STRUCTURAL GEOLOGY AND TECTONICS DIVISION Newsletter

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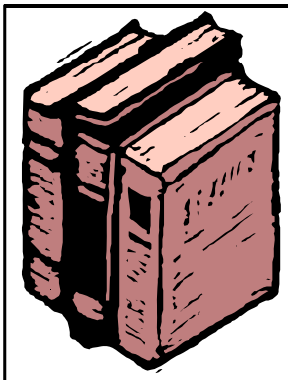


CHAIRS'S MESSAGE

Chair's Message

2010 marked the 30th Anniversary of the Structural Geology and Tectonics Division, and we had a great celebration at the annual meeting in Denver. I want to thank all of you who helped to make it a memorable event! 2010 was a busy year for the Board, and below I want to report briefly on some of our initiatives.

1. New award plaques. Handsome new plaques for the Outstanding Publication Award and Career Contribution Award were unveiled at the annual meeting in Denver. Recipients of the OPA now receive an 8x10 inch solid aluminum plaque, and the recipient of the CCA receives a 6x10 inch solid bronze plaque. More information about these awards can be found below.

2. New Laubach Award. In addition to the new award plaques, SG&T and the Sedimentary Geology Division now jointly select the annual recipient of the ***Stephen E. Laubach Structural Diagenesis Research Award.*** This award was given for the first time in 2010 at the Denver meeting to Christopher Thissen, PhD Candidate at Yale University. Ann Laubach attended the 30th Anniversary Symposium and personally gave Christopher the award. More information about this award can be found below.

3. SG&T Student Fund. The Structural Geology and Tectonics Division Student Fund is a GSA Foundation fund that will be used to support student research and travel to field trips and short courses. This is the division's first GSA foundation fund and in just one year it has grown to approximately $30,000. Our hope is to get the fund to $80,000 before we begin to use the interest it generates, so please consider making a donation! During the 30th Anniversary Symposium in Denver we were providing caps and water bottles to people who donated at least $40. We took in nearly $2,000 through these offerings. We were also selling Rite-in-the-Rain field books with the 30th Anniversary SG&T logo on them, and have nearly recovered our initial outlay, having sold around 300 of the 600 books we purchased. The proceeds from the donations and field book sales will soon be transferred into the student fund. Thanks to all of you who made a donation or a purchase! More information about the fund and how you can contribute can be found below.

4. SG&T Keynote Lecturer. While we celebrate accomplished careers and great publications in our division awards, we wanted to add a mechanism for showcasing exciting on-going research being conducted by early- to mid-career members of SG&T. We had 2 inaugural Keynote Lecturers at the Denver meeting (Gary Axen and Kate Huntington), and based on the many positive comments received we have decided to make this an annual event. So, please watch for the Keynote Lecture this year in Minneapolis! It will be associated with one of the topical sessions sponsored by SG&T.

5. Increase in dues. The division spends most of its money each year directly supporting the activities of its members. Examples include a large contribution to the GSA student research grants pool, SG&T student research awards, plaques for the OPA and CCA Awards, student travel subsidies for various meetings, financial assistance for structure/tectonics sessions at various meetings, food and refreshments at the annual business meeting, etc. It has become difficult to meet these obligations in a meaningful way, and a small increase in our annual dues would make a big difference in what we are able to do. It has been a long while since the division raised it dues, so it was decided at the Management Board meeting in Denver that we would pursue an increase this year. Dues for all the GSA Divisions are here: http://www.geosociety.org/members/joindiv.htm. At 3 dollars for students and 8 dollars for professional members, SG&T is on the low end. Our initial thought is to bring the dues in line with the new Mineralogy, Geochemistry, Petrology and Volcanology Division, which would mean going to 5 dollars for students and 10 dollars for professional members. This will require a vote of the membership, so you will be hearing more from us on that. We would welcome your input on this topic.

On a different note, Mary Hubbard has decided that she will step down this year from the position of Secretary/Treasurer of the Division after serving for 4 years. I want to thank Mary for her service, and let all of you know that ***this year we will be seeking to fill 2 positions: Second Vice Chair, and Secretary/Treasurer.*** If you would like to be considered for one of these positions, please email Michele Cooke (cooke@geo.umass.edu) who is chairing the Nominating Committee. Serving on the Board is a rewarding experience, so please consider putting your hat in the ring!

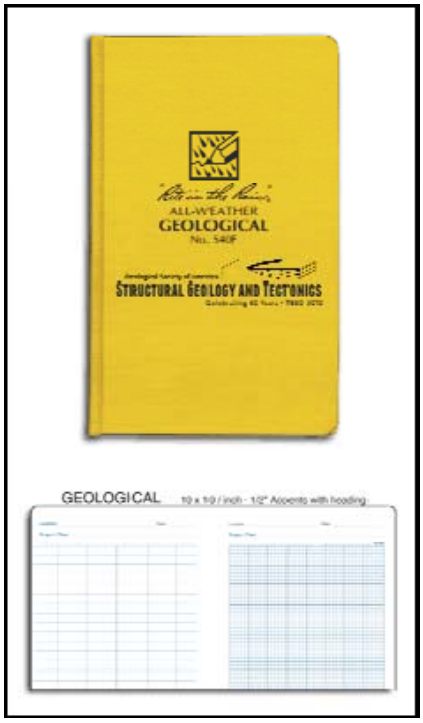
Finally, I want to extend my heart-felt thanks to the outgoing Division Chair, Michele Cooke. Over the past 3 years Michele has been a real champion for the division, going way above and beyond the call of duty. She spearheaded most of the new initiatives discussed above, along with a number of others that I have not mentioned. She also worked tirelessly preparing for the 30th Anniversary Symposium, which, as a result, was a huge success. The division is on a new path, with renewed energy, and Michele deserves much of the credit for that. If you know Michele, please send her an email and say "thanks"!

Best wishes to all of you for 2011.

Scott Johnson
Chair, SG&T Division

The SG&T Division Student Fund

Students represent the future of our division, and the board considers the support of students who are interested in structural geology and tectonics to be among our highest priorities. The student fund, established within the GSA Foundation, will allow us to more effectively meet this priority. Our initial goal is to grow the fund to $80,000 before tapping it. The interest from this amount, even in bad economic times, will provide more support for students than the division has ever been able to offer. The fund currently stands at around $30,000, so we have a ways to go before realizing our goal. ***Please help***. You can donate to the fund at the GSA Foundation web site (http://www.gsafweb.org/makeadonation.html and then scroll down to SG&T Student Fund). Another way to support the SG&T student fund is to buy commemorative Rite-in-the-Rain field notebooks from the GSA store on-line (http://www.geosociety.org/bookstore/ - product code SGTRITR). Approximately $7 from every book sale will go to the student fund.



CALL FOR NOMINATIONS

Outstanding Publication Award (Nomination deadline -- March 1, 2011):

This award is given annually for a published work (paper, book, or map) of exceptional distinction that clearly advances the science of structural geology or tectonics. In 2010, the award went to Leigh Royden, Clark Burchfiel and Rob van der Hilst for their work on the Tibetan Plateau.

The Outstanding Publication Award is not limited to members of the Division or the Society, and awardees may be single or multiple authors, with no restrictions as to nationality, citizenship, publisher or publishing agency. The award may not be given posthumously unless the decision to give the award is made before the death of the awardee(s).

The award committee depends on participation by the membership of GSA and of the Division to make this a successful the award, so please take a few minutes to give your favorite papers some thought and nominate one that you think is outstanding. Nominations remaining from previous years will be reconsidered by the committee on a yearly basis.

Nominations should include the following information:

(1) A full citation: author[s], title, date, journal or book (with publisher), volume number, and page numbers.

(2) Statement in support of nomination (particularly comment on the exceptional achievement or significance of the publication; additional supporting material such as letters, published discussions, or reviews may be included).

(3) Name and address of nominator.

Please mail or e-mail nominations (or questions) to:

Arlo Weil, Department of Geology, Bryn Mawr College, 101 North Merion Avenue, Bryn Mawr, PA 19010 USA. Phone: (610) 526-5113 e-mail: aweil@brynmawr.edu

CALL FOR NOMINATIONS

Career Contribution Award (Nomination deadline -- March 10, 2011):

This award will be given for the 24th time in 2011. It is awarded to an individual who throughout his/her career has made numerous distinguished contributions that have clearly advanced the science of structural geology or tectonics. In 2010 the award went to George H. Davis.

Nominees need not be citizens or residents of the United States, and membership in the Geological Society of America is not required. The Career Contribution Award cannot be given posthumously, unless the decision to give it was made before the death of the awardee. All nominations will be held under consideration for a period of three years, after which time they will be retired. A new nomination for the same individual can be submitted after the previous nomination is retired. A list of past awardees is provided below.

Nominations should include the following information:

(1) Name of nominee, present institutional affiliation and address.
(2) Summary statement of nominee's major career contributions to the science of structural geology and tectonics.
(3) Selected key published works of the nominee.
(4) Name and address of nominator.

Mail or e-mail nominations (or questions) to:

Peter DeCelles
Department of Geosciences
University of Arizona
Gould-Simpson Building #77
1040 E. 4th St.
Tuscon, AZ 85721 USA
Phone: (520) 621-4910
decelles@email.arizona.edu

CALL FOR PROPOSALS

Stephen E. Laubach Structural Diagenesis Research Award (Proposal deadline - April 15, 2011):

The ***Stephen E. Laubach Structural Diagenesis Research Award Fund*** promotes research combining structural geology and diagenesis, and curriculum development in structural diagenesis. The donors believe multidisciplinary approaches often reveal new insights into long-standing problems and expose productive avenues for enquiry. To help promote the cross disciplinary emphasis of this annual award, the *Sedimentary Geology* and *Structural Geology & Tectonics Divisions* have been designated to jointly select the recipient. In 2010 the inaugural award went to Christopher Thissen, Ph.D. student at Yale University. Graduate students, postgraduate and faculty level researchers are eligible.

This award addresses the rapidly growing recognition that fracturing, cement precipitation and dissolution, evolving rock mechanical properties and other structural diagenetic processes can govern recovery of resources and sequestration of material in deeply buried, diagenetically altered and fractured sedimentary rocks. The award highlights the growing need to break down disciplinary boundaries between structural geology and sedimentary petrology, exemplified by the work of Dr. Stephen Laubach and colleagues. The award will be announced during the 2011 GSA Annual Meeting.

Application Instructions for the *Stephen E. Laubach Structural Diageneis Research Award*

Your completed application should include:

1. A title page with the information listed below
2. <5 page double spaced proposal (excluding references and figures)
3. Recent curriculum vitae (< 2 pages)
4. Proposed budget page (we anticipate giving one award of $2500 in the coming year)

Information for the title page:

1. Name
2. Mailing Address
3. Email
4. Position (MS, PhD, postdoc, Assist. Prof, Assoc. Prof, Prof).
5. Academic Institution.
6. Other agencies that: (i) have supported this project; (ii) are supporting this project; or (iii) are being applied to. Include title, dates and level of support.
7. Project title
8. Justification: Explain how this proposal fits the purpose of the Stephen E. Laubach Structural Diagenesis Award (<100 words)
9. Abstract of proposed work (<250 words)

Email a PDF version of the complete proposal to John M. Holbrook (holbrook@uta.edu)
Chair, Sedimentary Geology Division, GSA

Photos from the 30th Anniversary celebration in Denver

The Division celebrated its 30th Anniversary at the annual meeting in Denver, and we got some pretty good photos! We include a few below, and others can be seen on the Division's Facebook site.


Terry
Pavlis

Notes from the NSF Tectonics Program

David Fountain and Stephen Harlan, Program Directors

Changes in the Tectonics Program

This summer, Jim Dunlap completed his term as a rotator in the program. Steve Harlan, who was serving as Program Director for the Deep Earth Processes Section, moved into the Program on a permanent basis. As you may recall, Steve was rotator in the program from 2003 to 2006, so he is quite familiar and experienced with the program and its portfolio.

Recent Activities in the Tectonics Program

This year seemed to be the year of the RAPID response awards at NSF. The Earth Sciences Division, in particular, was heavily involved in funding of many projects related to the 12 January Haiti earthquake, the 27 February Maule (Chile), earthquake, the 4 April Mayor-Cucapah (Baja) earthquake, the Eyjafjallajökull eruption in April and May, and, to a lesser extent, the Gulf Coast oil spill. The Division made 18 awards for rapid responses to the earthquakes and eruption that totaled about $1.5 million, funds which mostly came from the Geosciences Directorate and the NSF Office of International Science and Engineering. Of particular note are the awards to Calais, Bevis, Brooks, and Smalley (see below) that were jointly managed by the Tectonics and Geophysics Programs.

During fiscal year 2010, the Tectonics Program received 175 proposals with a total request level of about $40M. We were able to fund 62 of these (35% success rate), which includes a handful of RAPIDs, EAGERs, and workshops. Proposals submitted to the two competitions were sent out to external review and then discussed in panel meetings held in October 2009 and March 2010. We are most appreciative to all of you who took the time to review proposals and to our panelists for their dedicated service. Our recommendations were based on the content of the external reviews, the panel recommendations, the available budget, and various programmatic issues. Over the past decade, we have been successful in maintaining a success rate in the 25% to 35% range, a goal that is increasingly difficult given the large request level (the request level for 2011 is over $41M), a relatively flat budget, and an increasing award size: over the past 10 years the average annual award size for the program has doubled (from $55K in FY 2001 to $109K in FY 2010).

CAREER awards were made with fiscal year 2010 funds to three PIs: Rebecca Flowers (University of Colorado), Katharine Huntington (University of Washington), and Peter LaFemina (Penn State University). Titles of their projects can be found in the award list below. Kate Huntington presented some aspects of her project in her Keynote Lecture at the SG&T 30th Anniversary Symposium at the GSA Annual Meeting and will be giving a lecture at NSF Headquarters in April as part of the Geosciences Directorate Distinguished Lecture Series.

Significant changes in the NSF Grant Proposal Guide

A new Grant Proposal Guide (GPG), which is bundled with the Award and Administration Guide as NSF 11-1 (http://www.nsf.gov/pubs/policydocs/pappguide/nsf11001/gpg_index.jsp), became effective in January contains some significant changes. The GPG can be accessed directly from the NSF home page under Quick Links on the left hand navigation bar. The main changes, which are summarized at the beginning of the GPG, are:

1. Data Management Plan: All proposals must describe plans for data management and sharing of the products of research, or assert the absence of the need for such plans. FastLane will not permit submission of a proposal that is missing a Data Management Plan;
2. Elimination of Voluntary Cost Sharing: Cost Sharing has been revised to implement the National Science Board's recommendations regarding cost sharing. Inclusion of voluntary committed cost sharing is prohibited.

We encourage you to consult the current GPG for details regarding these changes and all other aspects concerning proposal preparation.

What the Tectonics Program funds

The Tectonics Program supports a broad range of field, laboratory, computational, and theoretical investigations aimed at understanding the evolution and deformation of continental lithosphere through time. Proposals to elucidate the processes that act on the lithosphere at various time-scales and length-scales, either at depth or the surface, are encouraged. Because understanding such large-scale phenomena commonly requires a variety of expertise and methods, the Tectonics Program supports integrated research involving the disciplines of structural geology, petrology, geochronology, sedimentology, stratigraphy, geomorphology, rock mechanics, paleomagnetics, geodesy, and other geophysical techniques.

We recommend two sites where you can get a sampling of the projects funded by the Tectonics Program, including abstracts. The first, and most familiar, is the NSF web site (http://www.nsf.gov).

1. Click on the "Awards" link on the header bar (just below the NSF logo and then click on the "Search All Fields" tab;
2. Under "Program Information" enter 1572 in the "Element Code" field;
3. Under "Additional Information", use the Original Award Date pull down menu to "Search Awards Using a Date Range";
4. Enter the date range of interest and click "Search".

A better site is the Research.gov site (http://www.research.gov), which is the next generation proposal and grants management tool that will eventually replace FastLane. This site will give you much more information about awards than the familiar NSF site. One very nice feature of Research.gov is that it serves many agencies besides NSF.

1. From the Research.gov home page select the "Research Spending and Results" link;
2. Select the "Advanced Search" link in the lower right hand corner;
3. Enter the date range of interest, enter "Tectonics" in the Program field, and click "Search".

Finally, for those not keen to drill into these sites, we offer a list of the awards from the October 2009 and March 2010 panel meetings below (fiscal year 2010 funds):

Assessing Uncertainties in Balanced Cross Sections
Award: 1019252 Allmendinger (Cornell University)

The Strength of Strike-Slip Faults: Space-Geodetic Constraints for a Ridge-Transtensional System in the Gulf of California
Award: 1019847 Amelung (University of Miami)

Collaborative Research: Constraining the Formation and Evolution of the Proterozoic Orogenic Belt of the SW USA Based on Geochronology of Garnet and Accessory Minerals
Award: 1019817 Andronicos (Cornell University)
Award: 1019877 Vervoort (Washington State University)

Metamorphic Core Complexes in Context: Incorporating Gravitational Collapse into the Orogenic Cycle
Award: 1019669 Baldwin, Bendick (University of Montana)

Detrital Garnet Sm/Nd Geochronology: A New Window into Earth's Tectonic Past
Award: 1049350 Baxter (Boston University)

Collaborative Research: Geodetic Constraints on the Tectonic Processes Operating at the East Flank of the Central Andean Plateau
Award: 0948658 Bevis (Ohio State University)
Award: 0948615 Brooks (University of Hawaii)

Three Windows in Stress from the Geology of Faults
Award: 0948740 Brodsky (University of California, Santa Cruz)

Geodetic and Geologic Field Response to the January 12, 2010, Magnitude 7.0 Haiti Earthquake
Award: 1024990 Calais (Purdue University)

Collaborative Research: Recovering Surface Uplift Histories and Climate Dynamics of the Cenozoic N. American Cordillera through Integrated Climate Modeling and Isotopic Studies
Award: 1019648 Chamberlain, Graham (Stanford University)
Award: 1019420 Poulsen & Ehlers (University of Michigan)

The Work Budget of Fault Birth within Accretionary Systems
Award: 1019747 Cooke (University of Massachusetts, Amherst)

Collaborative Research: Tectonic Significance of ca. 1.6 Ga Deformation in SW Laurentia and New Insights on a Protracted Mazatzal Orogeny
Award: 0948494 Duebendorfer (Northern Arizona University)
Award: 0948483 Chamberlain (University of Wyoming)
Award: 0948501 Williams (University of Massachusetts, Amherst)

Fault Speedometers, Slip Localization, and Slip Complexity on Exhumed Faults
Award: 0948473 Evans (Utah State University)

Collaborative Research: Integrated Geochronology and Paleomagnetism of Neoarchean-Paleoproterozoic Dikes in Wyoming, A Keystone of North American Cratons
Award: 1019739 Evans (Yale University)
Award: 1019595 Chamberlain (University of Wyoming)

CAREER: Evolution of the Southern African Plateau Using Advances in (U-Th)/He Thermochronometry, and Enhancing Student Critical Thinking in Science
Award: 0951518 Flowers (University of Colorado, Boulder)

Strain Accommodation in the Walker Lane: Understanding the Evolution of a Diffuse Plate Boundary with Geochronology and Geodesy
Award: 0948570 Frankel & Newman (Georgia Institute of Technology)

Collaborative Research: Origin of the Alexander Terrane in the Arctic Realm?
Award: 0947904 Gehrels (University of Arizona)
Award: 0948359 McClelland (University of Iowa)

RUI: Over-Printing of Crystallographic Preferred Orientation Patterns in Quartz Aggregates: A Program of Experimental Deformation of Natural Mylonite
Award: 0948541 Gleason (SUNY Cortland)

Collaborative Research: Space-Based Measurements of Crustal Deformation along the Entire Dead Sea Fault System (Eastern Mediterranean)
Award: 0948487 Gomez (University of Missouri)
Award: 0947969 Reilinger (MIT)

Collaborative Research: Geochemistry and Tectonics of Cretaceous Gateway Closure in the Central American Isthmus
Award: 1019327 Gazel Dondi (Columbia University)
Award: 1019382 Snow (University of Houston)

Melt-induced Buoyancy: The Driving Force for Fast UHP Exhumation?
Award: 1019709 Gordon (University of Nevada, Reno)

Timing, Rates, Episodicity, and Sediment Provenance of Subduction Accretion: Establishing a Geochronologic Framework for Long-term Accretion in the Franciscan Subduction Complex
Award: 0948676 Grove (Stanford University)

Collaborative Research: Use of Novel True Triaxial Tests and Shear Band Theory to Determine Failure Properties of Compactive Porous Sandstones
Award: 0940323 Haimson (University of Wisconsin, Madison)
Award: 0940981 Rudnicki (Northwestern University)

Collaborative Research: Basin Evolution and Elevation History of the SE Margin of the Tibetan Plateau: Constraints on the Timing and Mechanisms of Surface Uplift
Award: 1019427 Hoke (Syracuse University)
Award: 1019762 Garzione (University of Rochester)

Evaluating Along-strike Variations in Surface Uplift of the Andes: Constraints from Molecular Paleoaltimetry in the Eastern Cordillera of Colombia
Award: 1019857 Horton, Saylor & Shanahan (University of Texas, Austin)

CAREER: The Detrital Record of Focused Rock Uplift and Exhumation, Northeast Indian Himalaya
Award: 0955309 Huntington (University of Washington)

2010 Rock Deformation Gordon Research Conference
Award: 1053122 Kelemen (Gordon Research Conferences)

CAREER: Convergence of Space Geodesy in Plate Boundary Research and Geoscience Education
Award: 0955560 LaFemina (Pennsylvania State University)

Collaborative Research: Causes and Mechanisms of Focused Exhumation along the Denali Fault, Eastern Alaska Range
Award: 0952793 Layer (University of Alaska, Fairbanks)
Award: 0952834 Roeske (University of California, Davis)
Award: 0952800 Fitzgerald (Syracuse University)

Geodynamic Modeling of Long-term Fault Interactions During the Evolution of the Pacific-North American Plate Boundary Zone
Award: 0948620 Liu (University of Missouri, Columbia)

Collaborative Research: Toward an Understanding of the Long-Term Deformation in the Mississippi Embayment - Phase II
Award: 0948619 Magnani & Waldron (University of Memphis)
Award: 0948562 McIntosh (University of Texas, Austin)

Collaborative Research: An Exhumed Field Example of Heterogeneous Lower Crustal Flow, Athabasca Granulite Terrane, Canada
Award: 0948581 Mahan & Schulte-Pelkum (University of Colorado, Boulder)
Award: 0948560 Williams (University of Massachusetts, Amherst)

Collaborative Research: Australia Down Under: Quantification of Rates and Amount of Continental Subduction During Neogene Arc-continent Collision on Timor
Award: 0948449 McQuarrie (Princeton University)
Award: 0948386 Harris (Brigham Young University)

Origin and Evolution of the Amerasia Basin of the Arctic
Award: 0948673 Miller (Stanford University)

Collaborative Research: Timing, Extent, and Spatial Progression of Neogene Displacement Transfer, Southern Walker Lane, Western Great Basin
Award: 0948542 Oldow (University of Texas, Dallas)
Award: 0948552 Geissman (University of New Mexico)
Award: 0948569 Stockli (University of Kansas)

A Long Record of Earthquakes with Timing Displacements for the Dead-Sea Transform Fault: A Test of Earthquake Recurrence Models
Award: 1019871 Rockwell (San Diego State University)

GPS Observations in Argentina of Co-seismic and Post-seismic Deformation Associated with the 27 Feb, 2010 Mw 8.8 Maule, Chile Earthquake
Award: 1036252 Smalley (University of Memphis)

Tectonic Implications of Partial Melting in the Ruby Mountain-East Humboldt Metamorphic Core Complex, Northeastern Nevada
Award: 1019768 Spear (Rensselaer Polytechnic Institute)

Studies of Plateau Uplift using (U-Th)/He Apatite Thermochronology and 13C-18O Carbonate Paleothermometry
Award: 1019896 Wernicke, Eiler & Farley (California Institute of Technology)

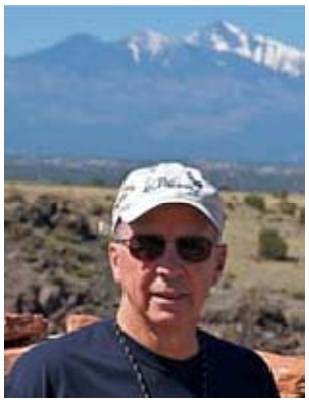
Collaborative Research: Determining the 3D Kinematic Evolution of the Wyoming Laramide, Implications for Processes of Foreland Deformation
Award: 0948677 Weil (Bryn Mawr College)
Award: 0948692 Yonkee (Weber State University)

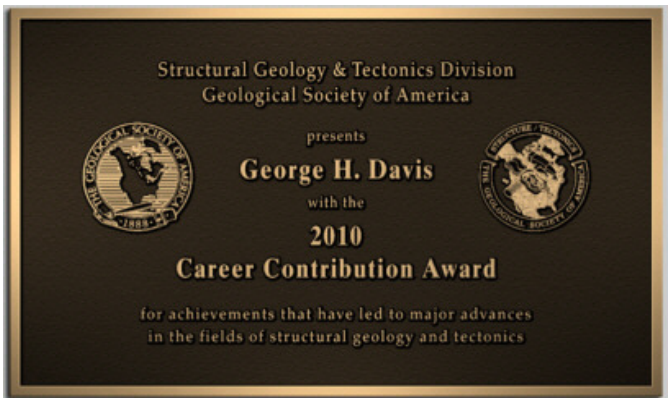
An Integrated Structural, Petrologic and Isotopic Study of Fabric Evolution in the Ailao Shan-Red River Shear Zone, China
Award: 1019682 Wintsch (Indiana University)

Detailed 40Ar/39Ar Geochronology of Deformed Diamictite to Quantify Strain Rates and Timing Relations of Fluid-Rock Interaction
Award: 1048393 Yonkee (Weber State University)

RUI: Field-testing the Multiple Diffusion Domain 40Ar/39Ar K-feldspar Thermochronometer at Tilted Normal Fault Blocks in the U.S. Basin and Range
Award: 0948536 Wong (Colgate University)

GEOLOGICAL SOCIETY OF AMERICA
STRUCTURAL GEOLOGY AND TECTONICS
2010 CAREER CONTRIBUTION AWARD





Presented to George H. Davis

Citation by Bob Krantz

Many structural geologists complete significant research on select tectonic problems; George Davis played a fundamental role in the discovery of a completely new continental scale orogeny. Many earth scientists publish text books; Structural Geology of Rocks and Regions, by Davis and Reynolds, has become a standard for undergrad classes with thousands of inspired students. And almost all academic staff provide departmental and university service; George Davis supported the University of Arizona at the highest level, ultimately serving as Provost and Executive Vice President.

Shortly after arriving in Tucson as a young professor, George focused his research on what we now take for granted as metamorphic core complexes. George's investigations were among the first to document extensional kinematics, and he went on to work with other colleagues to define an orogeny that affected the North American Cordillera in middle Tertiary time, adding a new chapter to our tectonic story. These investigations culminated in the 1977 Penrose Conference on Metamorphic Core Complexes convened by Max Crittenden, Peter Coney and George in 1977. Subsequent applications of these concepts to other regions contributed to global understanding of similar orogenic systems, leading to a second Penrose Conference on Metamorphic Core Complexes in 1987.

Among his most enduring achievements, and demonstrating his passion for sharing structural geology, is George's text book, Structural Geology of Rocks and Regions. With the third edition now in preparation, including coauthors Steve Reynolds and Chuck Kluth, George's text went where no structural reference went before: it made it fun. Countless reviews have noted the accessible, entertaining style that draws students in, and the combination of geologic and non-geologic examples (pepperoni pizza?) that demonstrate and reinforce critical concepts. Finding a text that effectively covers the material is fortunate; having a text that inspires and connects with students is priceless.

Beyond geology, George has always had passion for larger academic issues and service. From department chair to University of Arizona Vice Provost and Vice President, and then ultimately as Provost and Executive Vice President, George brought a grounded science background to a university facing dramatic challenges, and he helped administer strategic solutions that focused on excellence and achievement. While appreciating his support of earth science from these lofty posts, colleagues and students found it easy to re-ignite George's passion for structural topics and distract him from administrative issues.

During his "working" years, George supervised more than 40 grad students and served on committees of many more. Being a Davis student meant working as a peer, from project planning and

logistics to analysis and reporting. George consistently promoted self-reliance and leadership, which beyond scientific success led so many of us to rewarding academic and industry careers. Of course, along the way there was plenty of time for fun, or "sick fun" as George might categorize collecting thousands of lineation data or making plane table maps of vertical cliffs.

Yet, in spite of all the self-reliance that George has taught, and all that his students have achieved on their own, there is no question that they also enjoy his reflected glow. His technical insight, careful science and great personal warmth are such that even today, many years after graduation, we take great pride in the phrase, "I was a George Davis student."

Response by George Davis

My passion for structural geology has burned brightly ever since Dr. Charles Moke introduced me to "*structures*" at The College of Wooster. Nothing has dimmed this fire. Even while holding university leadership positions I had to do geology. Most administrators move on. UA President, Peter Likins, would say of me that every graph I made looked like a mountain, and every analogy was tectonic.

Most of you suffer the same disorder. Psychologist Roger Shepard believes that preoccupation with kinematics of "*reversible transformations*" are rooted deeply psychologically in our evolved visual systems as human beings, giving rise to our abilities to appreciate symmetrical patterns. What Shepard regards as an appreciation we regard as a profession. We address transformational puzzles in glorious field settings, and relate solutions to forces, stresses, time, and history. This combination is what makes our disorder totally incurable.

We share common paths, attending GSA as undergraduates and seeing the big names from a distance; give our first talk; move into the rhythm of national meetings; experience Penrose Conferences. We learn we are part of a *community* of scientific discovery, and grow to learn that knowing, trusting, respecting, and enjoying one another are as important as doing the mapping. In our early professional careers we experience unplanned moments of impact that give us a sense we might amount to something. In 1973 at GSA, Greg Davis and Clark Burchfiel waved me over to their table for a beer, and told me they liked my talk about the Rincons. We connect with towering influences. Mine was Peter Coney. Our ventures together in core complex discovery gave me a rare taste of cutting-edge science.

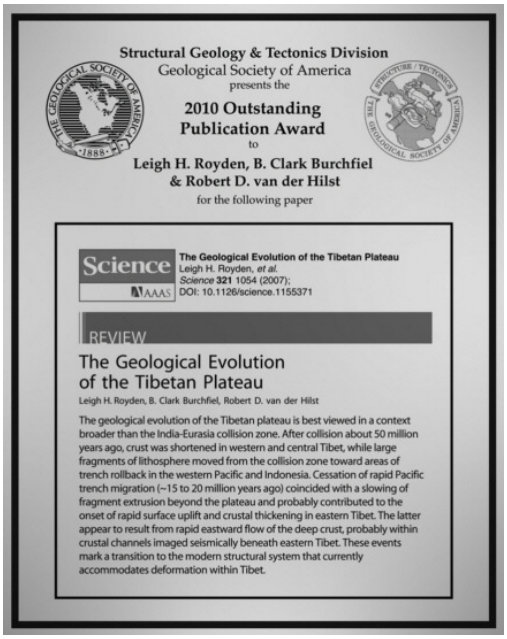
We make personal decisions regarding what is important. Our strategies have decadal influence on how we individually operate. My directions emerged at the confluence of two well-springs: *Structural Analysis of Metamorphic Tectonites* (Turner and Weiss) and *Folding and Fracturing of Rocks* (John Ramsay). "*Structural Geology of Rocks and Regions*" intends to reveal how we in fact think about the earth, and our passion for what we do.

Besides my parents, my wife Merrily, and our family, there are two special communities whose meaning in my personal and professional life I must underscore. One is all of you. We come together as structure-tectonics people in ways minimally intersected by university, corporate, or agency politics. I believe we age well together, like a good wine. At meetings and on field trips we delight in picking up where we left off.

Then there is the special community of my very own students. It pleases me, Bob, that you connect me with promoting self-reliance and leadership. First-hand field experience was the "*bread-and-butter*" of my teaching, followed by the most precious gift I could give: freedom and responsibility in choosing a project and a pathway. This is precisely the same gift that my PhD advisor at Michigan, Bill Kelly, gave me.

Bob, as I look at you this very minute, you represent *all* of my students, graduate and undergraduate, and I thank you for what you have done for me, not just today, but over the many years.

GEOLOGICAL SOCIETY OF AMERICA
STRUCTURAL GEOLOGY AND TECTONICS
2010 OUTSTANDING PUBLICATION AWARD


Structural Geology & Tectonics Division
Geological Society of America
presents the
2010 Outstanding Publication Award
to
Leigh H. Royden, B. Clark Burchfiel & Robert D. van der Hilst
for the following paper

Science
The Geological Evolution of the Tibetan Plateau
Leigh H. Royden, *et al.*
Science **321** 1054 (2007);
DOI: 10.1126/science.1155371

REVIEW

The Geological Evolution of the Tibetan Plateau

Leigh H. Royden, B. Clark Burchfiel, Robert D. van der Hilst

The geological evolution of the Tibetan plateau is best viewed in a context broader than the India-Eurasia collision zone. After collision about 50 million years ago, crust was shortened in western and central Tibet, while large fragments of lithosphere moved from the collision zone toward areas of trench rollback in the western Pacific and Indonesia. Cessation of rapid Pacific trench migration (~15 to 20 million years ago) coincided with a slowing of fragment extrusion beyond the plateau and probably contributed to the onset of rapid surface uplift and crustal thickening in eastern Tibet. The latter appear to result from rapid eastward flow of the deep crust, probably within crustal channels imaged seismically beneath eastern Tibet. These events mark a transition to the modern structural system that currently accommodates deformation within Tibet.



Presented to Leigh H. Royden, B. Clark Burchfiel and Robert D. van der Hilst

The Geological Evolution of the Tibetan Plateau, by Leigh H. Royden, B. Clark Burchfiel and Robert D. van der Hilst, published in *Science*, Volume 321, 22 August 2008, pages 1054-1058.

Citation by Raymond Price

The Tibetan Plateau and the surrounding region --- the “roof of the world” --- has become a major focus for research and for important discoveries in structural geology and tectonics during the past several decades because the tectonic processes available for examination in this actively evolving continental collision orogenic belt provide a key to the elucidation of the tectonic processes that governed the evolution of older continental-collision orogenic belts, but also because of recent greatly increased accessibility to the area, and of the emergence of many very helpful new technologies for research in this remote and inhospitable region.

In this landmark paper, Wiki Royden, Clark Burchfiel and Rob van der Hilst have done a masterful job succinctly and elegantly integrating a large array of different kinds of tectonically relevant data within a simple but comprehensive description of the Late Cretaceous to Holocene evolution of the Tibetan Plateau and environs.

Recent advances in the understanding of the tectonics of this vast region are reviewed in three stages: pre–collisional, early Cenozoic, and late Cenozoic. They are also reviewed from many different perspectives, including:

- global plate kinematic reconstructions of convergence between India and Asia that are based on the seafloor magnetic anomaly record;
- the various constraints that are now available with regard to speculations about deep crustal and upper mantle deformational processes, and kinematics;
- the neotectonics of crustal faults and associated rock uplift; and
- the seismotectonics of a recent major earthquake.

A particularly informative and effective feature of this description of the tectonics of "the roof of the world" is the integration of 3-D models of the seismic velocity structure of the lithosphere and adjacent mantle, as illustrated by vertical and by deep horizontal seismic tomography images, with maps of the topography, the geology, the seismicity, and the available GPS measurements of the contemporary patterns of motion (relative to the interior of Asia) of the Indian craton and of the various parts of the deforming belt between the Indian craton and the interior of Asia.

The resulting regional tectonic model elucidates the interactions among: the continental crustal thickening due to convergence during ongoing continental collision, the concurrent roll-back subduction of oceanic lithosphere toward the Indian craton, and toward the interior of the ocean basins, the patterns of lateral extrusion of fragments of continental lithosphere, and the changing patterns of deep crustal lateral flow from beneath the Tibetan plateau.

The paper is particularly important because an improved understanding of the processes involved in the ongoing collision between India and Asia, provides actualistic models for interpreting older continental-collision orogens, in which available information is very much less complete and explicit.

Response by Leigh Royden

It is an honor to be standing before you to receive the Outstanding Publication Award on behalf of myself and my co-authors. I am especially grateful to, Ray Price, first, for nominating our paper for this prestigious award, second, for serving as our citationist, and lastly, for being here at all since he is scheduled tomorrow to receive an award from the Canadian Royal Geographical Society.

The paper on which this award is being bestowed is one of the shortest I have written, appearing in Science as a review article. It was assigned five journal pages to cover the entire region of Tibet, from collision to present, and was supposed to be comprehensive, innovative, and controversial. Now, I am not sure that this is possible, but we gave it our best effort. You have all heard the joke "if I had had more time, I would have written a shorter paper". I can safely say that for myself, and probably my coauthors, that this paper required more time per word than any other paper I have written.

Lastly, I would like to acknowledge my co-authors, Clark Burchfiel and Rob van der Hilst, without whom this paper would never have been written. I am fortunate to work with colleagues like these and together we span a wide range of geologic disciplines. Without this, and without the opportunity for collaboration, the work that we have carried out in Tibet would never have been possible.

In summary, it is an honor and a very great pleasure to receive the Outstanding Publication Award from the Structural Geology and Tectonics Division of the GSA.

Minutes
GSA Structural Geology and Tectonics Division Management Board Meeting
Monday, 1 November, 2010
11:30 AM-1:30 PM, Hyatt Hotel, Quartz A

The meeting opened with discussion about representation at the GSA Council of Division Chairs meeting during the last weekend of April. It was suggested that the 2nd Vice Chair (Donna Whitney in 2011) would be best to go. Expenses are paid by GSA.

Regarding the bank balance, ~12K has been moved to an endowment for the SGT Student Fund. There has been a change to the Best Paper Award which is now called the Outstanding Publication Award (OPA). Names of former nominees will be carried forward.

There is a need for names of people to serve on the OPA committee. Jonathan Caine was suggested and he has agreed to serve.

The Career Contribution Award received a number of high quality nominations. It was decided that we keep a record of former nominations, and that they be continued as active for some period before they terminating them. There is an interest in establishing an endowment for this award that would carry a naming opportunity. Peter DeCelles is incoming chair of CCA. Potential members to serve on the CCA as Carol Simpson steps off were discussed.

Other positions: Dave West and Phil Resor will be the 2011 JTPC (Joint Technical Program Committee) representatives, and Donna Whitney is incoming 2nd Vice Chair.

Board discussed the Stephen Laubach Structural Diagenesis Research Award Committee. This includes members of SGT and the Sedimentary Geology community. During even years, the award is presented by the SGT and in the odd years the presentation comes from the Sedimentary Geology Division. Potential members to serve on the Laubach committee as Nancy Dawers steps off were discussed.

SGT communication: Kevin Smart is the webmaster and has set up new web pages for the SG&T student fund and Laubach awards. The SGT facebook page has more than 3500 fans, most of whom are international. Job ads can go up on Facebook. There is a need for a co-editor for the newsletter to take Barb Sheffels place.

The Program Committee for 2011 has identified 4 sessions for the Minneapolis meeting: active tectonics, geodynamics, magma dynamics, and plate interiors.

Annual keynote – 2010 was the first year for the keynote lectures. We would like to propose that we get a technical session allocated for however the Division wants for keynote talks, etc.

$28,000 now in the student fund. We probably need to wait ~2 years before we can draw anything from the growing balance.

There was a request for an adjustment to the annual calendar of Board Responsibilities that would include new initiatives such as keynote talks, the Laubach award, and the Student Fund. Some responsibilities will migrate to the Secretary/Treasurer position.
The Board considered the possibility of increasing Membership dues and decided to go ahead with the proposal in 2011.

Guidelines for the length of citations for CCA and OPA awards was discussed with the suggested outcome that in future years 5 minutes be allowed for citations and 10 minutes for response.

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Students! Support $$ Available!

Students interested in attending short courses or field trips at the GSA annual meeting may apply for support from the SG&T Division. In the future, we hope to be able to help with the cost of travel, but at this time we can only provide support or partial support for the short course or field trip registration fee. To qualify, you must be an SG&T Member at the time of attending the meeting, and must be giving a poster or oral presentation on research that is clearly within the purview of the SG&T Division. To apply, send the following to Donna Whitney <dwhitney@umn.edu> by September 10:

. your name,
. GSA member number,
. your institution's name,
. degree program status, specialty,
. poster or talk title,
. field trip or short course title,
. registration cost for field trip or short course and amount being requested, and a narrative of two to three paragraphs indicating why the field trip or short course is important to your research/professional development.

The Structural Geology and Tectonics division is now on facebook!

Everyone can access our page at www.facebook.com/GSA.SGT
This page will be used for periodic announcements between newsletter publication times and for sharing of news and deadlines. We now have 4,000 friends! The Division web site will remain the place for all official SG&T information http://rock.geosociety.org/sgt/index.htm

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In this section of the newsletter we have traditionally posted announcements of upcoming conferences, workshops, and short courses that would be of interest to SG&T members. However, because this information is posted and frequently updated on the SG&T website (http://rock.geosociety.org/sgt/sgt_meetings.html), we don't feel it is necessary to post this information in the newsletters.

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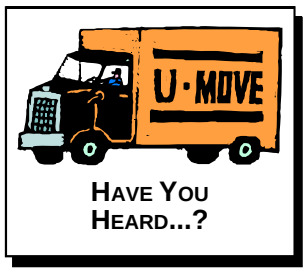

This is the section of the newsletter where we have traditionally posted comings and goings as well as honors and accomplishments.
From now on such news will be posted on the SG&T facebook site (www.facebook.com/gsa.sgt).

Anytime you've got some news to share, just post it yourself right onto the Division facebook page. You don't have to wait for the next division newsletter, and nearly 4,000 fans will read your news right away. If you don't have a FB account we can post it for you.

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