



GSA 1999 ANNUAL MEETING, DENVER

down to

EARTH

Thursday, October 28, 1999

“Creationism and evolution—they’re just both theories, aren’t they?”

Geology and Public Policy Forum

To a standing-room only crowd, geoscientists from different backgrounds discussed the Creationism vs. Evolution debate, ignited most recently by the Kansas School Board. Creationism vs. Evolution in the Classroom, covered lots of bases and touched nerves in the attentive audience.



Don Wise of Franklin and Marshall College reminded geoscientists that they have two major things going for their view: The concept of Deep Time and the fossil record. Wise advised his

listeners to avoid defensiveness with creationists, to work to expose their methods, and, echoing a theme heard throughout this 1999 GSA Meeting, to avoid ivory tower isolation.

Eugenie Scott of the National Center for Science Education laid out the methods of the very few “intelligent design-theory”

Ph.D. scientists that work for creationist ends. She noted that the American public is confused about what evolution means, noting that when she explained its simple tenants to a teenager once, the girl said,

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THE CONCLUDING PARDEE KEYNOTE SESSIONS

Both sessions are in Ballroom 2 and 3 on Thursday.

8:00 a.m.

New Insights on Organic Metamorphism in the Earth (Session 187)

Organic compounds persist at much higher temperatures and pressures than generally thought. Analytical, theoretical, and experimental studies are revealing the reversibility of organic reactions and the pathways through which metastable equilibrium states are reached. This symposium presents evidence that requires rethinking organic geochemical processes throughout the crust and upper mantle.

1:30 p.m.

Human Transformation of the Physical Landscape (Session 210)

Agriculture, grazing, mining, deforestation, and urbanism cause profound changes to Earth’s topography, geochemistry, soil, and sediment budget. Human activities move more sediment per year than all other processes. Soil erosion impacts both biologic productivity and global climate by changing the carbon cycle, the hydrologic cycle, and eolian dust flux. This symposium will integrate millennial-scale lessons of landscape degradation and conservation into the discussion of modern landscape transformation.



It’s Still Hot!

Don’t miss the final “Hot Topics” session of the 1999 Annual Meeting

Evolution and Creationism in the Classroom: The Kansas Decision

Thursday, October 28

12:15 – 1:15 p.m. in A207

This session focuses on the recent decision of the Kansas State Board of Education to discourage the teaching of evolution by removing the topic from state education standards.

How can the citizen-scientist “weigh-in” on the evolution-creation controversy in their state or community?

How can the geoscience community effectively engage in this struggle?

Addressing these questions will be Lee Allison, Kansas Geological Survey; David Dunn, University of Texas at Dallas; Leslie McFadden, University of New Mexico; and Donald Wise, Franklin and Marshall College.

(Note: This is a change from the “Hot Topics” session as printed in the Annual Meeting Program)

RENO SUMMIT IN 2000

As GSA's 1999 Annual Meeting winds down, it's time to gear up for 2000. "Summit 2000" is the theme of next year's conference to be held November 13–16 in Reno, Nevada, near the boundary between the Sierra Nevada Range and the Great Basin.

While the Reno-Tahoe area is a well known recreational and entertainment mecca, it also offers opportunities to view diverse geologic phenomena. Well-exposed examples of ancient and modern tectonic systems, ranging from plate boundaries to continental interiors, are within close proximity of Reno. There are outstanding opportunities to feature field trips of interest to all geoscientists.

Attractive housing rates of \$50 – \$99 per night have been arranged with Reno hotels.

Summit 2000 will emphasize the multidisciplinary nature of the chemical, physical, and biological subdisciplines within geoscience. We'll explore opportunities for earth science research and education via the World Wide Web. We will also emphasize the importance of earth science and society, earth science education, and the balance of resource needs with environmental preservation.

Some deadlines have been established for Summit 2000:

January 10 – Proposals due. Firm deadline of midnight Mountain Standard Time. Electronic submission required.

March 1 – Paper copy of abstract forms available from GSA. Contact Nancy Carlson, 303-446-8850, ext. 161, or ncarlson@geosociety.org

May 1 – Electronic abstract form will be on GSA's Home Page, <http://www.geosociety.org>, for active submission.

July 25 – Paper submission deadline. Firm deadline for original and five copies due at GSA. Paper abstracts will not be accepted after this date.

August 1 – Electronic Abstracts deadline. Electronic copies accepted until midnight Mountain Standard Time.

August 12 – Schedule finalized.

September 1 – All accepted abstracts will be on the Web after September 1. All speakers and titles will be linked to individual abstracts.

Program Changes

Cancellations: Thursday, Session 178, Linse, Angela; Session 205 (Booth 20), Garland, B. Nicholas; Session 209, Roach, Andrew F..

GSA Headquarters will be open in the Exhibit Hall on Thursday from 9:00 a.m. to 2:00 p.m.

Free coffee and doughnuts when the doors open — as long as they last!


T.A.C.*

*Thursday Afternoon Club

3:30 – 5:00 p.m.

Networking Lounge

Poster Area – Exhibit Hall

One free beer when you turn in your badge!

Senior Fellows Reception



GSA Executive Director and CEO Sara Foland (standing) chats with Clare B. Davidson (right), a GSA Foundation trustee who is retired from the USGS, and Joanne Young Brophy of Amherst College in Massachusetts.



Kelly Newman Moore, GSA's 1999 National Park Service intern, and her husband, Matt E. Moore (left), chat with Orrin H. Pilkey of Duke University at the GSA Foundation's Senior Fellows reception. Ms. Moore, a geology student at the University of North Alabama, praised the internship program and said her summer assignment at Florissant Fossil Beds National Monument in Colorado convinced her to pursue a geoscience teaching career.

"I'll have the Strata
Surprise with
everything on it!"

If only getting results from field-work were that easy! Once in a while, though, serendipity works in favor the the dedicated geologist and surprising discoveries turn up where least expected.

The same thing can happen at the GSA Annual Meeting, where fascinating talks await the alert attendee at every turn. Here's a tip: Check out Paleontology VII: Extinctions, Recoveries, and Paleobiogeography (Session 206, Thursday, 1:30–5:00 p.m., A207–209) for the scoop on recently discovered evidence of tsunamis in South Dakota, opportunistic microgas-tropods, and a gap in Hell Creek that has nothing to do with sweatshirts and jeans.

Squeeze the most out of your Annual Meeting experience. Don't head for home until we start putting the chairs on the tables!

GSA Annual Meeting
Registration Report

6,337

(As of Wednesday afternoon)

Headed for the Airport?

SuperShuttles depart every half-hour from 10:00 a.m. to 6:00 p.m. on Thursday for the drive to Denver International Airport. No advance reservations are required.

If you are departing Denver from your hotel, it is best to check with the front desk regarding shuttle service to DIA.

Pardee Session Recap

Impact Events: Environmental
Consequences and Their Influence
on the Origin and Evolution of Life

David Kring and Steve D'Hondt presided over this session exploring the latest research on impact events. Speakers delved into the consequences for life and the environment when objects collide with Earth, and whether organic material within the projectile could survive such a collision. Much of the research focused on the Chicxulub impact and the K-T boundary, but much is also being learned from laboratory simulations, data on gas and dust from Haley's comet, the collision of the Shoemaker-Levy comet with Jupiter, and data coming back from Mars. New information on what happens during and after a large impact (including long-term effects) can help to determine the safest place for organisms to be in order to survive. As Greg Retaliack pointed out in his talk on the evidence for increased acidification of the environment after such an event, it's a "question of dosage." The level of acidification and an organism's ability to cope with acidity determine survival. So too, the size, shape and angle of descent of the projectile can determine the consequences of its impact and the ability of amino acids to survive within it.

Congressional Science Fellow Stresses Communication with Policy Makers

Making decisions in the face of uncertainty is an activity that geoscientists and policy makers have in common, Kai Anderson, 13th GSA Congressional Science Fellow told the audience at a noon session on Wednesday. Anderson has just ended a year as a science fellow in the office of Sena-

tor Joseph Lieberman (Democrat-Connecticut). The fellows work in congressional offices to provide information related to science issues.

Anderson encouraged geoscientists to participate in the policy process by providing information when it counts.

"Policy-makers DO want to know scientists who can communicate in a way that nonscientists can understand," Anderson said. He noted that the GSA vision statement includes the concepts of science, stewardship, and service. "We're very good at the science," he said, "but we're not there yet in terms of stewardship and service."

Evolution: continued from page 1

"I thought evolution meant that I can't believe in God."

Steve C. Semken of the Dine College, Navajo Nation, New Mexico explained that a native peoples' view of cosmology is not at all incompatible with an evolutionary view, since they accept a notion of Deep Time and are not bothered by the fossil record and its claims for the mutability of species.

John Geissman of University of New Mexico discussed teaching scientific principles to undergraduates who have very little science background and lauded two recent initiatives in New Mexico to promote science in the schools.

M. Lee Allison, who found himself in the middle of the Kansas School Board controversy when he took over as State Geologist in July, explained the local politics of the anti-science "compromise standards" adopted by the board. He noted "This did not have to happen. I don't think that scientists did their job; they should have been out talking to the Rotary Club and not among themselves." Allison said that the election next fall in Kansas will be hotly contested, since four of the six pro-creationist board members are up for re-election at that time.

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THANK YOU, STUDENTS.
IT WAS COOL!

Some 140 undergraduate and graduate geoscience students from the U.S. and Canada helped make the 1999 GSA Annual Meeting a smoother operation. They helped as audio-visual aides in technical sessions and demonstration areas, cashiers and ticket takers at social events, messengers and assistants in the registration area and news room, and helped with check-in at the field trips.

**Last Chance
for the Bookstore**



The GSA Bookstore is open from 9:00 a.m. – 2:00 p.m. Thursday.

Last chance for some Holiday shopping. Shipping is available.

Mark your 2000 Calendar

GSA Annual Meeting –
November 13 –16, Reno, NV

Section Meetings

NORTHEASTERN

March 13–15, New Brunswick, NJ
Information: Robert E. Sheridan
(732) 445-2015
rsheridan@worldnet.att.net

SOUTHEASTERN

March 23–24, Charleston, SC
Information: Michael P. Katuna
(843) 953-5589
katunam@cofc.edu

SOUTH-CENTRAL

April 3–4, Fayetteville, AR
Information: Doy L. Zachry, Jr.
(501) 575-3355
dzachry@comp.uark.edu

NORTH-CENTRAL

April 6–7, Indianapolis, IN
Information: Robert D. Hall
(317) 274-7484
rhall@iupui.edu

ROCKY MOUNTAIN

April 17–18, Missoula, MT
Information: Donald W. Hyndman
(406) 243-2241
dhyndman@selway.umt.edu

CORDILLERAN

April 27–29, Vancouver, BC
Information: Peter S. Mustard
(604) 291-5389
pmustard@sfu.ca