-parallel shear zone (BPS) is proposed for these features. When shearing parallel to bedding results from folding or thrust faulting, it is tectonic in origin. When similar shearing is found in horizontally bedded sediments that have not been tectonically deformed, it is often misinterpreted as conclusive evidence of landsliding. Mechanisms that produce BPS are:

- 1. Elastic rebound
- 2. Progressive failure of overconsolidated daystone.
- 3. Differential consolidation.
- 4. Gravitational creep.

It is important for engineering geologists to recognize BPS and to have an understanding of the mechanisms responsible for their formation and relationship to translational landsliding. Knowledge of where and how BPS occur allows an understanding of why landslides have occurred in the past as well as allowing prediction of where large landslides are likely to occur in the future. Their misinterpretation as landslide slip surfaces has obvious effects on the accuracy of engineering geology studies and stability analyses.

**OFFICERS** 

CHAIR
David Seymour
(714) 549-8921
seymourgeo@hotm
ail.com

VICE CHAIR
Lorraine Muto
(626) 337-5103
Imuto@willdan.com

SECRETARY
Tania Gonzalez
(714) 282-6123
tgonzalez@earthco
nsultants.com

TREASURER
Jacob Holt
(805) 522-5174
Geojakeh@aol.com

#### BIO:

Michael W. Hart is a Certified Engineering Geologist in the State of California and has practiced in the San Diego area for approximately 30 years. Mike is a graduate of San Diego State University (M.S., 1972). Upon graduation he worked briefly for Shell Oil Company as well as several geotechnical firms in San Diego. In 1975 Mike joined Geocon, Inc. as Vice President and Chief Engineering Geologist. Since leaving Geocon 1992 he has been an independent engineering geologic consultant. Mike currently is manager of the AEG Landslide Committee and is past Chair of the Engineering Geology Division of the Geological Society of America. He also currently serves on the Technical Advisory Committee of the Board of Registration for Geologists and Geophysicists. His interest in landslides began during undergraduate studies at SDSU and led to graduate work on landslides in Eocene rocks of the San Diego area. Mike has authored several papers on landslides in the San Diego and Riverside areas. His talk will summarize his recent publication in Environmental and Engineering Geoscience.

#### **CHAIR'S COLUMN**

#### **By David Seymour**

Thanks to everyone that attended the January meeting. For those of you who didn't attend, you missed some living discussions and an interesting presentation by Dr. Susan Owen on the Kilauea Volcano. The complimentary wine provided by **Earth Consultants International (Eldon Gath)** and **Mountain Geology, Inc. (Jeff Holt)** was appreciated and perhaps added a wee bit to the length of the discussions. In any event, I encourage everyone to attend the February meeting and bring a friend with you. Our speaker this month is **Mike Hart,** and his topic is of course — **LANDSLIDES**.

During the meeting, concerns were raised regarding the Board of Registration for Geologist and Geophysicists (BRGG) and their recent enforcement cases, specifically those involving felony charges. A felony is usually defined as a major crime such as murder or arson. Most of the cases reviewed by BRGG entail misrepresentation, fraud, negligence and incompetence, which one would not usually associate with felonies. I contacted the BRGG regarding this issue, but have not heard back from them as of yet. For the record, the BRGG cannot comment on current cases, and the results of closed cases are typically posted on their web site (www.dca.ca.gov/geology).

We are actively keeping tabs on the BRGG and will update you on the results of their next meeting, which is to be held on January 26, 2001. The SAC and SFO AEG Sections have new legislative chairs that are also keeping a close eye on the BRGG. I've had several conversations with SAC Chair Bob Anderson over the last month regarding the BRGG and keeping communications open between the North and South. My goal is to keep those channels open, and strive to show unity among the sections as issues come up. One of the major issues that Joe Cota and Buzz Spellman are tracking is the revision to our Act, which may include a reduction in the years of experience to take the BRGG We will have more on that in the March Newsletter after the January 26 BRGG meeting. All BRGG meetings for the Year 2001, by the way, will be held in Sacramento.

I hope to see even more of you at the February meeting – it should be a great one!

#### E-MAIL OR SNAIL MAIL

We continue to receive requests from members for e-mail versions of the newsletter. You can request the change over at anytime, but please remember this is an either/or option. Please e-mail **Desiree Dier** at <a href="mailto:ddier1@home.com">ddier1@home.com</a> if you would like receiving the e-mail version only.

We are still working on our web site, which will include our newsletter, links, and other information. We are actively seeking a web master – if interested please contact Dave Seymour at seymourgeo@hotmail.com.

#### YEAR 2001 CONTRIBUTORS TO OUR SECTION

#### Thanks to:

Larry Cann
William Elliott
Dr. Peter Weigand (CSUN)
GeoSoils Consultants, Inc.
Grover-Hollingsworth & Associates
Petra Geotechnical, Inc.
Stoney-Miller Consultants, Inc.
Zeiser Kling Consultants, Inc.

<u>Additional donations are still needed, so please</u> <u>consider sending in a contribution.</u>

#### MARTIN L STOUT SCHOLARSHIP AWARD

The winner of the Year 2000 Martin L. Stout Scholarship is Jennifer Knapp from the University of Missouri-Rolla. Ms. Knapp is a Senior currently finishing her BS in Geological Engineering. She received a check for \$500 from the Stout Scholarship Fund. She was one of only two students that applied for the award. Hopefully, the number of applicants will increase this year.

#### **AEG NATIONAL AWARDS**

Nominations are now being accepted for 2001. The Awards Committee considers nominations for the following awards (for complete information, please consult the AEG Directory or website):

- Douglas R. Piteau Award This award is presented to a Member of Associate Member who is age 35 or under, and has excelled in one or more of the following areas: technical accomplishment, service to the Association, and service to the engineering geology profession.
- Claire P. Holdredge Award This award is presented for a publication by a Member(s) within the past 5 years that is judged to be an outstanding contribution to the engineering geology profession.
- 3. Floyd T. Johnson Service Award This award is presented to a Member for outstanding active and faithful service to the Association over a minimum of 9 years. Board members are not eligible until 1 year after leaving office. Nominations must be validated via endorsement by 3 Members having different Section affiliations. This award is not necessarily conferred annually.

The deadline for nominations to be considered for awards in 2001 is March 30, 2001. Please send nominations to Bill Cole, AEG Awards Committee Manager, c/o Cotton, Shires and Associates, Inc., 330 Village Lane, Los Gatos, CA 95030 (or to bcole@cottonshires.com).

#### YEAR 2001 MEETING SCHEDULE

<u>Date</u>	<u>Speaker</u>	<u>Location</u>
January 9	Dr. Susan	Steven's
	Owen	Steakhouse
February	Mike Hart	Steven's
13		Steakhouse
March 13	Dr. Tom	Steven's
(Joint w/	Rockwell	Steakhouse
ASCE)		
April 2	TBA	TBA-in Orange
(Joint w/		County
SCGS)		
May thru	TBA	
December		

Please contact **Lorraine Muto**, Vice Chair, if you would like to volunteer as a speaker or have a "lead".

#### **MEETINGS AND FIELDTRIPS**

#### GSA Cordilleran Section/AAPG Pacific Section-April 9-11, 2001

Where:

Sheraton Universal Hotel, Universal City,

California

Contact:

www.geosociety.org

#### **AEG/AIPG Annual Meeting-October 2-5, 2001**

Where:

St. Louis, MO

Contact:

www.aegweb.org

#### IAEG 9<sup>TH</sup> Congress-September 16-20, 2002

Where:

Durban, South Africa

Contact:

http://stanfield.und.ac.za/Durban2002/

### A DAY IN THE FIELD WITH TOM DIBBLEE To Plate's Edge: San Fernando Valley to Palmdale

Saturday, 7 April 2001, 8:00 a.m. - 4:00 p.m.

The **Dibblee Geological Foundation** invites you to participate in a rare opportunity to visit several classic geologic locations and spend a day in the field with *living-legend* **Tom Dibblee, along with Peter Weigand, Karen Savage, Helmut Ehrenspeck, and Eric Hendrix.** The new Palmdale/Pacifico Mountain map by **Tom and Helmut** will be available and will be featured. There is dramatic geology, all mapped by Tom, for every interest on this field trip to the edge of the plate. We will make stops at **Vasquez Rocks, the San Andreas fault, the Soledad fault, and lunch in Placerita Canyon Park.** 

This trip is in association with the 2001 GSA CORDILLERAN/AAPG PACIFIC SECTION MEETING

Proceeds from this trip will benefit the Dibblee Geological Foundation; a nonprofit educational organization dedicated to the preservation and publication of Tom Dibblee's extensive geologic mapping of California. Spend a special day in the field with Tom and enjoy a great picnic while supporting this very important cause.

Fee: \$100.00 (includes coffee and donuts, bus transportation, guidebook, and lunch).

Registration deadline is April 1st. Advanced registration is necessary to reserve a bus seat and lunch.

For further information e-mail John Powell at <a href="mailto:powell.family@gte.net">powell.family@gte.net</a>, call 805-987-5846, or write to PO Box 2309, Camarillo, California 93011

Registration Form

Name

\_\_\_\_\_\_\_\_, Telephone

Name	, relephone		
Street Address			
City		, Zip	
Fax	, e-mail:		

Make checks payable to the Dibblee Geological Foundation and mail this form with your check to: John Powell, PO Box 2309, Camarillo, California, 93011. A meeting place map and schedule will be e-mailed or faxed with your registration confirmation.



ASSOCIATION OF ENGINEERING GEOLOGISTS

AMERICAN INSTITUTE OF PROFESSIONAL GEOLOGISTS

Geology: Central to Society's Needs

JOINT ANNUAL MEETING - 44<sup>th</sup> AEG • 38<sup>th</sup> AIPG St. Louis, Missouri -- Hyatt Regency Union Station Hotel "Gateway to the West"

September 30-October 7, 2001



# CALL FOR TECHNICAL PAPERS AND EXHIBITORS

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and fun stuff!

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#### Abstract submittals due May 1, 2001

E-mail preferred: meetings@aeg.tamu.edu
Or submit your abstract on AEG's Web Page:
 www.aegweb.org, Annual Meeting
 Or mail with disk to:

AEG•AIPG•2001 c/o Julie Keaton 130 Yucca Drive Sedona, AZ 86336-3222 (520) 204-1553 Fax: (520) 204-5597

#### **Technical Program Topics**

Engineering & Environmental Geophysical Case Histories
Environmental Practice in EPA Regions V & VII
Geologic Solutions to Transportation Concerns:
Highways & Waterways Groundwater Remediation
Karst Remediation
Midwest Geologic Hazards: Recognition & Risk Management
New Madrid Seismic Threat
Case Histories in Engineering Geology
Transportation Engineering Geology
Groundwater Investigations
Coastal and River Engineering Geology
Environmental Investigation & Clean-Up

(Abstract must not exceed 250 words and must include author's full name, company name, and company address below the title of the paper. We prefer that authors use Microsoft Word. Please include your daytime telephone number. See sample abstract submission form on AEG's Web Page: www.aegweb.org)

#### **EMPLOYMENT OPPORTUNITIES**

#### US LABORATORIES, INC.

USLB has immediate openings for Senior, Project and Staff level Geotechnical Engineers and Geologists, with 5 to 10 plus years of experience. We are also looking for experienced Field Technicians and Inspectors with appropriate certifications. Positions available in our Ventura, Irvine, San Diego and Las Vegas offices (BTC, TELA, TESD, BUENA).

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Attn: Human Resources c/o M. O'brien E-mail: mobrien@uslaboratories.com

**BOARD OF REGISTRATION FOR GEOLOGISTS AND** 

**GEOPHYSICISTS** Mary Scruggs, the BRGG's current enforcement geologist, has accepted a position at CDMG, leaving a vacancy at the Board. The Board is currently accepting applications for the following:

#### ASSOCIATE ENGINEERING GEOLOGIST

DESIRABLE QUALIFICATIONS - A CEG license issued by the BRGG with experience in land development and groundwater contamination. Final filing date is JANUARY 2, 2001. Submit your application, Form STD 678, resume and sample of writing abilities to:

Paul Sweeny, Executive Director Board of Registration for Geologists and Geophysicists 2535 Capitol Oaks Drive, Suite 300A Sacramento, CA 95833

Equal opportunity to all regardless of race, color, creed, national origin, ancestry, sex, marital status, disability, religious or political affiliation, age or sexual orientation.

**DIVISION OF MINES AND GEOLOGY** ASSOCIATE ENGINEERING GEOLOGIST 2 Positions, Permanent, Full Time, (\$4418-5370), **Department of Conservation, Division of Mines** and Geology, 801 K Street, MS 12-31, Sacramento, CA 95814. Apply ASAP

Division of Mines and Geology (DMG), Seismic Hazards Mapping Program is a world renowned program in seismic zonation, and exploits the latest technologies in

digital mapping. Immediate vacancies exist in our Los Angeles and Sacramento offices. Associate Engineering Geologists are being sought with experience in Quaternary geologic mapping or seismic hazard analysis. Experience in seismic hazards evaluation is desired, with emphasis on the engineering behavior of geologic materials and its effects on building foundations and Experience in the geological consulting structure. industry is an asset. Registration and engineering geologist certification is desirable, but not required. Experience, aptitude, or interest in computer-based geologic analysis is desired, and an extensive training program is provided.

Please submit application/resume to: Crowl, Department of Conservation, Division of Mines and Geology, 801 K Street, MS 12-31, Sacramento, CA 95814, (916) 322-9300.

#### AEG SOCAL SECTION COMMITTEE CHAIRS

MEMBERSHIP - John Whitney (714) 647-0277 LEGISLATIVE AND REGULATORY AFFAIRS - Joe Cota (818) 785-2158 (cotageo@thevine.com) PUBLICATIONS - Dawn James (818) 707-8320 (djames@leightongeo.com) FIELD TRIPS - Chris Sexton (805) 524-4418 and Charles Nestle (626) 458-4923 SHORT COURSES - Kerry Cato (909) 506-9688 EDUCATION - Ali Tabidian (818) 677-2536 EDITOR - Desiree Dier (619) 445-5336 (ddier1@home.com)

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