

Geoscience Education Division

<http://geosciedu.org/>

Summer 2003

A Quick Note from Your Newsletter Editor

I hope you have all had productive and/or relaxing summers. Time to gear up for fall and GSA already! On a personal note, my summer here at USF has been eventful. Like most public universities, USF has been decimated by two years of budget cuts. This year, visiting slots and adjunct positions were cut on a massive scale, including my visiting position (joint between Geography and Environmental Science & Policy). However, because of the huge number of student contact hours that the Geography Department generates for the University with its courses, they were given money to search for a permanent instructor position. Luckily, I was invited to compete for the position and I am happy to say I will be permanently joining the Geography Department beginning in August.

The only downside to this is something many of us are experiencing even in tenure-track positions: classes with huge enrollments and the pressure to increase those head counts. For example, I will be teaching a section of World Regional Geography that is so large (~400), we do not have a big enough lecture hall on campus. So I will be teaching it in the movie theaters at the local mall! To that, add a telecourse with 600-1000 students, and a third course with "only" 150. (I will truly cherish my fourth course, a grad seminar of five or six!) This trend is being repeated throughout the state university system in Florida. Providing quality instruction under these circumstances will certainly be a challenge.

As always, if you have inquiries, suggestions or news items to contribute, please e-mail them to me at <mhafen@cas.usf.edu>, and I will include them in the next newsletter (Winter 2004).

Mark R. Hafen
Dept. of Geography
University of South Florida

Ocean Institute Teams for New NSF-Funded Initiative

The National Science Foundation has awarded a grant to the Ocean Institute of Dana Point, California for Sea Floor Science, a three-year project that develops a national model for bridging the long-standing gap between the science and education communities. The model incorporates new approaches to the design, development, implementation, and evaluation of exhibits and programs. Fundamental to the Ocean Institute's model is the development of mutually beneficial partnerships with members of the research and technology communities. The results are exhibits that translate and interpret ongoing, cutting edge oceanographic research and technology, and programs that create a direct connection between scientists, educators, students, and the public. Sea Floor Science uses partnerships with researchers and a new approach to exhibit design to allow exhibits and programs to focus on current work that may not be in the textbooks for another few years. At the same time, the Ocean Institute is able to assist researchers with satisfying their outreach needs.

The PI's on the Sea Floor Science project are Dr. Wolfgang Berger, professor of Oceanography at Scripps Institution of Oceanography, and Harry Helling, Vice President of Research and Education at the Ocean Institute. Current partners on the project include Scripps Institution of Oceanography, Texas A & M's Institute of Nautical Archaeology, NASA's Jet Propulsion Laboratory, UCLA's Virtual Cultural Reality Lab, and the MIT DeepArch Research Group.

(continued on Page 2)

Ocean Institute (continued from Page 1)

The Ocean Institute is a non-profit educational organization devoted to increasing science, math, and engineering literacy. For more information about the Ocean Institute's Sea Floor Science project, visit the Institute's web site at <www.ocean-institute.org>, or contact Eric Solomon, Sea Floor Science Project Director, at <esolomon@ocean-institute.org>.

Eric Solomon
Sea Floor Science Project Director
Ocean Institute

Geoscience Education Division 2003-2004 Officer Candidate Biographies (See ballot on Page 3)

CHAIR (1-year term)

Susan M. DeBari. Education: PhD Geology, Stanford University; BA Earth Sciences, Cornell University. Professional Experience: Asst Prof of Geology and Science Education, Western Washington University, Bellingham, WA. Experience with geoscience teaching at undergraduate and graduate levels and with science education for pre-service elementary and secondary school teachers. Many years experience with in-service K-12 teacher training including the Bay Area Earth Science Institute and the Washington Earth Science Initiative. Professional Affiliations: GSA (member since 86; Fellow 97); AGU, NAGT, NSTA, Washington Science Teachers Association. GSA Service: Geoscience Education Division First Vice-Chair and Acting Chair (02-03), Second Vice-Chair (01-02), JTPC rep (03); Cordilleran Section Past Chair (01-02), Chair (00-01), Vice-Chr (99-00). Research Interests: Magmatism in volcanic arcs.

FIRST VICE-CHAIR (1-year term)

Elizabeth Wright. Education: PhD Earth Sciences, Scripps Institute of Oceanography; BA Mathematics and Geology, Oberlin College. Professional Experience: School of the Art Institute of Chicago, Liberal Arts Dept (1989-present), Assoc Prof (since 95), Dept Chair (97-01), Asst Prof (89-95). Concurrent Positions: Visiting teaching & research appts, Univ of Illinois at Chicago; Columbia College, Chicago; College of Oceanography, Oregon State Univ, 87-93. Professional Affiliations: GSA (member since 85); AAAS, AGU, AWG, NAGT, Sigma Xi. GSA Service: Geoscience Education Division Second Vice-Chair and Acting First Vice-Chair (02-03). Research Interests: Geoscience education, geoscience and art, geochemical studies of archaeological artifacts, geochemistry of mantle processes and heterogeneity in South and Central Pacific.

SECOND VICE-CHAIR (1-year term)

David P. Mayo. Education: Bachelor of Music Educ, Univ of TX, Arlington; MS Geology, California State Univ, LA; Ph.D. Geol Sci, Univ of So Cal. Professional Experience: Dept of Geol Sci, Calif State Univ, LA, Asst Prof (01-pres), Lecturer (96-01); Colorado State Univ, Dept of Earth Resources, Lecturer (95-96); Citrus Comm Coll part-time geol lecturer (98); Univ So Cal part-time geol lecturer (96-97); Exxon Expl Corp Summer Intern (94); Rio Hondo Comm Coll part-time geol lecturer (89-90). Professional Affiliations: GSA (member since 88); NAGT, NSTA. Research Interests: Science education, developing & using technologically innovative instructional & assessment methods; tectonic and magmatic evolution of southern California; geological mapping and interpretation of Mesozoic-Cenozoic rocks in SE California.

SECRETARY-TREASURER (2-year term)

William Slattery. Education: PhD Earth and Envtl Sci, City University of New York; MA in Teaching, St. Peter's College; BS Geology, Jersey City State College. Professional Experience: Former K-12 science teacher; presently Assoc Prof, Wright State University, Dayton, Ohio. Developed and taught Earth science and Earth systems science classes for pre-service and in-service teachers, Director of the Master of Science in Teaching (Earth Science) Program designed for practicing K-12 educators, served on numerous State education committees, consultant for the Center for Educational Technologies, Wheeling, West Virginia. Professional Affiliations: GSA (member since 1991); NSTA, NAGT. GSA Service: Geoscience Education Division Secretary-Treasurer (01-03).

TO ALL VOTING MEMBERS OF GSA'S GEOSCIENCE EDUCATION DIVISION:

This is the ballot for officers for the Geoscience Education Division for 2003-2004. Please vote immediately by marking your ballot and mailing it to GSA to arrive no later than **September 30, 2003**.

If you prefer, you may vote online at <http://rock.geosociety.org/balloting/educ.asp> by September 30, 2003. Once at that site, you can access the electronic ballot using either your GSA member number or your e-mail address (if it is part of your GSA records). If you need assistance, please contact GSA Services at gsaservice@geosociety.org or (303) 447-2020 (ext. 3) or tollfree at (888) 443-4472. Biographical information for this year's candidates is on Page 2 of this newsletter.

Ballot for the Election of 2003-2004 Officers for the GSA Geoscience Education Division

Vote for no more than **one** candidate for each office. Check the appropriate box for each candidate; check the box and fill in the "Write In" space to vote for an individual not listed on this ballot. In order to be valid, your ballot must be returned to GSA by September 30, 2003, must be signed in the space provided, and must include your GSA member number. Fold the ballot in thirds and affix first-class postage or return it in an envelope to the address on the reverse side of this ballot. The election results will be announced at the Geoscience Education Division Management Board meeting at the GSA Annual Meeting in Seattle and will be posted on the GED website at <<http://geosciedu.org/>>. Thank you for participating in your Geoscience Education Division election.

Chair: (one-year term)

- Susan M. DeBari**
- Write In** _____

First Vice-Chair: (one-year term)

- Elizabeth Wright**
- Write In** _____

Second Vice-Chair: (one-year term)

- David P. Mayo**
- Write In** _____

Secretary-Treasurer: (two-year term)

- William Slattery**
- Write In** _____

Your Name (printed) _____

Your Signature (required) _____

Your GSA Member Number* (required) _____

This ballot must be returned to GSA by September 30, 2003. Fold in thirds, tape (please do not staple), and affix first-class letter postage to reverse side.

* Your GSA member number is printed near the top of your *GSA Today* label.

Fold On Line and Tape Closed

Place
stamp
here

Geoscience Education Division
Geological Society of America
PO Box 9140
Boulder, CO 80301-9140

Ballot

Fold On Line and Tape closed

Semken Joins ASU Dept. of Geological Sciences

Arizona State University is pleased to announce that Dr. Steve Semken, former NAGT President, has joined the faculty of the Department of Geological Sciences. Steve is well known for his work in Ethnogeology and integrating modern understanding of geology with Native American concepts of natural processes. Steve has been an NAGT Distinguished Lecturer and presenter at many NAGT workshops. He joins an active geoscience-education research group, which includes Steve Reynolds, Mike Piburn, Doug Clark, and others.

Stephen J. Reynolds
Dept. of Geological Sciences
Arizona State University

Earth Science Fair

The University of Tennessee's fourth annual EARTH SCIENCE FAIR will be held on the Knoxville Campus during Earth Science Week (12-18 October 2003). Here, we invite and bring as many teachers and their classes as we can accommodate on Campus on Thursday, 16 October, and Friday, 17 October, for event-packed mornings of Earth and Planetary Science activities.

Faculty, students, and professional guest presenters donate their time to putting on a variety of activities that include: remote sensing, gold panning, creating model impact craters, minerals in everyday life, the Moon, natural hazards and mineral resources of East Tennessee, Mars, soil and groundwater, introduction to the world of caves, the Geologic Time Trail (laid out to scale), and several geologic activities in the University's McClung Museum. This year, we plan to feature several remote-sensing activities, for example, geographic, geologic, and planetary, thus maximizing the showcasing of this year's Earth Science Week theme: "Eyes on Planet Earth: Monitoring Our Changing World" in a literal fashion!

Guides meet the school busses as they offload, and the teachers and their groups are guided and cycled through the activities at their (customized and pre-arranged) preferred events. We try to accommodate the individual teachers' preferences for activities they want their group to attend. Depending upon the travel time to-and-from their schools and other factors, an individual school group may find itself attending three to as many as half-a-dozen different activities, in some instances with a short break for lunch.

Every teacher is given a portfolio that contains an official AGI Earth Science Week Information Kit as well as much additional information of local and regional geologic importance (county & regional geologic maps, information on field trips, teacher inservice/outservice opportunities, and so forth). In addition, individual presenters often provide the teachers and students with materials and samples. This year, every student will receive a bookmark indicating the Geologic Time Scale and a mineral and/or rock specimen.

The EARTH SCIENCE FAIR at The University of Tennessee, Knoxville, is the brainchild of Professor Emeritus Don Byerly, a recent recipient of the Neil Miner Award, and a longtime tireless worker in the cause of Earth Science Education in the State of Tennessee. The FAIR is made possible by donations of time, money, and materials by a number of individuals and professional organizations (most notably The East Tennessee Geological Society), governmental agencies (most notably The Tennessee Division of Geology), and environmental consulting companies in the East Tennessee region. Within the University we have the wholehearted support of the Departments of Earth and Planetary Sciences, Geography, the Office of Academic Outreach in The College of Arts and Sciences, Telephone Services, University Libraries, and the McClung Museum.

For more information about this joint event, please visit our website at <http://web.utk.edu/~geoclub/earthscifair>.

G. Michael Clark
Dept. of Earth and Planetary Sciences
The University of Tennessee at Knoxville

Geoscience Education Topical Sessions at GSA Meeting in Seattle

- T28 Great Ideas for Problem-Based Instruction and Assessment in the Undergraduate Geosciences (Posters)
- T29 In Our Own Backyards: Undergraduate Research in a Local Context (Posters)
- T30 Large Intro Courses That Work: Sharing Exciting and Effective Teaching Strategies (Posters)
- T31 Subliminal and Intentional Outreach: Educating the General Public about Geological Sciences Through Novels, Film, TV, and Other Public Media
- T32 Using Data to Teach Earth Processes: An Illustrated Community Discussion (Posters). Special Session in Support of the NAGT/DLESE "On the Cutting Edge" Program
- T33 Beyond Google: Strategies for Developing Information-Literate Geoscience Students (Posters)
- T34 Building the Digital Library for Earth System Education (DLESE): New Opportunities for Collaboration
- T35 Geoscience Innovation Fostering the Achievement of All Students: Curriculum and Pedagogy Methods Reform, Universal Design Principles, and Applications
- T36 Overcoming Obstacles to Incorporating Experiential Learning into the Undergraduate Geoscience Curriculum
- T37 Teaching Local Geology: A NAGT Session In Honor of Robert Christman
- T38 Volunteering in K-12 Settings
- T39 History and Future of the Relationship Between the Geosciences and Religion: Litigation, Education, Reconciliation?
- T40 Workforce and Education: Building the Industry-Academia Connection in Developing a Capable and Sufficient Science and Technology Workforce
- T41 Innovative Approaches to Teaching Sedimentary Geology Courses
- T42 Enhancing the Earth Science Content Knowledge of Elementary School Teachers
- T43 Field and Research Experiences for Students at Two-Year Colleges