



FOUR CORNERS GEOLOGICAL SOCIETY NEWSLETTER

January 2008

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Four Corners Geological Society

January Meeting and Presentation

DATE: Friday, January 18, 2008

SPEAKER: Dr. Tanya Atwater, Professor of Plate Boundary Behavior, Structure and Evolution of Ocean Spreading Centers, UCSB, Santa Barbara, CA

TOPIC: Plate Tectonics

PLACE: Fort Lewis College, 1000 Rim Drive, Durango, Colorado (970) 247-7010

AGENDA:

5:30 PM- Social Hour, **“Student Memorial Lounge”**, in the College Union Building

6:30 PM- Dinner – New Mexican Buffet

7:30 PM- Presentation

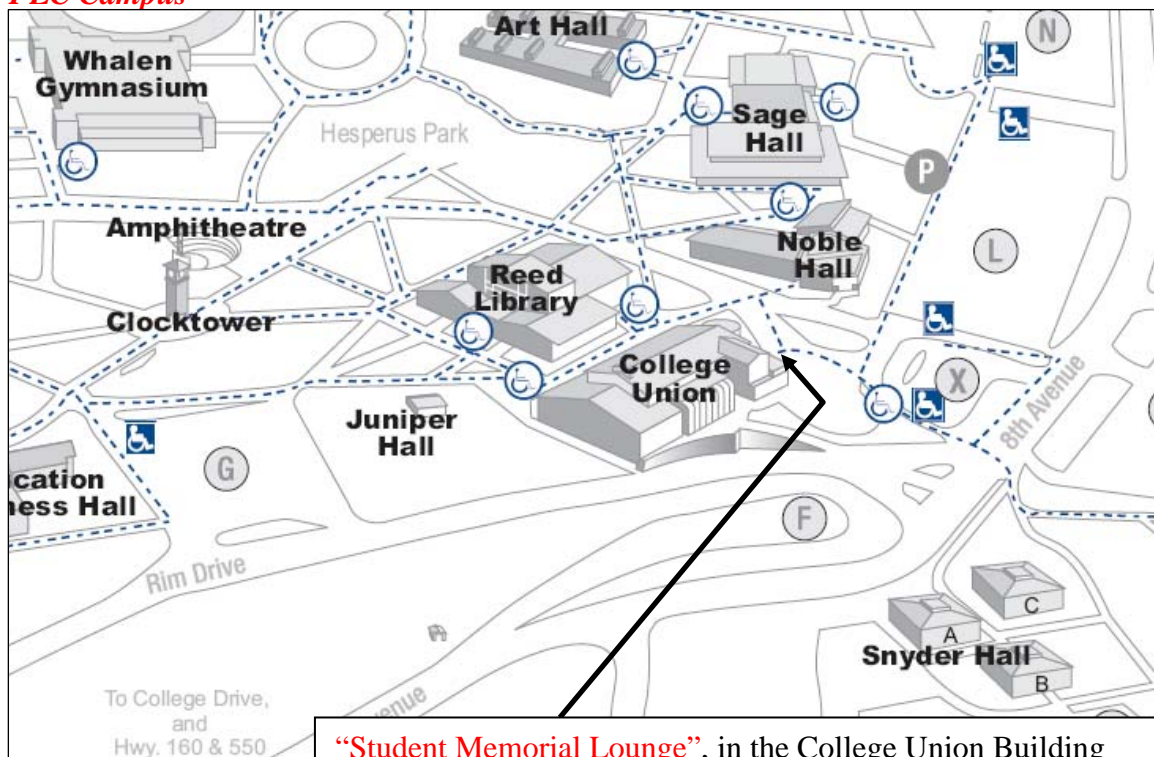
COSTS: \$20.00 per person (dinner and talk), \$2.00 per person (talk only), student’s free (talk only)

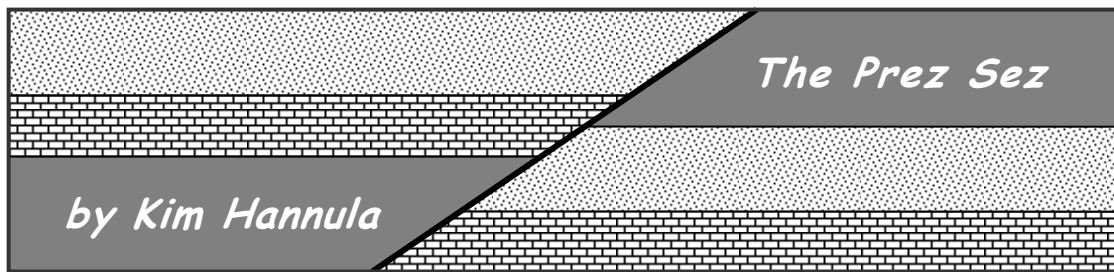
Reservations for this months meeting and presentation should be made by Wednesday, Jan. 16.

Farmington Contact: Chip Head – email: chip.f.head@conocophillips.com phone: (505) 326-9772

Durango Contact: Kim Hannula – email: hannula_k@fortlewis.edu phone: (970) 247-7463

FLC Campus





Happy New Year! I hope everyone in FCGS enjoyed the holidays, and I hope 2008 is starting well for you, and that you are enjoying the snow.

I'm very excited about Dr. Tanya Atwater's visit this month. It isn't every month that we have a speaker whose work I discuss in more than one class! Dr. Atwater has worked on plate tectonics, the development of oceanic spreading centers, and the tectonic evolution of western North America, and her 1970 paper relating ocean-floor magnetic anomalies to the development of the San Andreas Fault is a classic. She will be spending all day on Friday, January 18, at Fort Lewis - if you are interested in meeting with her during the day, contact Kim Hannula (Hannula_k@fortlewis.edu, or 970-247-7463) to find out more about her schedule. The Fort Lewis College Geology Club will be taking her to dinner on Thursday night. Students should contact Kim Hannula or the Geology Club officers for more information.

Kim



**Dr. Tanya Atwater, Professor of Plate Boundary Behavior, Structure and Evolution
of Ocean Spreading Centers, UCSB, Santa Barbara, CA**

<http://www.geol.ucsb.edu/faculty/atwater/>

I feel a profound delight in, love for, reverence for the natural world. My parents gave me this gift of passion and my goal is to pass it on to as many minds as I possibly can. I believe that caring involves deep familiarity and understanding. Thus, my job as a



geoscience educator is to help as many students as possible to know and understand and respect our planet, i.e., to help them really care about it and act on their caring. In lecture, I used to think I wasn't a good scientist if I admitted my passion. No more. In the last few years I have adopted a style of expressing my delight along with sharing why I'm delighted - the intricate order and sense (and, sometimes, irony) of how things work - wonderful!

I work in geophysics and geology, driven by a passion for maps and landforms, exploring many aspects of the theory of plate tectonics. At sea, I work with various groups on ships and in the submersible Alvin, characterizing the details of sea floor spreading centers (the lines along which all the ocean floors were created). I also contribute to the global oceanic data set and, using it, quantitatively describe the past motions of the world's plates.



On the land, I have concentrated on the tectonic evolution of western North America. During the last 100 million years this continental edge was first a major subduction zone and then changed, gradually, to the plate-shear boundary of the San Andreas fault. I study this geometric evolution, integrating and comparing the global plate motion record with the regional continental geologic records. The emerging relationships reveal the origins of many major geologic features (e.g., Rocky Mountains, Yellowstone, Death Valley, Cascade volcanoes, California Coast Ranges).

A vital part of my research effort concerns communication and education at all levels. I am embarked upon several projects experimenting with ways to use the power of electronic multi-media to enhance geologic visualization, understanding, and caring.



General Announcements/News from other Geo-Societies

2010 AAPG-RMS Meeting – Update, Theme and Logo Contest *Kim Gerhardt*

The Four Corners Geological Society voted last spring to host the Rocky Mountain Section meeting of the American Association of Petroleum Geologists in 2010. If you weren't aware of it, the FCGS is a member society of AAPG-RMS. We receive a number of benefits from this arrangement including reimbursement for the expenses of Distinguished Lecturers, free advertising in the Explorer once a year, representation on the AAPG House of Delegates, the opportunity to nominate outstanding Earth Science teachers to receive a monetary award, and a check for about 1.0% of the proceeds from the section meeting regardless of where it's held. In 2005 we received \$1,096 and in 2006 we received \$763 just for being a member society. As the host society we will be able to keep 40% of the proceeds, which will be much more lucrative for us.

The members of the steering committee are: Ed Heath, Chip Head, Tom Ann Casey, Steve Hayden, Dave Gonzales, Bob Owen, Kim Gerhardt and Jim Fassett. Kim and Jim were voted co-chairs with Kim handling the logistics side and Jim dealing with the technical program. In August of 2006, the committee determined that the meeting will be held from **Sunday, June 13 through Tuesday, June 15th, 2010 at Fort Lewis College** in Durango. The committee met again at the FCGS picnic this summer and discussed ideas for the technical program, logistics issues from other meetings and formation of convention committees. The Utah Geological Society, which hosted the recent AAPG-RMS meeting at Snowbird, formed fifteen committees to manage the event. These oversaw: finance, technical program, short courses, field trips, exhibit hall, publicity, registration, awards, judging, guest activities, social events, volunteers, sponsorship, convention signs, and "Rocks in Your Head". Kim Gerhardt, Tom Ann Casey and Ed Heath attended this meeting and came back with lots of ideas for FCGS. Jim Fassett, Gary Gianniny and probably several other FLC faculty attended the October GSA meeting in Denver and will contribute their observations as well.

It is customary for the host society to come up with a theme for the meeting and a graphic logo to use in advertising. For example, the 2008 AAPG-RMS meeting, which will be hosted by the Rocky Mountain Association of Geologists in Denver in collaboration with the Colorado Oil and Gas Association, is being advertised as the "Rocky Mountain Energy Epicenter" with a logo of a mountainous skyline. The Snowbird Meeting was called the "56th Annual Rocky Mountain Rendezvous" and the logo was simply that of

the Utah Geological Association. Outgoing AAPG-RMS President, Steve Schamel, assured me that we could just continue that format, using “59th Annual Rocky Mountain Rendezvous” and the FCGS logo for our meeting. However, the steering committee wants to allow members the chance to contribute their own ideas in the form of a **Theme and Logo Contest**. Please send your ideas to Kim Gerhardt, at kd@mydurango.net, by January, 2008. The winner will be picked by the steering committee and will receive one of our publications free of charge. We already came up with, “The Unconventional becomes Conventional” leading to, “The Unconventional Convention”, then, “Steaming into Durango – Between the Mountains and the Basin” with a train logo, and finally, “Big Waves, Big Rocks, Big Cliffs, Big Fun”. Can you guess which idea was Tom Ann’s?

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AAPG Winter Education Conference will be held February 11-15, 2008, in Houston, Texas. Hosted by the Norris Conference Center, 9999 Richmond Ave., Suite 102, Houston, Texas 77042. 713-780-9300; Fax: 713-780-9490. Special AAPG Group Rates at nearby hotels. For registration and information: Toll-free (US and Canada) 888-338-3387, or 918-560-2650; Fax: 918-560-2678; e-mail: educate@aapg.org. Download a registration form at: <http://www.aapg.org/education/wec.cfm>

The **AAPG Annual Convention** and Exhibition will be held in San Antonio, Texas April 20-23, 2008. This will include oral and poster presentations, exhibiting companies, daily networking events, and focused pre- and post-conference workshops, courses, and field trips. For information go to www.aapg.org/sanantonio

AAPG and the Colorado Oil and Gas Association will present the “*Rocky Mountain Energy Epicenter*” at the Colorado Convention Center, July 9-11, 2008. The Energy Epicenter theme recognizes the fact that the Rocky Mountains combine all critical aspects of unconventional oil and gas plays in the context of intense land-use and marketing issues that influence the economy of this country. There is a call for abstracts with the deadline of January 15, 2008. For more information visit www.rms-aapg.org.

NAPE is pleased to bring to NAPE EXPO 2008 the International Pavilion. “Visit the World” and make contacts with energy ministers, state licensing authorities, national oil company executives and key players from international oil companies. February 7-9, 2008. For more information go to www.internationalpavilion.com.

AAPG announces the global forum to buy, sell and promote international upstream deals at the *London 2008 APPEX prospect and property expo*, March 5-7, at the Business Design Centre, London. Register at www.aapg.org/appex

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UPSTREAM ENERGY CONSULTANTS, LLC Geology, Geophysics, Reservoir & Economic Analysis 970-731-2908	
60 JJ Junction Pagosa Springs, CO 81147	Cell: 970-946-5787 dgrey1129centurytel.net

PTTC Technology Connections of the Rocky Mountain Region presents the following upcoming workshops: *Putting it all Together – Optimizing Fracture Design*, January 23, 2008, *Seismic Imaging of Carbonate Reservoirs and Seals – Exploration and Production Applications*, March 20 and 21, 2008. *Crash Course in Log Analysis*, April 4, 2008. To register online, go to www.pttcrockies.org. For more information, contact Mary Carr, 303-273-3107, mcarr@mines.edu.

RMAG will hold the following short courses: John Lorenz of Geoflight, LLC will teach “*Fractures and Geomechanics*” January 16, 2008.

The **RMAG/Denver Geophysical Society 3D Seismic Symposium** will be held March 17, 2008 at the Marriot Hotel, Denver. More information on these two events will be posted on the RMAG website at www.rmag.org.

RMAG is pleased to announce the launch of a ***PUBLIC ISSUES web site*** in January 2008. You will access the new site through a link found on the RMAG web site home page. There are three categories for navigating the site: 1) Time sensitive for current material that needs immediate response or action; 2) General information; and 3) Links for additional information on key issues. Authors who are interested should submit a title and short description or abstract by January 31, 2008. Submit an electronic copy and contact information to any of the following editors: Donna Anderson (EOG Resources and CSM; dsanders@mines.edu), Edmund R. Gustason (El Paso E & P Company; edmund.gustason@elpaso.com), and Mark Longman (Questar E & P; mark.longman@questar.com). The UGA co-editor is Craig Morgan with the Utah Geological Survey (craigmorgan@utah.gov).

The **RMAG/DGS Geoland Ski Trip** will be held March 7, 2008 in Beaver Creek, Colorado. Registration forms can be found on the RMAG web site.

The **RMAG and the Utah Geological Association** plan to combine forces to publish a 2008 Symposium focused on various aspects of stratigraphy, structure, hydrocarbon systems, reservoir case histories, and field development in the Uinta Basin. A call for papers is therefore issued.

The **WYOMING GEOLOGICAL ASSOCIATION** invites you to meet in the Gem City of Laramie, Wyoming for the 2008 Annual Field Conference, September 3-7, 2008, "Black Gold, Diamonds in the Rough, and Other Gems." The WGA is soliciting presentations on topics relevant to the conference for presentation September 4 and 5, 2008. Deadline for abstracts is April 15, 2008. The range of subjects includes economic and general geology of southeastern Wyoming. Abstracts should be e-mailed to Alan Thompson at alan@goolsbyfinley.com. Phone 307-266-3199. The WGA website is www.wyogeo.org.

The **'YELLOWSTONE INSTITUTE'** is an educational program offering short courses, 1 to 5 days long, taught by experts in their respective fields. Courses are offered the year around. The Institute is head-quartered at the old Buffalo ranger station in the Lamar River Valley.





Four Corners Geological Society

MEMBERSHIP RENEWAL or APPLICATION for 2008

PAGE 1

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Please Identify a Membership Category:

- | | | | |
|--------------------------|---------------------------|----------------|--|
| <input type="checkbox"/> | ACTIVE MEMBER 1 | \$20.00 | Person holding a degree in geology or an allied science and receiving the FCGS Newsletter via <u>email</u> |
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Year you expect to graduate: _____ |

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MEMBERSHIP RENEWAL or APPLICATION for 2008 PAGE 2

My professional interests are:

I would like to include a Tax Deductible Contribution to the Four Corners Geological Society Foundation.

Amount of Donation: _____
(Please include a separate check made payable to the Foundation.)

In Memory of (optional): _____

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SIGNATURE: _____ DATE: _____

The dues year begins on January 1.
For dues paid after March 1, add a \$5 late fee (does not apply to new members).

Please print, complete and return **both pages** of this form with your check for dues made payable to:

**Four Corners Geological Society
P.O. Box 1501,
Durango, CO 81302**

Advertising rates for the Four Corners Geological Society newsletter:

Full Page Ad (7½" x 9½") \$100/mo. or \$1000/yr. Half Page Ad (7½" x 4½") \$50/mo. or \$500/yr.
¼ Page Ad (3½" x 4½") \$25/mo. or \$250/yr. Business Card (3½" x 2") \$10/mo. or 100/yr.

Odd sizes are \$3.50 per column inch per month, minimum \$10.00

For more information, please contact the FCGS Treasurer. Proceeds will go toward the further development of the Society (i.e., offset meeting costs, publications, etc.).

Four Corners Geological Society

P.O. Box 1501, Durango, CO 81302

www.fourcornersgeologicalsociety.org

2007-08 Officers

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