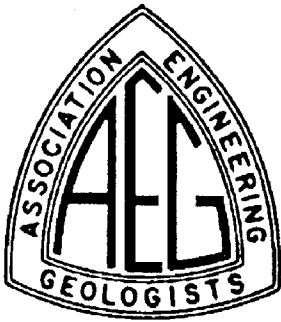


# Association of Engineering Geologists



Southern California Section

## NEWSLETTER-January 1991

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Chairman

(714) 860-7772 or

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c/o Leighton & Associates

1470 S. Valley Vista Dr. #150

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2550 Beverly Blvd.

Los Angeles, CA 90057

### Dinner Meeting *Tuesday January 8th*

- The Quiet Cannon Restaurant**  
**901 North Via San Clemente**  
**Montebello**
- Cost - \$20.00 (Full-Time Students - Free)**
- Make reservations by Friday January 5th!!!**

**Grace (714) 860-7772 (Leighton & Associates)**

**(Leave Your Name & Number of People in Your Party)**

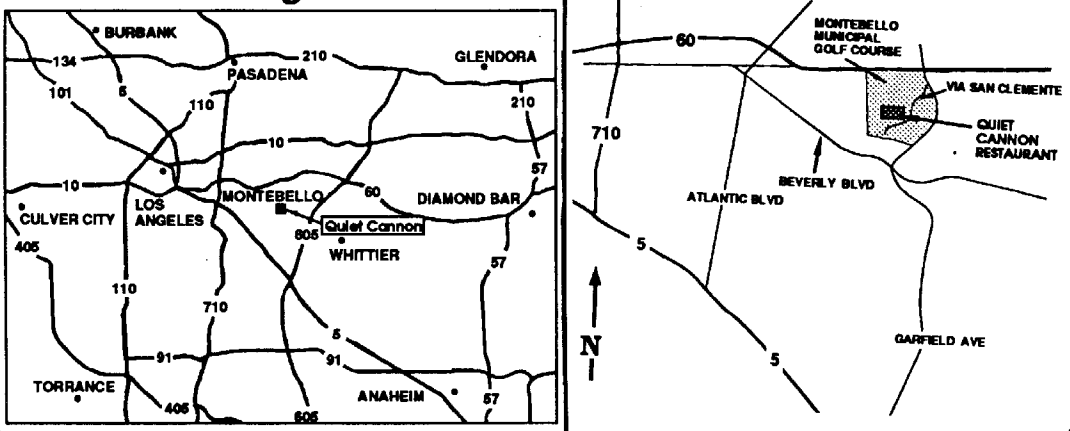
- 5:30 Social Hour**
- 6:45 Dinner**
- 7:30 Announcements**
- 8:00 Program**

## *Program*

## TOPIC Classification of Rocks for Engineering Designs

**SPEAKER Khosrow Bakhtar, ARSM, Ph.D.**

### MAP to Meeting



**PROGRAM  
Topic & Speaker**

**Classification of Rocks for  
Engineering Designs**

**Khosrow Bakhtar, ARSM, Ph.D.**

The safe and economical design of structures such as dams, tunnels, and slopes is contingent on the thorough understanding of the geology and the rock mass conditions. Rock mass classifications, if used properly, can effectively combine the findings from field observations, experience, and engineering judgement to provide a quantitative assessment of rock mass conditions and support requirements. In fact, for many projects, the classification approach serves as the only practical basis for the design of complex underground structures. There are six major rock classification systems currently in use. The choice of the method is very much dependent on the level of information required.

As a geomechanics and tunnelling expert, our speaker will cover the following topics on this subject:

- \* Description of the most common rock mass classification systems;
- \* Applications of the Q-System classification (developed by the Norwegian Geotechnical Institute) in the United States; and
- \* A case history of tunneling in southern California.

**Khosrow Bakhtar**, ARSM, Ph.D., is the president of Bakhtar Associates in Long Beach, specializing in geomechanics, tunneling and construction engineering. He has published more than sixty technical papers and is an internationally recognized expert in the field of large scale physical modelling of complex underground structures. Dr. Bakhtar attended schools at Oxford and Imperial College (London), Penn State, Princeton, Berkeley and Utah.

**THIS MONTH**

**UPCOMING MEETINGS**

Our vice-chairman, Kelly Rowe, presently has scheduled program speakers for our meetings several months in advance. For example, in February, Mr. Mel Blevins, with the Los Angeles Department of Water and Power-Watermaster for the San Fernando Valley, will speak about the extensive geology and ground-water exploration work that has recently been conducted in the San Fernando valley in connection with the Superfund program. This meeting is tentatively scheduled to take place on February 12th, at the Airtel Hotel in Van Nuys. The March AEG meetings is the traditional annual joint meeting with the ASCE Geotechnical Group. It is scheduled to take place on Wednesday, March 20th, at Stevens Steak House, located in the City of Commerce. The program for this meeting is to be announced. Back at the Quiet Cannon Restaurant for April, Dr. Burt Slemmons from Las Vegas, Nevada, will speak about the use of low-sun-angle photography in engineering geology. Other equally interesting programs are planned for the rest of the year.

A good feature of some previous AEG meetings was the use of short-topic speakers before dinner. We would like to regularly schedule short-topic speakers for our 1991 monthly meetings. Short topics are 10-15 minute presentations on subjects of general or special interest to members or guests. The topics may include regulatory issues, new scientific or engineering techniques, or updates on our committee activities. Short topics may also be related to the subject of the main program speaker. The advantage of the short-topics format is that speakers do not necessarily have to plan far in advance for advertising in the monthly newsletter; although advanced advertisement may encourage people to attend who would otherwise not attend. Kelly Rowe is requesting that potential short-topic speakers contact him to schedule participation at the monthly meetings. Feel free to volunteer.

Five of the 1991 AEG Southern California Section meetings are scheduled to be at locations other than at the Quiet Cannon Restaurant in Montebello. For example, exceptions will be made during the following months: February - Airtel Hotel in Van Nuys; March - Joint meeting AEG/ASCE Geotechnical Group at Stevens Steak House in Commerce; May - San Juan Capistrano

Continued from page 2

or Santa Ana; July - Carlsbad; and October - Airtel Hotel. The purpose of shifting the location of the monthly meeting is to encourage members who regularly do not come to the meetings because of the difficulty and time required to travel, to attend. Keep these special months and meeting locations in mind. You should, therefore, have little excuse for not attending a meeting held near you.

### **LAST MONTH'S MEETING**

Last month's speaker was Dr. Don Marrin, principal scientist and founder of Interphase, Inc., a consulting company based in San Diego that specializes in on-site chemical analysis techniques, contaminant fate/transport studies, and applied environmental chemistry.

Dr. Marrin gave a general presentation on the use of soil gas surveys to evaluate the extent of contamination by volatile organic chemicals in the vadose zone. He described the techniques of grab and passive sampling, and mentioned which compounds partition chemically more readily (the partitioning properties of certain compounds such as aliphatic and aromatic hydrocarbons determine whether soil vapor analysis is applicable to the particular investigation). Although the chemical concentration gradient, moisture and organic carbon of the soil, and barriers to diffusion, such as clay layers and perched groundwater zones, affect the results of soil vapor analyses, this technique is becoming increasingly popular as a remote-sensing tool.

Other applications that Dr. Marrin foresees for his technique include evaluating the rate of biodegradation of organic compounds at remediated sites (the by-products of biodegradation, such as carbon dioxide, methane and nitrogen can be measured with vapor probes); determining the vertical and lateral permeability of soils in sites to be treated with vapor extraction techniques; and as a tool in property site assessments. Vapor probes can also be used to monitor underground tanks for leakage.

### **SECTION DUES**

During the December meeting it was voted an increase in member dues from \$20 to \$25. This increase will help us fray the increasing costs of publication of the newsletter and to provide more member services. The price increase will only go in effect from February 1991 onwards. Therefore, if you pay your 1991 fees before February, you still pay the usual \$20.00. Get those renewal forms in quickly!!

If your newsletter for this month is printed in pink, you are past due on your Southern California Section of AEG fees. The number right next to your name in the back of the newsletter indicates the date your fees were due.

## **AEG BUSINESS BULLETIN BOARD SYSTEM (bbs)**

AEG's Manager of the Public Information Committee, Richard Kent, has set up a new AEG business bulletin board system to aid members interested in telecommunications. The system offers a range of business and technical uses, including e-mail, publication sales and program files. The bbs will allow members to establish mailings with the Board of Directors, and to download geological software in public domain. Further information on how to get on-line the AEG bbs is summarized in page 14 of the October issue of AEG NEWS. In addition, Kelly Rowe will act as a local resource on how to log into the AEG bbs.

### **MEMBERS NEWS**

As a recap of a notice in last month's newsletter, the Thomas W. Dibblee, Jr. Geological Foundation is going to publish its next geological map, the Hollywood/Burbank quadrangles in memory of Lucy Birdsall, who was a director of the Foundation. Lucy passed away on October 21, 1990.

Lucy Birdsall graduated from the University of Connecticut with a BS degree in Geology in 1950. She worked for the USGS Geophysical Branch in Washington D.C., and then moved to Los Angeles where she established the Public Inquiries Office for the publications of the USGS. Lucy was also very active in many professional societies. She was Secretary-Treasurer, Honorary Member, President and official Historian of the Branner Club, Honorary Member and President of the Pacific Section of AAPG, President of the Los Angeles Basin Geological Society, and Honorary Member of the South Coast Geological Society, to mention only a few. In addition, Lucy was a World War II veteran, serving in the South Pacific.

A special fund has been set up to receive the funds for the publication of the Lucy Birdsall map. Their goal is to raise \$10,000.00 to cover the cost of editing and printing of this map. The special edition will be enclosed in a special envelope that will include a list of contributors, and Lucy's biography prepared by Dorothy Stout.

Contributions should be made as soon as possible, and no later than February 15th, 1991, when the map will go to press. Please indicate in your check that it is for the Lucy Birdsall Map. Your contribution is tax deductible, since the Dibblee Foundation is a non-profit California corporation. If you have any information which would be useful in preparing Lucy's biography, please call Dorothy Stout at (714) 826-2220 or (213) 695-7743, or Dick Brown at (213) 598-0595.

Dick Brown, also a director of the Dibblee Foundation, will be selling the foundation's latest maps, just published this December, at the next AEG Meetings. The combined Camarillo-Newbury Park Quadrangles, and the Point Mugu-Triunfo Pass Quadrangles, in full color, emphasize the Conejo Volcanics common in this area of California. The maps sell for \$10.00 each. These maps will soon also be available for over-the-counter purchase at the downtown LA offices of the Division of Mines and Geology. You can also give your contribution for the Lucy Birdsall Map to Dick Brown at the next AEG meeting.

Dr. Martin Stout is requesting information regarding data from the last 50,000 years that he can use to refine the climatic and geomorphic models of southern California. Anyone who has absolute dates from this period that he/she is willing to share, and that would help interpret the rates of deposition or erosion, can contact Dr. Stout at Geological Science, Cal State University, Los Angeles, CA 90032-8203.

### **AEG COMMITTEES**

As a result of Eldon Gath's speech at the November meeting (also summarized in your December issue of this newsletter), several members have volunteered to help with the committees he has proposed. Several people have already shown interest in participating in the Short-Course committee, while Bob Hollingsworth and Bob Larson have offered to serve as chairmen of the Professional Registration and Field Trip committees, respectively. Kudos to all those members who have volunteered. We need to become more active, more involved in our profession, and these committees are a start. However, we need more volunteers.

One of the committees where the more volunteers, the better, is the Public Relations committee. The aim of this committee is to increase the exposure and recognition of the practice of engineering geology to the general public through talks, trips, presentations at schools, municipal libraries, etc. The committee will prepare appropriate presentation materials, and will pursue and schedule community activities where our presentations would be of interest. All of us, however, can make a difference by participating at our local public school's career day or similar occasions. If you would like to volunteer for any of the committees, do not hesitate to give Eldon a call.

### **1992 AEG ANNUAL MEETING**

(from an open letter by John W. Byer, Chairman)

The 1992 AEG Annual Meeting Committee has been very busy in the last few months. As a result of their efforts, the following issues and decision have been addressed:

\* AEG has hired a meeting planning firm, called AEG MEMS, to assist in running the meeting, including registration, finance, publicity, hotel contracts, exhibit space and printing. This company organized and ran the 1990 meeting at Pittsburgh.

\* The committee has contracted with the Queen Mary to be the site of the 1992 meeting. The large exhibit hall can accommodate approximately 175 booths, and four large meeting rooms have been reserved to hold concurrent technical sessions. The Annual Banquet will be held at the Spruce Goose Pavilion.

\* The meeting will be held from October 2nd to October 9th, 1992.

\* Several field trips (to the San Andreas Fault, Catalina Island, Metro Rail, Malibu, etc.) and short courses (Earthquake Site Response, Ground Water, Standard of Care) have been planned.

\* A special publication entitled "Engineering Geology in Southern California, Volume II" has been planned and is in preparation under the direction of Dick Proctor and Barney Pipkin.

\* A session on local topics, including the Queen Mary Foundation, the construction of the Hotel Sheraton, Earthquake Design and Damping, History of the Los Angeles - Long Beach Breakwater, the Newport-Inglewood fault, the Long Beach to Los Angeles Light Rail, Facts about the Harbor, etc., is being considered.

### **STATE BOARD OF REGISTRATION FOR GEOLOGISTS**

The new Executive Officer of the Board of Registration is Frank Dellechaie. All future correspondence to the Board should be addressed to him. The address is: 1021 O Street, Sacramento, California 95814. Telephone: (916) 445-1920.

#### **Local Professional Meetings Held Regularly:**

**Coast Geological Society:** Dinner meetings every third Tuesday of the month, October-June; American Legion Hall, 83 S. Palm St., Ventura, CA.

**Inland Geological Society:** Dinner Meeting third Thursday of each month, San Bernardino County Museum, Orangetree, Redlands, CA. Contact: Jay Martin (714) 888-2422.

**Los Angeles Basin Geological Society:** Lunch meetings third Thursday of every month; now at Luminarias Restaurant, Monterey Park, CA.

**San Diego Association of Geologists:** Dinner meetings third Wednesday of every month - locations throughout San Diego area. Contact: (619) 292-8030 (Leighton & Assoc., San Diego office).

**San Joaquin Geological Society:** Dinner meeting second Tuesday of every month except July-September, American Legion Hall, 2020 "H" Street, Bakersfield, CA.

**South Coast Geological Society, Inc.:** Dinner meetings first Monday of each month, Revere House, 900 West First Street, Tustin, CA.

## Seminars/Meetings/Field Trips

### JANUARY 1991

22-24 "Introduction to Ground Water Geochemistry", Long Beach, CA. CONTACT: National Water Well Association, 6375 Riverside Dr., Dublin, OH 43017 (614) 761-1711.

31 "Symposium on Ground Water and Vadose Zone Investigations", San Diego, CA. CONTACT: (215)299-5413, Dorothy Savini, Symposia Operations, ASTM, 1916 Race Street, Philadelphia, PA 19103.

### FEBRUARY 1991

5-7 "Microbial Processes in Degradation of Ground Water Contaminants", Albuquerque, NM. CONTACT: National Water Well Association, 6375 Riverside Dr., Dublin, OH 43017 (614) 761-1711.

### MARCH 1991

12-14 "Sensors Expo West" San Jose, CA. Will include a series of short courses and a technical conference program that will introduce the latest in sensors and related equipment, including applications in earthquake engineering and environmental geology. CONTACT: (203) 374-1411 Ext. 131.

25-27 Cordilleran Section of GSA Meeting, San Francisco. CONTACT: Ivan Wong, Woodward-Clyde Consult-

ing, Utah State University and Idaho  
ogy, Utah State University, Logan,

que, New Mexico. CONTACT:  
Albuquerque, NM 87131 (505) 277-

### Geologists, Hydrogeologists, Mediation Specialists, etc.

Engineering Consulting Firms will be participating in an  
ce job fair at the New Embassy Suites Hotel near the  
Los Angeles International Airport. They are looking for environmental  
engineers, analytical chemists, geologists, hydrogeologist, civil engineers,  
hazardous waste management experts, etc. The Job Fair is hosted by  
Career Connection. For pre-registration, FAX your resume to (805)  
494-1870, or send it to P.O. Box 7046, Thousand Oaks, California  
91359. For additional information, call (800) 266-3010. Free  
admission to applicants - please bring resumes.

and senior level geologists, hydrogeologists and  
geotechnical engineers. Salary is negotiable and is  
commensurate with experience.

send resume to:

#### ICG Incorporated

15 Mason  
Irvine, CA 92718  
Attn: Personnel Department

#### CONTACT:

Juan A. Vidal or Al Guerrero  
(818) 989-5338.

or send resume to:

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# *It's Time to Renew Your Annual Fees for the AEG Southern California Section.*

Your annual fees to AEG International do not include the Section fees. The \$20.00 fee covers the operation of the section through publishing and mailing of the monthly newsletter, paying for expenses of program speakers, meals for students at meetings, and the expense of our lobbyist in Sacramento.

You will not receive an invoice for renewal other than the notice located here. If your newsletter is printed in pink, your fees are past due. This notice will be printed here for the December, January and February issues. You will notice on your mailing label, to the right of your name, the month and year when your fees will be or were due. You can ignore this notice if you made the effort of renewing. After February, the Section fees will be \$25.00.

To renew, send a check in the amount of \$20.00 made out to "AEG" or "Association of Engineering Geologists" to the Section Secretary/Newsletter Editor at the address below. Please note any change of address on the mailing label below or on the form to the right.

Tania Gonzalez  
AEG Secretary/Newsletter Editor  
c/o Leighton & Assoc.  
1470 S. Valley Vista Dr., #150  
Diamond Bar, CA 91765

