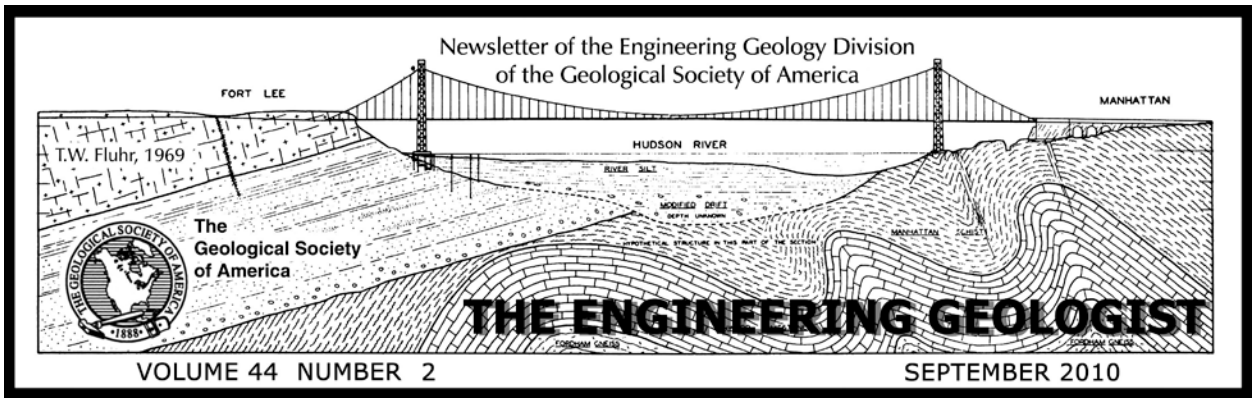


Message from the Chair

By J. David Rogers

Geology Controls Everything

2010 marks our 63rd year, the oldest specialty division within GSA. I have been an EGD member for 36 of those years. During the last two decades we have made some noteworthy advances, the most significant of which has been the emergence of our own specialty journal, *Environmental & Engineering Geoscience*, published jointly with AEG, which began in 1994. This past year the EG&G journal converted to electronic format with full-color graphics, making it available to more people around the world. For these accomplishments, we owe much to my immediate predecessor, Abdul Shakoor, who guided the journal from its inception and had the vision and foresight to make it compatible with other scientific journals, to reach the maximum audience.

We are also flush with cash, in large part, thanks to the past several Jahns Lecturers, who have not requested travel funds earmarked for them. This year we will be dipping into our funds to help our 2010 Jahns Lecturer Paul Marinos, who set some lofty standards for visiting so many geology departments and undergraduate geology students in far-flung corners of the globe. He will be succeeded by Bill Haneberg, who will be addressing the engineering geologist of tomorrow; illustrating the high tech bags of tools he is so adept at describing.

Why are we losing members?

Despite these gains, we are steadily losing members. More importantly, we are really losing student members and younger society members (below age 35). The EGD management board has examined this trend with considerable effort over the last five years, and there are many factors contributing:

1) Engineering geology isn't taught in most geology departments anymore, because it doesn't generate research funding like other disciplines of geology, and the civil engineering departments no longer require such courses.
2) Another trend has been the gradual erasure of engineering geology from the civil engineering (CE) undergraduate curriculum. In 1977, 94% of the ECPD-accredited CE programs actually required a course in engineering geology, largely through the influence of Karl Terzaghi (1883-1963), the "father of soil mechanics," who truly espoused the value of applied geology and even wrote one of the first textbooks on the subject, in 1929. Today, only 6% of the CE curriculums require engineering geology (Missouri S&T being one of those, as well as my alma mater, U.C. Berkeley). Today many of the more prominent civil engineering programs offer a graduate course in engineering geology, but these are usually taught by geotechnical engineers!
3) Many geologists working in engineering and environmental geology have grown to perceive GSA to be an "academic society," run by and for, the most part, academics engaged in pure geology. The GSA journals have become increasingly academic and theoretical, not to mention expensive. Practitioners are no longer obliged to subscribe to technical journals because they can purchase articles Online for a modest cost, whenever they are needed.
4) Hard economic times. Employers have cut back on supporting professional society activities, such as dues and attending local and national meetings. The opposite trend has been experienced by GSA a whole, because the current recession has encouraged a record number students remaining enrolled in graduate programs, most of who affiliate with the society. Last year's annual meeting in Portland broke all records for attendance, because the students can't find gainful employment.
5) Getting the most cluck for your bucks. The younger geologists engaged in applied geology either choose to belong to AEG, or no society at all, because their employers don't pay for their dues or their participation in such meetings, and/or they are just too busy. We've lost an alarming number of AEG student members when they make the transition to the private sector for these reasons (cost of dues, time away from work and family, and perception of immediate benefits). Those who remain active tend to use their participation to help them network for new job possibilities and/or help recruit the best talent for their respective organizations. The student-professional transition is a major concern of GSA management as well, and they recently implemented a plan that reduces the society dues the first few years out of college, to attract younger members.
6) A great many of the traditional engineering geologists, working on the fringes of civil and environmental engineering, have been siphoned off to environmental

work, beginning in the mid-1980s. Many of these people see themselves as geohydrologists, and have affiliated with the GSA Hydrogeology Division, which now numbers more than twice as many individuals as the EGD. The hydrogeology division is greatly aided by the fact that almost every geology and environmental sciences department have faculty specializing in geohydrology.

7) Our society has been moving away from the traditional realm of the engineering geologist, engaged in new civil works construction. We have become increasingly engaged in evaluating and remediating environmental challenges; from the clean-up of polluted lots all the way up (in scale) to issues emanating from the effects of global warming, like sea level rise and CO2 sequestration. The term “geoengineer” has been hijacked by media writers describing global warming issues, much to the angst of the geotechnical and geoenvironmental engineers.
8) The world of applied geology is no longer synonymous with engineering geology alone, but is rapidly being expanded to include such emerging fields as: hydrogeology, geobiology and geomicrobiology, geology and health, geoinformatics, structural geology and tectonics, geophysics, and Quaternary geology and geomorphology. GSA, as a whole, has seen a noticeable trend in its membership, as petroleum geology, once a mainstay element of the society and the source of much financial support, has all but vanished over the last four decades.

Negative perceptions

One of the most telling trends of late has been the gradual decline of EGD-sponsored symposia at GSA annual meetings and, especially, at the regional spring meetings. When I query our private sector practitioners, they give me an ear-full of critiques. A typical response is : “GSA costs more than other meetings; they are more restrictive in the amount of time they allow for presentations (typically 13.5 to 15 minutes), they only allow the submission of one presentation per registrant” (unless offered one of the two coveted “invited presentation” slots allowed for each symposia), and “technical symposiums are more often than not, scrubbed or combined with unrelated topics, when less than 11 abstracts are accepted during the ‘August frenzy,’ when most private sector geologist are working long hours.” One famous cohort (who shall remain nameless) looked me in the eye and told bluntly told me: “it cost me about $300 per minute to attend a GSA meeting and give a 15-minute talk,” and “I never know if there will be anyone in the audience. It just isn’t a good deal for me, given what my time is worth. For grad students looking for a job, I suppose it’s OK.”

What can we do about these disturbing trends, if we are to flourish over the next six-plus decades? We need to become more **adaptive** to the dynamic world around us, which is changing at break-neck speed. The methods an engineering geologist used to prepare a consulting report in 2000 are completely different from the tools and techniques that will routinely be employed just ten years from now, in 2020. We will not

survive that interim if we don't find a way to broaden our base of membership and support and re-define what it is that we do so well, which others don't do. At our heart, we are really more interdisciplinary than our other geology colleagues, and we're often cross-trained in engineering or allied sciences. We have to develop a vision to stimulate the involvement of younger members; especially those interdisciplinary people who possess the technical skills that are rapidly becoming the new standards of our industry. We cannot lead this division using only the methods and traditions of yesterday.

Implementing changes

Here is what we are doing and need to be doing:

1) We are availing ourselves to co-sponsor more technical symposia, especially with Quaternary Geology & Geomorphology, Hydrogeology, Geology & Health, Geology & Society, and the Structural Geology and Tectonics Divisions. This seems like a no-brainer.
2) We are trying to sponsor, and/or co-sponsor, more field trips. The Quaternary Geology & Geomorphology Division has been employing an all-day Tuesday field trip at each annual meeting, blocking out all technical symposia that day. Their trips are very well attended and serve as an effective "bridging" mechanism for stimulating student interest and involvement in the division. Our EGD board has decided to subsidize student participation in the two field trips we are sponsoring and co-sponsoring at this year's meeting in Denver. Taking students out to dinner after the field trips would also be one of the best ways to cement relationships and inculcate long-term interest.
3) We need to see what we can do to stimulate more EGD-sponsored field trips and symposia at the regional spring meetings. These are the meetings most attended by geology students, which have the greatest impact on their decisions to pursue various sub-disciplines of the geosciences. In this arena EGD has plummeted to near-zero. We just aren't getting the interest and involvement of our membership at the regional meetings, which are often held a universities and smaller cities, far from active centers of consulting activity.
4) I personally feel that we should move to re-name ourselves the "**Environmental & Engineering Geology Division**," just as AEG voted to do five years ago. I think this better describes what we do at present, and should attract those people with interdisciplinary training in geology, engineering, and allied environmental sciences.

What does our future hold?

Even if we successfully implement all of these changes, I think we're facing a difficult road ahead. My straw polls indicate that the EG&G journal and the Jahns Lectureship are the highest visibility things we have going right now, but we need to expand our outreach. We should be writing field trip guidebooks with the other divisions, whenever

possible. We can also expand our base by targeting activities with all of the applied geoscientists over the coming decades. We should be encouraging multi-disciplinary articles in the EG&G journal, especially with hydrogeologists, Quaternary geologists involved with physical processes, seismotectonic practicioners, and other disciplines that we routinely interact with.

Having practiced for 25 years before transitioning to academia, I will likely never view things the way my academics colleagues do. They make money "studying things;" but seldom solve problems or see into the future with a realistic gaze. I have come to conclude that I am a problem solver, not a scientist. My problem solving eye sees the Engineering Geology Division as potentially one of the most important bridges between the private sector geologists, government geologists, academic faculty, and geology students. Our involvement is critical to establishing the necessary dialogue and mutual respect to influence one another, instead of locking ourselves up in towers where we can toss insults at one another. We really have a societal responsibility to enter the public debate on most of the most important issues facing us (renewable energy sources, global warming, deteriorating infrastructure, sea level rise, pollution, etc). Being cantankerous geologists, we can agree to disagree on any number of these topics; but we MUST always agree that in the end, **"geology controls everything."** This is how I begin every course I teach, and how I wrap them up, at the close of each semester. It's a message we need to tell the general public, the media, and the decision makers. Rachel Carson did it, and we can too.

2010 Shlemon Scholars Announced

The Roy J. Shlemon Scholarship Awards have been awarded since 2000 to graduate students with the best research proposals within the broad field of engineering geology. The primary role of this awards program is to provide partial support of master's and doctoral thesis research in engineering geology. This year one doctoral level student and one master's level student were selected to receive scholarships. They are:

Doctorate Level -$2400

Tej P. Gautum, Kent State University
An Investigation of disintegration Behavior of Mudrocks Based on Laboratory and Field Tests

Masters Level - $1500

Serin Duplantis, Portland State University
Landslide Inventory Mapping and Dating Using LiDAR-based Imaging and Roughness Modeling in Clackamas County, Oregon

It is hoped that both recipients will be present at the EGD Luncheon in Denver to receive a certificate in recognition of their achievement.

It is well worth noting that this is the tenth anniversary of students receiving scholarships from this fund established through an endowment from Roy J. Shlemon. These scholarships have been awarded to nearly the same number of women as men and

only lightly more scholarships were awarded to Master's degree students than PhD students. Among the universities being attended by these students were: Kent State University, Portland State University, University of Nevada, Reno, Colorado school of Mines, California State university, Fresno, Queen's University, Belfast (UK), Baylor University, Texas A&M, Purdue, and University of Leeds (UK). During this period, leadership for gathering the applications, working with the GSA Headquarters staff on funding, getting Committee members information for evaluating applicants, and notification to awardees has been ably done by Robert Larson, the committee chairman.

Roy is well-known as a strong supporter of students pursuing degrees in environmental and engineering geology. He has demonstrated this support not only by establishing the Roy J. Shlemon Scholarship Awards but also the related meeting awards to helps students pay for attending short courses and field trips at Geological Society of America meetings.

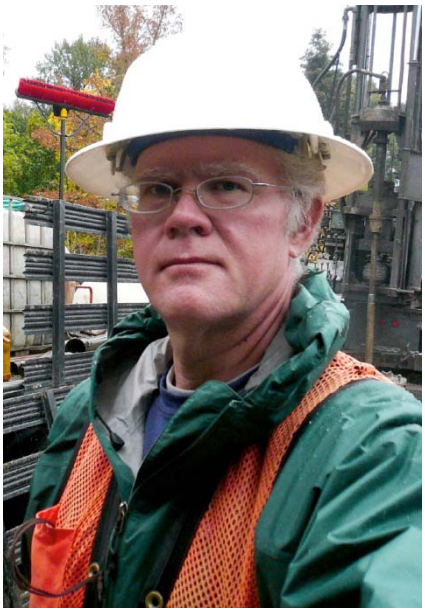
Roy also established the Roy J. Shlemon Mentor Program in Applied Geology; a part of the Geological Society of America's Education and Outreach program. As noted on the GSA website:

The Roy J. Shlemon Mentor Programs in Applied Geoscience are designed to acquaint advanced undergraduate and beginning graduate students with careers in applied geoscience. The Mentor's goal is to provide real-world information and insight, based on his or her own career, to which students may not be exposed through their academic experiences. These programs are held exclusively at GSA Section Meetings and include free lunches for both students and Mentors.

This program is always on the lookout for individuals who are practicing professionals who would like to serve as mentors at various Section meeting in the coming year. For details on what being a mentor for a future program involves, please contact Jennifer Nocerino, jnocerino@geosociety.org.

For application information and deadlines for the Roy J. Shlemon Scholarships, go to the Engineering Geology Division website and "click" on Scholarships. Please scroll past the meeting awards to the section for scholarships. The web address is: http://rock.geosociety.org/egd/index.html.

Haneberg Selected as 2011 Jahns Distinguished Lecturer



GSA Fellow Dr. William C. Haneberg has been named the 2010-2011 Richard H. Jahns Distinguished Lecturer in Engineering Geology. Bill is a Cincinnati-based consultant specializing in engineering geology, physical hydrogeology, applied structural geology, computational geology, and the use of geologic information to support planning and policy decisions.

An author or co-author of more than 100 published papers and abstracts, Bill has worked on topics as diverse as landslide and debris flow hazards, land subsidence, the influence of faults on subsurface fluid flow, the mechanics of geologic structures, and the geologic evolution of the Himalayas. His consulting practice emphasizes the application of modern technologies such as lidar, digital photogrammetry, image processing, and computer modeling. He received the 2006 AEG Claire P. Holdredge Award for his book *Computational Geosciences with Mathematica* from the Association of Environmental & Engineering Geologists and has served as Chair of the GSA Engineering Geology Division.

In addition to his consultancy, Bill is an Adjunct Professor of Geology at the University of Cincinnati, where he teaches structural geology. He has also taught at Northern Kentucky University, Portland State University, and New Mexico Tech.

Before leaving to establish his consulting practice in 1999, Bill was Senior Engineering Geologist and Assistant Director of the New Mexico Bureau of Mines & Mineral Resources, a division of New Mexico Tech. He earned a B.S. *cum laude* in geology from Bowling Green State University, and both M.S. and Ph.D. degrees in geology from the University of Cincinnati. He is a Licensed Engineering Geologist and Licensed Hydrogeologist (Washington), Professional Geologist (Wisconsin), and Certified Professional Geologist (AIPG).

Titles, descriptions, and instructions for arranging a lecture are available on the Jahns Lectures page at www.haneberg.com.

The Jahns lectureship, established in 1988, is sponsored by the Association of Environmental & Engineering Geologists and the GSA Engineering Geology Division. Its purpose is to provide funding for distinguished engineering geologists to present lectures at colleges and universities in order to increase awareness of students about careers in engineering geology. The lectureship is named in honor of Dr. Richard H.

Jahns (1915-1983), an engineering geologist who had a diverse and distinguished career in academia, consulting, and government.

Read Any Great Papers or Books lately? Nominate It for the Burwell Award!

The Edward Burwell, Jr., Award, established by the Division in 1968, honors the memory of one of the founding members of the Division and the first chief geologist of the U.S. Army Corps of Engineers. It consists of an embossed award certificate. This award is made to the author or authors of a published paper of distinction that advances knowledge concerning principles or practice of engineering geology, or of related fields of applied soil or rock mechanics where the role of geology is emphasized. The paper that receives the award must (1) deal with engineering geology or a closely related field, and (2) have been published no more than 5 years prior to its selection. There are no restrictions as to the publisher or publishing agency of the paper. The author or authors of the selected paper need not be a member(s) of the Engineering Geology Division or of the Geological Society of America and need not be a resident(s) or citizen(s) of the United States.

Send nominations by February 1 for the E.B. Burwell, Jr. Award to James McCalpin at mccalpin@geohaz.com. Check the EGD website at http://rock.geosociety.org/egd/index.html for updated Burwell information.

So Long, Farewell, Auf Wiedersen, Good Bye*

Well, not actually---just making sure everyone knows that I will no longer be editor for the EGD Newsletter after this issue. Twelve years is long enough for a particular volunteer activity. I will continue to be an involved member of the Engineering Geology Division. A new editor can undertake a much needed revamping of "The Engineering Geologist" so it can be an even better source of information on our Division and profession. So if you: 1) want to serve your profession, 2) assist the Engineering Geology Division, 3) like writing/communicating and 4) deal well with deadlines, consider taking this on---there is no requirement to do it for twelve years! January 2011 is the expected time for the next issue (volume 45, No.1).

Please contact either J. David Rogers at rogersda@mst.edu or John Jens at jcjens@earthlink.net and let them know of your interest.

Regards,

Jerry De Graff

*with apologies to "The Sound of Music" and "Julie Andrews"

Clark and Santi to be Honored at Annual Meeting Luncheon

The Distinguished Practice Award recognizes outstanding individuals for their continuing contributions to the technical and/or professional stature of engineering geology. This year's awardee is Bruce R. Clark, a long-time practitioner of applied geology who is also no stranger to the academic realm. Dr. Clark stepped down in 2002 after 17 years as President and CEO of Leighton and Associates, Inc., a Southern California-based consulting firm specializing in geological, seismic, and geotechnical hazards and their solutions. Prior to joining Leighton in 1977, he was Associate Professor of Geology at the University of Michigan, where he taught both structural geology and engineering geology. He received his Bachelor's degree from Yale, and his PhD from Stanford, both in geology.

The Meritorious Service Award is for outstanding service to the Engineering Geology Division and only Division members are eligible. Dr. Paul Santi, Colorado School of Mines and recent past Chair of the Engineering Geology Division, is the 2010 recipient of this honor. It recognizes his being a frequent contributor and tireless advocate for the Engineering Geology Division.

The Engineering Geology Division will present these awards following the luncheon at the Geological Society of America annual meeting in Denver, Colorado. The luncheon is scheduled to begin at noon on Monday, Nov. 1, 2010 at the Hyatt at the Colorado Convention Center in Mineral Hall F-G. While the luncheon itself is a ticketed event, the awards ceremony following the luncheon is open to all those wishing to attend. The awards presentations would begin no sooner than 1:00 PM.

Burwell Award Chosen from Joint GSA-AEG Publication

Another award to be presented during the EGD Luncheon and Awards Ceremony at the Geological Society of America Annual Meeting in Denver, Colorado is the Burwell Award. It will be given to the authors of the article "Geology of Los Angeles, California, Untied States of America" which appeared in Volume 13, No. 2 of Environmental & Engineering Geoscience. The authors are: William L. Bilodeau, Sally W. bilodeau, Eldon M. Gath, Mark Oborne, and Richard J. Proctor. Their work provides a comprehensive geologic view of the second largest city in the United States. Environmental & Engineering Science is a journal jointly published by the Geological Society of America (GSA) and the Association of Environmental and Engineering Geologists (AEG). The quarterly issues of this journal contain peer-reviewed papers

addressing a wide range of environmental and engineering geology topics, technical notes and book reviews.

The Edward Burwell, Jr., Award, established by the Division in 1968, honors the memory of one of the founding members of the Division and the first chief geologist of the U.S. Army Corps of Engineers. In addition to be one of the major awards of the Engineering Geology Division, this award is also among the outstanding awards of the Geological Society of America. It is made to the author or authors of a published paper of distinction that advances knowledge concerning principles or practice of engineering geology, or of related fields of applied soil or rock mechanics where the role of geology is emphasized.

Technical Highlights at the Upcoming GSA Annual Meeting in Denver

Following is a list of technical sessions sponsored or co-sponsored by the Engineering Geology Division. They represent a diverse array of case studies, techniques and process-oriented topics. These sessions can be expected to include presentation of interest to Division members. Be sure to check out their abstracts when planning your time at the annual meeting. Details on these sessions are available "topical sessions" found on the GSA website at: http://www.geosociety.org/meetings/2010/techprog.htm

T3. **The Hydrogeological Effects of Urbanization**
T17. **Geologic Maps, Digital Geologic Maps, and Derivatives from Geologic and Geophysical Maps (Posters)**
T18. **Reaching New Peaks in Geoscience: Geoscience in the Service of a Sustainable Future**
T28. **Engineering and Environmental Impacts of Evaporite Karst Processes**
T29. **Landslides, Debris Flow, and Rock Fall: Reaching New Peaks in Research and Monitoring**
T30. **Motion of Landslides, Debris Flows, and Avalanches**
T31. **Secondary Processes of Landslides**
T32. **Seeing the True Shape of Earth's Surface: Applications of Airborne and Terrestrial LiDAR in the Geosciences**
T33. **Debris Flows: From Hazard Mitigation to Landscape Evolution**
T82. **Geology in the National Forests and Grasslands — Stewardship, Education, and Research**
T125. **Terrrestrial Laser Scanning: Applications in Geology and Geomorphology**

A Couple of Future Specialty Meetings Worth Noting

Notice was received of a couple of specialty meetings involving environmental and engineering geology topics that EGD members may wish to check out. Organizers of the 9th International on Military Geosciences are currently accepting abstracts and requests considering joining them in presenting your relevant research at the 9th International Conference on Military Geosciences, to be held June 20-24, 2011 in Las Vegas, NV, USA. This event is hosted by Drs. Eric McDonald and Tom Bullard of the

Desert Research Institute (DRI), Nevada System of Higher Education. Given the location of the conference--at the intersection of the Mojave, Sonoran, and Great Basin Deserts--the theme will be 'The Role of Deserts in Past and Modern Warfare'. Additionally, they welcome abstracts from a broad range of military geoscience topics and physical settings, not limited to the fields of geomorphology, geography and history. The conference will include an exciting full-day field trip to the Nevada Test Site, a locale of significant historical interest for atomic testing. The first circular and other relevant meeting information is available at: http://www.dri.edu/icmg.

The other meeting is the 2nd World Landslide Forum scheduled for October 3-9, 2011 at the Food and Agriculture Headquarters in Rome, Italy. This international conference endeavors to bring landslides researchers and government officials together to promote landslide research and capacity building for the benefit of society and the environment. Monday, Tuesday, Thursday and Friday will be devoted to technical sessions with Wednesday being devoted an exhibition of technologies, systems and solutions to fight landslide risks. Field trips to several landslide localities outside of Rome are planned for Saturday and Sunday. The deadline for pre-registration and abstract submission is December 20, 2010. A detailed second circular will be published in the journal, Landslides (Vol.7, No.3) in September 2010. The website is: http://www.wlf2.org/. It is currently under construction and is limited to the opening page and a rotating series of five great photos of Italian landslides. The International Consortium on Landslides (ICL) is one of the principal organizers of this coming meeting. It is a follow up on the 1st World Landslide Forum held in Tokyo, Japan in 2008.

Reviews in Engineering Geology – Looking for Future Volumes

EGD is the only Division in the Geological Society of America with its own book series, Reviews in Engineering Geology. Volumes in the Reviews series cover a wide range of environmental and engineering geology topics. Each volume is a collection of individual papers including case studies focused around a particular environmental or engineering geology theme or topic. Landslides in the Seattle, Washington area, deep repositories and the geology of coal fires around the world are among the topics covered in recent volumes of the Reviews series. EGD tries to have, at least, one volume issued per year in this series. Individuals who are willing to serve as editors or co-editors for a volume should submit a proposal describing the subject being covered in their proposed volume to Syed (hasans@umkc.edu). He can provide further details on the publication process.