

Atlanta Geological Society Newsletter

Next meeting of the Atlanta Geological Society is
May 25, 2010

Fernbank Museum of Natural History (Clifton Road)
Social begins at 6:30 pm – Meeting begins at 7:00 pm

May 2010

Editor's Prerogative

A couple of issues ago I mused whether the various large earthquakes that the earth has experienced in the last couple of years were related. Not being a seismologist, I made a swag and said that they were probably not directly related. After reading the abstract for this month's presentation, it appears that I may shortly stand corrected.

This month's sponsors are the fine folks at TestAmerica. Look elsewhere in the newsletter for the contact information for Chanell Slaughter, the local service center manager and more information about TestAmerica and their services. The AGS thanks them for their support of this organization.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Remember that next month's meeting is the annual BBQ social. Be thinking of some good door prizes to donate. See you Tuesday.

Ben Bentkowski, Newsletter Editor

www.atlantageologicalsociety.org

The May Meeting

Join us Tuesday, May 25, 2010 at the Fernbank Museum of Natural History, 760 Clifton Road NE, Atlanta GA. The pre meeting social starts at 6:30 pm and the meeting will start at 7 p.m. The speaker for the evening will be Dr. Zhigang Peng, an Assistant Professor at the School of Earth and Atmospheric Sciences of the Georgia Institute of Technology.

The abstract for the presentation is: Recent devastating earthquakes in Haiti, Chile, China and Baja California have led many people wondering whether the current earthquake activity is unusual or these events are somehow linked. In this talk Dr. Peng will focus on the second question, and show some new evidence that seismic waves from large earthquakes could trigger fault movement thousands of miles away.

Look elsewhere in the newsletter for more information about Dr. Peng, the complete abstract and his research.

Short biography of Zhigang Peng

Dr. Zhigang Peng is an Assistant Professor at the School of Earth and Atmospheric Sciences of the Georgia Institute of Technology. He received a B.S. degree in Geophysics from the University of Science and Technology of China in 1998, a M.S. degree in Electric Engineering from the University of Southern California (USC) in 2002, and a Ph.D. degree in Geological Sciences (Seismology) from USC in 2004. His current research focuses on understanding earthquake interaction, slow earthquakes, and active fault zone structures. A more complete CV can be found online at: http://geophysics.eas.gatech.edu/people/zpeng/zpeng_cv.pdf

ABSTRACT FOR MAY 2010 AGS PRESENTATION

Do earthquakes talk to each other at large distance?

Recent devastating earthquakes in Haiti, Chile, China and Baja California have led many people wondering whether the current earthquake activity is unusual or these events are somehow linked. In this talk Dr. Peng will focus on the second question, and show some new evidence that seismic waves from large earthquakes could trigger fault movement thousands of miles away. Examples include subtle fault chatters (known as non-volcanic tremor to seismologists) beneath the mighty San Andreas Fault in California triggered by a magnitude 7.9 earthquake in Alaska in 2002, and the magnitude 9.2 catastrophic earthquake in Sumatra in 2002. In addition, recent earthquakes in Chile and Baja California also triggered small to moderate earthquakes in several geothermal regions in California. The underlying physics behind such remote triggering, and its implications for earthquake hazard assessments will also be discussed.

Dr. Peng's research often focuses on earthquakes in California and Turkey. For more related publications and detailed description of this research, please visit:

<http://geophysics.eas.gatech.edu/people/zpeng/Research/>

or

http://geophysics.eas.gatech.edu/people/zpeng/zpeng_paper/

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DEEPWATER HORIZON NEWS

The Tragic news of the month has to be the evolving disaster in the Gulf of Mexico associated with the British Petroleum/Transocean rig explosion and subsequent oil spill. This event is now over a month old and there are many sources of news. One industry source is the website RIGZONE, a petroleum focused website with a special section that focuses on exploration and production news. It is there that one may learn the latest news such as BP will try a 'top kill' effort to plug the well as early as Tuesday. Interestingly, there was a link to a camera mounted on a remotely operated vehicle that is monitoring the damaged riser. Not all the scenes are dramatic. Sometimes it's just stuff floating by on the current and not the oil streaming out of the broken pipe.

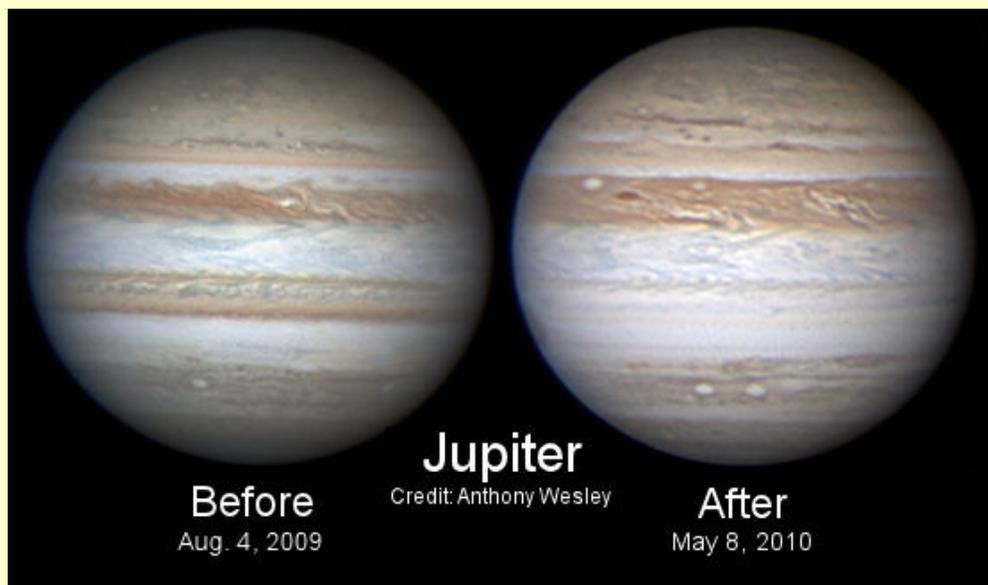
http://www.rigzone.com/news/incident.asp?inc_id=1

http://www.bp.com/liveassets/bp_internet/globalbp/globalbp_uk_english/homepage/STAGIN/G/local_assets/bp_homepage/html/rov_stream.html

Jupiter Looses one of its Stripes!

May 20, 2010: In a development that has transformed the appearance of the solar system's largest planet, one of Jupiter's two main cloud belts has completely disappeared.

"This is a big event," says planetary scientist Glenn Orton of NASA's Jet Propulsion Lab. "We're monitoring the situation closely and do not yet fully understand what's going on."



These side by side images of Jupiter taken by Australian astrophotographer Anthony Wesley show the SEB in August 2009, but not in May 2010. Individual images: [Aug. 4, 2009](#); [May 8, 2010](#).

Known as the South Equatorial Belt (SEB), the brown cloudy band is twice as wide as Earth and more than twenty times as long. The loss of such an enormous "stripe" can be seen with ease halfway across the solar system.

"In any size telescope, or even in large binoculars, Jupiter's signature appearance has always included two broad equatorial belts," says amateur astronomer Anthony Wesley of Australia. "I remember as a child seeing them through my small backyard refractor and it was unmistakable. Anyone who turns their telescope on Jupiter at the moment, however, will see a planet with only one belt--a very strange sight."

Wesley is a veteran observer of Jupiter, famous for his discovery of a comet hitting the planet in 2009. Like many other astronomers, he noticed the belt fading late last year, "but I certainly didn't expect to see it completely disappear," he says. "Jupiter continues to surprise." Orton thinks the belt is not actually gone, but may be just hiding underneath some higher clouds.

http://science.nasa.gov/science-news/science-at-nasa/2010/20may_loststripe/

Fernbank Museum of Natural History
Upcoming Public Programs and Events
 (All programs require reservations, including free programs)

**Fernbank
 Museum of Natural History**

767 Clifton Rd, NE Atlanta, GA
 404-929-6400

For tickets and details on exhibits, films, and events, please visit our website at www.fernbankmuseum.org Follow us on facebook or twitter for the latest news and updates!

On Exhibit:

- *Entrance Plaza, featuring a family of Lophorhynchon dinosaurs*
- *Geckos: From Tails to Toepads*

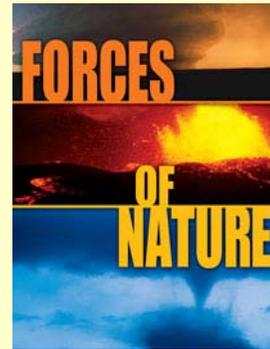
Now Showing in IMAX:
 (Check our website for special screenings)

- *Martinis and IMAX: Friday evenings, 5:30 p.m. – 10 p.m. Arabia and Ride around the World.*

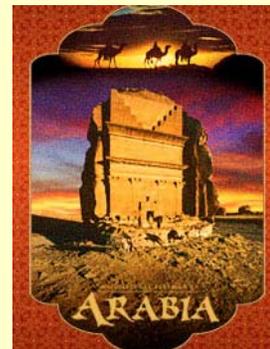
**Now Showing in the Fernbank
 IMAX movie theater:**

(Check our website for special screenings)

• **Daytime Schedule:**



**Final
 Weeks for
 Forces of
 Nature**
 (through
 May 27)



Arabia
 through
 July 29

- **Opening May 28: Bugs: A Rainforest Adventure**

Martinis & IMAX® is presented at the Fernbank Museum of Natural History every Friday evening, January through November; from 5:30 p.m. to 10 p.m. Enjoy no cover charge when you visit us between 5:30 p.m. to 6:30 p.m. This event includes a wine bar, where featured wines can be purchased by the glass and by the bottle. Dinner is also served in the Dining Room, where smaller parties can order chef-prepared dishes-from gourmet pizzas to prime entrées-and dine together in a more intimate and sophisticated setting. Desserts and coffee are available as well.

As always, a full cash bar is offered in the Great Hall where patrons can enjoy a lively atmosphere and musical performances by some of Atlanta's best jazz artists. Bands perform live from 6:30 p.m. to 10 p.m. IMAX® film tickets are \$10. For those who wish to enjoy the atmosphere of Martinis & IMAX® without attending a film presentation, there is a \$5 cover charge after 6:30 p.m. The cover charge is waived for members and patrons who purchase an IMAX® ticket. To purchase tickets in advance, call 404.929.6400.

Fernbank Museum of Natural History

767 Clifton Rd, NE Atlanta, GA 404-929-6400

Special Exhibits On View:

- **Opening on May 28 in the Special Exhibition Hall:**

Geckos: From Tails to Toepads Explore the amazing world of geckos in this collection of more than 15 live gecko species and accompanying interactives and media presentations.

- **Now Open in the Curators' Corner: *DeSoto's Footsteps: New Archeological Evidence from Georgia***

Upcoming Public Programs:

- **Reptile Day.** Saturday, July 10, 10 a.m. – 3 p.m. Included with Museum admission; free for members.
- **Dinosaur Birthday Bash.** Saturday, August 21. 10 a.m. – 2 p.m. Included with Museum admission; free for members.
- **Geckos Family Day.** Sunday, June 6, 1 p.m. – 4 p.m. Included with Museum admission; free for members.



Saturday, June 12 from 8 p.m. to midnight

Hosted by Artemis, Fernbank's guild of young professionals

Live music by Kingsized

Special Appearance by the Dames Aflame

Spectacular Auction

Prize Drawing

Specialty Cocktails

Delicious Cuisine Provided by Proof of the Pudding

Cocktail Attire (Masks Encouraged)

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AGS 2010 Meeting Dates

Listed below are the planned meeting dates for 2009. Please mark your calendar and make plans to attend.

May 25 – Dr. Zhigang Peng, an Assistant Professor at the School of Earth and Atmospheric Sciences of the Georgia Institute of Technology. Do earthquakes talk to each other at large distance?

June 30 – Annual Social – BBQ and IMAX

July – No meeting

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From the Onion, not necessarily news...

Geologists: 'We May Be Slowly Running Out Of Rocks'



RALEIGH, NC—A coalition of geologists are challenging the way we look at global stone reserves, claiming that, unless smarter methods of preservation are developed, mankind will eventually run out of rocks. Geologists theorize that areas like this may have once been filled with rocks. "If we do not stop using them up at our current rate, rocks as we know them will be a thing of the past," renowned geologist Henry Kaiser said at a press conference Tuesday. "Igneous, metamorphic, even sedimentary: all of them could be gone in as little as 500,000 years." "Think about it," Kaiser added. "When was the last time you even saw a boulder?"

The scientists warned that, although people have long considered the world's rock supply to be inexhaustible, it has not created a significant number of new rocks since the planet cooled some 3.5 billion years ago. Moreover, the earth's rocks have been very slowly depleting in the last century due to growing demand for fireplace mantels, rock gardens, gravel, and paperweights. Kaiser claims that humanity has "wreaked havoc" on the earth's stones by picking them up, carrying them around, and displacing them from their natural habitat.

"A rock can take millions of years to form, but it only takes a second for someone to skip a smooth pebble into a lake, and then it is gone." Dr. Kaiser said. "Perhaps these thoughtless rock-skippers don't care if they leave our planet completely devoid of rocks, but what about our children? Don't they deserve the chance to hold a rock and toss it up and down a few times?" Continued Kaiser, "We are on a collision course to a world without rocks."

Geologist Victoria Merrill, who has been at the forefront of the rock conservation battle since 2004, said there are simple steps people can take to reduce their rock consumption. "Only take as many rocks as you absolutely need," said Dr. Merrill, author of the book *No Stone Unturned: Methods For Modern Rock Conservation*. "And once you are finished with your rocks, do not simply huck them into the woods. Place the rock down gently where you found it so that others may look at the rock and enjoy it for years to come."

Geologists: 'We May Be Slowly Running Out Of Rocks' (cont.)

Merrill went on to point out that, even if there were some "magic hole" in the earth's crust that could miraculously spew out rocks every 10 years or so, modern society's obsession with rocks means that we would still run out of them far more quickly than they could be replenished. "Just look at the pet rock craze: In 10 years, millions upon millions of rocks were painted, played with, and discarded like trash," Merrill said. "Looking back, mankind's arrogance and hubris is startling."

But critics of the movement have already begun to surface, claiming that Kaiser and his colleagues are simply preying on people's fears of losing rocks. While acknowledging that we should reduce our dependence on foreign rocks, many have argued that the current rock supply could easily last for the next 2 million years, by which time technology will have advanced enough to allow for the production of endless quantities of cheap, durable basalt. Others who oppose the rock-loss theory claim that rocks were put on the earth to be used by humans in marble statues or kitchen countertops as they see fit.

"Take the Rocky Mountains, for example: There's plenty of rocks right there," Colorado resident Kyle Peters said. "It's our right as Americans to use as many rocks as we need for whatever purposes we decide, and no scientist is going to scare me into thinking otherwise." "This country was built on rocks," he added. "Remember that."

ACTUAL NEWS!

Meteorite that hit Cartersville house to be on display at Tellus

Science Museum

CARTERSVILLE, GA – A meteorite recently discovered in Georgia has a new home at Tellus Science Museum. The meteorite arrived in loud fashion on March 1, 2009 with a sound a neighbor described as a sonic boom. It then tore a hole in the roof of a home in Cartersville, Georgia, before crashing through the ceiling and ending its cosmic journey on a bedroom floor. The house was unoccupied at the time.

The homeowner found the meteorite a few days later, but it wasn't until August of last year that the rock was brought to Tellus Science Museum for identification. "People are constantly bringing things into the museum that they think are meteorites," said Tellus Curator Julian C. Gray. "Curators can go through their entire career and never see a real meteorite come through the door. It is a thrill to be part of the identification of the newest Georgia meteorite."

Membership Application/Information Update Form

Annual membership dues for the Atlanta Geological Society are \$25 for professional membership, \$10 for students, and \$100 for corporate sponsorship (which includes up to 4 professional memberships). For further details, contact the AGS Treasurer:

Stacy Durden
Phone: 770-617-1146
Email: Stacy.Durden@gmail.com

Make checks payable to the "Atlanta Geological Society" and remit with the completed form to:

Atlanta Geological Society
Stacy Durden, Treasurer
2534 Centennial Commons View
Acworth, GA 30102

Name: _____

Organization: _____

Address: _____

Mailing Address: _____

Phone: (Work) _____ (Home) _____ (Cell) _____

Fax: _____

Email 1: _____

Email 2: _____

Ready to Serve the Society?

Remember that although we have officers and various standing committees, it is ultimately the membership that keeps the Atlanta Geological Society active and growing. We have a world of experience within our membership. Please consider volunteering. Your Atlanta Geological Society needs you.