

Message from the Chair

By Sue Cannon

As my tenure as the Chair of EGD moves into its final month, I would like to take this opportunity for a quick review of the state of the Division. The good news is that we have seen a significant increase in membership over the past few years. At 831 our membership is at its highest level since 1996!! The number of EGD sponsored sessions at the GSA Annual Meeting has been steadily growing, thanks to an increased willingness of our membership to sponsor and contribute to sessions and also a concentrated effort to identify sessions that could benefit from EGD sponsorship. The downside, however, is that EGD net assets have decreased in recent years, from a balance of about \$15,000 that has traditionally been carried from year to year, to about \$10,700. Further, at a 5% yield the \$36,813 in the Jahns fund is insufficient to generate the \$3000 necessary for our annual commitment to this program. Too-good-to-pass-up opportunities to sponsor meetings and workshops that are directly relevant to the EGD mission have also tapped our resources. In response to this situation, the Management Board voted in March to raise Division dues from the long-standing \$5.00 for members and \$2.00 for students to \$10.00 for members and \$5.00 for students. The increased revenue will be used to bolster the operating expense coffer and to increase the Jahns fund to a sustainable level. We are confident that this increase will put the Division in a more stable financial situation.

I would also like to encourage all of you to attend the 2006 GSA Annual Meeting in Philadelphia October 22-25 and participate in as many of the EGD-sponsored sessions as you can. EGD is sponsoring 11 Topical Sessions and one field trip on a wide variety of topics relevant to engineering geology. It looks to be an exciting program that reflects the cutting edge of engineering geologic practice and research. EGD is also sponsoring the short course "Digital Terrain Modeling," which will be taught by our own Bill Haneberg. I can also strongly recommend Jerry Higgins' Jahns lecture, which will be presented on Monday morning just before the EGD Luncheon and Awards Ceremony. And, of course, please plan to attend our Luncheon and Awards Ceremony, both as a chance to mingle with EGD compatriots in a congenial setting, and to show your appreciation to our award winners. We will be honoring Martin Culshaw with our E.B. Burwell Award, Terry West with our Distinguished Practice Award, Scott Burns and Bill Haneberg with the Meritorious Service Award and Lauren

Siedman with the Roy J. Shlemon Scholarship. We will also be introducing John Moylan as the 2006-2007 Jahns Distinguished Lecturer.

Finally, it has been an honor and pleasure to serve as EGD chair for the past year and on the management board for the preceding three years. I have been impressed with the commitment and effort of the management board in putting together exciting annual meeting programs, and their continued efforts to increase the visibility and viability of EGD and the Richard Jahns Lectureship, the Roy J. Shlemon Scholarships, and the E. B. Burwell, Jr. Award. But there is always more that can be done. I'd like to see Division membership continue to grow, attract more young professional and student members and increase the number of EGD sponsored sessions at annual and section meetings. The field of engineering geology provides a unique framework for integrating the innovative and exciting work going on in the fields of geomorphology, hydrology, geophysics, physical geography and environmental geology, and I would like to see the EGD move toward promoting this integration. This is far more than can be done by the four volunteers on the management board, and I encourage you to volunteer your services to these important goals. I look forward to seeing you in Philadelphia!

Report on 2005 Jahns Lectureship Activities

As the 2005 Jahns Lecturer, Dr. Richard Iverson of the US Geological Survey presented his work on "The dynamics of debris flows and rock avalanches" at nine universities, including the University of Utah; the University of Missouri, Kansas City; Iowa State University; University of Washington; California Institute of Technology; University of California, Santa Barbara; Stanford University, University of Nevada, Las Vegas; and Portland State University. Dick was also the featured speaker at the Omaha, Washington, and San Francisco AEG chapter meetings, and the annual AEG and GSA meetings in Las Vegas and Salt Lake City, respectively.

We thank Dick for his contribution to this lectureship. Dr. Iverson is a dynamic and engaging speaker, and was an excellent ambassador for the engineering geology profession!

John Moylan Named 2006 Richard H. Jahns Lecturer

John E. Moylan has been named the 2007 Jahns Distinguished Lecturer. Richard H. Jahns (1915-1983) was an engineering geologist who had a diverse and distinguished career in academia, consulting, and government. The Association of Environmental and Engineering Geologists and the Engineering Geology Division of the Geological Society of America (GSA) jointly established the Richard H. Jahns Distinguished Lectureship in 1988 to commemorate Jahns and to promote student awareness of engineering geology through a series of lectures offered at various locations around the country throughout the year. Mr. Moylan received a BS degree in Geology from the University of Kansas in 1958 and attended a special Corps of Engineers Geological Engineering program at

the University of Minnesota in 1974. He worked as a geologist for the Corps of Engineers Kansas City District for 33 years where he rose to Chief of the Geology Section and retired as Chief of the Geotechnical Branch in 1991. He was an Adjunct Instructor in Geology at the University of Missouri at Kansas City from 1979 through 1985. Following his retirement from the Corps of Engineers, he worked for Woodward-Clyde Consultants/URS for 10 years as a Senior Consulting Geologist and is currently an independent consulting geologist.

Mr. Moylan is experienced in most aspects of engineering geology. He has conducted geologic investigations for site selection, design, construction, performance monitoring, and remedial design of dam projects. In addition, he worked on the geologic investigations of many military projects, a natural salt contamination area, and a proposed nuclear waste disposal site. Since 1978, his work also included the investigation, remedial design, and performance evaluation of hazardous waste sites, and he has worked on over 50 National Priority List Superfund Sites. While with Woodward-Clyde/URS, he was technical advisor and peer reviewer on geotechnical and environmental projects throughout the company. He has actively



encouraged expanding the focus of environmental geologic investigations and studies from the nature and extent of contamination to include site characterization needed for effective remedial design and remedial action.

Mr. Moylan is a member of the Geological Society of America and has been an active member of the Association of Environmental and Engineering Geologist since 1966 and was a founding member of the Kansas City-Omaha Section. He served as the 1969-1970 Section Chair and again 2003 to 2005. He has actively encouraged the participation of geology students at the University of Missouri at Kansas City and the University of Kansas in Kansas City-Omaha Section activities and has made several technical presentations at these two universities and the University of Missouri at Rolla.

The titles for the 2007 Jahns lectures are: "Strength Reduction in Shales – Causes, Effect on Stability, Case Histories, Recognition," "Site Characterization

for the Design of Effective Groundwater Remediation Projects," "Geologic Influences on Selected Mid-Continent Dams," and "Effects of Geologic Factors on the Design and Performance of Permeable Reactive Barriers." Requests for scheduling lectures should be directed to John Moylan at john_moylan@sbcglobal.net.

The Human Role in Changing Fluvial Systems-The 37th International Binghamton Geomorphology Symposium (2006)

The BGS will be held in Columbia, South Carolina, this fall, October 20-22. It will commemorate the bicentennial of Man's Role in Changing the Face of the Earth, an influential volume of papers that emanated from a conference held in Princeton in 1955. The focus within that context is on anthropogenic changes to river systems interpreted broadly to include related hydrologic and ecologic changes.

Details about the 2006 BGS are available on the BGS web page along with registration materials:

http://geography.uoregon.edu/amarcus/Binghamton2006/

Posters: In addition to the oral presentations, two poster sessions are scheduled, and we encourage the submission of poster abstracts. Instructions are given on the BGS web site.

Graduate Student Travel Funds - We will grant up to 15 awards of \$200 to help defray travel costs for qualified graduate students. In addition, up to five \$400 grants will be provided to students traveling from great distances who need air fare. Details and an application form are provided on the web site. Review of applications will commence on September 1st, 2006.

Traveling to the GSA meeting in Philadelphia this October? The BGS is the weekend before most of the GSA Annual Meeting in Philadelphia gets started. There are direct flights from Columbia to Philly that take less than 1.5 hours, so you could attend this entire Symposium and easily be in Philly in time for the Presidential opening plenary Sunday evening.

The list of authors includes an impressive number of leading scholars in fluvial geomorphology and related fields (see below). Sixteen papers are now in press, so that the proceedings volume will be available at the conference.

Introduction:

M. G. (Reds) Wolman - Reflections on the Changing Geomorphic Landscape.
L. Allan James and W. Andrew Marcus - Research on the Human Role in Changing Fluvial Systems: Retrospect, Inventory and Prospect.
Kenneth J. Gregory - The Human Role in Changing River Channels.

Scales and Locales of Impact:

- Des E. Walling Human Impact on Land-Ocean Sediment Transfer by the World's Rivers.
- Ellen E. Wohl Human Impacts to Mountain Streams.
- Carol P. Harden Human Impacts on Headwater Fluvial Systems in the Northern and Central Andes.
- N. LeRoy Poff, Brian P. Bledsoe, Christopher O. Cuhaciyan -Hydrologic Variation with Land Use across the Contiguous United States: Geomorphic and Ecological Consequences for Stream Ecosystems.
- James C. Knox Floodplain Sedimentation in the Upper Mississippi Valley: Natural Versus Human Accelerated.
- Janet M. Hooke Human Impacts on Fluvial Systems in the Mediterranean Region.

Processes of Change:

- William L. Graf Downstream Hydrologic and Geomorphic Effects of Large Dams on American Rivers.
- Andrew Simon and Massimo Rinaldi Channelized and other Incised Streams: Experiences with Excess Flow Energy and Stream Power in Compressed Time Scales.
- Andrew S. Goudie Global Warming and Fluvial Geomorphology (Keynote).
- Andrew P. Brooks, Timothy Howell, Tim B. Abbe, Angela H. Arthington Confronting Hysteresis: Wood Based River Rehabilitation in Highly Altered Riverine Landscapes of South-eastern Australia.
- M. G. Macklin, P. A. Brewer, K. A. Hudson-Edwards, G. Bird, T. J. Coulthard, I. A. Dennis, P. J. Lechler, J. R. Miller, J. N. Turner A Geomorphological Approach to the Management of Metal Mining Contaminated Rivers.
- David R. Butler Human-Induced Changes in Animal Populations and Distributions, and their Subsequent Effects on Fluvial Systems.
- Anne Chin Urban Transformation of River Landscapes in a Global Context.
- Ranbir S. Kang and Richard A. Marston Geomorphic Effects of Rural-to-Urban Land Use Conversion on Three Streams in the Central Redbed Plains of Oklahoma.
- Patricia F. McDowell Grazing in Riparian Zones in the Western U.S.: Impacts, Management and Scientific Progress.

Fieldtrips Needed for 2007 GSA Annual Meeting in Denver

The deadline for field trip proposals for the 2007 GSA Annual Meeting comes in January 2007. Please consider proposing an environmental or engineering geology-focused field trip to either Sue Cannon cannon@usgs.gov (303) 215-1871 or Paul Santi psanti@mines.edu (303) 216-2714, either of whom can provide additional information on the planning process for those interested.

EGD Luncheon Honors Awardees

The EGD luncheon at the GSA Annual Meeting will be an opportunity for both informal mingling with fellow Division members and formal recognition of those receiving honors. Dr. Jerry Higgins will be presenting his 2006 Richard H. Jahns Distinguished Lecture prior to the luncheon at 11:00 AM in Room 112B for the Jahns Lecture and 12:15 pm in Room 106 B for the luncheon, both in the Philadelphia Convention Center on Monday October 23.

While the luncheon is a ticketed event beginning at 12:30 PM, the awards ceremony afterwards is open to all. It will likely begin at 1:30 PM. This year's recipient of the Distinguished Practice Award will be Terry West. The Distinguished Practice Award recognizes outstanding individuals for their continuing contributions to the technical and/or professional stature of engineering geology. There will be an unusual joint awarding of the Meritorious Service award. Bill Haneberg and Scott Burns are both tireless advocates for both the Division and the engineering geology profession. The Meritorious Awards are for outstanding service to the Engineering Geology Division. The E.B. Burwell Jr. Award will be presented to Dr. Martin Culshaw. Details on the awards and awardees will be included in the next edition of **The Engineering Geologist.**



Bill Haneberg Scott Burns

2005 Roy J. Shlemon Scholarship Awardee Reports

Ana Landono was a recipient of a Roy J. Shlemon scholarship award for her PhD work at the University of Cincinnati (see **The Engineering Geologist**, V. 39, No. 2 October 2005 on the EGD web site at

http://rock.geosociety.org/egd/News/Oct05.pdf for details and other awardees).

Ana sent the following report on her dissertation work: Erosion evolution on hyper-arid environments derived from the study of pre-Colombian agricultural terraces in southern Peru.

The research observes the erosional evolution of landscapes in arid environments as the Moquegua Valley and uses these observations to test current models of erosion and landscape evolution under arid conditions. In this area, well preserved agricultural terraces built by Wari (650-1100 AD) and Inca (1300-1550 AD) people are present and are a good approximation for natural features.

During the first field season in the summer of 2005 (Mid-June to Mid-August), a reconnaissance of potential sites for topographic survey in the surroundings of Cerro Baúl and the high sierra in Camata was done. Similar erosional features were observed in the agricultural terraces and the hillsides with no perturbation, supporting the fact that the agricultural terraces are a good proxy for natural features.

Subsequently, five micro topographic surveys on 30 X 30 m grid were made on the agricultural terraces, three in Wari-occupied land around Cerro Baúl and two in the high sierra corresponding to Inca settlements around Camata. Aside of this, and to test the methodology in larger areas, one survey was conducted on a natural terrace located in the foothills of Cerro Baúl.

Seven samples for cosmogenic radionuclide and five samples for optically stimulated luminescence were taken. Also samples for grain size analysis and clay mineralogy determination were colleted for characterizing the materials of the terraces. Sample preparation for cosmogenic dating is currently underway.

With these observations and the data collected, preliminary runs of the available landscape evolution and erosion calculation software are being carried out at the moment.

The funding received from Roy J. Shlemon Award was used to cover in part the expenses of lodging, food and field transportation.