

GEOMORPHORUM

Newsletter of the Geomorphology Specialty Group of the Association of American Geographers

Issue No. 1, 2001

Bernard O. Bauer, editor

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FORWARD

GEOMORPHORUM is issued twice per year. Current and past issues are archived at <http://www.cla.sc.edu/geog/gsgdocs> through the generous efforts of [Allan James](#). If you forget the URL above, the web page is easily accessed by getting on the AAG web page

(<http://www.aag.org/>), clicking on 'Specialty Groups,' and scrolling down to 'Geomorphology.'

The purpose of GEOMORPHORUM is to serve members of the Geomorphology Specialty Group (GSG), Association of American Geographers, by providing a forum for the exchange of ideas and news about geomorphology and related matters, and to foster improved communication within our community of scholars and affiliated professionals.

Individuals are encouraged to forward submissions to the Editor in so far as they improve understanding of the internal workings of our community, contribute to the health of geomorphology, adhere to standards of professional conduct, foster the spirit of collegial interaction, and satisfy the overall goals of the newsletter. News of new initiatives, recent appointments, promotions, research grants, and awards are acceptable, whereas advertisements for new faculty positions or graduate student opportunities at specific institutions are generally not (these are handled via other media, including Geomorphist and the AAG Newsletter). Recent graduates (both Masters and Ph.D.) are invited to provide their name, thesis title, date examined, five descriptive key words, a list of related publications, and a contact address. Those attending or planning field meetings, conferences, or workshops are also encouraged to submit short reports. The Editor reserves the right to edit submissions as appropriate.

OFFICERS OF THE GSG 2001-2002

Executive Officers

Chair: Bernard Bauer (Geography Dept., Univ. Southern California) bbauer@usc.edu

Sec/Treas: Frank Magilligan (Geography Dept., Dartmouth College)
magilligan@mac.dartmouth.edu

Advisory Board

Senior Advisor: Jeff Lee (Dept. Economics & Geography, Texas Tech Univ.) adgil@ttacs.ttu.edu

Joann Mossa (Dept. Geography, Univ. Florida)
mossa@geog.ufl.edu

Basil Gomez (Dept. Geography, Geology, & Anthropology, Indiana State Univ.)

bgomez@indstate.edu

Awards Committee

Chair: Karen Lemke (Dept. Geography/Geology, Univ. Wisconsin, Stevens Point) klemke@uwsp.edu

Greg Pope (Dept. Earth & Env. Studies, Montclair State Univ.) poppeg@mail.montclair.edu

Mike Slattery (Dept. Geology, Texas Christian Univ.) m.slattery@tcu.edu

GSG CHAIR'S FORUM by [Basil Gomez](#)

Summer is especially conducive to contemplation. The internal clocks of pastimes such as baseball and cricket (not to mention those used by the airlines we encounter as we head off on vacation or into the field) seem to run slower than standard time, and vacation activities designed to encourage relaxation free our minds from mundane day to day concerns. It was, perhaps, an analogous atmosphere that encouraged natural scientists at the end of the eighteenth century, who had the leisure to explore Earth's natural wonders and lay the foundations for the

science we know as geomorphology. Stimulated by the Industrial and Social revolutions, many subsequent advances were, however, motivated by the more familiar desires to acquire scientific and technical knowledge, and to control nature. Indeed, it is sometimes forgotten that some of the most detailed studies and data collection programs were initiated in response to the desire by national and local governments to 'improve' the natural environment (cf. Humphreys, A.A. and Abbot, H.L., 1861, Professional Paper of the Corps of Topographical Engineers, U.S. Army, 4, 456 p.). During the past decade there has been an unprecedented growth in automated data acquisition, processing and management techniques, and explanatory and predictive models have become major operating/decision-making tools. These new techniques and tools have heightened awareness of the consequences (and interrelationship) of environmental and social change, and are making it possible to explore conceptually a plethora of Earth systems interactions. We are in a unique position to exploit these techniques and tools for the benefit both geomorphology and society, but we seem, as Andrew Goudie eloquently argued in the first Blackwell Publishers Lecture, not to have grasped this point.

In my previous message I argued that we needed to expand our quantitative skills. The purpose here is to remind the reader that rehabilitation should have an objective. As geomorphologists who operate in an intellectual environment that has an especial interest in spatial patterning and an obvious concern with human activities we should, perhaps, be more involved in research activities that seek to develop the knowledge necessary to restore and protect landscape functions and gain insight into the mechanisms and consequences of anthropogenically-induced environmental change. Such issues are not only of concern to the surficial-processes community as a whole (cf. GSA Today, August 2000, 14-17), but also are of relevance to the development of public policy and provide an obvious link to human geography.

GSG BUSINESS

1) MINUTES of 2000/2001 GSG BUSINESS MEETING (New York, NY)

- 7:04 - GSG Chair Basil Gomez opened the meeting by welcoming everyone
- Distinguished visitors from Queens University, Belfast, were introduced
- Minutes from last year's Business Meeting, as published in a previous issue of Geomorphorum, were unanimously approved
- 7:09 - Secretary/Treasurer's Report provided by Bernard Bauer (see full accounting below) with the comment that the financial state of the GSG is somewhat unstable. Part of the instability arises because we are obligated to pay annual membership dues to the International Association of Geomorphologists (see item below). In addition, the GSG membership appears to be falling, which implies that dues income to GSG from the AAG Central Office will decline.
- Basil Gomez provided additional information on recent GSG membership decline
 - Don Friend pointed out that membership data given to specialty groups only includes those members who have registered as of January-more will register late. In addition, the AAG is moving toward an annual registration system based on anniversary dates rather than one deadline for everyone.
 - We need to get more information from AAG Central Office about whether this apparent decline in membership is real or simply an accounting artifact
- Basil Gomez began a discussion about increasing the annual GSG dues to \$10 rather than the current \$7
 - Neil Salisbury suggested we seek means of securing donations
 - Basil Gomez noted that specialty groups can have 'affiliate members' (e.g., individuals from other countries who pay dues to GSG but are not AAG members)
 - Allan James made a motion that GSG dues be raised to \$10 (student dues will remain at \$0)
 - John Dixon seconded the motion
- Motion to increase dues to \$10 was approved unanimously
- 7:15 Michael Slattery spoke about an initiative he is willing to spearhead on behalf of the GSG that will lead to the production of a CD-ROM of geomorphic images of interest and use for teaching. This is one means of raising funds for GSG, and Mike volunteered that the costs of production would be minimal if done through his department.
 - Greg Pope raised concerns regarding whether these images (submitted by GSG members) would be available for publication by others and if some copyright language was necessary
 - Allan James recommended that contributors also submit detailed captions explaining what the image is about
 - Don Friend had questions about how photo credit would be given and whether the original slides would be returned
 - Bruce Rhoads suggested that contributors be held to some kind of meta-data standard to facilitate production and to ensure overall quality
 - Doug Sherman opined that Mike Slattery should enforce this
 - Bill Nickling commented that it would also be very useful to have images and graphics that address instrumentation and data collection issues
- Basil Gomez began a lengthy discussion regarding his concerns about the future of geomorphology (see Chair's Forum in the last issue of Geomorphorum). In particular, he lamented a general level of innumeracy and a lack of unified vision among geomorphologists within geography. He pointed to a recent document produced by our colleagues in the earth sciences, and proposed that we establish a working group to examine the means by which we might elevate our status among the sciences.
 - Allan James volunteered to serve on the working group
 - Bruce Rhoads asked for clarification on the charge of such a working group

- Basil Gomez responded with issues such as: where are we now, where are we going, more effective communication with other geographers, geologists (GSU, AGU), and with society
 - Ben Marsh noted that we span both science and social science, and that this needs to be contemplated carefully
 - Basil Gomez raised additional issues regarding professional licensing and establishment of basic curriculum and training
 - Mike O'Neill suggested that we work toward a higher public profile
 - Basil Gomez ended the discussion by volunteering to coordinate the next phase of this effort
- 7:35 Mike O'Neill announced the results of the GSG 2000/2001 Awards competition as follows: Mark Fonstad (best presentation); Jennifer Horwath (Masters research grant); Martin Doyle (Doctoral research grant); Jim Knox (Mel Marcus Award); Karl Nordstrom (G.K. Gilbert Award).
 - Allan James read nomination for Jim Knox; Vance Holliday read acceptance speech on behalf of Jim Knox
 - Doug Sherman read nomination for Karl Nordstrom, who graciously accepted
- 8:00 Basil Gomez opened the floor for nominations for a new Secretary/Treasurer (Bauer becomes GSG Chair for 2001/2002). Allan James nominated Frank Magilligan. Don Friend seconded the nomination, and John Dixon moved that the nominations be closed, with unanimous approval. [NOTE: in the rush to move the meeting to closure, a replacement for Mike O'Neill on the Awards Committee was inadvertently overlooked-this has been resolved in the interim by executive action]
- Basil Gomez called for general announcements from the membership
 - Don Friend invited participation in the newly formed Mountain Geography Specialty Group and noted that 2002 has been declared the International Year of the Mountains

- David Butler reminded GSG members about the 2001 Binghamton Symposium to be held at UNC-Chapel Hill, and passed around fliers. He reported that 32 of 49 chapters of the new Geography in America volume had been submitted to the publisher (Oxford) and that there may be an opportunity for minor editing for purposes of making the volume current. Dave also encouraged us to submit articles to Dick Marston (co-Editor) for consideration in Geomorphology.
 - Harry Jol reminded members about an upcoming conference on ground penetrating radar
 - Allan James requested information about award winners from years past so that the GSG web site could be updated
 - Carol Harden announced that she would be attending the IAG meeting in Tokyo during August as the official US representative, and if anyone wanted her to raise issues then they should contact her directly
 - Basil Gomez (in his dual editorial role) invited submission of manuscripts to either Water Resources Research or to the Annals. He noted that the Annals was receiving many more climatology manuscripts than geomorphology manuscripts.
- 8:10 Basil Gomez officially closed the Business Meeting

2) SECRETARY-TREASURERS REPORT for 2000/2001 (submitted by Bernard Bauer)

Balance forward (from Gomez to Bauer, June 16, 2000)
Interest Accrued
Opening Balance (from Bauer to AAG Central Office, Dec 2000)
Anticipated Income

Membership dues		\$1300.00	diverse geomorphologists in a nation and the ability to pay. At the moment, dues for first-tier countries such as the United States are \$1000.
Anticipated Expenses			
Best presentation award		\$ 200.00	
Masters research grant		\$ 200.00	
PhD research grant		\$ 400.00	American participation in the IAG is shared equally between our organization (GSG/AAG) and our counterpart in the Geologic Society of America (QG&G/GSA). The American Geophysical Union (AGU) is NOT represented, as is commonly believed by many. We alternate sending representatives to the IAG meetings, and for the 2001 meeting in Tokyo, we will be sending Carol Harden (note that the GSG has never considered whether the costs associated with such representation should be underwritten by GSG-Carol will bear the financial burden for this trip).
Plaques, engraving, framing		\$ 154.49	
Banquet tickets		\$ 45.00	
IAG Dues*		\$1500.00	
Total Expenses		\$2499.49	
Anticipated Change in Balance		\$1199.49	

(* IAG Dues are voluntary depending on ability to pay: see below)

The GSG account is now centrally managed by the AAG (contact: Paul Abel) and only the GSG Chair and GSG Secretary-Treasurer can authorize expenditures or payment of reimbursements to individuals.

3) The GSG and the IAG

One of the most perplexing issues facing me as Secretary-Treasurer last year was the extent to which the GSG is financially obligated to the International Association of Geomorphologists. After digging through almost ten years of newsletters, soliciting additional information from past GSG Chairs, and several conversations with the current IAG Secretary (Denise Reed), I have been somewhat enlightened and I take this opportunity to put it all down on paper lest the wheel require reinvention in a few years.

- The IAG operates primarily with funds obtained through dues payment from member organizations representing the many countries in the world with established geomorphology programs. The IAG establishes guidelines as to the expected level of financial contribution, which are loosely based on the number of

- Annual dues payment to the IAG is shared equally between GSG and QG&G, although payment is not coordinated in a formal manner. Each group is individually responsible for forwarding dues to the IAG Secretary. As per the By-Laws and Guidelines governing the GSG (see February, 1999 issue of Geomorphorum), the Advisory Board members are to act as liaisons to the QG&G/GSA and to the IAG. This mechanism of communication between the various groups appears to be somewhat ineffective unless one of the members happens to belong to both the GSG and the QG&G (and has attended recent business meetings).
- The current IAG Secretary (Denise Reed) reports that their financial records from past years are very unclear. For example, there is a record of Jeff Lee having made a payment of \$1000 by way of a Credit Union check, but it is not accompanied by any notes as to fiscal year or even whether this money was from both the GSG and the QG&G. Evidently, there are no records that indicate that the

QG&G has submitted dues payment in the last several years.

- Our record of dues payment is rather spotty, especially in recent years. According to previous Secretary-Treasurer's reports published in earlier newsletters (and based on some rather hazy recollections), the GSG has made dues payments to the IAG as follows:

1993/94	\$350	(Vatche Tchakerian S/T)
1994/95	\$350	(Allan James S/T)
1995/96	\$350	(AJ paid in advance for Bruce Rhoads S/T)
1996/97	no record	(Carol Harden S/T)
1997/98	no payment	(Jeff Lee S/T)
1998/99	\$1000	(JL paid for two years; Joann Mossa S/T)
1999/00	no payment	(Basil Gomez S/T)
2000/01	no payment	(Bernard Bauer S/T)

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- At the last Business Meeting in New York, I announced that we owed the IAG a grand total of \$1500 to bring us current for the 2001/2002 financial year (\$500 per year for three years). If we meet this financial obligation, it will in essence break the bank by exhausting our reserves (see Secretary-Treasurer's Report above). In short, dues payment at the level of \$500 per year is not sustainable given our current income stream. We will either have to increase our income stream or scale back our dues payments to IAG. Note that we have not paid dues for over 2 years, and during this period we were unable to increase our savings.
- Conversations with Denise Reed suggested that we could invoke the 'ability to pay' guideline as a justification for not paying back dues. She was under the impression that we were in much better financial shape, and that the \$500 per year payment was not an undue burden on the GSG. The IAG will gladly accept whatever we can afford to pay and they will not hold us to paying for past years.

- ACTION ITEM: At the next Business Meeting, we need to discuss what level of contribution we should make to the IAG. It is an embarrassment to not pay dues in a timely manner once we have committed to making such payments. The lowest level of payment recommended by the IAG is \$100, and the scale bumps up to \$250, \$500, and \$1000. What level can we realistically sustain? We should also discuss the wisdom of providing some support to help defray the costs of our representative attending the IAG Meetings.

4) 2000/2001 GSG AWARD WINNERS

Congratulations are extended to the following award recipients from the 2000/2001 competition. Winners were announced at the annual GSG Business Meeting in New York.

Mark A. Fonstad, Arizona State University: \$200 for **best paper presentation** at the AAG Annual Meeting by a geomorphology graduate student; 'The Instability of Classic Flood Assumptions: The Case of the 1999 Canadian River Headwaters Flood'

Jennifer Horwath, University of Illinois, Champaign-Urbana: \$200 **Masters-level research grant**

Martin W. Doyle, Purdue University: \$400 **Doctoral-level research grant**

Melvin G. Marcus Distinguished Career Award - **James C. Knox**, University of Wisconsin, Madison

Nomination by Allan James

What constitutes a "distinguished career" in geomorphology? Clearly research, teaching, and service to the professional organization all play important roles. I ask you to join me in honoring a scholar among our own group whose vital

contributions to geomorphology in the late 1900s have included internationally recognized research, prolific teaching, and selfless service to the discipline. His research contributions have been consistent, focused, and relevant to linking geomorphology to traditional geographic concerns including human impacts on the environment, spatial patterns of Earth-surface processes, and broader questions of climate change and their environmental impacts over historical and Quaternary time periods. As a teacher, few have produced as many doctoral students in geomorphology. One can look around the room at any major geomorphology gathering and see several prominent individuals who studied geomorphology under his tutelage. Finally, he has provided thirty years of service to our discipline including work for his department, the AAG, and this specialty group. By now you have probably realized that I am referring to Jim Knox; that is, James Clarence Knox, who I am proud to nominate for the Melvin G. Marcus Distinguished Career Award in Geomorphology.

It has become legendary that Jim Knox was raised on a small farm near Platteville, Wisconsin, and was at one point educated in a one-room school house. He took a B.S. in Geography with a minor in Geology in 1963 from Wisconsin State University at Platteville. It is hard to conceive of a better background than that steeped in the farming tradition of the upper Midwest for an empirically based approach to the study of historical erosion and sedimentation, hydrologic responses to land-use change, and landform evolution. Yet, Jim always had his eyes trained on a higher purpose, above the soils and farmlands of his home. While maintaining a passionate love and intellectual curiosity for the Driftless Area of Southwest Wisconsin, he recognized early in his career the importance of relating these findings to larger questions of the hydrologic and geomorphic consequences of human activities and climate variability. For example, his biogeomorphic response model in the early 1970s provided a theoretical conceptualization of the timing and complexity of responses of vegetation, erosion, and sediment production to simple step-functional climate changes. This model has been widely reproduced in subsequent books and papers on geomorphic impacts of climate change. The combination of a regional focus with rigorous empirical methods aimed at testing theory is not only successful, but is also simply good geomorphic science. Knox's field emphasis and intimate knowledge of the local area provides an excellent basis for teaching

in which students experience the testing of broad theoretical questions in the field.

Geomorphology as a discipline and as a body of knowledge has come a long way since Knox began his career. The Geomorphology Specialty Group did not yet exist, and geomorphologists in geography departments - after languishing in a post-Daviesian phase for decades - were becoming involved with morphometry and other means of applying the quantitative revolution in Geography. Knox's dissertation at Iowa in 1970 under Neil Salisbury, *Stream Channel Adjustment to Physiographic Factors in Small Drainage Basins -- Iowa and Southwestern Wisconsin*, was steeped in the hydraulic geometry and quantitative methods prevalent at that time, but it also anticipated new directions emphasizing the application of detailed field measurements to questions of human impacts on fluvial systems. Springing from his early work on stream channels in the Driftless Area, Knox soon began to produce a highly influential series of papers on historical sedimentation and fluvial changes in the upper Midwest. This body of knowledge led to a general awareness of the sweeping impacts of human settlement in the historical period and established a line of inquiry that has been emulated by numerous others over the past thirty years. Knox had always been interested in the historical aspects of geomorphology, and in the 1980s and 1990s he began to publish his research on Quaternary stratigraphy and landform evolution. He and his students have subsequently published numerous papers concerning the effects of climate change on the Upper Mississippi River and surroundings. In 1996, Jim's research was recognized by this group which awarded him the G.K. Gilbert Award for significant contribution to the literature for his 1993 paper in *Nature*: "Large increases in flood magnitudes in response to modest changes in climate." Jim has been awarded more than \$1,000,000 in research grants to conduct work on fluvial geomorphology or paleohydrology. His consistent funding record has benefitted his students, the department, and the geographic discipline.

In regards to teaching, Jim relishes teaching at all levels, from large-enrollment introductory courses to small advanced graduate reading seminars. That he stands out as a graduate advisor can be seen by the unparalleled number of students that he has mentored. Jim has successfully advised 24 Ph.D.s, and almost all now hold an academic position. He has also produced 39 masters degrees and many of those

students have gone on to complete their doctorates. I can remember at one point Jim was advising 17 graduate students in geography and Water Resources Management. Needless to say, this meant that he was busy, and that there was often a line of graduate students in front of his office. His value to the University is evidenced by his receipt of both a Vilas Associate Award (1995) and the Evjue-Bascom Professor-at-Large named chair (1997) from the University of Wisconsin, Madison.

The positive and enduring impact of Knox's teaching and research on our discipline is difficult to overestimate. His empirical methodology established a rigorous model of research at a time when physical geography was beginning to experience a resurgence in North America. His timely production of numerous well-trained doctorates in geomorphology and Quaternary science fed into and encouraged the expansion of physical geography in many geography departments. The success of Jim's students in their own right has had a positive feedback which has been highly beneficial to physical geography in general and to geomorphology in particular. Jim has always been clear in his identity as a geographer and has never wavered in his loyalty to geography as a discipline. He has published articles in the *Annals*, given countless papers at the AAG national meetings, and participated actively in our Geomorphology Specialty Group meetings. He has also actively promoted geographical geomorphology outside of our discipline. He is an elected fellow of the Geological Society of America (GSA) and the American Association for the Advancement of Science (AAAS). His rapport and cooperation with other scientists, especially geologists, through participation in INQUA, AMQUA, and the GSA (especially the Quaternary Geology and Geomorphology Division), has been extremely important to building collaborations and mutual respect between geography and geology programs nationwide. Locally, his interactions with the Geology Department at UW and as a Research Associate with the Wisconsin Geological & Natural History Survey, has also fostered a spirit of symbiosis that should be emulated. As graduate students at Madison in the 1980s, many of us assumed that Geology and Geography departments at all major universities experience the fluent exchanges of ideas and students and the selfless cooperation that is characteristic of the programs that Jim has helped to promote. The benefits of this spirit of collaboration are far reaching and have spawned a sense of tolerance,

mutual understanding, and productive partnership in research that is contagious.

Jim has never shirked administrative service, but has readily taken his turn when called upon to shoulder managerial, advisory, administrative, or editorial responsibilities at every level of academe. He has served his department and University as departmental chair, and he has served the A.A.G. as Regional Councillor and as a member of several committees including Nominations, Honors, and long-range planning. Jim has served this Geomorphology Specialty Group as a member of the G.K. Gilbert Honors Committee and has served or is now serving on editorial boards of the *Annals*, *Geographical Analysis*, the *Geological Society of America Bulletin*, *Quaternary Science Reviews*, and *The Holocene*. He has been on several review panels and national scientific committees including the National Science Foundation and the International Union for Quaternary Research. He served twice on committees for Section E (Geology and Geography) of the American Association for the Advancement of Science. He was elected Vice-Chair (1986-87) and chair (1988) of the Quaternary Science and Geomorphology Division of the Geological Society of America. He acted as Vice-chair of the Committee on the Status and Research Objectives in the Solid Earth Sciences for the National Academy of Sciences Panel on Earth Surface Processes (1988-1990).

So, what constitutes a distinguished career? One needs look no further than the work of Jim Knox for a clear, definitive example. With such a long record of successful research, teaching, and service to the discipline, it seems inevitable that he would receive the Melvin G. Marcus Distinguished Career Award. In keeping with the spirit of the late Mel Marcus, the namesake of this illustrious award, it is appropriate to confer this honor upon one who continues to teach, produce cutting-edge research, and assist others following in his footsteps. The Mel Marcus Award is in recognition of a distinguished career. I can think of no one more clearly deserving of that honor today than Jim Knox.

Response by James C. Knox
(delivered by Vance Holliday)

I am honored and I greatly appreciate being recognized with the Marcus Distinguished Career Award in Geomorphology by my colleagues in the Geomorphology Group of the Association of

American Geographers. I deeply regret that I am unable to be here with you for this ceremony, but I was informed only a few days ago that I had been nominated and selected to receive the Marcus Award. Unfortunately, I had not planned to attend this year's meeting in New York, and I had already made several other commitments that overlap with the New York meeting. Nevertheless, I will be here in spirit. I thank Allen James and the other letter writers who supported my nomination. My accomplishments over the years reflect in large part the enormous good fortune of having experienced great teachers whose enthusiasm was infectious. I also experienced the good fortune of spending my professional career at the University of Wisconsin-Madison where I have enjoyed excellent students and great resources for investigating research problems. I am grateful to George Dury who joined the Wisconsin faculty a year after I did. George came as a senior Professor and he was very supportive and helpful in getting my career launched. I have many fond memories of our joint seminars and field expeditions. I also have experienced untiring support from my wife Kathy who has given up much so that I might finish a project or be away in the field. I also express my thanks to the National Science Foundation because much of my research would not have been possible without the Foundation's support. The NSF Geology and Paleontology Program, the Geography and Regional Science Program, and the Earth System History Program have provided resources to support extensive and laborious field and laboratory work and radiocarbon dating that have been essential for successful completion of the research.

My roots shaped my interest in geomorphology. As some of you know, I grew up on a farm in the highly dissected and unglaciated region of southwestern Wisconsin. My ancestors were early pioneer settlers who moved out to the Midwest via Ohio, Kentucky, and Illinois from the states of New York and Pennsylvania in the early 1830s. In southwestern Wisconsin they became farmers and miners of lead and zinc. My great-great grandfather on my mother's side of the family was the only settler and miner identified on the 1833 original Federal Land Survey map of Township 3 North Range 3 West of the 90th Meridian. Hearing my grandparents and uncles discuss mineral deposits and their relations to rock beds and topography, and observing the fossil-rich Ordovician bedrock exposed on hillsides and stream beds of the home farm,

influenced my majoring in geography and geology as an undergraduate at the local University of Wisconsin campus in Platteville. I am much indebted to the excellent training in geology that I received from my undergraduate professors W. A. Broughton and H. A. Palmer.

Near the completion of my B.S. degree a collegiate friend recommended that I consider the Masters Degree program at Northern Illinois University. Northern at that time was a combined Geography and Geology program and it closely fit my interests. Furthermore, Duke Winters was there teaching a sequence of courses in geomorphology and physiography. Because of my strong background in geology I served as a TA in geology labs at NIU, but after taking the course Physiography of the United States from Duke Winters I was hooked on geomorphology. Duke was the most effective and inspiring teacher of my career. To my great disappointment, Duke left NIU for Michigan State at the end of my first year. However, good fortune struck again. His replacement was Harold McConnell who came from the University of Iowa where there was a heavy emphasis on quantitative methods and process-oriented studies in geomorphology. At about the same time I had become acquainted with and much interested in a series of U. S. Geological Survey Professional Papers that were focused on hydraulic studies of rivers. These papers were soon followed by the publication of Fluvial Processes in Geomorphology by Luna Leopold, M. Gordon Wolman, and John Miller. McConnell immediately put the graduate students to work using the new fluvial book as the main point of reference. His influence led me to the University of Iowa where Neil Salisbury was pioneering new developments in quantitative geomorphology. Neil is responsible for focusing my interests in fluvial geomorphology and for making me a true Friend of the Pleistocene. It was also through Neil's tutoring that I learned philosophy of science and how research should be conducted. Neil Salisbury had strong ties with the Geology Department at Iowa. Consequently, the geomorphology students in Geology and Geography functioned as a happy family. I owe much of my understanding of the disciplinary evolution of geomorphology to Geology Professor Sherwood Tuttle who ran a repeated evening seminar at his home where we read and discussed the classic papers. Also at Iowa, Professors Joe Howe and Hunter Rouse taught me a great deal about fundamentals of hydrology and hydraulics. My Ph.D. research at Iowa

examined how physiography influenced the hydraulic geometry of rivers.

I began my teaching and research career at the University of Wisconsin, Madison in the fall of 1968. I am still teaching and researching at Wisconsin and plan to continue doing so for several more years. As many of you know, the influence of climate change on fluvial and hydrologic systems has been one of my long-term research interests. My climate-change related research resulted in part from another bit of good fortune when I arrived at Wisconsin. I was hired to teach fluvial geomorphology and quantitative methods along with an introductory course in physical geography. The main introductory course was split into one semester that emphasized climate, water, and vegetation and another that emphasized soils and landforms. Don Currey and Norb Psuty were on the faculty at Madison when I arrived and they had staked out the geomorphology section of the introductory courses, so I taught the climate, water, and vegetation course. The class enrolled about 500 students, most of whom were taking it only to meet a science requirement. I tried to better attract the student's interest by giving the course a strong environmental change focus. I had gained an interest in environmental change from my exposure to the study of climate dynamics from Professor J. F. Lahey at Northern Illinois and from studies of Quaternary stratigraphy at Iowa, and from Midwest Friends of the Pleistocene field conferences where vegetation change and climatic history were common topics of concern. I also enjoyed the benefits of being a member of the Robert V. Ruhe's drilling crew when Ruhe was doing some of his classic research on paleosols and landscape evolution in Iowa. My interests in climate change and its influence on hydrologic and geomorphic systems have also profited from my interaction with my colleague Reid A. Bryson at the University of Wisconsin. Reid Bryson understood the nature and importance of climate change many decades before the topic became an important focal point in both the natural and social sciences. Reid Bryson also directed the Radiocarbon Laboratory at Wisconsin and he provided me with many radiocarbon dates that were essential for testing many of the early hypotheses that I had about connections between fluvial systems and climate change. Reid also involved me in his early 1970s field research in the Northwest Territories of Canada where he was studying Holocene climate change along the forest/tundra border. That experience was

especially helpful because it sharpened my understanding of global-scale climate change and how these changes are represented in various physical systems of the environment.

A second focal point of my research has been human impacts on river systems, including soil erosion, sedimentation, floods, and channel morphology. This interest developed during my field research for the Ph.D. at Iowa in the mid-1960s. Nearly all of the stream banks I was observing showed various accumulations of agriculturally related, light-brown and stratified overbank alluvium that buried a well-developed mollisol. This stratigraphy told me that a major historical hydrologic change had occurred in these watersheds since the beginning of agricultural settlement. Subsequently, I discovered the 1940 and 1942 Iowa theses of Clifford Adams who had investigated similar accelerated overbank sedimentation in the Galena River system of Illinois and Wisconsin. Adams worked under the direction of A. C. Trowbridge at Iowa and Stafford Happ of the U. S. Department of Agriculture. Various other studies supervised by Trowbridge and Happ and their colleagues confirmed that landscape modification by agriculture had greatly altered the runoff hydrology, erosion, and sedimentation in Upper Mississippi Valley watersheds. However, I found that many aspects of the temporal and spatial evolution of the agricultural impacts on these watersheds remained inadequately understood. Therefore, one of my first research projects at Wisconsin in 1968 was directed toward documenting the morphology of the channel system prior to agriculture and to documenting the temporal sequence of how floods, erosion, and sedimentation responded to historical land use change. The watersheds of southwestern Wisconsin and northwestern Illinois were selected for study because of excellent early survey records and because I was able to use trace-metal geochemistry associated with a well-documented sulfide mining history to date sedimentary units. Similar to most research, more questions were generated than were answers, so I still remain actively involved in this activity.

I also have had the good fortune to work closely with a group of outstanding graduate students at the University of Wisconsin-Madison represented by 24 Ph.D. and 39 M.S. dissertations and theses for which I served as major advisor. The Ph.D. students in chronological order include: Curt Sorenson, Larry Onesti, Paul Kay, Bill Johnson,

Pat Bartlein, Rich Whittecar, Pat McDowell, Steve Kite, Tod Froking, Dave May, Allan James, Richard Dunning, Frank Magilligan, David Leigh, Christopher Woltemade, Scott Lecce, Peter Jacobs, Doug Faulkner, Joe Mason, Bob Pavlowsky, Peter Newell, Faith Fitzpatrick, Chris Kent, and Mike Benedetti. Most were more like faculty colleagues than students and they have gone on to provide important professional contributions on their own. In all cases, I felt that I learned as much from them as they learned from me.

So, thank you for awarding me the Marcus Distinguished Career Award, and thanks to Vance Holliday for delivery of my response at this ceremony.

G.K. Gilbert Award for Excellence in Geomorphic Research - Karl F. Nordstrom,
Rutgers University

Nomination by Douglas Sherman

It is my privilege to nominate Professor Karl Nordstrom for the 2001 Grove Karl Gilbert Award for Excellence in Geomorphic Research. The publication that serves as the basis for this nomination is his recent book, *Beaches and Dunes of Developed Coasts*, published by Cambridge University Press in 2000. For more than two decades Professor Nordstrom has led our research community in the study of human-altered geomorphic landscapes, especially in coastal systems. *Beaches and Dunes of Developed Coasts* is the product of that work. Karl has risked much by stepping outside the bounds of our disciplinary predilection for natural systems, but this book demonstrates that there is a rich scientific harvest for those that examine human agencies of landform change.

Coastlines throughout the world, like other natural landscapes, have been altered over millennia, and development will continue. Increasing population pressure, combined with the desirability of developable land for human investment, habitation and use, make alteration of natural landscapes widespread and inevitable. Despite these alterations, the state of knowledge of human-altered landforms is still primitive, in part because so few geomorphological investigations have been conducted in a holistic, objective, basic-research context. The location, form, function, evolution, value and definition of landforms have changed under the influence of

human development, requiring re-evaluation of the role of geomorphology and geomorphologists. As Brunsden and Moore (*Geomorphology* 1999) and Rhoades and others (*Environmental Management* 1999) have pointed out, a fundamental challenge confronting contemporary geomorphologists is determining how to design and construct new landforms, landscapes and process systems to restore, replace or improve those provided by nature and to present a negotiated mix of human and biophysical components tempered with an understanding of the place-based social worlds of local communities.

The book reviews the state of knowledge of the processes affecting beaches and dunes on developed coasts and the resulting characteristics of these landforms, along with suggestions for ways that natural values can be maintained while accommodating human use. An important contribution of the book is the evidence for considering human agency as an endogenic (intrinsic) process in the evolution of coastal landscapes, requiring elements of the social sciences as well as the natural sciences. The acknowledgement that humans are a fundamental agent of landscape evolution is not new; what is new is incorporating human actions into models of coastal development in a basic-research context as an integral component of this evolution, rather than in an applied context as an overlay on the natural system.

The book is both a scholarly treatise and a reference volume, with more than 800 references cited. The early chapters reveal how developed coasts evolve as a result of direct and indirect human actions that are occurring at larger scale and higher frequency through time due to improvements in technology and increases in the economic value of coastal property. The chapters reveal how landforms are eliminated, reshaped, remobilized, stabilized or entirely re-created as artifacts. The middle chapters discuss how the resulting landforms differ from natural landforms internally and externally and are generally: 1) less dynamic; 2) less diverse in vegetation cover; 3) smaller in area; and 4) subject to cycles of evolution that correspond more closely to human processes than natural processes (at least in the depositional phase). A chapter on land use regulations and management programs reveals how existing human actions and regulations cannot ensure that landforms in the future will have the size, dynamism, topographic and species diversity to provide the number and

variety of resource options available in the naturally functioning coastal landscapes that are being lost through incompatible development. The following chapter reveals how actions can be made more compatible with natural processes, involving solutions that involve tradeoffs and negotiations by competing stakeholders.

The final chapter evaluates the kinds of research required to fill gaps in the state of knowledge of human-altered landforms, with special emphasis on dynamic management approaches that will increase their future value. Recognition that humans have become intrinsic agents in evolution of coastal landscapes is significant in that it places the problem of restoring the value of these landscapes squarely on human action, requiring management approaches that work with, rather than against, natural processes. The book makes it clear that proper understanding of human altered landscapes requires comprehensive research programs beyond the sub-discipline of geomorphology, including social science, ethics, ecology, economics and education, and examples of related research needs are presented to provide perspective on what a holistic approach to assessment of human altered landforms on developed coasts entails.

In *Beaches and Dunes of Developed Coasts*, Professor Karl Nordstrom has outlined elements of a research agenda for 21st Century geomorphology. The book marks a significant departure from traditional geomorphological research. More importantly, however, it also marks a substantial advance for our discipline. Although the focus of the work is on coastal systems, there is a fundamental message for all of us. We need to pay attention.

When I received my review copy of this book, it was immediately apparent that Karl Nordstrom had produced a work worthy of the Grove Karl Gilbert Award. I urge your committee to give this nomination your closest consideration. If you have other candidates of this quality, your job will indeed be difficult. Please contact me if you have any questions or concerns about this nomination.

Response by Karl F. Nordstrom

It is an honor to receive the G.K. Gilbert Award for my book on developed coasts. I thank the awards committee for recognizing research on coastal landforms and human-altered environments, although these are topics that

have traditionally been outside the main stream of geomorphological research. This award gives me increased enthusiasm and incentive to pursue my research efforts on human-altered systems in both basic and applied contexts.

Recognition that the location, form, function, evolution, value and definition of landforms have changed under the influence of human development and that models of landform change must incorporate human agency as intrinsic to the evolution of landscapes have important implications for the way we will practice our craft in the future. This is both an exciting and stressful time for geomorphology and geomorphologists. Accepting humans as process elements in geomorphology opens many new areas of research. Case studies of human alterations are almost unlimited in number and type, and unraveling the history of human actions and predicting the future evolution of human altered landscapes can be a fascinating exercise. On the down side, we know that landforms have low priority compared to many human values, and protecting, restoring and rehabilitating landforms of the future will involve active human inputs, resulting in what many of us would consider "compromise" landforms. It will be interesting to see how our role evolves. Will we become chroniclers of lost landscapes of the past, guardians and curators of protected natural enclaves, or willing participants in creating new landforms that mimic nature but have different internal structure, cycles of change, freedom of movement and spatial extent? A fundamental challenge confronting us involves determining how much of a role natural processes must (or can) have in these new landforms and how we, as geographically-trained geomorphologists, can contribute to design of landscapes and process systems that restore, replace or improve those provided by nature but are threatened by humans. Many geomorphologists in the Association of American Geographers are beginning to take up the challenge of considering humans as intrinsic to landscape evolution and I am pleased to be recognized for contributing to this aspect of geomorphology.

GSG SESSIONS AT THE 2002 AAG ANNUAL MEETING (Los Angeles, March 19-23)

Please note that abstract submission details are available in recent issues of the AAG newsletter and at the AAG website <<http://www.aag.org/AnnualMeetings/intro.html>>. The AAG is now using online submission of abstracts and registration materials. To take part in a special session you need to go through the online submission <<http://convention.allacademic.com/aag2002/first.html>>, and then send an email to the special session organizers containing:

- your name, presentation title, and abstract
- the "Participant Number" assigned to you by the online registration system.

The deadline for oral papers is August 31st, 2001, and for illustrated papers and posters September 28th, 2001.

Human Impacts in Geomorphology

Dick Marston, Oklahoma State University,
(marstor@okstate.edu)
Jon Harbor, Purdue University,
(jharbor@purdue.edu)

The Human Impacts in Geomorphology sessions at the 2002 Association of American Geographers annual meeting in Los Angeles will focus on the interaction between humans and geomorphology. The scope of these sessions includes both the role of human disturbance in changing rates and types of geomorphic processes, as well as the controls that geomorphic processes and forms exert on human activity. Theoretical, monitoring, historical and applied/management papers are welcome. Papers are encouraged that seek to separate human influence on geomorphological change from change that would have occurred without human interference. We particularly encourage papers that involve collaboration with human geographers and other non-geomorphologists.

The special sessions will include both traditional oral sessions (10-15 minute presentations) and an illustrated paper format. The illustrated paper sessions begin with each presenter giving a brief (1-3 minute) oral introduction to his/her work, and this is then followed by one-on-one or small group discussion in poster format. Illustrated paper sessions have 8 to 12 presenters. This format received excellent reviews from presenters and audiences at the last two AAG

Human Impacts sessions, and we particularly encourage presentations of this type.

Dam Removal

Patricia J. Beyer, Bloomsburg University,
(pbeyer@bloomu.edu)

The Geomorphology Specialty Group and the Water Resources Specialty Group are again co-sponsoring one or more paper sessions on the topic of dam removal. We welcome papers addressing any aspect of dam removal: geomorphology, ecology, hydrology, public policy, law, etc. For more information or to express your interest, please contact Patty. I will require your identification number (received after you submit your registration to the AAG on-line), your AV requirements, and any other special requests. I would appreciate a copy of your abstract as well so that I may place the papers in a sensible order for the session(s).

Weathering Geomorphology/Rock and Mineral Weathering

Steve Gordon, USAF Academy,
(steve.gordon@usafa.af.mil)
Charles Allen, Univ. of Wisconsin at Oshkosh,
(allenc@uwosh.edu)

Papers dealing with any aspect of rock and mineral decay will be considered for this special session. If you would like to participate, or if you would like more information, please contact Steve.

Emerging Trends, Challenges and Opportunities in Water Resources Development in the Third World

Dr. Aondover Tarhule, University of Oklahoma,
(atarhule@ou.edu)

Ongoing global changes are expected to exacerbate and compound problems related to water resources development in the third world. Natural climatic variability may induce scarcity at various scales while population growth threatens to degrade water resources through over use and mismanagement. Serious conflict may also emerge at local, regional and international scales, especially from shared resources. These underlying factors and emerging complications point to a need for innovative and cost efficient

methods for increasing supply, improving efficiency and proactively mitigating conflict.

Geotechnical methods - including GIS, remote sensing and geophysical water prospecting can, and have made significant contributions to water-related problems in many third world countries. Regrettably, the absence of networking and common forum for interaction constrains awareness of these achievements, potentially reducing their overall impact. This session provides a forum for discussing the trends, challenges and opportunities in water resources research in the developing countries in the 21st century. The goal is to increase awareness, network, foster collaborations and benefit from shared experience and unique insights.

Appropriate topics for presentation include, but are not limited to the following

Technological: research results related to water resources exploration and sourcing, inventorying, modeling, visualization, analysis and distribution
Institutional: constraints to effective water resources planning and management
Conflict: potential areas and sources of regional or international conflict related to water resources development and use

ANNOUNCE-MENTS

1) FROM OUR FRIENDS AT WILEY: A benchmark journal that's now even better!

River Research and Applications
(formerly, Regulated Rivers: Research and Management)

This benchmark journal continues to provide outstanding coverage of river management problems.

- It now publishes more articles showing how the latest scientific developments as well as basic studies can be used to deal with problems associated with managing, regulating and restoring rivers.
- It covers the biological, ecological, engineering, geographical, geomorphological and hydrological aspects of river research.

- It accepts papers from most of the developed and developing countries worldwide, ensuring the most diverse content possible.
- It contains a superb new section on policy and topical issues

Edited by Professor Geoff Petts, University of Birmingham, UK, it is the primary source for basic and applied scientific research on rivers.

For further information, or a sample copy, please email: Hollie Davies at hdavies@wiley.co.uk

2) 2001/2002 GSG AWARD COMPETITION

The contact person for 2001/2002 GSG Awards to whom all correspondence (including complaints or bribes) should be addressed is:

Karen A. Lemke, Geography/Geology Department, University of Wisconsin-Stevens Point, Stevens Point, WI 54481-3897; Fax: (715) 346-3372; klemke@uwsp.edu

The Grove Karl Gilbert Award for Excellence in Geomorphic Research

The Grove Karl Gilbert Award is presented to the author(s) of a significant contribution to the published research literature in geomorphology during the past three years. Only books, refereed journal articles, or monographs will be considered with an emphasis on refereed research articles. Nominations for the Grove Karl Gilbert Award remain active for two years. The nomination package should include:

- A copy of the relevant publication;
 - A statement as to why the publication deserves the award, and
 - (Optional) supporting letters from colleagues.
- The Awards Committee must receive these materials and any supporting documentation by February 1, 2002.

The Melvin G. Marcus Distinguished Career Award

The Melvin G. Marcus Distinguished Career Award is presented to an individual who has made significant contributions to geomorphology over his/her career. Nominations for the Melvin G. Marcus Distinguished Career Award remain active for two years. The nomination package should include:

- A brief description of the candidate's contribution to geomorphology,
- A brief biographic sketch,
- A select bibliography, and
- Three letters of support from colleagues.

The Awards Committee must receive these materials and any supporting documentation by February 1, 2002.

GSG Graduate Student Research Awards

Each year the GSG awards two graduate student research grants to help cover the costs of data acquisition, fieldwork, and laboratory analysis required to complete thesis research. The awards are \$200 to a Masters student and \$400 to a Ph.D. student. Eligible students must be members of the AAG and the GSG. Please submit THREE copies of:

- A research proposal (approximately 5 pages in length), and
- Two short letters of recommendation.

The Awards Committee must receive these materials and any supporting documentation by February 1, 2002.

GSG Graduate Student Paper Award

The Geomorphology Specialty Group announces a competition for the best geomorphology graduate student paper presented at the 2002 Annual Meeting of the Association of American Geographers. The award is \$200. To be eligible for any of the student awards, graduate students must be members of the AAG and GSG.

Applicants for the student paper competition will be placed into special sessions organized for the competition and sponsored by the Geomorphology Specialty Group. Students must register for the meeting in the Individual Registration section of the AAG web site (<http://www.aag.org/AnnualMeetings/Intro.html>).

Within 24 hours of completing this process, you will receive a participant number. Although the AAG deadline for individual applicants is August 31, 2001, please register your presentation with the AAG before August 29, 2001. Your application package for the Graduate Student Paper Award should include:

- Your participant number,
 - One copy of the standard abstract required by the AAG, and
 - Three copies of an extended abstract of the paper, consisting of 800-1000 words.
- The Awards Committee must receive these materials by August 30, 2001. Please do not send a program participation form or the registration fee to the organizer. All registration fees must be submitted to the AAG by August 31, 2001.

3) CONFERENCES and WORKSHOPS

Ground Penetrating Radar in Sediments: Applications and Interpretation

British Sedimentology Research Group
The Geological Society of London and University
College, London, England
August 20 & 21, 2001

Ground Penetrating Radar (GPR) is seeing increasing application in the fields of sedimentology and geomorphology. This international conference will be the first to bring together geologists, geomorphologists, geophysicists and engineers with an interest in the application and interpretation of GPR in sediments and sedimentary rocks. Contributions including case studies of sedimentary environments, sedimentary architecture, sandbody geometry, shallow subsurface stratigraphy and engineering applications are invited. Abstract deadline has passed. The conference aims to bring together interdisciplinary scientists from around the world and will be held at. Refereed papers will be published.

Additional information is available at
<http://www.geo.vu.nl/~damr/GPRconf2001/>
Co-Chairs: Dr Charlie Bristow, Birbeck College,
c.bristow@ucl.ac.uk
Dr Harry Jol, University of Wisconsin-Eau Claire,
jolhm@uwec.edu

5th International Conference on Geomorphology

The International Association of
Geomorphologists
Organized by The Japanese Geomorphological

Union (JGU)
Chuo University, Korakuen Campus, Tokyo,
Japan
August 23 - 28, 2001

The 3rd Circular of the 5th International
Conference on Geomorphology is now available
at
<http://wwwsoc.nacsis.ac.jp/jgu/icg_hopa/indexicg.html>

IMPORTANT DATES

June 30, 2001 Final date for advance registration.
July 18, 2001 Final date for hotel reservation and
one day field excursion.
August 17, 2001 Earliest pre-conference field
excursion begins.
August 23, 2001 Conference desk at Chuo
University (Korakuen Campus) opens.
August 24, 2001 Conference opening ceremony.
August 28, 2001 Conference closing ceremony.
August 29, 2001 Post-conference field excursions
begin.

Dryland Change 2001

An IGCP-413 and IGU COMLAND Conference
Upington, South Africa, 30 August- 2 September
2001

An international interdisciplinary conference
exploring the nature of environmental change in
drylands and opportunities for an improved
understanding of future changes and their
impacts on dryland societies. The conference
focuses on environmental change in drylands
during the Quaternary period, on modern change
including land degradation and the interactions
between human actions and climatic variability,
and understanding future change: its possible
occurrence, impacts and mitigation.

Register online or by downloaded form at:
<http://www.shef.ac.uk/~igcp413/>
where full conference details are also provided.
Interest in the conference has been considerable,
so early registration is strongly advised.

2001 International Binghamton Geomorphology Symposium

"Mountain Geomorphology - Integrating Earth
Systems"
The Friday Center for Continuing Education
University of North Carolina - Chapel Hill
October 20-21, 2001

The 32nd Binghamton Geomorphology
Symposium is being organized by David R. Butler
(db25@swt.edu), George P. Malanson
(gm16@swt.edu), and Stephen J. Walsh
(swalsh@email.unc.edu). Chapel Hill is served by
most major airlines through flights to the
Raleigh-Durham (RDU) airport. Additional details
concerning the symposium may be found at
<http://www.unc.edu/depts/geog/inghamton2001>

Invited Papers to be published in Geomorphology
and in a book by Elsevier
D.R. Butler, S.J. Walsh, G.P. Malanson, Co-
Editors

Speakers

1. Peter W. Birkeland, Department of
Geological Sciences, University of
Colorado; Scott Burns, Department of
Geology, Portland State University; Alan
Price, US Department of Agriculture -
National Resources Conservation Service;
Ralph Shroba, U.S. Geological Survey;
and Phil Tonkin, Soil, Plant and Ecological
Sciences Division, Lincoln University, New
Zealand
2. Anne Chin, Department of Geography,
Texas A&M University
3. Richard Marston, School of Geology,
Oklahoma State University; Jean-Paul
Bravard, University of Lyon; Jean-Luc
Peiry, University of Grenoble; Robert
Moutard, University of Grenoble
4. Olav Slaymaker, Department of
Geography, University of British Columbia;
Catherine Souch, Department of
Geography, Indiana University-Purdue
University, Indianapolis; Brian Menounos,
Department of Geography, University of
British Columbia; and Gabriel Filippelli,
Department of Geology, Indiana
University-Purdue University, Indianapolis
5. Francisco Perez, Department of
Geography, University of Texas-Austin
6. Kevin Hall & Neil Lamont, Department of
Geography, University of Northern British
Columbia
7. Ronald Dorn, Department of Geography,
Arizona State University
8. Forrest Wilkerson & Ginger Schmid,
Department of Geography, Southwest
Texas State University

9. Michael P. Bishop & John F. Shroder, Jr., Department of Geography-Geology, University of Nebraska-Omaha
10. Kevin Cornwell, Department of Geology, CSU-Sacramento; Doug Norsby, Topeka, KS; and Richard Marston, School of Geology, Oklahoma State University
11. David M. Cruden, Department of Civil Engineering, University of Alberta
12. Mark Fonstad, Post-doctoral Research Associate, Montana State University
13. Daniel Fagre, U.S.G.S. Science Center, Glacier National Park
14. Matthew Bekker, Department of Geography, Brigham Young University; David R. Butler, Department of Geography, Southwest Texas State University; George P. Malanson, Department of Geography, University of Iowa; and Lynn Resler, Department of Geography, Southwest Texas State University
15. Carol Harden, Department of Geography, University of Tennessee
16. Ellen Wohl & Sara Rathburn, Department of Earth Sciences, Colorado State University
17. Stephen J. Walsh, Department of Geography, University of North Carolina, and Daniel G. Brown, School of Natural Resources, University of Michigan
18. Hugh Mills, Department of Geology, Tennessee Tech University
19. W. Andrew Marcus, Department of Earth Sciences, University of Oregon, & Carl Legleiter, Department of Earth Sciences, Montana State University
20. David Montgomery, Department of Geological Sciences, University of Washington
21. Stephen G. Evans, Geological Survey of Canada and John J. Clague, Simon Fraser University

Posters

1. Wendy Bigler, Department of Geography, Arizona State University - "Step Pool Geography in Desert Mountains: The Role of Lithology"
2. Evan A. Hart, Tennessee Tech University - "Effect of Mass Wasting on Sediment Storage and Channel Morphology: Examples from the Smoky Mountains, TN-NC"
3. Mario Aristide Lenzi and Francesco Comiti, Department of Land and Agroforestry Environment, University of Padova, Legnaro, Italy - "Artificial Step-pool Grade-control Structures in a High-gradient Alpine Torrent, Italy"
4. Francesco Comiti and Mario Aristide Lenzi, Department of Land and Agroforestry Environment, University of Padova, Legnaro, Italy - "Characteristics of Local Scouring in Step-pool Systems"
5. L. Allan James, Department of Geography, University of South Carolina; John Harbor, Purdue University, and Derek Fabel - "Glaciation and Implications of Rapid Late Glacial Ice Retreat from the Northwestern Sierra Nevada, California"
6. Mark R. Welford and Charles H. Trupe, Department of Geology and Geography, Georgia Southern University - "Possible Connections among Frequent Shallow Landslides, Sub-surface Geology and Intense Weathering, and Tropical Montane Trees"
7. C.L. Connor, Environmental Science Program, University of Alaska - Southeast; R.J. Motyka, Environmental Science Program, University of Alaska - Southeast, and University of Alaska - Fairbanks, Geophysical Institute; B. Hitchcock, Environmental Science Program, University of Alaska - Southeast; and S. O'Neel, University of Colorado, Boulder - "Glacially Driven Dynamic Geomorphic Evolution of the Mendenhall Valley and Lake Basin, Juneau, Alaska"
8. Stephen B. Taylor, Earth and Physical Sciences Department, Western Oregon University; Darlene Madarish, Timber and Watershed Laboratory, Northeastern Forest Experiment Station, Parsons, West Virginia; J. Steven Kite, J. Steven, Department of Geology and Geography, West Virginia University - "Gravel Distribution Analysis of Three Channel Systems in the Central Appalachians: Comparative Evaluation of Sediment-Transport Efficiency and Valley-Erosion Dynamics"
9. Peter L.K. Knuepfer, Department of Geological Sciences, Binghamton University, Binghamton, NY - "Tectonic and Climatic Controls on River Long Profiles in the Mountains of Active Orogens"
10. Hilary J.M. Sandford, Camosun College, Victoria, B.C.; Lynn M. Resler and David R. Butler, Department of Geography, Southwest Texas State University -

"Working Title - Snow Avalanche Path Vegetation and Dendrogeomorphology for Examining Changes in Avalanche Frequency and Magnitude"

11. Richard B. Lammers, Water Systems Analysis Group, University of New Hampshire; Lawrence E. Band, Department of Geography, University of North Carolina; and Ferenc Csillag, Department of Geography, University of Toronto - "A Comparison of Partitioning Strategies for Complex Terrain"
12. Thomas R. Allen, Department of Political Science and Geography, Old Dominion University; and John A. Kupfer, Department of Geography and Regional Development, University of Arizona - "Landform-Vegetation Interactions in the Pattern and Stability of Spruce-Fir Forests, Great Smoky Mountains National Park, Tennessee-North Carolina "
13. Joanna Crowe and Peter Wilcock, Department of Geography and Environmental Engineering, Johns Hopkins University - "An Experimental Study of the Step Pool Bed Configuration"
14. William Welsh, Department of Geography, University of North Carolina - Greensboro, "The Dongrek Mountains of Southeast Asia: A 'Great Landscape' Transformed by Terror"
15. Donald A. Friend, Department of Geography, Minnesota State University - "Boulder Fields in Desert Mountains: Analogues of Alpine Slopes?"
16. Daniel A. Marion, U.S. Forest Service, Oxford, MS, and Frank Weirich, Department of Geology, University of Iowa - "Equal-mobility Sediment Transport in a Small Step-pool Channel in the Ouachita Mountains"
17. Jeff Warburton, Department of Geography, University of Durham - "TBA"
18. Jeff Warburton, Department of Geography, University of Durham - "TBA"
19. Sue Berta, Department of Geography, Geology, and Anthropology, Indiana State University - "TBA"

High-Resolution Investigations of the Morphodynamics and Sedimentary Evolution of Estuaries (Topical Session 28)
Geological Society of America, Boston, MA
November 1-10, 2001

This session will focus on the morpho-sedimentary evolution of estuaries using high-

resolution geophysics, field observations, and numerical modeling. Aspects considered will include long- and short-term changes in sediment budgets, sedimentary processes and estuary dynamics, and the role of infrequent high-magnitude events such as storms. In this session we hope to develop the following themes: Estuaries are dynamic components of modern coasts but their sediment dynamics and morphological evolution are generally poorly known. Controls on estuary development vary according to coastal geometry and the interaction between fluvial, coastal and marine processes. On glaciated coasts (i.e. New England, Ireland) estuary evolution reflects long-term (millennial scale) changes in relative sea-level and sediment budgets upon which is superimposed short-term (seasonal to decadal scale) events related to changes in the fluvial, coastal and marine environments, including the impact of storms and flood events. Further, new high-resolution methods of field investigation and analysis allow for a greater understanding of estuarine processes on different scales. New geophysical techniques (side scan sonar, sub-bottom seismic profiling), field-based observations (using DGPS) and data analysis/modelling (i.e. integration using a GIS or SURFER; wave hindcasting using HISWA) can integrate both onshore and offshore components of estuaries. This session will focus on the use of these modern and innovative techniques in the investigation of estuary morphodynamics on different scales.

More information and abstract forms are available from: <http://www.geosociety.org/>

Conveners: Jasper Knight, University of Ulster, UK (j.knight@ulst.ac.uk), Duncan FitzGerald, University of Boston, and Christopher Sommerfield, University of Delaware

Geomorphology: Chaos, Fractals and Self-Organizing Systems

Royal Geographical Society/Institute of British Geographers' Annual Conference
Queen's University, Belfast, United Kingdom
2-6 January 2002

Many geomorphological systems display properties that cannot easily be predicted from a study of their parts. Chaos is one such system-level response. Emergence, the spontaneous genesis of new systemic properties as a

result of interactions between the components of a complex system, is another. Periglacial stone stripes, rill networks, dune morphology, estuarine bars: all are examples of geomorphological phenomena that can be viewed in the context of chaos and complexity.

Subjects for papers submitted to this session could include, but are not limited to, the following:

- * fractals
- * self-similarity
- * emergence
- * power laws
- * self-organized criticality.

Convenors: Prof. Brian Whalley (b.whalley@qub.ac.uk), Dr David Favis-Mortlock (d.favis-mortlock@qub.ac.uk), Dr Chris Lloyd (c.lloyd@qub.ac.uk) all at the School of Geography, Queen's University Belfast, Belfast BT7 1NN, UK; and Dr Nick Tate (n.tate@leicester.ac.uk) at the Department of Geography, University of Leicester, Leicester LE1 7RH, UK <http://www.qub.ac.uk/geog/documents/ibg/>

7th Australasian Conference on Isotopes in the Environment

Ranelagh House, Robertson, NSW (120 km SW of Sydney)
September 24-26, 2001

Theme: Stable-isotopes, radiogenic isotopes, and cosmogenic isotopes in the natural environment. The subject matter encompasses the geological, hydrological, biological, oceanographic, atmospheric and food sciences. There will be a special session on the techniques and uses of continuous-flow isotope-ratio mass spectrometry. Presentations on new techniques will be welcome, and visits to isotope laboratories at the University of Wollongong and ANSTO (The Australian Nuclear Science and Technology Organisation) will be arranged.

Registration: A\$50 (\$20 for students). It is expected that most delegates will reside in Ranelagh House, a 1924 English country-style guest house in Robertson, for the duration of the meeting. The cost of this accommodation, to be notified later, will include full board (i.e. all meals) as required.

Contact: Allan R. Chivas, University of Wollongong, toschi@uow.edu.au

7th International Coastal Symposium 2002

Full details of conference, abstract submission, fees, and other updated information can be found at: <http://www.science.ulst.ac.uk/ics2002/>

Potential delegates who have not already registered their interest are encouraged to do so as soon as possible. Accommodation holding reservations should now also be made using the online form.

Luminescence and Electron Spin Resonance Dating

University of Nevada-Reno, Reno, Nevada, USA
24-28 June, 2002

The Desert Research Institute invites you to the 10th International Conference on Luminescence and Electron Spin Resonance Dating (LED 2002) All interested persons can access information at <http://www.dri.edu/DEES/LED2002/led2002-home.html> or at LED2002@dri.edu. Participants will be responsible for their own room reservation. SCIENTIFIC ORGANIZING COMMITTEE: Glenn Berger (Chair), Desert Research Institute, James Bischoff, U.S. Geological Survey, Rainer Grün, Australian National University, Michel Lamothe, Université du Québec à Montréal, Steve McKeever, University of Oklahoma, Jack Rink, McMaster University, Ann Wintle, University of Wales.

Conference on Aeolian Research and the Global Change and Terrestrial Ecosystems-Soil Erosion Network (Wind)

Texas Tech University, Lubbock Texas
July 22-25, 2002

Session topics will include: Fundamental Aeolian Processes, Instrumentation and Measurement in the Field and Lab, Modeling, Coordinated Field Studies, Environmental Impacts and Erosion Control, and Landforms and Aeolian Paleoenvironments. Each session will include oral presentations, discussions and posters. Several field trips are being planned.

http://www.lbk.ars.usda.gov/wewc/icar_v/icar_v.htm > <http://www.lbk.ars.usda.gov/wewc>

http://www.lbk.ars.usda.gov/wewc/icar_v/icar_v.htm

Contacts: Ted Zobeck,
attzobeck@lbk.ars.usda.gov
Jeff Lee, jeff.lee@ttu.edu

International Symposium on the Structure, Function and Management Implications of Fluvial Sedimentary Systems

Alice Springs, Northern Territory, Australia
September 2nd-6th, 2002

The symposium will focus on different aspects of fluvial sedimentary systems, recognising the importance of these systems and the way in which they are managed to the health of riverine systems. Articles will be welcomed which address one of the four themes covered by the symposium:

1. Ecogeomorphology: Linking the physical form of fluvial sedimentary systems with ecological response
2. Floodplains: The role of temporary storage in the exchange of sediment and nutrients
3. Variability: Magnitude and frequency: controlling sedimentary systems
4. Techniques: New approaches in the study of fluvial sedimentary systems

Abstract deadline is the 30th of June. For more information and on-line submission of abstracts see: lake.canberra.edu.au/~iahs2002 or contact the conference organisers:

Fiona.Dyer@canberra.edu.au
Martin.Thoms@canberra.edu.au
Jon.Olley@cbr.clw.csiro.au

XVI th Inqua Congress

Reno Hilton Resort & Conference Center, Reno,
Nevada USA.
July 23 - 31, 2003

Full details of the Congress can be found on the Congress Web site:

http://www.dri.edu/DEES/INQUA2003/inqua_home.htm

Please visit this site to register your interest in the Congress and find

out more about the location, scientific program, and field trips.

NEWS FROM MEMBERS

1) FREE GEOMORPHOLOGY E-BOOK!!!!

The entire volume of:
Rhoads, B.L. and Thorn, C.E. 1996. The Scientific Nature of Geomorphology. Wiley, Chichester is now available for FREE at:
<http://www.staff.uiuc.edu/~b-rhoads/book/book.htm>
Files are in .pdf format and can be opened or saved with Adobe Acrobat Reader.

2) FROM THE 'SHOW-ME' STATE

Congratulations to Bob Pavlowsky upon his recent promotion to Associate Professor with tenure at Southwest Missouri State University in Springfield, MO (just 30 minutes north of good old Branson!). Bob directs the SMSU Geomorphology Research Laboratory, which funds four graduate students. He is currently the PI on several funded projects including: (1) "Influence of land use and riparian buffers on channel morphology and sediment properties, Little Sac Watershed, SW MO," 3-yrs, MO DNR, \$117,000; (2) "Spatial distribution, geochemistry, and sources of phosphorus and metals in bottom sediments in the James River arm of Table Rock Lake," 1-yr, USGS Water Resources Program, \$52,000; and (3) "James River TMDL Monitoring Project," 1-yr, MO DNR/EPA, \$125,000. If you have any questions, Bob may be reached at rtp138f@smsu.edu.

3) MORE 'SOUTHWEST' STUFF

Dave Butler is happy to report that two geomorphologists recently received awards from the AAG Mountain Geography Specialty Group in recognition of their research in mountain environments. John F. (Jack) Shroder, Jr., Department of Geography-Geology, University of Nebraska at Omaha, received the Distinguished Career/Lifetime Achievement Award for his long-term research efforts in the Himalayas and the Rocky Mountains, for his pioneering work in

dendrogeomorphology, and his mentoring of students in mountain geomorphology. And guess who was the recipient of the Outstanding Achievement Award for Recent Activities in recognition of his work on biophysical processes in the mountains of Glacier National Park, Montana. Yes, folks, none other than David R. Butler, Department of Geography, Southwest Texas State University, who has also been busy as a beaver publishing his research.

Butler, David R., 2001. Geomorphic process-disturbance corridors: a variation on a principle of landscape ecology. *Progress in Physical Geography* 25(2), 237-248.

Butler, David R., and Forrest D. Wilkerson, 2000. In praise of off-season field trips. *Journal of Geography* 99(1), 36-42.

Baer, Leonard D., and David R. Butler, 2000. Space-time modeling of grizzly bears. *The Geographical Review* 90(2), 206-221.

WHAT'S GOING ON AROUND US?

1) USDA WANTS YOU TO HAVE \$\$\$\$

The United States Department of Agriculture (USDA) has a long-standing tradition of conducting research, providing extension/outreach, education, technical, and financial assistance programs, and managing information resources aimed at protecting the Nation's natural resources. Fundamental to the success of all these programs are the basic and applied research efforts sponsored by USDA. This brief description focuses on extramural competitive research programs administered by the Cooperative State Research, Education, and Extension Service (CSREES). Information on other intramural, competitive, or non-competitive grant opportunities is available through USDA agencies (<http://www.usda.gov/>).

CSREES administers two competitive funding opportunities for scientists interested in water quality and water resources. The first program is the Watershed Processes and Water Resources Program funded through the National Research

Initiative (NRI) and the second program is the Integrated Research, Education, and Extension Water Quality Program. In addition to these programs, the Soils and Soil Biology Competitive Grants Program includes research on water quality and water resources as it relates to interactions with the soil.

Watershed Processes and Water Resources Program

The Watershed Processes and Water Resources Program was initiated in 1990 (under the program title Water Resources Assessment and Protection), to fund basic and applied research that addresses water quality and quantity issues arising from agricultural management practices. Traditionally, research in the program has targeted agricultural environments. However, more recently, research has addressed water quality and water resources issues on forested lands, rangelands, and estuaries affected by agricultural practices.

In the early years of the program, much of the research focus was on best management practices to limit impacts of agricultural practices on water quality. As the program has evolved, the focus has shifted to a watershed-based approach to protecting water resources. This watershed-based approach includes research to better understand fundamental hydrologic, geomorphic, and biologic processes affecting the quality of water resources in agricultural environments and management practices and technology needed to protect and improve these water resources.

Topics addressed in the Watershed Processes and Water Resources Program include: Understanding fundamental processes and watershed characteristics controlling source areas and flow pathways of water and the origin, transport, and fate of water, sediment, nutrients, dissolved matter, and biological organisms from forests, rangelands, and agricultural environments; Developing appropriate management and technology, for consumptive and non-consumptive uses of water for agricultural and forestry production and evaluating management policies that affect the quantity and quality of water resources.

Approximately \$4 million is available for competitive grants each year in the Watershed Processes and Water Resources Program.

Projects generally are funded up to \$350,000 over two to four years.

The current program description for the Watershed Processes and Water Resources Program is available at:
<http://www.reeusda.gov/nri/programs/progdesc/wrap.htm>

Soils and Soil Biology

The Soils and Soil Biology Program was initiated in 1990 to fund basic and applied research that addresses concerns of quality and productivity of soils related to agriculture, including range and forest production. Over the years, more emphasis has been given to environmental concerns, especially relating to agricultural chemicals and wastes applied to the soil and their effect on quality of surface and ground water. Other water related topics covered in this program are research into the processes affecting surface runoff and soil erosion, and the effects of application of waste or contaminated water to soils. Thus, fundamental hydrologic, edaphic and biological processes affecting water quality of water flowing over and through the soil (especially in the vadose zone), as well as management practices to protect both the soil and associated water resources are addressed in this program.

Approximately \$4 million is available for competitive grants each year in the Soils and Soil Biology Program. Projects are generally funded up to about \$350,000 over two to four years.

The current program description of Soils and Soil Biology Program is available at
<http://www.reeusda.gov/nri/programs/progdesc/soils.htm>

Investigators interested in applying to the Watershed Processes and Water Resources Program or the Soils and Soil Biology Program should contact:

Dr. Nancy Cavallaro
Program Director
Soils and Soil Biology Program
USDA-CSREES Mail Stop 2240
1400 Independence Ave. SW
Washington, DC 20250-2240
202-401-5176
Ncavallaro@reeusda.gov

Integrated Water Quality Program

The second competitive grants program administered by CSREES is the Integrated Water Quality Program. The complete program consists of four subsections that address research, education, and extension needs in agricultural watersheds at the local, state, regional, and national level. Fundamental and applied research is provided for in the program through Subsection 110.D that addresses integrated research, education, and extension projects. Projects submitted to Subsection 110.D are required to demonstrate integration of research, education, and extension efforts to solve water quality problems at the whole watershed scale.

In fiscal year 2001, approximately \$3.5 million was available for awards for integrated research, education, and extension projects. Awards in this Program may not exceed \$200,000 per year for up to three years.

The current program description for the Integrated Water Quality Program is available at
<http://www.reeusda.gov/nre/partners.htm#Water>.

During fiscal year 2002, a portion of the funds available through the Integrated Water Quality Program will be used to establish a joint program with the U.S. Environmental Protection Agency. This joint program will address Nutrient Science for Improved Watershed Management. Approximately \$7 million will be available through this joint program (EPA - \$4 million, CSREES - \$3 million) with projects limited to \$250,000 per year for up to three years. A formal description of the program will appear in the Federal Register later this year. Information on the program also will be available on the participating Agencies' web sites.

Investigators interested in more information on the Integrated Water Quality Program should contact

Mike O'Neill
National Program Leader, Water Quality
USDA-CSREES Mail Stop 2210
1400 Independence Ave, SW
Washington, DC 20250-2210
202-205-5952
Moneill@reeusda.gov

2) LINKS TO OTHER ORGANIZATIONS

American Geophysical Union -
<http://earth.agu.org/kosmos/homepage.html>
Association of American Geographers -
<http://www.aag.org>
British Geomorphological Research Group -
<http://boris.qub.ac.uk/bgrg>
Canadian Geomorphological Research Group -
<http://office.geog.uvic.ca/dept/cgrg/cgrg.htm>
European Union of Geosciences - <http://eost.u-strasbg.fr/EUG>
Geological Society of America -
<http://www.geolsociety.org>
Geomorphology Specialty Group Homepage -
<http://www.cla.sc.edu/geog/gsgdocs>
International Association of Geomorphologists -
<http://www.homepage.montana.edu/~ueswl/geomorphlist/index.htm>
International Association of Sedimentologists -
<http://www.blackwell-science.com/uk/society/ias>
International Union for Quaternary Research -
<http://inqua.nlh.no>
NSF - Geography and Regional Science -
<http://www.nsf.gov/sbe/bcs/geograph/start.htm>
Quaternary Geology and Geomorphology
Division - GSA - <http://www.ocean.odu.edu>

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