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UPCOMING EVENTS!

GSA North-Central Section **47th Annual Meeting** **Kalamazoo, Michigan** **2-3 May 2013**

Please bring your local rock and mineral samples to the next sectional GSA conference, Central Section NAGT booth to share with other instructors. Bring labels with name, location, and other pertinent information.

The Central NAGT section will pay the cost of the section NAGT business luncheon to K-14 professionals (members and non-members) who a) cannot afford the cost themselves, and b) make a presentation on any topic at the NC GSA conference that year. **Application forms are at the end of this newsletter.**

Events sponsored by **NAGT Central Section**

Theme Sessions:

1. **Issues in Geoscience Education** – Cullen Erbacher, Miami University-Middletown (erbachc@muohio.edu)

Technology in geoscience education with emphasis on Google Maps, tablets and other mobile devices to bring earth science into the classroom will be presented. Virtual field trips will also be included.

2. **Teaching and Learning Earth Science: K-16 Educational Pedagogy** - Katie Johnson Lewandowski, Eastern Illinois University (kjohnson4@eiu.edu) and Steve Mattox, Grand Valley State University (mattoxs@gvsu.edu)

This theme session encourages abstract submissions from K-16 educators who would like to share insights into teaching and or learning of earth science content. The goal for this session is to attract presentations showcasing a myriad of activities using diverse instructional strategies in the classroom, lab,

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PRESIDENT'S MESSAGE

Recruitment, Retention, and Mentoring: these are our charges as geoscience educators. In these harsh economic times, it is essential that geoscience departments recruit and retain students; otherwise they face the danger of being axed.



Research (i.e., AGI's Geoscience Currents No. 65) indicates that recruitment is best done during the freshman or sophomore years of a student's tenure at the university. Experts suggest that departments will have the most success recruiting if they put their best, most dynamic, creative teachers in large, general education classes. During the course of our efforts to recruit majors we are encouraged to tell them about the high salaries entry level geologists make. AGI's Geoscience Currents No. 63 informs us that geoscience related salaries range from low \$30,000's to close to \$200,000. Median starting salaries range from the low \$20,000's to a high of ~\$135,000 (AGI Geoscience Currents No. 64). The stakes are high to try to recruit students; our livelihoods depend upon it.

Of course, even once you recruit students, the work isn't over. You must retain them at your institution, within your department. And how is this best done? We try to offer them support in the form of student organizations, academic advisors, mentoring. How does one mentor a student? Encourage them to become involved in your research activities. Talk to them about what they want to do with their lives. Talk to them about where they want to end up, and then help them figure out how to get there. Offer them a friendly ear to complain about their classes, their obligations, etc. Offer them good advice about where to go if they are in trouble in any of their classes. Ask them to challenge themselves, to be the best they can be to get where they want to go. Mentoring should help to retain students within your major. What a great feeling it is when students you have mentored succeed and go on to realize their goals.

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(President's message, continued from p. 1)

I wish you much luck in your efforts to recruit, retain and mentor! While these efforts are not always easy, they can be incredibly rewarding.

Best regards,
Katie Johnson Lewandowski

(North-Central GSA events, continued from p. 1)

and field. As educators, many of us search for interesting and effective activities that will help our students to learn better and more efficiently. We also welcome abstracts from researchers offering insights into cognition and processing of earth science information that will help us to teach more effectively.

3. Research in Earth Science Education - Heather Petcovic, Western Michigan University (heather.petcovic@wmich.edu) and Sandra Rutherford, University of Wisconsin, Madison (srutherford@wisc.edu)

What do we know about how people think, feel, perceive, and understand about the earth? This session will share research on the teaching and learning of earth science in classroom, laboratory, field, and informal settings. Qualitative, quantitative, and mixed methods studies describing cognitive and affective factors that impact learning as well as studies of specific curricula, pedagogy, or interventions will be highlighted.

4. Working with Pre-Service Teachers – Issues and Ideas - Kyle Gray, University of Northern Iowa (kyle.gray@uni.edu) and Anthony Feig, Central Michigan University (anthony.feig@cmich.edu)

Many college and university-based Earth scientists interact with pre-service teachers on a regular basis. Regardless of whether they are pre-K, elementary, or secondary education majors, many of our students have received little or no exposure to Earth science topics before attending our courses. As a result, they often enter our classrooms afraid of teaching Earth science. Such barriers to teaching pose a challenge to Earth science faculty, and can be addressed through a variety of creative pedagogies and theoretical frameworks.

This session is intended for anyone who teaches pre-service teachers in any capacity including (but not limited to) content courses and methods courses. We welcome any presentations that discuss new lesson ideas, research regarding pre-service populations, theoretical approaches to teacher training, or strategies for improving K-12 Earth science education in general.

Survey - Two Year College Geoscience Instructors

Attention Two-Year College Instructors: The Geo2YC Division of NAGT will soon be releasing an online survey of Two Year College Geoscience Instructors to begin to define who we are and what is important to us. Please look for it later this year, and please complete it so that we can begin to form a more cohesive community. For questions or comments, please contact David Voorhees at dvoorhees@waubonsee.edu

Mastodont Dig in Your Classroom!

Need a new idea for your geology lab or class? Want to have your students do real science? Then you need to take advantage of the Aurora Mastodont Project * Matrix Analysis Project. We will send to you enough sample free (you pay postage when you return it) to have your entire class process screenwash from the 2004 Mastodont dig. After sorting through the screenwash additional paleoenvironmental interpretations can be included as part of the lab. For more information, contact David Voorhees, dvoorhees@waubonsee.edu or go to <http://www.waubonsee.edu/faculty/dvoorhees/MastodontMatrix/index.html>

2012 MESTA - NESTA Joint Conference, Michigan Technological University Houghton, Michigan



2012 MESTA-NESTA Joint Conference

What a gathering! The 2012 Michigan Earth Science Teachers Association Annual Conference was a blazing success. This year's 5-day event was hosted by Michigan Technological University (MTU) in Houghton. There were nine field trip options - everything from underground mine tours and collecting to paleomagnetism, mineral preparations, a day on the Agassiz (MTU's research boat) and lots in between. One report estimated there were at least 80 participants. This was the first time that MESTA, in cooperation with the National Earth Science Teachers Association (NESTA) offered a summer field conference to teachers from across the country.

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(MESTA-NESTA, continued from p. 2)

The Conference kicked off on Wednesday, August 15 with 3-days of field trips. Several trips were offered twice to provide the opportunity for more participants to partake of the popular ones.

All field trips met at 7 AM on the MTU Campus to get organized and head out for the respective trips. Evening events, planned for Wednesday and Thursday, included the A. E. Seaman Mineral Museum (considered one of the best in the world), lectures on Keweenaw Geology and Copper Crystallography and a tour of the Quincy Mine and Hoist House. In addition, special activities were planned for family members and kids attending with MESTA/NESTA members.

After a full day in the field on Friday, the Annual Awards Banquet was held that evening in the MTU Union Building - what a feast! Following presentation of awards, Larry Lankon, well-known author of several books, presented an interesting history of what life was like for early copper miners in the Keweenaw mines. Free and Inexpensive, Rock Shop and the Rock Raffle were set up and available before and after dinner. As usual, shopping was intense!

Saturday (August 18) was dedicated to workshops with another opportunity to check out the Rock Raffle specimens. The presentations were full with conference participants eager to learn new teaching techniques, the latest technical information and another chance to ogle the rocks and presentations in four breakout sessions throughout the day with time to check on the raffle before the drawing late in the afternoon. The Annual Business Meeting was held after a sit-down lunch (a first in MESTA history?) with the election of officers and a very special event. Several members commented on special memories of Dr. Harold (Stoney) Stonehouse during a memorial time honoring his dedication and the critical role he played in the organization.

The Conference concluded on Sunday with an optional field trip in the Marquette region featuring a visit to the Tilden Mine. After viewing the open pit operation from an observation site the Chief Geologist, Glenn Scott, guided participants through the processing plant where iron ore is concentrated and converted into pellets. The group also visited old standby outcrop locations including Jasper Knob and the Kona pillow lavas along US 41. One fascinating stop (new to me) was to observe rocks associated with the Sudbury Impact Event recently identified in the Precambrian rocks of Michigan.

This year's Annual Conference was arranged and organized by MESTA President Chuck Schepke with the assistance of many other MESTA members. As noted, the Michigan Tech Geology Department hosted the event and provided several faculty members assisted by a number of graduate students. Special thanks goes to Bill Rose (Geology Department), Richard Whiteman (Red Metals Exploration), Ted Bornhorst and John Jaszczak (Seaman Mineral Museum), Aleksey Amirnov and Kari Anderson (paleomagnetism), Marty Auer (Agassz), Ken Flood (Keweenaw Gem and Mineral) and Tim Scarlet (Cliff Mine Archaeology).



Chuck Schepke holding the huge Ammonite cephalopod he won during the final raffle item honoring Harold (Stoney) Stonehouse at the conclusion of the rock raffle.



Quincy Mine Head frame and Hoist site at the Keweenaw National Historical Park along of US 41 just north of Hancock, MI.



Conference participants at on a massive ridge of the Copper Harbor

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Ardis Harrold collecting minerals at a mine dump near the Caledonia Mine.

Report and images by K R. Cranson, reprinted from MESTA newsletter, Summer 2012, with permission

Tri-State Geologic Field Conference: There is no Tri-State Geologic Field Conference scheduled for 2012.

There are no OEST Awardees for 2012! **Outstanding Earth Science Teacher (OEST) Award** **– Call for Nominations**

Nominations for the OEST award are being accepted during this year. Please take the time to nominate a deserving teacher in your state or encourage them to nominate themselves. If you have any questions or need additional information, contact Beth Johnson (beth.a.johnson@uwc.edu). All nominations must be submitted online at the NAGT website, <http://nagt.org/nagt/programs/oest.html>. The deadline for 2013 OEST Award is May 15th.

NAGT: New Memberships or Renewals

New or renewing members may find the application form at: <http://nagt.org/nagt/membership/index.html>

ANNOUNCING Dorothy LaLonde Stout NAGT PROFESSIONAL DEVELOPMENT GRANTS



In honor of Dottie Stout's outstanding work and lifelong dedication to Earth science Education, NAGT will award three grants in support of the following activities:

- Participation in Earth science classes or workshops
- Attendance at professional scientific or science education meetings
- Participation in Earth science field trips
- Purchase of Earth science materials for classroom use

One grant of \$500 will be awarded to a Community College Faculty

One grant of \$500 will be awarded to a Community College Student

One grant of \$500 will be awarded to a K-12 Educator

Eligibility: Community College Faculty and K-12 teachers who teach one or more Earth science courses and Community College students actively pursuing a career in the Earth sciences are encouraged to apply for these awards.

Application Process: Interested applicants are asked to submit a 1-2 page proposal describing how the grant will be used to support their professional growth in, or classroom teaching of Earth science. The application may be found at <http://nagt.org/nagt/programs/stout.html>.

Applications must be received by April 1 with awards being made by April 15th.

Central Section NAGT Business Meeting Fee Application

(available to K-14 professionals)



The North-Central NAGT section may pay the cost of the section NAGT business luncheon to K-14 professionals (NAGT members and non-members) who

- a) cannot afford the cost themselves, and
- b) make a presentation on any topic at the NC GSA conference that year.

Name (*please print*) _____

Mailing Address _____

City _____ State/Province _____ Zip/Postal Code _____ Country _____

Phone (_____) _____ Fax (_____) _____ E-mail _____

Check one: ☐ College Faculty *at* _____

☐ Teacher *at* _____

☐ Other *at* _____

Date of North-Central GSA meeting: _____

Name of presentation at meeting: _____

Description of presentation:

Mail to:

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