Greetings from the Chair

It is indeed an honor and a pleasure to serve as the second Chair of GSA’s Division of Geology & Society. It is truly the only Division within GSA that every member should join. However, before I launch into that statement in more detail, I would like to thank past two-year Chair John Kiefer for his contributions to the Division, particularly his vision about the need for a G&S Division, his fortitude in getting the Division started, and his career-long commitment of actively participating in activities that promote the value of geology to society. Without John, it is doubtful that our new Division would even exist, much less thrive as it has done under his leadership. We all owe John a debt of thanks and we know that he will remain a strong contributor to the G&S vision and advocate its goals.

With John’s legacy, Secretary-Treasurer Tom Evans’ savvy and institutional knowledge, and future leadership in the hands of First Vice-Chair Sue Halsey and recently-elected Second-Vice Chair Marilyn Suiter, the prospects are limitless for growing the Division and maintaining its focus of “Geology Working for Society”. I am also very encouraged that the Critical Issues Caucus (CIC) of GSA, discussed in more detail on page 4 of this Newsletter, is now formally affiliated with our Division. The CIC focuses on urgent issues, which are directly linked to geology’s societal relevance, that require attention by geoscientists. I suspect that the creative juices will be freely flowing between the CIC and G&S officers. I look forward to exploring innovative ways of explaining critical issues, both to our colleagues and the lay public, getting more geoscientists involved in the explaining, and promoting the overall importance of the geosciences for solving, or at the very least for creating a better understanding of problems that have earth-science solutions.
GSA currently has 16 divisions that pretty much cover the expertise of the vast majority of members. Eleven divisions are strongly tied to a subdisciplinary of geology. These are: Archaeological Geology, Coal Geology, Engineering Geology, Geobiology & Geomicrobiology, Geophysics, Hydrogeology, Limnogeology, Planetary Geology, Quaternary Geology & Geomorphology, Sedimentary Geology, and Structural Geology & Tectonics. The other five divisions deal with broader issues. In addition to Geology & Society, they are: Geology & Health, Geoscience Education, History of Geology, and International.

With a total GSA membership of ~19,000, it is surprising that only 35-40% belong to at least one division, considering the low costs for this membership ($5-$12). Perhaps this is because most GSA members do not see a benefit for joining and/or divisions have not been actively engaged in long-term recruitment. Contrary to this trend of non-divisional involvement by many of our geological colleagues, G&S is poised to aim high. We offer bonafide reasons why membership in G&S is important to all members of GSA, regardless of expertise.

Secondly, because we know that all can benefit from membership, we are committed to long-term recruitment of new members.

First, membership in G&S is important for all members of GSA. As with all divisions, G&S will continue sponsoring symposia, theme sessions, workshops, and short courses that deal with societal issues at national and sectional meetings. However, what separates G&S apart from the other divisions is that many of these societal issues can be extremely controversial (e.g., sustainability, climate change, water availability and protection, evolution). Fortunately, we are actively positioned to tackle these issues, bring them to the forefront, and openly discuss their intricacies. In addition to formal GSA venues sponsored by G&S, this newsletter also can serve as a sounding board for guest editorials on a variety of issues that MUST be communicated to our membership, and YES, in some cases they must be communicated to perpetuate the continuance of a viable discipline.

For the last several years, we have read about or experienced declining geology enrollments, geology departments being eliminated or combined with other disciplines, and geological surveys closing their doors. Consequently, this trend often has created difficulties of not having enough viable candidates for geological positions in private business, universities and colleges, and government.

While economics is partly the cause for the demise, some of the blame must go to those responsible for explaining the science and not totally understanding the issues that it can help solve. The G&S Division, as well as GSA management as a whole, is committed to help reverse this trend. Every geologist, regardless of whether they work for academia, private business, or government, and regardless of expertise, has a stake in the perceived credibility of their discipline. It is this credibility, how the discipline is portrayed, and how its relevance is communicated, that lies at the core of the G&S mission.

It is because of this mission that G&S is an appropriate divisional home for all GSA members. All can benefit from being members and we benefit from increased involvement. Therefore, we will continue to actively solicit for new members. We have already sent letters to all geological surveys encouraging their participation. We have had booths at the last three GSA national meetings and we are planning to have booths at three sectional meetings in 2006. Booths will be laden with issue position statements and displays relating geology to society.

With increased membership, we can continue a tradition started in 2005 by inviting more provocative speakers to make presentations at national meetings. Last year, Dr. Henry Pollack spoke on “Scientific Uncertainty: Moving on Without all the Answers”. Also, we will be able to recognize those who have made career-long contributions to geology and society through an awards ceremony and possibly a banquet. We might be able to sponsor student scholarship travel grants to the national or sectional GSA meetings. We might also be better positioned to help underwrite critical
issues documents, or discover creative ways to better “get the word out”.

Although the G&S Division, perhaps more than any other GSA division, can really make an impact on its members and “do things for them”, this Division, as is the case with any division, is what its members make of it. The greater the Divisional membership, the greater the possibilities for increased understanding of our discipline amongst ourselves, but most importantly, by those who use our information for the common good.

Thank you.

Dick Berg, Chair
G&S Division

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GSA Geology and Society Division Annual Business Meeting, October 17, 2005: Minutes

Chair John Kiefer convened the meeting at approximately 6:30 pm immediately following the reception for Dr. Henry N. Pollack, who had presented the first GSA Geology and Society Division Distinguished Lecture, "Scientific Uncertainty: Moving Ahead Without All the Answers."

After thanking the members and guests of the division for their participation in the meeting, John led a discussion of division business organized around several questions asked of the assembled members.

John introduced the officers for the coming year: Dick Berg, Chair, Sue Halsey, First Vice-chair, Marilyn Suiter, Second Vice-chair, Tom Evans, Secretary-Treasurer, and John Kiefer, Past Chair. John congratulated Marilyn and Tom on their election to their positions and thanked Karen McCurdy for her participation in the Second Vice-chair election.

It was agreed that the format for our 2005 annual business meeting (lecture/event, open reception, business meeting) was appropriate. The group discussed the eventual desirability of a ticketed event, such as a luncheon, but agreed that such a format would be most effective if we were making presentations of awards or engaged in similar, more formal activities.

John asked the group for their suggestions for future speakers and topics for this annual meeting of the division. Suggestions may be sent to any of the Management Board members.

John asked the members to consider participating in the annual booth activities by helping with staffing the booth and making suggestions for items to display and distribute at the booth.

John noted that the division was sponsoring or co-sponsoring nearly a dozen symposia at Salt Lake City and encouraged all members to continue to develop materials and ideas for future technical sessions, Pardee symposia, or special/hot topics presentations.

Lastly, John and the other G&S officers met with GSA’s Critical Issues Caucus. Plans are underway to incorporate them as an ad hoc committee within the division (see following article).

The newsletter was discussed and it was agreed that two editions per year would be adequate for now. Marilyn Suiter offered her observation that the newsletter is a potentially significant vehicle for communication among division members and encouraged all members to use this vehicle to share their ideas.

Financial Report:
Tom reported that the division, which is fully supported with members’ dues of $8/yr for professionals and $4/yr for students, had a balance coming into the 2005 Annual Meeting in Salt Lake City of $3,514.22. Expenses for the division's annual meeting and speaker sponsorship would reduce that balance before the end of the calendar year, and members were encouraged to renew their memberships in support of continuing activities sponsored by the division in the months ahead. Current membership in the division was estimated at just over 400.

Other actions or comments:
1. The Nominating Committee for next year's election to fill the Second Vice-chair position (this position is filled every year;
Secretary-Treasurer is filled every other year) will be headed by John Kiefer. (Sue Halsey nominated John for the position and he was selected by unanimous consent.) John will recruit other members for help with this task.)

2. Jon Price, a member of the division and a member of GSA Council, was introduced as the Council liaison to the division. Jon reported that the Council was interested in having members' ideas regarding adoption of position statements by GSA and was looking to the division for their input and help with development of future statements. He noted that the Council has adopted several new and revised statements as forwarded by the Geology and Public Policy Committee.

3. Jon also informed us of the Council's plans to put technical sessions onto DVDs or CDs to enable broader distribution of the presentations.

4. Craig Schiffries of the National Council of Science and the Environment mentioned his presentation on the USGS Coalition and its role in support for the U. S. Geological Survey.

5. Dick Berg asked members to be diligent and aggressive in "talking up" the division to other GSA members and encouraging them to become active members of the division.

The second annual meeting of the GSA Geology and Society Division was adjourned at 7:15 pm.

Minutes prepared by:
Tom Evans, Secretary-Treasurer
Geology & Society Division
October 17, 2005

GSAs Critical Issues Caucus, Now a Part of the Division

The Critical Issues Caucus (CIC) of GSA, formerly a part of the Geology and Public Policy Committee, has moved its affiliation to the Geology and Society Division. The history of the Caucus, and examples of its contributions to GSA annual meetings, and some AAAS meetings, since 1996, are given below. Our focus is on broad, but urgent, near or long-term issues that involve elements of the Geoscience community.

The Caucus will continue to propose Symposia and Topical Sessions for future GSA meetings and to find other ways to bring important issues that need to be addressed by the profession to the attention of GSA members. We are looking for G&S members with good ideas, as well as members willing to help us implement ideas already suggested. If you would like to join our e-mail communications regarding ideas for symposia or other CIC activities please let us know (see below). Help make G&S Division contributions a significant part of the educational activities of GSA.

About the Critical Issues Caucus (CIC)

From its inception (as the Geospheric Alliance Committee of GSA, in 1992; renamed the Critical Issues Committee in 1995; and now the Critical Issues Caucus), the CIC has acted as an informal “think tank” on major issues facing the continued health of the Earth system as a habitat for all. Its purpose has been to highlight important problems and issues that are related to the present and future well-being, equity, and life quality of the global human society; to consider conditions for the prospect of preserving the health of the entire global ecosystem; and to consider how geoscientific knowledge can contribute to interdisciplinary thinking in the context of Earth Systems.

Membership in CIC is fluid and informal. Members of the Geology and Society Division who wish to participate in the CIC activities by proposing symposia or topical sessions, or joining our e-mail exchanges, are welcome. To join e-mail discussions, contact any one of the following: Ward Chesworth wcheswor@lrs.uoguelph.ca; Sue Kieffer skieffer@uiuc.edu; Pete Palmer allison.palmer@comcast.net; Paul Reitan preitan@eng.buffalo.edu; or E-an Zen esen@erols.com.

Examples of the topics we have discussed or addressed are given below.

For the past decade, our activities have focused on issues relating to a sustainable future, including global energy resources, water resources, land use, human ecological footprints, agriculture and soil, the NIMBY syndrome, global resource monitoring systems, non-linear earth systems, and the
intersection of scientific knowledge, social equity, and values.

We have sponsored symposia (including Pardee symposia), theme sessions, and topical sessions at GSA annual meetings and Annual meetings of the AAAS, and produced a series of 12 essays prepared for the millennial year 2000 under the umbrella of “Toward a Stewardship of the Global Commons”, written by members of the CIC. These essays were first published in GSA Today and subsequently made available on the web, with an added teacher’s guide, at http://bcn.boulder.co.us/basin/local/sustainability.html. A further essay “Earth Resources: the little engine that could brake sustainability”, also written by the CIC members, was later added to the website. In 2004, GSA produced a CD-ROM of the website material, “Understanding Sustainability: essays and activities pertaining to a Sustainable Future” which was distributed free at the National Science Teachers Association and at the GSA Annual meeting.

Symposia and theme sessions produced under the auspices of the CIC include:

AAAS annual meetings:

1996 – “Population and consumption: twin challenges to sustainable development”
1997 – “Beyond the 100th meridian” dealing with water issues.
2004 – “From the ground up: the importance of soil in sustaining civilization”
2005 – “Quantifying vulnerability”

GSA Annual meetings:

1999 – “The sustainability challenge II – Water and human sustainability” and “Environmental justice: geocological, social and philosophical perspectives”
2000 – “Toward a stewardship of the global commons: perspectives for a new century. Part I, the issues; Part II, the engines of change”

2001 – “The watershed within: scientific and moral reflections on water in the 21st century”
2002 – “Effective communication and/or partnerships engaging geoscientists, the public, and policy makers: case studies”
2003 – “Soils and a sustainable future: the neglected challenge in geology. A tribute to the many contributions and challenges of Aldo Leopold”
2004 – “Geoscientific aspects of human and ecosystem vulnerability” and “The science of sustainability: how can we most effectively educate students, the public, and policy makers?”
2005 – “Does geology serve society? Let’s count the ways”

Pete Palmer
Critical Issues Caucus

Newsletter Update - Water Issues in China and Kentucky

The following are some notes by Past Chair John Kiefer as a follow-up to his Fall 2005 G&S Division Newsletter article which focused on water issues.

Incident #1: China’s booming economy has been unable to control its environmental problems as evidenced by recent explosions at two chemical plants. The explosions caused release of dangerous chemicals (e.g., benzene) into rivers and resulted in the closing of community water intakes and treatment plants supplying water to millions of people for days. Initial efforts to hide and downplay the seriousness of the river contamination compounded the problems and delayed efforts to control the spills.

The spill of benzene into the Songhua River near Harbin, a city of 3.5 million people, left them without water for at least four days. It became an international catastrophe as the pollution moved downstream into Russia forcing the closure of water treatment plants in that country. Most recently, the toxic spill from China has entered the Amur River in Russia. This is just the latest ecological blow to the river whose basin is home to 5 million Russians who for years have been warned not to swim in the river, eat its fish,
or drink its water because of contamination. Over 80 million Chinese live upstream and anywhere from 60 to 90 percent of the Amur’s pollution comes from China.

**Incident #2:** A recent newspaper article noted that despite efforts to reduce surface water contamination in Kentucky rivers and streams (including the Ohio River), mercury levels have increased significantly over the past five years. Although there is already a health advisory that fish consumption from these streams should be limited to one meal per week, that advisory now will become one meal per month. However, the most significant fact is that Kentucky coals, initially suspected as the contamination source, are very low in mercury. In addition, scrubbers at nearby power plants further reduce mercury released into the atmosphere. Therefore, the most likely source is atmospheric, which is much more difficult to control, as third world countries desperate for energy resources are burning much lower quality coals. Unfortunately, we are all the beneficiaries.

**Incident #3:** In Lexington, Kentucky, the battle to own and control their water supply became even more complicated than it was last year. Although nearly 25,000 voters signed a petition to allow a vote for local control of their water on the November 2005 ballot, efforts in the courts by the German controlled RWE managed to block the vote, at least for this year. RWE owns "American Water Corporation," which includes "Kentucky American," along with a number of other water companies in the U.S. RWE then turned around and announced a decision to sell their American holdings to another overseas company, but will not consider a purchase by the citizens of Lexington. The bottom line, water is money, the currency of the future.

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**Call for Volunteers at Sectional Meetings**

The G&S Division will have a booth at three Sectional meetings in 2006:

- Northeastern – March 20-22
- Southeastern – March 23-24
- North-Central – April 20-21

Our aim is to increase Divisional membership and inform meeting attendees about G&S. If interested, please contact:

- NE – Sue Halsey/Marilyn Suiter
- SE – John Kiefer/Marilyn Suiter
- NC – Dick Berg/Tom Evans

Their phone #s and email addresses are located on page 1 of this Newsletter.

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**GSA Today goes “Public”**

A new policy for *GSA Today* is to begin a series of geoscience public-interest and policy articles. The G&S Division applauds this decision as we continually seek venues for better explaining our science, and particularly explaining how our science is used and viewed by others. This decision also supports part of GSA’s mission in "promoting the geosciences in the service of humankind", and its vision in "supporting the application of geoscience knowledge and insight to human needs, aspirations, and stewardship of the Earth”.

The G&S Division strongly encourages its members and others to take advantage of this great opportunity and submit an article on geoscience public-interest and policy articles to *GSA Today*.

General guidelines, as provided by GSA Today’s Managing Editor Kristen Asmus, are as follows:

- Printed articles will be complete and stand-alone.
- Additional information by authors may be included as supplements placed in GSA’s data repository.
- Article length is two typeset pages - 1400 words with two figures, 1600 with one figure, etc.
- *Newsweek* and other magazines often have a "last word" opinion section at the end of their editions. Because the first eight pages of *GSA Today* are color, the back pages are in color as well. Publishing the public-interest and public policy articles in the back would allow for color figures to be included at no additional cost. This
would also provide a "book-end" arrangement, with the science article heading the issue and policy article closing the issue.

- Coordination and article review will be handled by *GSA Today* science editors, perhaps in conjunction with a member of the GSA Science and Public Policy Committee. *GSA Today* science editors will be responsible for review and acceptance of the articles, as well as guiding the authors regarding *GSA Today* standards and revision.

- Frequency of publishing will occur as these articles are made available.

- Articles will go through peer review, and authors will be asked to suggest the names of potential reviewers. Submission of text and figures as a pdf file is most efficient.

- The Information for Contributors website is not yet updated to include these policy articles, but does offer guidance on format and for calculating page size: [http://www.geosociety.org/pubs/gsatguid2.htm](http://www.geosociety.org/pubs/gsatguid2.htm)

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**2006 Earthquake Awareness Week – February 1-7**  
**Recognized Annually in Missouri and the Central US**

*Earthquake Awareness Week* is an annual outreach event that especially focuses on the needs of private-sector and policy-making leaders in Missouri and the central US. Since 1995, *Earthquake Awareness Week* has been recognized during the first week in February – the anniversary of the largest of the 1811-1812 series of New Madrid, Mo. earthquakes. The event is planned and led by volunteers from the geoscience, engineering, and emergency management communities.

On Friday morning, February 3, 2006, “Earthquakes: Mean Business” will be held at the SBC Data Center Auditorium (350 capacity), in St. Louis, Mo. This is a free, half-day outreach program that focuses on the interests and needs of the business community. Three to five speakers – geoscientists, engineers, and business managers – will discuss the results of new research and technologies that have advanced the regional understanding of earthquake hazards, earthquake risks, and earthquake risk management. Most importantly, these presentations are not overly technical and are especially relevant to the audience – speakers and topics are chosen carefully! This is a new venue for 2006: the event has outgrown its former home at the headquarters of the regional electric utility, AmerenUE. Also new this year, the University of Missouri at Rolla will award continuing education units (CEUs) to attendees to maintain currency as licensed professionals in various insurance, business operations, planning, property, engineering and design, and finance careers. Most audience members are from these career areas.

On Saturday, February 4, 2006, more than 80 volunteer geoscientists, engineers, and emergency managers will host at least 25 special earthquake-related exhibits, demonstrations, and hands-on activities at the St. Louis Science Center. This annual event is for the general public, with a special focus on children and K-12 teachers. One special activity is the *Earthquake Knowledge Hunt*, which is similar to a scavenger hunt. Children will discover facts about earthquakes and win small prizes.

On Monday, February 6, 2006, the *St. Louis Area Earthquake Hazards Mapping Project* will host its Semi-Annual Meeting. This is for those who are working on or interested in this project, which is a part of the USGS’ national seismic hazards mapping program. The group will meet in St. Louis to report progress, identify challenges, and generally brainstorm the project.

On Tuesday, February 7, 2006, “Shaking (Hands) in Jefferson City” is planned. This is a new, proactive outreach event to introduce earthquake awareness to state legislators and key industry associations in Missouri’s state capital. Participants from the geoscience, engineering, and emergency management communities will travel together on Amtrak from St. Louis or Kirkwood to Jefferson City. (Train schedules allow a one-day round-trip.)
The purpose of the visits is to inform and educate the elected officials about the earthquake hazards and earthquake risks that affect Missouri. Participants will also visit with key industry association staff who may be interested in having a speaker from our group address their membership at an upcoming meeting, or who may need an article for their next newsletter. The intent here is to start a credible, professional, and mutually beneficial relationship between the geoscience and engineering community and these key industry audiences.

Finally, to help participants maintain that professional look – there are Earthquake Awareness Week shirts available this year. Long- or short-sleeved golf-shirts are maroon, with white stitching “Earthquake Awareness Week” on the wearer’s upper left. Ask for an order form for Earthquake Awareness Week shirts directly from sales@dtembroidery.com.

All of these outreach activities have grown annually, and continue to be an all-volunteer effort. Sponsors include the Geology and Society Division of GSA, the USGS, the Missouri Department of Natural Resources, Laclede Gas Company, SBC Corporation, St. Louis University, Central US Earthquake Consortium, the University of Missouri at Rolla, Washington University, the Earthquake Engineering Research Institute’s New Madrid Chapter, the Association of Engineering Geologists St. Louis Chapter, AmerenUE, the Mid-America Contingency Planning Forum, and many others.

For more information about any of the events planned for 2006 Earthquake Awareness Week, please contact Phyllis Steckel at 636-239-4013 or psteckel@charter.net.

Phyllis Steckel
Washington, MO

SIDEBAR 1

The 2005 Earthquake Awareness Week events held in St. Louis, Mo. included geoscientists, engineers, and emergency managers from throughout Missouri, as well as Tennessee, Illinois, Arkansas, Indiana, Virginia, Kentucky, Mississippi, and Arkansas.

SIDEBAR 2

This is also a great time of fellowship and networking among professionals hosting the event: many have participated annually since 1995 and look forward to the annual schmooze.

Jim Wilkinson, Executive Director of the Central US Earthquake Consortium (CUSEC) in Memphis, TN, shows some St. Louis children how and where earthquakes occur during Earthquake Awareness Week.

Two Southern Illinois University at Edwardsville graduate students are ready to demonstrate their “Virtual Earthquake” software during Earthquake Awareness Week at the St. Louis Science Center.
Geologist Bob Bauer, from the Illinois State Geological Survey, helps some Missouri students get started on their “Earthquake Knowledge Hunt.”

Dr. Shirley Dyke, of Washington University in St. Louis, shows some fascinated children what happens to tall structures during earthquakes. The Washington University Student Chapter of the Earthquake Engineering Research Institute developed the models.