

Quaternary Geologist & Geomorphologist

Newsletter of the Quaternary Geology and Geomorphology Division

<http://rock.geosociety.org/qgg>

Volume 52, No. 1

June 2011



Left: Group hike through Beaver Meadows during the Fall 2010 Kirk Bryan fieldtrip - "Inferring the Historical Range of Variability in Rocky Mountain National Park." Photo by Sara Rathburn.

Right: Group photo at the overlook on Trail Ridge Road, RMNP, during the 2010 Kirk Bryan fieldtrip. Photo by Sara Rathburn



Quaternary Geology & Geomorphology Division Officers and Panel Members – 2010/11

Officers – 6 Members, three of whom serve one-year terms: Chair, First Vice-Chair, and Second Vice-Chair; and three of whom serve two-year terms: Secretary, Treasurer, and Newsletter Editor/Webmaster.

Management Board – 8 Members: Division officers and the Chair of the preceding year; also includes the Historian as an *ex officio* member.

CHAIR:

P. Kyle House

U.S. Geological Survey
Geology and Geophysics Science Center
2255 N. Gemini Drive
Flagstaff, AZ 86001
pkhouse@gmail.com



1st VICE-CHAIR:

Sara Rathburn

Department of Geosciences
Colorado State University
Fort Collins, CO 80523-1482
rathburn@cnr.colostate.edu



2nd VICE-CHAIR

Jim O'Connor

U.S. Geological Survey
2130 SW 5th Avenue
Portland, OR 97201
occonnor@usgs.gov



SECRETARY:

Jon J. Major

U.S. Geological Survey
1300 SE Cardinal Court
Building 10, Suite 100
Vancouver, WA 98683
jjmajor@usgs.gov



Treasurer:

Scott F. Burns

Department of Geology
Portland State University
PO Box 751
Portland, OR 97207-0751
burnss@pdx.edu



Newsletter Ed./ Webmaster: Dennis Dahms

Department of Geography
ITTC #215
University of Northern Iowa
Cedar Falls, IA 50614-0406
dennis.dahms@uni.edu



Historian: (*Appointed by the Chair in consultation with the Management Board*)

P. Thompson Davis

Professor, Geology & Climatology
Dept of Natural Sciences
Bentley University
Waltham, MA 02452-4705
pdavis@bentley.edu



Past Chair:

Paul Bierman

Geology Department
University of Vermont
Burlington, VT 05405
pbierman@uvm.edu



PANEL MEMBERS

2010-2012 Panel

Karen Gran, kgran@d.umn.edu
Anne Jefferson, ajeffe10@uncc.edu
Tammy Rittenour, tammy.rittenour@usu.edu

2009-2011 Panel

Yvonne Martin, ymartin@ucalgary.edu
Dave Wilkins, dwilkins@boisestate.edu
Yehouda Enzel, yenzel@vms.huji.ac.il

2011 JTPC Representatives:

P. Kyle House

U.S. Geological Survey
Geology and Geophysics
Science Center
Flagstaff, AZ 86001

Sara Rathburn

Department of Geosciences
Colorado State University
Fort Collins, CO 80523-1482

GSA Councilor – Monica Gowan

QG&G Division Liaison – Wesley Hill

(Both appointed by the GSA President)

QG&G DIVISION AWARDS - 2010

The following awards were given by the QG&G Division at our annual awards ceremony on Tuesday, November 2nd, at the Colorado Convention Center, Denver, Colorado.

— Kirk Bryan Award —

The Kirk Bryan Award for Research Excellence was established in 1951. The award is given for a publication of distinction (within the past 5 years) advancing the science of geomorphology or Quaternary geology, or a related field. Our 2010 award was presented to **Rolfe Mandel**, Kansas Geological Survey, for his paper, 'Buried paleoindian-age landscapes in stream valleys of the central plains, USA', 2008, *Geomorphology*, v. 101, p. 342-361.

Citation (by Alan Simmons and Art Bettis):

The 2010 Geological Society of America Kirk Bryan Award is presented to Dr. Rolfe D. Mandel, Executive Director of the Odyssey Geoarchaeological Research Program and Professor of Anthropology at the University of Kansas. The award is for his 2008 paper *Buried -paleoindian-age landscapes in stream valleys of the central plains, USA*, published in *Geomorphology*. The paper is a masterful merging of stratigraphic, geomorphological and archaeological data across the Central Plains that addresses long-standing questions in fluvial geomorphology and stratigraphy, landscape development and cultural history. Rolfe presents results from more than two decades of his interdisciplinary research in the region, focusing on two tasks; 1) a field-based quantitative evaluation of fluvial response to environmental change across the Pleistocene/Holocene boundary and 2) analysis of how geological processes have filtered the archaeological record of the region's earliest inhabitants.

In his usual fashion, Rolfe accomplishes these tasks through exhaustive field work that supports systematic hypotheses testing. As one support letter put it "The sheer numbers of sites studied in detail and the area over which they are found are actually quite staggering." Rolfe goes far beyond previous work in the Central Plains by systematically investigating the stratigraphic record of valleys through the drainage hierarchy. The result is a comprehensive picture of how the region's *entire* fluvial system behaved during a period of major environmental change. He uses alluvial and soil stratigraphic studies supported by a robust radiocarbon chronology to thoroughly demonstrate that response of the fluvial system to climate and vegetation

changes varied systematically through the drainage hierarchy.

The second major accomplishment of the paper is resolution of a long-standing archaeological debate about the region's first inhabitants. He applies his extensive stratigraphic data set to addressing reasons for the apparent paucity of Central Plains Paleoindian sites, while surrounding parts of the Great Plains and eastern Rockies are rich in these sites. Rolfe tackles this complex issue with an attention to pedologic, stratigraphic and paleoenvironmental data coupled with a detailed knowledge of regional archaeological manifestations. He demonstrates that the lack of Paleoindian sites is likely more apparent than real, concluding that geological filters control site visibility and preservation, rather than of an actual lack of human occupation. The sheer number of study sites, their wide geographic distribution and a very robust chronology provide unequivocal support for Rolfe's conclusions. Not content to merely demonstrate why sites appear to be so rare, he also provides realistic targets for future investigations to further his pioneering work on the peopling of the Central Plains. As Jim Knox, one of the numerous supporters of Rolfe's nomination, put it, this is simply a "great influential paper."

This detailed and comprehensive single-authored paper epitomizes the type of regional interdisciplinary research that Kirk Bryan pioneered and promoted; extensive field study with attention to detail followed by careful analysis of relevant data that leads to thoughtful conclusions. Like the namesake of this award, Rolfe's influence and experience are wide-ranging. He has made significant geomorphological, geoarchaeological and archaeological contributions in areas as diverse as the Central Plains, the Big Bend region of southwest Texas, the Ohio River Valley, Jordan, and the Mediterranean island of Cyprus. Many of the more than 30 supporters of Rolfe's nomination for this award commented on their respect for his professionalism, commitment to mentoring, unselfish collaboration and contributions to Quaternary Science. Dr. Reid Ferring put it best: "In this very real way I believe that (Rolfe) mirrors the standards established by the namesake for this award." We should all be proud to recognize Rolfe, our friend and colleague, with this, the 2010 GSA Quaternary Geology and Geomorphology Division Kirk Bryan Award.



2010 Kirk Bryan Award awardee **Rolfe Mandel** (right) with citationist **Alan Simmons** & **Paul Bierman**

Response by Rolfe Mandel:

Thank you, Alan and Art, for your kind words, and for nominating my article for the 2010 Kirk Bryan Award. I also thank my friends and colleagues who supported the nomination. I feel honored that the QG&G Kirk Bryan Award Committee selected me for such recognition, and I am truly humbled to be in the company of the previous awardees, many of whom are my heroes. This brings me to a strange coincidence. The day before I received notification of this award I began a lecture in my geoarchaeology class with the following confession: “Kirk Bryan is one of my heroes.” Blank stares were on most faces. One student cautiously asked if Kirk Bryan had been on the TV show “American Idol.” It was obvious that virtually none of the students knew of whom I was talking about, much less why I considered him worthy of admiration. They did not know that Kirk Bryan played a role in my career, and even influenced the composition of the paper that is receiving recognition this evening.

During the early 1970s, while I was an undergraduate geography student at the University of Texas, my mentor and close friend, Curt Sorenson, introduced me to Kirk Bryan’s work. One of the assigned readings in Curt’s soil class was a 1943 *American Journal of Science* article by Bryan and Claude Albritton entitled “Soil phenomena as evidence of climate changes.” Their study area was in the Davis Mountains of West Texas, a place close to my heart, and I found the idea of using soils as proxies for Quaternary climate change a fascinating concept. Bryan’s work, as well as Peter Birkeland’s remarkable book, *Soils and Geomorphology*, got me excited about soil stratigraphy and influenced my graduate research and subsequent focus on soils as components of Quaternary landscape evolution. In 1996 I literally followed in Kirk Bryan’s footsteps when I reinvestigated the type locality of the

Calamity Creek Formation in the Big Bend region of Texas. Unlike me, Bryan and Albritton did not have the luxury of radiocarbon dating and stable carbon isotope analysis, yet their chronology and reconstruction of late-Quaternary climate change, inferred entirely from the morphology and physical properties of buried soils, were remarkably accurate. This is a humbling lesson for all of us.

Kirk Bryan spent most of his career working with archaeologists, especially those who focused on the Paleoindian record. I have done the same thing. Bryan died in Cody, Wyoming, while visiting the Horner archaeological site. It is good to know he passed away doing what he enjoyed in life: looking at soils and archaeological landscapes. I can only hope that when I take my last breath I am looking at a lovely buried alluvial soil somewhere in the Central Great Plains.

In the course of my career many friends and colleagues have been a source of enthusiasm and support. I thank my “dirt brothers,” Art Bettis and Ed Hajic, and fellow geoarchaeologists Paul Goldberg, Vance Holliday, Reid Ferring, and Julie Stein. It has been a *privilege* to work with some world-class archaeologists, including Alan Simmons, Mark Lynott, Jack Hofman, Alston Thoms, Neal Lopinot, Joe Saunders, and Bob Mallouf, to name a few. I am especially grateful to Millard Brent, who in 1971 took me under his wing and pointed me in the right direction, and to my mentors, Curt Sorenson and Wakefield Dort, for their guidance, patience and friendship. Also, thanks goes to Joe and Ruth Cramer, who established an endowment that supports much of my research at the University of Kansas. Last, but certainly not least, I am grateful to my wife, Sharon, and my son, Daniel, for enduring my frequent departures to places often far from home. Their tolerance and encouragement, and the support of my friends and colleagues, have been my inspiration. Once again thanks to all of you for the recognition that now links my name to my hero, Kirk Bryan.

— Distinguished Career Award —

The Distinguished Career Award, established in 1985, is presented to Quaternary geologists and geomorphologists who have demonstrated excellence in their contributions to science. For 2010, we presented the award to **Vic Baker**, University of Arizona.

Citation (by Robert Webb & Jim O'Connor):

At the 2009 Global Continental Paleoflood Hydrology meeting in Israel, approximately one third of the participants at this high-level international meeting were either former students, post-docs, or frequent collaborators of Dr. Victor R. Baker. This level of association typifies the impact of Baker's career on this discipline, and it is only one of four areas that Baker has contributed to during his extraordinary career. Vic completed his dissertation in 1971 at the University of Colorado at Boulder, beginning a sustained multidisciplinary investigation of Late Pleistocene flooding in eastern Washington and northern Oregon commonly known as the Lake Missoula outburst floods. He is internationally recognized for his championing of catastrophism as a force in shaping the surfaces of Earth and Mars, both in terms of large- and small-scale extreme floods and mass wasting. In particular, his examination of the channel-like features of the surface of Mars is widely recognized and used as an authoritative source on the geomorphology of that planet. His contributions to the Quaternary geology of regions impacted by glacial outburst floods, notably the Channeled Scablands of eastern Washington, are classic examples of catastrophic landforms once thought to be of more uniformitarian origin. Vic and his students developed the technique of paleoflood hydrology, widely used world-wide to assess flood hazards and understand the origin of fluvial landforms. Last but certainly not least, he has devoted a substantial amount of his career to the philosophy of science and the contributions made by geologists and geomorphologists to the way we approach scientific endeavors. His publications, which number more than 350, include numerous books and monographs as well as publications considered to be classic and authoritative in their subject matter. As a professor at the Universities of Texas and Arizona, Vic has trained numerous students in Quaternary geology, planetary geology, geomorphology, and surface-water hydrology. At least 30 Ph.D students have benefited from Vic's tutelage, and two of these have been awarded the Kirk Bryan Award from the Quaternary Geology and Geomorphology Division. If students mark the quality of a professor, then Vic is distinguished as a teacher, because his students occupy positions of importance within the earth sciences in the United States and around the world. Finally, we emphasize that Vic is not seriously contemplating retirement, and we expect that some of the best of his career is still ahead of him. It is with great honor and humility that we nominate Dr. Victor R. Baker for the Distinguished Career Award.



DCA awardee **Vic Baker** (unmistakable) with the 'Bakerites'.

Response by Vic Baker:

Thank you Bob and Jim for nominating me. However, I confess to being somewhat hesitant in regard to receiving this honor. Of course, yours is a recommendation by former students who have long since surpassed their mentor scientifically. So, I certainly respect your views. I guess it is just that I feel that more needs to be done on my part. Consider the truly worthy past recipients of this award, including legends like Luna Leopold, Stan Schumm, Bob Sharp, and Linc Washburn. That list includes all my own Colorado mentors: Bill Bradley, Pete Birkeland, and John Andrews. It also includes my esteemed colleagues and collaborators: Bill Bull, John Costa and Dusty Ritter. This is really exalted company into which you have thrust me!

I need also confess that I was actually involved in creating the QG&G Division Distinguished Career Award. As First Vice-Chair of the Division I worked with then-chair Dave Mickelson to both establish the award and to make its first presentation (in 1986) to another of those legends, Dick Goldthwait. Twenty-five years seems to have gone by so quickly!

I need further to confess that all the incoming management board of the Division consists of my ex-students. Even the current Kirk Bryan Award winner attended some of my classes during the 1970s when he and I were at The University of Texas at Austin. One might suspect a conspiracy here! But, no, I rather think that all this shows that there is a great chain of connection at work. Our science is not a job; it is an attitude that propels its devotees on an endless quest. It is the continuing pleasure of that quest that constitutes the true rewards of this task, and it is my enduring honor to have joined and been joined in that quest by you guys, by my many other students, and by numerous colleagues, collaborators, and mentors, and even by legends, only a few of whom I have been able to mention by name above.

Of course, my loving wife Pauline deserves sainthood for enduring my seemingly endless research inquiries, including arduous field experiences in Australia, India, Siberia, and beyond. Why, she once asked, did I not take up the study of tropical beaches? The answer, of course, is the one I gave in my formal paper presentation related to this award, entitled "Letting Floods Tell Their Own Stories." It was the flood stories that I was privileged to read from nature that told me where to go and what to study. It is the source from whence those stories arose that deserves all credit, and it is from that source that I continue to have the privilege of interpreting the many messages worthy of recognition.

- Vic Baker

— The Farouk El-Baz — Award For Desert Research

The Farouk El-Baz Research Award, established in 1999, is given annually for outstanding work in the field of warm desert research. The award is intended to encourage and reward arid-land studies. The 2010 award was presented to **Xiaoping Yang**, Chinese Academy of Sciences.

Citation (by Stephen Wells):

It gives me great pleasure to see GSA's Quaternary Geology & Geomorphology Division give the prestigious Farouk El-Baz Desert Research Award to Professor Xiaoping Yang. Dr. Yang is truly meritorious for this award which is being made for his innovative, systematic, and sustained contributions in studying Late Quaternary climate changes, landscape evolution and sand sources in hyper-arid deserts of northern China. Dr. Yang's accomplishments over the past decade, and his remarkable potential to offer more scientific insights to our planet's deserts in the coming years, have been recognized by leading aridland geomorphologists and Quaternary geologists around the world. I am deeply appreciative of many of our colleagues, some prior El-Baz award recipients, who provided critical letters of support for his nomination, including: Professor John Dodson (Institute for Environmental Research, Australian Nuclear Science and Technology Organization), Professor Andrew Goudie (Oxford, former Farouk El-Baz award recipient), Professor Bernhard Eitel (Heidelberg University), Professor Olav Slaymaker (University of British Columbia), Professor Martin Williams (University of Adelaide, former Farouk El-Baz award recipient), Professor David Thomas (Oxford University Centre for the Environment), Professor Takashi Oguchi (University of Tokyo), and Dr. James Zimbleman (Smithsonian Institution).

Dr. Yang is one of the first people to systematically study environmental changes during the Late Quaternary in the hyper-arid areas of north China. His studies include reconstructing climate changes during the last 40,000 years in the Badain Jaran and Taklamakan deserts in northwestern China. He has re-examined the evaporation rates and ground-water system in Badain Jaran Desert and used the lacustrine records in the sand sea for interpreting Holocene climate changes. He is also known for his investigation of sediment sources of deserts and sandstorms in China, using approaches of isotope and rare earth elements (REE) geochemistry.

Dr. Yang was supervised by Professor Juergen Hoyerl at Goettingen University of Germany, where as a graduate student, he applied concepts of climatic geomorphology to make a classification of Chinese desert landscape types for his doctoral thesis. This thesis incorporated by fieldwork and laboratory data was one of the main products from two influential joint Sino-German desert expeditions. After receiving his Ph.D., he has maintained his enthusiasm for desert research, building his own research program through detailed fieldwork, often with long days riding on a camel in the sand seas of Badain Jaran and Taklamakan. Through his collaborations with Professor Zhu Zhenda, Professor Ulrich Radtke in Koeln, and Professor Dieter Jaekel in Berlin, Dr. Yang has used results from radiocarbon and OSL (Optically Stimulated Luminescence) dating methods in his investigations related to the geomorphological and sedimentological records in the Badain Jaran and Taklamakan, and his studies reconstructing the occurrence of wetter conditions during the last 40,000 years in the Taklamakan and in the Badain Jaran. On the basis of wetland and river histories, inferred from both geomorphological evidence and historical documents, Professor Yang inferred that deserts in western China experienced a wetter climate during the Little Ice Age, and even during the Last Glacial Maximum, probably due to stronger impact of the north-hemispheric westerlies. His palaeoenvironmental work provides a critical foundation for our understanding of deserts in China, as it rectified an earlier hypothesis that the deserts in Central Asia and China should have undergone a continuous process of aridification in the Quaternary.

Dr. Yang's most notable contribution is his work in the Badain Jaran Desert, which is characterized by the tallest dunes on Earth and by a large number of permanent inter-dune lakes. Based on field observations, he suggested that two factors are crucial to the formation of these megadunes: (1) overlapping of dunes formed during various epochs associated with climatic fluctuations, and (2) underlying bedrock landforms. Using tritium isotope, Dr. Yang and his

collaborators (mainly Professor Liu Jiaqi and Professor Martin Williams in Adelaide) and students, found out that the shallow ground water in the Badain Jaran is from quasi-modern precipitation and the lake level changes there reflect on-site climate changes. By studying the chemistry and isotopes in ground and surface waters, as well as modern ground-water recharge, these researchers suggested that precipitation played a significant role in recharging the ground water in the Badain Jaran Desert. Professor Yang's long-term research efforts in the Badain Jaran Desert has provided consistent evidence showing that the climate was less harsh during the middle Holocene in this region, implying that the wetter climates during the middle part of the Holocene were likely triggered by an intensified East Asian summer monsoon associated with strong insolation. The results of his studies are not only significant in terms of understanding the hydrologic cycles in these deserts, but are also important in their implications for the regional water management plans.

The long-term and significant question of the sediment sources for the dust storms of northern China is another key focus of Professor Yang's research. To address this problem, he has compared the trace elements and oxygen isotopes of quartz grains in the dust storms with sediments in desert regions of northern China. From these data, Professor Yang came to the conclusion that the concentrations and patterns of trace elements and oxygen isotopes of quartz grains are different from region to region. Thus, the aeolian sands occurring in the areas around Beijing are of local origin, not due to encroachment of deserts located in the north. However, the sediments in the dust storms are mainly from the remote desert regions of northwestern China. Consequently, he suggested that environmental rehabilitation efforts should be implemented on a larger scale in order to effectively mitigate hazards of dust storms.

It has long been known that China is one of the countries facing the worst consequences of "desertification." However, the definition of desertification and its regional application are controversial topics in China, resulting in a misunderstanding between deserts and desertification. In some of Dr. Yang's detailed case studies, he elucidated that the vast deserts in China are not resulted from the processes of desertification, and that these deserts should not be included in the data of desertification. Consequently, Dr. Yang's studies of the role of desertification in the global carbon cycle illustrates a more complicated pathway and provides a more reasonable estimate than some data published earlier. Professor Yang's studies in the Hunshandake Sandy Land of northern China shows that the carbon storage in soil can decrease by more than 40% in just three decades

due to desertification; however, a large portion of this lost carbon is re-deposited in the areas of downwind directions, rather than released into the atmosphere. From my observations, Dr. Yang's enthusiasm has made him a mentor and inspiration for young scientists in China, as his interest in desert research has encouraged several young Chinese scholars to engage in these studies. In the last ten years, Professor Yang has successfully set up a desert research group in Beijing and made desert research as a new focus area in his Institute. He is one of the very few Chinese scientists who has blended exceptional fieldwork in the interior deserts of China and established a global vision about the importance of deserts in understanding Earth System. By actively participating in Chinese and international scientific activities and through his editorial role in various internationally reputable journals, he has not only become a renowned scientist for his innovative knowledge about deserts, but he has also evolved into an outstanding mentor.

In conclusion, I would like to point out that the prestigious Farouk El-Baz Award has been given to geomorphologists around the world, including Australia, England, India, Israel, and the United States. However, it has never been awarded to anyone from China in recognition of the outstanding desert research conducted by Chinese scientists. This award from GSA Quaternary Geology and Geomorphology would provide great encouragement to Professor Xiaoping Yang as well as to all other younger Chinese geomorphologists who will continue to build upon his endeavors to understand desert landscapes and environmental changes over time.

Tonight our Division gives the Farouk El-Baz award to Prof. Yang in recognition for all of his research efforts which have helped to establish a global vision about the importance of deserts in understanding Earth System.



El-Baz awardee **Xiaoping Yang** with citationist **Stephen Wells** (right) & **Paul Bierman**.

Response by Xiaoping Yang:

Thank you, Steve, for your very kind and remarkably encouraging words. I am very grateful to you and to all of those who so graciously supported my recommendation, to the Quaternary Geology and Geomorphology Division, and the Geological Society of America for this honor. President Wells, as you might feel, I always cherish the chance to meet you and our conversations, communications and discussions since we first met a decade ago.

I have to admit that I was assigned to study physical geography while I went to University in China in 1980. To choose deserts as my field of work was, however, solely my personal decision. I was accepted by Professor Zhenda Zhu as his postgraduate student in 1984 to study desert geomorphology and desertification processes. As a student participating in the first Sino-German joint desert expedition into Taklamakan in 1986, I met Professor Hoevermann who offered me the opportunity to do palaeoclimatological research in deserts for a doctoral degree in his department in Goettingen after the expedition. With support and encouragement particularly from Professors Tungsheng Liu, Jiaqi Liu and Zhongli Ding, I was tenured in my present institution and have continued my work in deserts. Although many years have passed, I can still clearly feel their trust which enabled me to think about forms and processes occurring in drylands in free and creative ways.

As a son from a primary school teacher's family in the foot of Liupan Mountains of northwestern China, I tremendously appreciate the surprises and joys to have seen some spectacular deserts of the world, even including the Mojave Desert of the USA. My work in deserts could not have been sustained without support from the National Natural Science Foundation of China and the Chinese Academy of Sciences. I am fortunate to have been exposed to wonderful inspirations during collaborations and discussions with senior scientists, and colleagues and friends based both in Chinese and overseas institutions, and in more recent years with my own students also. I owe an enormous debt of gratitude to desert residents who have generously helped me during my fieldwork and to scientists from various countries, opening the windows of other deserts of the world to me by inviting me to participate in their meetings and fieldtrips. As a maximum of five minutes are scheduled for me this evening, I will not be able to mention all these names, although they are constantly in my thoughts. I owe tremendous thanks to all of them and to my family members who have fully supported my work over the decades and freed me from duties a son, brother, husband or father would normally have to bear. I am very pleased to have met some of them at this

great conference and to see you again in this unforgettable evening.

I feel very lucky to stand humbly and gratefully in the shadow of Prof. Farouk El-Baz and those who have received this award before me. There is no doubt that Prof. El-Baz and the previous recipients are distinguished models for me to follow in my life. I feel greatly encouraged to carry out much more research towards a better understanding of geomorphology and Quaternary environmental changes in Chinese deserts in the years to come.

Once more, my sincere thanks to all of you!

- Gladys W. Cole Memorial Award -

The Gladys W. Cole Memorial Research Award is restricted to investigation of the geomorphology of semiarid and arid terrains in the United States and Mexico. It is given each year to a GSA Member or Fellow between 30 and 65 years of age who has published one or more significant papers in geomorphology. The Fund was established in 1980 by Dr. W. Storrs Cole in memory of his wife. The first award was presented in 1982. The 2010 award was given to **Kathleen Nicoll**, University of Utah, for "Revisiting G.K. Gilbert's 'Great Bar at Stockton, Utah' – documenting a site in peril."



Cole awardee **Kathleen Nicoll** (right) with Paul Bierman and Sara Rathburn

— Student Research Awards —

Our Division offers three student awards: The **J. Hoover Mackin Research Award** was created in 1974 to support graduate student research in Quaternary geology or geomorphology. The **Arthur D. Howard Research Award** was established in 1992 to support graduate student research in Quaternary geography or geomorphology. The **Marie Morisawa Award** was established in 2006 to support a promising female graduate student in geomorphology.

— J. Hoover Mackin Award —

The 2010 Mackin Award for Ph.D. research was given to **Juan Luis Garcia**, University of Maine, for “Holocene History of the southeastern outlet glaciers, Hielo Patagónico Sur, in Torres del Paine National Park (51°S), Southern Patagonia, Chile”.

Honorable mention: Matthew Jungers, Arizona State University, for “Life after faulting: Post-tectonic evolution of Southeastern Arizona’s Basin and Range”.

— The Marie Morisawa Award —

The 2010 Marie Morisawa Award, the inaugural year for this award, was given to **Britta J.L. Jensen**, University of Alberta, for “A chronostratigraphic framework for the middle Pleistocene in eastern Beringia”.

Honorable Mention: Erica Bigio, University of Arizona, for “Reconstruction of the fire and alluvial sedimentation history using tree-ring and alluvial sediment methods”.

— Arthur D. Howard Research Award —

The 2010 Howard Award for M.S. research was given to **Ryan W. Wood**, San Jose State University, for “Transient hillslope response to a knickpoint sweeping up a watershed”.

Honorable Mention: Serin Duplantis, Portland State University, for “Landslide inventory mapping and dating using LiDAR-based imaging and roughness modeling in Clackamas County, Oregon”.

Robert K. Fahnstock Memorial Award

The 2010 Fahnstock award honors the memory of the former member of the Research Grants Committee, who died indirectly as a result of service on the committee. The award is given for the best proposal in sediment transport or related aspects of fluvial geomorphology.

The 2010 recipient was **Erica Bigio**, University of Arizona, for “Reconstruction of the fire and alluvial sedimentation history using tree-ring and alluvial sediment methods”.

-- The John Montagne Fund --

The Montagne fund was established in 2000 to support one student’s research in Quaternary Geology and Geomorphology. The 2010 recipient was **Kerry Riley**, Boise State University.

--- UPCOMING MEETINGS ---

XVIII INQUA Congress
Quaternary Sciences:
The view from the mountains.
21-27 July in Bern Switzerland
(<http://www.inqua2011.ch/>)

2011 ROCKY MTN FOP

This year’s trip will explore the Bonneville Flood. Check with Ben Crosby and Mike Lamb for details.

---- MISCELLANEA ----

European Geosciences Union

The European Geosciences Union has created web pages for its divisions. For the Geomorphology division, we are looking to build a useful and exciting site that provides the research and student community with up to date news, information about meetings and publications, training opportunities and job openings at all levels, research and teaching resources, links and networking mechanisms. It will be a site for you to post and to find material, to learn about and broadcast what is happening in geomorphology. The pages went live on November 1, 2010.

We welcome:

- Short news items.
- Conference, workshop and summer school announcements.

- Studentship opportunities.
- Job opportunities.
- Useful geomorphology web-links with short one-sentence descriptions. Think about links to teaching slides, software applications and datasets without relevant legal restrictions, and images.
- Small ads and announcements of a non-commercial nature.

Please submit your material to geomorphology@egu.eu. We will then try to rapidly publish it on the EGU GM pages. Thank you for helping us build a community website!

Arnaud Temme, Webmaster
Niels Hovius, President Geomorphology Division

Environmental & Engineering Geoscience seeks contributed papers

(EEG) is co-published by GSA and the Association of Environmental & Engineering Geologists. The journal accepts peer reviewed manuscripts that address issues relating to the interaction of people with hydrologic and geologic systems. Geomorphology studies are most welcome. Theoretical and applied contributions are appropriate, and the primary criteria for acceptance are scientific and technical merit. As of 2009 color figures which are needed to convey scientific content are printed at no charge to authors. Electronic submission and review are conducted at <http://eeg.allentrack.net>

MRI DATABASE

For those interested in integrated global change research, we would like to draw your attention to the database being built by the Mountain Research Initiative (MRI) in Bern, Switzerland.

The database is MRI's central networking tool to connect people from research, government, NGOs and the private sector involved in the issue of global change in mountain regions in one way or another. It includes both contact information and details on the participants' areas of expertise. To date the database already comprises close to 3000 entries. Make (or revise) your entry now at: <http://mri.scnatweb.ch/content/view/40/44/>.

MRI's goals are to advance the understanding of how global change, especially climate change, will impact mountain environments, peoples and economies throughout the world, and to promote the use of that understanding in the pursuit of sustainable management of mountainous regions. MRI is endorsed

by IGBP, IHDP, GTOS and the MAB Program. Find out more at our new website: <http://mri.scnatweb.ch>.

SWGNET Online

Georectified Aster satellite imagery data as geotiff for the Southwestern US and northern Mexico. We have more than 2300 images (>350Gb) available and more on the way. They have been acquired from 2000 to 2004. Image selection is done through our main swgeonet map server:

<http://aspen.asu.edu/website/Geoinformatics/viewer.htm>.

Just make one or more of the Aster layers visible, make the one you are interested in active, and click on a footprint of interest with the inquire (i) tool and then click through the various options.

Here is a tutorial that might help to get you going:

http://www.geoinformaticsnetwork.org/swgeonet/Data/Tutorials/Tutorial-ASTER_data.htm.

I also have a paper and talk from the ESRI user's conference:

<http://activetectonics.la.asu.edu/GEONatASU/Data/ESR/2004GEONArrowsmith.ppt>;

<http://activetectonics.la.asu.edu/GEONatASU/Data/1915.pdf>; SWGNET home page:

<http://www.geoinformaticsnetwork.org/swgeonet/>.

Please use this and let us know how useful it is. Please be sure to acknowledge the source.

J Ramón Arrowsmith ramon.arrowsmith@asu.edu
Assoc Prof., Arizona State University
Department of Geological Sciences
Arizona State University
Tempe, AZ 85287-1404, U.S.A.
(480) 965-3541 OFFICE (480) 965-8102 FAX

DENDROCHRONOLOGY DATABASE

The Bibliography of Dendrochronology is an archive of printed documents relevant to tree-ring research worldwide, that you can search for free. It was compiled and is constantly updated by Henri D. Grissino-Mayer. It currently contains over 8200 references dating back to 1737. <http://www01.wsl.ch/dendrobiblio>

You are welcome to contribute by sending reprints of relevant publications to:

Dr. Henri D. Grissino-Mayer
Department of Geography
University of Tennessee
Knoxville, TN 37996
(865) 974-6029
<http://web.utk.edu/~grissino>

ELSEVIER JOURNALS

Femke Wallien, the Earth and Environmental Sciences publisher at Elsevier announces that the titles, authors and abstracts of articles published in the following journals are available online at no cost:

Geomorphology:

<http://www.elsevier.com/locate/geomorph>

Quaternary International:

<http://www.elsevier.com/locate/quaint>

Quaternary Research:

<http://www.elsevier.com/locate/yqres>

Quaternary Science Reviews:

<http://www.elsevier.com/locate/quascirev>

Quaternary Geochronology:

Elsevier has recently started this new journal. Editor in Chief is Rainer Grün from the Australian National University in Canberra. The journal publishes highest-quality, peer-reviewed articles on all aspects of dating methods applicable to the Quaternary Period. A Guide for Authors, free sample copy and instructions for submission of articles can be found at:

<http://www.elsevier.com/quageo>

Also, you can receive Tables of Contents via email as each new issue publishes. Register your email address with ContentsDirect, Elsevier's free email alerting service, at <csub@elsevier.co.uk> or online at <http://contentsdirect.elsevier.com/>

IAG NEWSLETTER

IAG Newsletters are available on the IAG Website: <http://www.geomorph.org>

GEOMORPHORUM

The newsletter of the Association of American Geographers (AAG) Geomorphology Specialty Group can be accessed at:

<http://www.aag-gsg.org//geomorphorum.shtml>

Send comments and suggestions to:

Alice Turkington, Chair, AAG-Geomorphology
Specialty Group
Department of Geography
University of Kentucky
Lexington, KY 40506-0027
alicet@uky.edu

PAGES - (PAst Global changES)

The core mission of PAGES is to *facilitate international collaborations and interdisciplinary science*, especially between individuals involved in national programs with overlapping interests. The PAGES scope of interest includes the physical climate system, biogeochemical cycles, ecosystem processes, biodiversity, and human dimensions. The emphasis is on high-resolution studies of global change – such as those stored in ice cores, tree rings, speleothems, corals, lakes, marine records, etc. – and the use of these data for making sound estimates of future global change.

What is PAGES and how can a GSA/Quaternary Member get involved? <http://www.pages.unibe.ch>.

PAGES even played a key role with NOAA in establishing the WDC-A for Paleoclimatology as the central depository for global paleoclimate data.

WDC-A stands for World Data Center for Paleoclimatology, which is a part of the NOAA National Climate Data Center (NCDC).

<http://www.ngdc.noaa.gov/paleo/paleo.html>

— Julie Brigham-Grette

CGRG BIBLIOGRAPHY OF CANADIAN GEOMORPHOLOGY

<http://cgrg.geog.uvic.ca/cgi-bin/search.cgi>

1. The Bibliography of Canadian Geomorphology is a searchable database dedicated to identifying publications and presentations describing the practice and application of geomorphology in Canada. Included are over 18,000 records related to the fields of aeolian, applied, coastal, fluvial, glacial, hillslope, karst, periglacial, permafrost and offshore geomorphology. The database also includes records describing Canadian Quaternary/ Holocene environments and a substantial body of records related to Canadian hydrology.

2. Recent Publications in Canadian Geomorphology: <http://cgrg.geog.uvic.ca/list.htm>.

Since the last newsletter, we were notified of the passing of the following colleagues:

Tjeerd van Andel
September 17, 2010

Saleh Billo
April 1, 2010

Richard Clark
GSA notified January 11, 2010

Nicholas James Preston, Wellington, NZ
December 29, 2010

Stanley Schumm, Ft. Collins, CO
April, 2011

OBITUARIES

Stanley A. Schumm

Stan Schumm died in early April, 2011 after a long period of gradually declining health. He was 83 years old. Schumm was one of the giants of 20th century fluvial geomorphology, contributing important work on sediment yield, arroyos and complex response, Quaternary paleohydrology and river metamorphosis, thresholds in fluvial systems, and alluvial channel classification, among other topics. After completing his dissertation at Columbia University in 1955, Schumm was a research geologist with the Water Resources Division of the U.S. Geological Survey during 1954-1967. He joined the faculty at Colorado State University in 1967, where he mentored more than 60 graduate students. His work was recognized by numerous awards, including the 1959 Horton Award from the American Geophysical Union, 1979 Kirk Bryan Award from the Geological Society of America, 1982 David Linton Award from the British Geomorphological Research Group, 1986 G.K. Warren Prize from the National Academy of Science, 1986 appointment as a Distinguished Professor at Colorado State University, and 1989 selection as a Fellow of the American Association for the Advancement of Science. Schumm is survived by his wife Ethel, 3 children, and several

grandchildren. His colleagues and former students will remember his keen interest and insight into geomorphology, his wit, and his kindness.

Nicholas James Preston

Nick Preston, respected geomorphologist and dedicated teacher, died December 29, 2010 after a long and brave struggle against cancer. Nick leaves behind his family: wife Anja and two children Lucie (3 years) and Jannik (1 year). After his primary and secondary education, he went to Australia and worked in Sydney, ultimately completing training as a chef. During this time, he realized that his intellectual curiosity remained unsatisfied and he wanted to learn more of life. He returned to New Zealand, where he enrolled at Victoria University of Wellington for a Geography degree. During his studies, he became enthusiastic about landscapes and, subsequently focused his efforts on geomorphology, particularly on landslide research. His Masters thesis, supervised by Professor Mike Crozier, investigated the change in geotechnical slope resistance to shallow landsliding with time. This research provided the first quantitative demonstration of how certain catchments may become increasingly resistant to failure as a result of successive landslide events. Encouraged by his mentor Mike and colleagues, he went to the University of Bonn, Germany in 1996 to study for a PhD, and worked in Professor Richard Dikau's group over the next four years. While there he met Anja Feise, a Geography student whom he later married. Scientifically, he moved towards soil erosion and sediment budgets, submitting an outstanding PhD thesis on use of radiocaesium to determine sediment distributions in a small catchment in Germany. His outstanding scientific achievements have been recognized internationally. In 2001, Anja and Nick went back to NZ and Nick started working at Landcare Research in Palmerston North. Two years later he obtained a lecturing position at Macquarie University in Sydney, Australia. Here he worked with Prof. Gary Brierley and Kirstie Fryirs on the interconnected nature of drainage basins.

In 2005 Nick returned to Wellington to take up a lectureship at the School of Geography, Environment and Earth Sciences, Victoria University. This position allowed him to continue his research on landslides and erosion and to excel in

teaching. Just before the cancer was diagnosed in early 2009, he was awarded the Outstanding Graduate Supervisor Award by Victoria University. Nick was greatly liked and well respected by his colleagues in the scientific community, but also and in particular by his friends. He was a quiet and thoughtful person, who took opportunities when they arose and accomplished them with rigour and modesty. In professional and personal situations, he behaved with the highest integrity, discretion and loyalty. He familiarized himself quickly with new challenges and demands. As a critical observer with a considered, clear and focused judgement, he was a key player in many research projects. He also dedicated much time to his PhD and Masters students. During his illness, he displayed a very positive and highly admirable attitude, never complaining, but addressing his illness with great honesty and openness, trying to ease the burden on those around him, and sheltering his family and friends as much as he could. Nick was member of New Zealand Geographical Society, the Australia New Zealand Geomorphology Group and an active organizer for LUCIFS. His colleagues and friends have lost a great and loyal mate. He will be missed very much.

*Thomas Glade, Professor of Geomorphology
University of Vienna*

QG&G Board Meeting Minutes

Sunday, October 31, 2010

**7:00 PM-9:00 PM, Colorado Convention Center
Room 602, Denver, CO**

Attending:

Officers

Paul Bierman, Chair

Kyle House, 1st Vice Chair

Sara Rathburn, 2nd Vice Chair

Jim O'Connor, 2nd Vice Chair elect

Jon Major, Secretary

Scott Burns, Treasurer

Dennis Dahms, Newsletter Editor/Webmaster

Thom Davis, Historian

Marith Reheis, Past Chair

Panel:

Jennifer Pierce*, **Faith Fitzpatrick***, **Tom Pierson***

2008-2010 Panel (outgoing)

Dave Wilkins, **Yvonne Martin***, **Yehouda Enzel*** *2009-2011 Panel*

Karen Gran, **Anne Jefferson**, **Tammy Rittenour** *2010-2012 Panel (incoming)*

Other invitees:

Diane Lorenz*, GSA

Monica Gowan*, GSA Council liaison

Wesley Hill*, GSA Division liaison

** Sent regrets for not attending*

Meeting called to order at 7:15pm

GSA Division Chair's Report: Paul Bierman (Chair) gave a summary of the division chair's meeting held Saturday, October 30. Items on the agenda at the meeting included: (1) the schedule for next Division Chair meeting in April 2011; (2) a controversial field trip at the Denver 2010 annual meeting; (3) division logo; (4) division use of social media such as Facebook and LinkedIn; and (5) GSA's 125th anniversary in 2013.

A contentious item discussed at the meeting concerned a field trip proposal submitted by persons viewed as supporting a movement having controversial beliefs and which was unintentionally sponsored by one of GSA's divisions. Most of the division chairs attending the meeting felt that because the trip's proposers submitted the proposal according to the rules stipulated, and because the content of the proposal was not contentious and passed merit review, GSA had no basis to reject the proposal or cancel the field trip after acceptance. To do so would have amounted to selectively rejecting the proposal solely on the basis of the proposer's affiliation or perceived beliefs, an action that would place the society on a very slippery slope. One suggestion proposed at the meeting was that all divisions carefully scrutinize proposals for topical sessions or field trips, have the division chair follow up with field trip leaders if they have any questions, and to not support sponsorship if the division board feels uncomfortable or has concerns.

On the subject of a division logo, the board decided to delay any decisions until GSA provided guidelines on the matter.

GSA has suggested that divisions consider using various social media to connect with membership. It was suggested that divisions consider establishing pages on Facebook and LinkedIn. The board briefly discussed the benefits and drawbacks of using these media, but made no decision at this time about use. Incoming Chair **Kyle House** will explore the issue further with GSA.

GSA will celebrate its 125th anniversary in 2013. Council has asked each division to consider what special activities it might support to commemorate this anniversary. The board invites thoughts from the membership on the matter. Please contact any of the officers if you have ideas.

International Distinguished Lecture Series: GSA council would like to begin sponsoring a series of distinguished lecturers who would travel abroad for a period of 2 to 3 weeks to provide lectures to universities and other interested institutions in order to transfer knowledge and raise the visibility of GSA abroad. Council is seeking nominations from divisions for the names of high-profile scientists who are good speakers, who can speak about interesting topics, and who can serve as ambassadors for GSA. Council would like each division to nominate one or more scientists who fulfill these criteria as soon as possible, because they would like to launch this lecture series by Fall 2011. The board decided to nominate Vic Baker as a potential candidate for this lecture series. Incoming Chair **Kyle House** followed up with Vic, who agreed to participate, and submitted his nomination to GSA.

Coordination with section meetings: At last year's business meeting, the board members suggested that each section-meeting chair send an email to section members with a reminder about meeting deadlines. The board also agreed that we need to educate each section chair to contact the QG&G Division Chair to seek sponsorship and possible beating of the bushes for session and field trip proposals. Because QG&G does not have formal section liaisons it was decided that the Chair will continue to have GSA send targeted emails to section coordinators and QG&G members who are affiliated with sections to invite participation in section meetings by proposing theme sessions and field trips.

GSA Division Liaison: New GSA Division liaison **Wesley Hill** stopped by the meeting to introduce herself to the board, and to let us know that she is available to help us in any way she can.

Treasurer's report: **Scott Burns** (Treasurer) reported that in fiscal year 2009-10, the Division had a total income of \$9007, and total expenses of \$9881 for a net deficit spending of \$874. For fiscal year 2010-11, Scott presented a budget having projected income of \$9000 and projected expenses of \$11,125, for a net deficit of \$21550 (see attached report). The Division has total reserve assets of \$13,327. Deficit spending revolves chiefly around award support. Although base funds for several awards rebounded in 2009-10, a couple of

award funds are still below the level required to support enacted award amounts in full, and the division is using reserve funds to make up the difference (see attached report). Scott noted that as award base funds continue to rebound and grow, the division will ease out of supplementing some of the awards, and deficit spending should cease by next year or the year after. Scott proposed dipping into division reserve funds to cover the difference between the enacted award amounts for the Kirk Bryan and Howard awards [KB-\$5000; Howard-\$2500] and the amounts that the underlying award funds can provide [KB-\$4000; Howard-\$2000]. Last year, an anonymous donor provided pass through funding to support the Morisawa student award. In 2010, contributions to the GSA Foundation have brought the base fund for that award to a level that it can fully sustain the award without the need for a pass through. Scott concluded that the Division is financially healthy and he recommends that we not raise dues for 2010. Motion to approve the proposed budget with deficit spending was passed; motion to not raise dues for 2011-12 was deferred per discussion of a proposal from Yehouda Enzel (panelist).

Regarding annual dues, **Yehouda Enzel** (panelist) suggested via an email that the board consider a slight increase in dues (of perhaps \$2). He proposed that the board use the increased income to help bring international participants to the annual GSA meeting. He felt that this would increase visibility of GSA abroad, and allow for enhanced interactions between scientists abroad having interests in Quaternary geology and geomorphology and their North American counterparts. Yehouda noted that QG&G division has one of the lowest dues rates of any GSA division (\$8 versus up to \$12 for other divisions). The board was intrigued with the idea but wanted to obtain feedback from the membership before making a decision. Scott presented this idea to the membership in attendance at the awards ceremony and asked for feedback. Limited feedback from membership was in favor of the proposed increase. Paul Bierman suggested that we send out a blast email to the membership, and then work with GSA to track the response. The board will act on the proposal to raise dues beginning with the 2011-12 membership cycle after obtaining feedback to the blast email. After further discussions by email in March 2011, the board officers decided to table the proposal for now and revisit the issue at its next meeting in Minneapolis in October.

Easterbrook Distinguished Scientist Award: One of the more difficult issues facing the board concerned the Easterbrook Distinguished Scientist Award. The stock market downturn and obligations to fully fund award proposals of prior awardees significantly lowered the GSA Foundation base fund for this award. The market downturn also affected Don Easterbrook's ability to pass through supplemental funds to support proposals per agreement when the award was established. As a result, at the 2009 business meeting, the board voted unanimously to place the Easterbrook Award on hiatus until the Foundation fund and Don's ability to provide pass through funds recovered sufficiently to begin funding the award again. Don Easterbrook sent a letter to the board in October 2010 stating the decision to suspend the award violated the charter agreement that established the award. Owing to some discrepancy between wording in Don's letter and wording in the Division policy document, the board decided it was best to engage GSA leadership (Council and Executive Director) in the discussion. The board members present at the meeting drafted, and unanimously approved, a letter expressing the board's views of the current situation regarding the award, which was sent to Jack Hess, Executive Director of GSA. Paul Bierman, Kyle House, and Scott Burns also met briefly with Jack to explain the situation.

Donna Russell (GSA Foundation) provided the following information regarding the base funds for the Division awards (as of February 28, 2011):

Kirk Bryan award: \$92,441
Don J. Easterbrook Distinguished Scientist award: \$9704
Farouk El-Baz award: \$208,431
Arthur D. Howard (MS) student award: \$44,328
J. Hoover Mackin (PhD) student award: \$69,724
Gladys W. Cole Memorial research grant: \$168,133
Marie Morisawa fund: \$57,506

GSA allows divisions to use up to 5% of the average value of the base funds from the preceding two years to support awards as long as the base funds exceed \$40,000.

Historian's report: **Thom Davis** (Historian) reported that all Division newsletters not previously available as pdf documents (dating back to 1957) have been scanned and are available on the QG&G website. The scanned newsletters have also been burned to a CD. Thom also went through all the boxes of older paper files and winnowed out and shredded duplicative materials. Old paper archive documents are now contained in a single file drawer in Thom's office. Thom

is trying to create a photo archive of all awardees of Division professional awards, particularly the Kirk Bryan and Distinguished Career Award recipients. He has photos of some awardees, but is seeking more.

Membership report: The membership for 2010 was 1471.

Election: The election for 2010-11 QG&G officers closed July 14, 2010. In that election, 12.8% of QG&G members voted (188 out of 1471 eligible). Newly elected board and panel members include: Jim O'Connor (2nd Vice Chair), Karen Gran, Anne Jefferson, Tammy Rittenour (panelists). Kyle House was elected Chair, Sara Rathburn, 1st Vice Chair, and Jon Major, Secretary.

Quaternary Geology and Geomorphology Fellows elected in 2010 are:

Sydney L. Brown
P. Thompson Davis
Gordon E. Grant
Thomas E. Lisle
Dorothy J. Merritts
Joseph G. Rosenbaum
Bonnie W. Styles
Slawek M. Tulaczyk
Kelin X. Whipple

2011 Annual GSA meeting, Minneapolis. The board discussed again the need to have various topical themes represented at the national meetings, and to have some knowledge early on of topical themes being submitted that request QG&G sponsorship. One idea regarding sponsorship is to have proposers send the QG&G chair advance notice regarding a theme session that they would like to propose (perhaps a month in advance of the proposal deadline). This will give the chair a chance to discuss the proposal with the QG&G board if needed, will help avoid potential duplication of efforts among proposers, and will keep the chair from being blindsided at the last minute with a sponsorship request. Last year, **Paul Bierman** (Chair) sent an email to the membership requesting that notice of session proposals be sent to him in advance of the proposal deadline. That seemed to work reasonably well, and the approach will be tried again this year. The board also experimented with selecting various themes in advance, and sending out an email to the membership soliciting members to propose topical sessions related to those themes. This also seemed to work well and will be done again. The board felt that the following themes should be represented at the national meeting: soils, glacial geomorphology, coastal geomorphology, tectonic geomorphology, aeolian processes, geochronology,

fluvial geomorphology, climate studies, paleoclimate studies, hillslope geomorphology, geomorphic hydrology. **Kyle House** (incoming Chair) will send out an email to the membership announcing the idea, and urging the membership to target topical sessions related to those themes for the Minneapolis 2011 meeting. GSA Council has also stated a policy encouraging new and innovative types of sessions in future meetings, not simply the standard short-talk style sessions. Kyle will encourage the membership to submit novel session ideas. The 2011 JTPC representatives will be **Kyle House** (incoming Chair) and **Sara Rathburn** (incoming 1st Vice Chair).

The **Minneapolis Kirk Bryan field trip** was discussed. This year at the Denver meeting, the trip was scheduled for Wednesday (the last day of the meeting) rather than on Tuesday. Feedback from some board members was that this was preferable because if a person does not get on the trip, they have the option of returning home, whereas when it was on Tuesday those not getting on the trip had a day when there were no QG&G sessions, and they could not go home if their presentation was scheduled for the following day. Limited membership feedback also indicated some preference for having the trip scheduled for Wednesday. [Feedback from those on this year's trip indicated a preference for the Wednesday versus Tuesday schedule, although feedback from some other attendees unable to attend the trip suggested a preference for Tuesday since they have a hard time staying the full day on Wednesday.] At the annual business meeting and awards ceremony in Portland last year, those in attendance seemed to prefer an intrameeting trip as opposed to a pre- or post-meeting trip. The KB field trip in Minneapolis will again be scheduled as an intrameeting trip.

The board received a proposal from **Karen Gran** (incoming panelist) regarding a Kirk Bryan trip for the Minneapolis 2011 meeting. Karen has proposed a trip to the Le Suer River region to discuss an ongoing interdisciplinary investigation regarding sediment sources and sediment transport in the river basin. The board voted unanimously to approve the proposal.

Division/Associated Societies Chair's meeting will be held in Boulder, CO, on April 30 and May 1, 2011. In 2007, the board voted to send two representatives to the meeting (Chair and 1st Vice Chair) when possible. GSA will contribute up to \$700 toward the costs of Division attendees to this meeting, and the Division will contribute \$300. **Kyle House** (incoming Chair) will attend the meeting. Scheduling conflicts prevent **Sara Rathburn** from attending.

Candidate biographies: Wesley Hill (GSA Division liaison) sent **Jon Major** (Secretary) an email in summer 2010 regarding biographies of candidates for election. Some divisions have no format standards for candidate biographies and thus get biographies in all sorts of formats from their candidates. GSA suggested a couple of different formats for divisions to consider. QG&G has used a consistent format for short biographies from candidates, and the board did not feel any pressing need to modify the format. QG&G will continue to use the same short format that it has used for those biographies.

Student award evaluations: Sara Rathburn (2nd Vice Chair) suggested that the way the Morisawa award is evaluated be modified. She indicated that the current process as outlined in the Division policy document is somewhat cumbersome and puts an extra amount of work on the evaluation panel, especially when there is a large number of applicants for the student awards as there was this past year (41 Mackin and 34 Howard applicants evaluated). A motion to develop modified procedures was unanimously approved by the board, and **Sara Rathburn, Jon Major, and Jim O'Connor** (incoming 2nd Vice Chair) will develop and implement a modified procedure to experiment with in the coming evaluation cycle. If it works well, a formal proposal will be put before the board at the next business meeting.

- Thanks to the following panel members for evaluation for the Kirk Bryan Award: **Faith Fitzpatrick, Jennifer Pierce, Tom Pierson, Yvonne Martin, David Wilkins.**
- Evaluation of the Distinguished Career Award was conducted by the 2009-10 management board and panel members.
- Thanks to the following panel for evaluation of the Farouk el-Baz award: **David Miller, Ari Matmon, Eric McDonald.**
- Evaluation for the Cole Award was conducted by the 2009-10 management board.
- Thanks to the student awards panel for evaluating all the student awards: Sara Rathburn (2nd Vice Chair), Yehouda Enzel, Tom Lowell, Greg Stewart, Ellen Wohl, Allan James, Lewis Owen, Mary Ann Madej, and Kyle Nichols.

Meeting adjourned at 9:36 pm.

Division Newsletter Editors

Many Divisions “publish” their newsletters mainly by posting them on their Division websites. All Division websites can be accessed from:

<http://www.geosociety.org/sectdiv/divisions.htm>.

Archaeological Geology – Spring, Fall

Contact: Chair, Kathleen Nicole kathleen.nicoll@gmail.com

Coal Geology – No set schedule.

Contact: Chair, Sharon Swanson smswanson@usgs.gov

Engineering Geology – Spring, Summer, Fall

Contact: Chair, John Jens jciens@earthlink.net

Geobiology & Geomicrobiology – No set schedule.

Contact: Chair, Frank Corsetti fcorsett@usc.edu

Geoinformatics – No set schedule.

Contact: Chair, Stephen Richard steve.richard@azgs.az.gov

Geology & Health – No set schedule.

Contact: Chair, Syed Hasan hasans@umkc.edu

Geology & Society – No set schedule.

Contact: Chair, Joan Fryxell jfryxell@csusb.edu

Geophysics – No set schedule.

Contact: Chair, Kevin Mickus kevinmickus@missouristate.edu

Geoscience Education – Winter, Summer

Contact: Chair, Paul Baldauf pb501@nova.edu

History of Geology – Quarterly.

Contact: Chair, John Diemer jadiemer@uncc.edu

Hydrogeology – Spring/Summer, Fall

Contact: Chair, F. Edwin Harvey feharvey1@unl.edu

International – No set schedule.

Contact: Chair, Paul Robinson p.robinson@ns.sympatico.ca

Limnogeology – No set schedule.

Contact: Chair, Daniel Deocampo deocampo@gsu.edu

Planetary Geology – Summer or Fall

Contact: Chair, David A. Williams david.williams@asu.edu

QG&G – Spring/Summer, Fall

Dennis Dahms dennis.dahms@uni.edu

Sedimentary Geology – Spring, Fall

Contact: Chair, John Holbrook holbrook@uta.edu

Structural Geology & Tectonics – Spring, Fall

Contact: Chair, Scott Johnson johnsons@maine.edu

MEMBERS OF GSA QG&G DIVISION

Ballot for 2011-2012 Officers Quaternary Geology & Geomorphology Division (QGG)

Please vote by completing the section at the bottom and mailing it to GSA postmarked no later than July 5, 2011. Biographical data for the candidates are on the pages following this ballot.

You may vote online by July 5 at: <https://rock.geosociety.org/ballot/vote.asp?Name=qgg>

Access the online ballot using your GSA member number **or** your e-mail address if it is in your GSA records – but not both. For assistance, please contact GSA at gsaservice@geosociety.org or (303) 357-1000 or call toll-free in the U.S. at (888) 443-4472. You may also submit your completed ballot by fax by July 5 2011 at FX (303) 357-1074.

Chair (one-year term; vote for one candidate):

Sara Rathburn Write-in _____

1st Vice-Chair (one-year term; vote for one candidate):

Jim O'Connor Write-in _____

2nd Vice-Chair (one-year term; vote for one candidate):

Bill Johnson

Alan Nelson Write-in _____

Treasurer (two-year term; vote for one candidate):

Scott Burns Write-in _____

Newsletter Editor/Webmaster (two-year term; vote for one candidate):

Dennis Dahms Write-in _____

Panelists (term is 2011-2013; vote for three (3) candidates):

Steve Bacon **Margaret Berry** **Keith Kelson**

Ben Laabs **Mary Ann Madej** **J. Elmo Rawling**

Write-in _____

Mail to: Division Office, Geological Society of America , PO Box 9140, Boulder, CO, 80301-9140

You must complete the following section to validate your ballot:

Your Name (printed) _____

Your Signature (required) _____

Your GSA Member Number * (required) _____

* Your 7 digit GSA member number is on the top right corner on the external mailing label. If you need assistance with your member number, call: (888) 443-4472

Biographies of Candidates for 2011-2012 Officers QG&G Division

Division Chair (1 year term)

Sara L. Rathburn: Education: BS, Colorado State University; MS, University of Arizona; PhD, Colorado State University. Experience: Associate Professor, Colorado State University 2007; Assistant Professor, 2001-2007. Professional Affiliations: GSA, AGU, NAGT, AAUW. GSA Service: GSA QGG Panelist 2005-2007; Co-editor GSA SPE451 2009; Student abstracts review 2008; Session co-chair 2006, 2007. Awards: Warner Distinguished Teacher/Advisor Award, 2008; CSU Excellence in Education, 2005. Research Interests: Fluvial response to sediment influx; channel restoration of mountain streams; environmental flows; geosciences education.

First Vice-Chair (1 year term)

Jim O'Connor: Education: BS, University of Washington (Geol. Sciences); MS, PhD, University of Arizona (Major, Geosciences; Minor, Hydrology). Experience: Hydrologist, Pima County Flood Control District, 1985-1986; National Research Council Post-Doctoral Fellow, U.S.G.S., 1991-1994; Research Hydrologist, U.S. Forest Service, 1994-1996; Research Hydrologist, U.S.G.S., 1996-present. Professional Affiliations: GSA (Fellow), AGU. GSA Service: Committee on Research Grants, 1998-2000; Associate Editor GSA Bulletin, 2002-2009; 2009 Annual Meeting Local Committee (Portland, Field Trip co-Chair); GSA QG&G Panelist (1998-2000). Awards: Kirk Bryan Award (GSA, 1995), Robert K. Fahnestock Award (GSA, 1988), Hoover Mackin Award (GSA, 1987, 1985). Research Interests: Flood processes, fluvial geomorphology, Pacific Northwest Quaternary geology.

Second Vice-Chair (1 year term)

Bill Johnson: BS, Northern Illinois University; MS, Northern Illinois University; PhD, University of Wisconsin-Madison. Experience: University of Oklahoma 1976-1978, University of Kansas 1978-present. Professional Affiliations: GSA (fellow), AGU, American Quaternary Association, Association of American Geographers, American Chemical Society, Society for American Archaeology. GSA Service: Archaeological Geology award committees (1991-1994), Archeological Geology secretary-treasurer (1996-2001), Archaeological Geology newsletter editor and webmaster (1996-2001), QG&G webmaster and newsletter editor (1999-2003). Research Interests: Quaternary eolian (loess, sand) and alluvial stratigraphy, loessal paleopedology, geoaerchaeology, stable isotope-based paleoenvironmental reconstruction.

Alan R. Nelson: Education: BS, MS, University of Wisconsin-Madison; PhD, University of Colorado-Boulder. Experience: Geologist, U.S. Bureau of Reclamation, Denver, 1979-1985; Research Affiliate, INSTAAR, University of Colorado, 1981-present; Research Geologist, USGS, Golden, CO 1985-present. Awards: Killam Fellowship, Dalhousie University, 1978-79; Gilbert Fellowship, USGS, 1989; Memberships: GSA 1972-, AMQUA 1972-, SEPM 1980-1992, AEG 1990-1999, IGCP-274,367, AGU, SSA, Tsunami Society. Service: Editorial Board, Geology 1987-1989; QG&G Secretary 1998-2002; College of Reviewers for Canada Research Chairs Program 2003, 2010. Research: Paleoseismology and tsunami hazards in U.S. Pacific Northwest, Alaska, Chile; intertidal stratigraphy and micropaleontology applied to coastal tectonics; paleoseismic records in lakes; paleoseismology of reverse faults in U.S. Pacific Northwest; neotectonics, geomorphology, amino acid dating, and soils in Basin and Range, western U.S.

Treasurer (2 year term)

Scott Burns: Education: BS, MS Stanford University; PhD University of Colorado. Experience: Professor & Chair, Dept. of Geology, Portland State University; previous institutions: Louisiana Tech University, University of Colorado, Western Washington University, Lincoln College New Zealand, American College of Switzerland. Professional Affiliations: GSA Fellow, AGU, NAGT, AEG (Past President), AIPG. GSA Service: Treasurer, QGG, Chair of EGD, Chair Cordilleran Section. Awards: GSA EGD Meritorius Service Award, Louisiana Tech Faculty Senate Chair Award, Portland State University Hoffman Award, Portland State University Alumni Association Outstanding Faculty Award. Research interests: landslides, slope stability, Missoula Floods, terroir, radon, soil development, glacial geology, heavy metals and trace elements in soils.

Newsletter Editor/webmaster (2 year term)

Dennis Dahms: Quaternary stratigraphy, glacial history, soil geomorphology, and paleoecology, Rocky Mountains. Educ: BJ Journ, AM Doc Film, Univ Missouri-Columbia; MA Anthro, Univ Colorado-Denver; PhD Phys Geog, Univ Kansas. Prof Exp: Producer/Editor, Film Documentary, South Carolina Public Broadcasting, 73-77; Science Applications, Staff Geomorphologist, 80-83; Univ Northern Iowa, Dept Geog, Asst Prof 90-95, Assoc Prof 96-04, Prof 05-present. Conct Pos: Visiting Prof, Univ Missouri, Dept Geology, Camp E.B. Branson, Lander, WY, '96-Pres; Vis. Prof., Geochronology Field School, Univ. of Zurich, '10-pres. Prof Affil: GSA Mbr since 81; AAG, AGU, INQUA, CGRER Exec Brd (Univ Iowa).

GSA Serv: QGG nwsltr edtr/web manager 03-11. Rsrch Int: Quaternary stratigraphy, soil geomorphology, mountain geosystems and erosion history.

Panelists for award evaluations (2 year term) Choose 3 Candidates

Steven Bacon: Education: BS and MS, Humboldt State University. Experience: USGS, Earthquake Hazards Team, Geologist, 1996-1998; Busch Geotechnical Consultants, Staff Engineering Geologist, 1998-2003; Piedmont GeoSciences Inc., Senior Staff Geologist, 2003-2005; Desert Research Institute, Assistant Research Geomorphologist, 2005-present. Professional Affiliations: GSA, AGU, California Professional Geologist. GSA Service: Reviewer. Awards: USGS/NAGT internship 96; DRI 5-year service award. Research Interests: Application of basic and applied research in Quaternary geology, geomorphology, and engineering geology related to terrain characterization, landscape evolution, paleoclimate studies, and geologic hazards.

Margaret E. Berry: Education: BS, Humboldt State University, Arcata, Calif.; MS and PhD, University of Colorado-Boulder. Experience: USGS, Geology and Environmental Change Science Center, Research Geologist 2004-present; Independent Contractor, Research Geologist 1996-2004; Southern Illinois University-Carbondale, Department of Geology, Assistant Professor 1990-1996. Professional Affiliations: GSA, AMQUA, Colorado Scientific Society. GSA Service: QG&G J. Hoover Mackin Award Selection Committee 2007; GSA Campus Representative, SIUC 1993-1996. Research Interests: surficial geologic mapping; applications of soil geomorphology; geomorphic response to climate change; geomorphic assessment of paleoseismic activity; surficial geology-groundwater interactions.

Keith Kelson: Education: BA, University of California Santa Barbara (with honors); MS, The University of New Mexico (with distinction). Experience: USGS, Water Resources Division, Tahoe City and Santa Barbara, Hydrologic Technician 1980-1983; Geomatrix Consultants, Geologist 1986-1990; William Lettis & Associates, Principal Engineering Geologist 1990-2008; Fugro William Lettis & Associates, Vice President and National Water Resources Lead 2008-present. Professional Affiliations: GSA, AGU, Seis Soc Amer, Assoc Eng Env Geol, Am Water Res Assoc, Earthquake Eng Res Inst. Professional Service: Director, Earthquake Eng Res Inst (NorCal Chapter); Geotech Engineering Earthquake Recon Team. Professional Interests: Consulting services in seismic hazards, engineering geology, and water resources; geologic hazard assessments for dams, levees, lifeline systems, transportation corridors, power-plant siting, and nuclear materials facilities; paleoseismology; seismic hazard analyses; rapid-response earthquake reconnaissance; fluvial and glacial geomorphology; application of geologic research to consulting industry and engineering designs / hazard-mitigation strategies.

Ben Laabs: Education: BS, University of Wisconsin-Madison; MS, Northern Arizona University; PhD, University of Wisconsin-Madison. Experience: Gustavus Adolphus College, Assistant Professor of Geology, 2005-2007; SUNY Geneseo, Assistant Professor of Geology, 2007-present. Professional Affiliations: GSA, AGU, AMQUA, CUR. GSA Service: Field Trip Co-leader, 2005; Associate Editor, GSA Bulletin, 2011-present. Awards: Gladys Cole Memorial Award, GSA QG&G Division 2008. Research Interests: Glacial geology of the Rocky Mountains and Great Basin; cosmogenic surface-exposure dating of glacial landforms; Pleistocene climate change in the western U.S.

Mary Ann Madej: Education: Knox College, BA; University of Washington MS; Oregon State University PhD. Experience: U. S. Geological Survey Western Ecological Research Center Research Geologist 1993-present. National Park Service Geologist 1978-1992; Humboldt State University Geology Department Adjunct Professor 1980-present. Professional Affiliations: GSA, AGU, Society for Ecological Restoration International, American Fisheries Society, George Wright Society, Bedload Research International Cooperative. Service: GSA QG&G Mackin Award Committee. City of Arcata, CA Wetlands and Creeks Committee. Awards: National Park Service Horace M. Albright Award (1990) and Special Achievement Awards. Research interests: sediment transport; geomorphic and hydrologic response to land use changes; watershed, river and estuarine restoration; and interactions of physical processes with the structure and function of aquatic and riparian ecosystems.

J Elmo Rawling 3rd: Education: BA, University of Wisconsin-Milwaukee (Anthropology); MS, University of Wisconsin-Madison (Geology); PhD, University of Wisconsin-Milwaukee (Physical Geography). Experience: University of Wisconsin Platteville, Assistant Professor 2002-2006, Associate Professor 2006-present; Wisconsin Geologic and Natural History Survey, Research Associate 2006-present. Professional Affiliations: GSA, AMQUA, CANQUA, CUR. Awards: GSA Gladys W Cole Award '04. Research Interests: Eolian Geomorphology and Geochronology; Soil Geomorphology; Undergraduate Research.

GSA Quaternary Geology and Geomorphology Division Newsletter

Volume 52 No. 1

Table of Contents

2010-2011 QG&G Division Officers and Panel Members	2
QG&G Division Awards – 2010	3
Kirk Bryan Award	3
Distinguished Career Award	4
Farouk El-Baz Award for Desert Research	6
Gladys W. Cole Memorial Research Award	8
Student Research Awards	9
Robert K. Fahnestock Memorial Award	9
John Montagne Fund	9
Upcoming Meetings	9
XVIII INQUA Congress (Bern)	9
Rocky Mountain FOP	9
Miscellanea	9
Obituaries	12
GSA QG&G Division, Minutes of the Management Board Meeting, October 31, 2010	13
Division Newsletter Editors/Contacts	17
Ballot for QG&G 2011-12 Division Officers and Panel	18
Biographies of Candidates for 2011-12 Offices	19