

# GEOMORPHORUM

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

Issue No. 1, 1996

Bruce Rhoads, editor

### Table of Contents

[Notes from the Chair](#) - Bruce Rhoads  
[Treasurer's Report](#)  
[Minutes of Charlotte Business Meeting](#)  
[Awards](#)  
    [1996 G.K. Gilbert Award to James C. Knox](#)  
    [1996 Distinguished Career to Derek Ford](#)  
[Meetings and Calls for Papers](#)  
[New WWW Address](#)  
[Journals, Newletters, Reports](#)  
[News from Members and Friends](#)  
[Mission Statement](#)

### Notes from the Chair

I'd like to begin this edition of *GEOMORPHORUM* with a note of appreciation to outgoing chair Allan James for his service as secretary/treasurer and chair of the GSG over the past two years. I'm sure I speak for the entire membership when I say thank you Allan for a job well done. One of the more important tasks that Allan accomplished was the formation of an Advisory Board for the GSG - an action that was approved at the Business Meeting in Charlotte this past April (see Minutes of the Business Meeting below). The Advisory Board will consist of the three most recent past chairs of the GSG. At present, this committee consists of Andrew Marcus, Vatche Tchakerian, and Allan James. The board will serve as a liaison with the International Geomorphology Association (IAG), with the senior member of the board (currently Andrew Marcus) acting as the official GSG representative to the IAG. The Advisory Board will also serve in

an advisory capacity to the chair on matters of importance that may arise during the course of a chair's term in office. Other functions of the Advisory Board will be to develop, encourage, and promote GSG representation within the AAG, organize or encourage others to organize special sessions for the annual meeting, promote attendance of non-AAG scholars at the annual meeting, and maintain contact with IAG and GSA-QG&G division representatives to learn of issues and concerns of importance to the international and U.S. geomorphological community. Look for further information on the activities of this board in future newsletters. If you have any suggestions, comments, or items of information for the Advisory Board, please contact me or one of the board members.

I'd also like to say that I look forward to serving as your chair over the next year. This is an exciting time for the GSG. Over the past ten years our membership has almost doubled (from 288 members in 1985 to 503 members in 1995). Hopefully, we can continue to grow at a steady rate as we move into the 21st century. Although this growth is a positive sign, we cannot afford to become complacent. This past year membership dropped slightly (to 465), perhaps as a result of an increase in dues. Also, although membership generally is increasing, the downward trend in the number of AAG members listing geomorphology as a topical proficiency (468 in 1984 to 361 in 1995) is disturbing. As a small subdiscipline of a small academic discipline, we must constantly be looking and moving forward. In a recent message as chair of the Quaternary Geology and Geomorphology Division (QG&GD) of the Geological Society of America, Will Graf, a member and past chair of the GSG, identified several issues of importance for the QG&GD - an organization which has recently experienced a decline in membership. I believe his suggestions are ones from which members of the GSG could

benefit and Will has kindly allowed me to reproduce them here:

1. we must insure that the research questions we ask are relevant to the society that pays the bills
2. we need to become less insular, less arrogant, and more integrated with other environmental sciences
3. we should be more involved with the policy world, whether in the formulation of policy through better information, through legislative connections, or along legal avenues
4. we should write more often for nonspecialists, either in articles or through the production of books
5. we need to reach the general public more effectively
6. we need to reach school-age children through cooperative efforts by colleges, universities, and government agencies,
7. we must be open to change and be willing to work with people who are potential cooperators, but who do not know the details of our science.

Further details on these suggestions as well as the complete text of Will's message can be found in *Quaternary Geologist and Geomorphologist*, 36, pp. 1-2. (February 1996).

On a positive note, at the annual meeting in Charlotte I was struck by the high quality of both the presentations and the research on which these presentations were based. The days of handwritten overhead transparencies are long gone and I expect that soon we will all show up at the meetings with a computer disk rather than a set of slides. I was particularly impressed by the quality of the research by students; I believe this is a credit not only to these students, but to their advisors as well. I believe that the high quality of the sessions can be attributed in part to an increase in the number of organized sessions, and I would encourage members of the GSG to continue to put together sessions with specific themes. I would also encourage you to consider including non-AAG geomorphologists in these sessions. Many colleagues outside of geography still do not seriously consider participating in the AAG meeting. Rather than waiting for them to come to us, we must pursue them. Doing so will demonstrate to the

community of geomorphologists at large the diversity and quality of research within the GSG and will help establish strong ties between our organization and this broader community. Alternatively, you may want to consider sessions that include other physical geographers or human geographers. Our group constitutes only 7% of the AAG membership and we need to take a more proactive stance if we hope to be recognized by and integrated into the infrastructure of the AAG. If you decide to organize a special session, please contact me so that the session can be listed as one sponsored by the GSG.

On a final note, one of the more interesting sessions I attended at Charlotte was a panel discussion sponsored by the Water Resources and Geographic Perspectives on Women Specialty Groups on "The Environment of Gender and Science: Women in Physical Geography." Two members of the GSG, Carol Harden and Pat McDowell, were participants in this discussion. The purpose of the session was to explore practical problems and philosophical issues related to gender in physical geography. Given that geomorphology as a scientific discipline and the GSG in particular have long been male-dominated preserves (currently only 24% of the GSG membership is female), the initiation of such an exploration is not only relevant, but in many ways long overdue. This session comes on the heels of an open forum entitled "Is Gender an Issue?" conducted by the Women in Geography Study Group in September 1995 at the Royal Geographical Society, London. It is encouraging to note that both of these sessions seemed to indicate that no critical problems related to gender currently exist in geomorphology. Once again, however, this is an issue about which we cannot afford to become complacent. We must constantly be on guard to ensure that geomorphology remains inclusive and that members of this community treat one another with equality, fairness, and respect.

### Treasurer's Report

The balance of GSG funds as of June 30, 1996 is \$1,866.38.

Date	Trans.	Dep.	Exp.
	Bal.		
7/6/95	open		

act.	1577.80	1577.80
8/7/95 chk.		
fee	12.80	1565.00
4/12/96 student		
awards	600.00	965.00
4/13/96 student		
paper	200.00	765.00
4/13/96 expenses		86.69
	678.31	
	Awards Comm.	
5/7/96 Expenses		87.26
	591.05	
	AAG Banquet & Agenda	
5/5/96 Member		
Allocation	1699.00	2290.05
6/4/96 Donation - A.		
James	200.00	2490.05
6/25/96 Mailing costs		123.67
	2366.38	
6/25/96 IAG		
Dues	500.00	<u>1866.38</u>
6/30/96 Balance		
	<b>1866.38</b>	

### Minutes of Charlotte Business Meeting

The meeting was called to order @ 6:45 p.m. on Friday, April 12, 1996 by Allan James.

#### I. Old Business

- A. Minutes of the 1995 business meeting as published in the Spring 1995 Geomorphorum were approved.
- B. Allan James reported that membership is currently at 406 with approximately 180 student members.
- C. Allan James noted that he raised the issue of the cost of tickets for the awards luncheon at the meeting of specialty group chairs. Currently, specialty groups must pay for tickets for their awardees. He was told that the AAG already heavily subsidizes this luncheon.
- D. Bruce Rhoads, outgoing secretary/treasurer, reported that the GSG account currently has a balance of about \$2,500, including the cost of student awards presented during the Charlotte meeting.

#### II. New Business

- A. Will Graf talked about three issues related to the GSG and the

International Association of Geomorphologists (IAG).

The first issue concerns representation. In the past there was a single representative body to the IAG for geologists and geographers in the U.S. This body consisted of two members from GSG and two members from the QG&GD even though the US is allowed only one vote within the IAG. Dick Marston reported that at the International Geomorphology Conference in Hamilton two members of GSA and two members from AAG consulted together on decisions and one of them would then vote when necessary. Currently Jeff Lee and Carol Harden are serving as GSG representatives to this body. This system seems to have fallen apart and geologists are waiting for us to propose something.

The second issue concerns dues. The U.S. has agreed to the \$1,000/yr dues category. In the past this cost has been split three ways among the GSG, QG&GD, and the IGU. However, IGU has not met its obligation. Geologists have authorized a \$500/yr contribution to the \$1000/yr commitment. GSG needs to decide what it will commit.

The third issue concerns the institutional planning process. The QG&GD has a long-range planning committee that provides "memory" for long-term decision-making that corresponds with the four-year time frame of the IAG meetings. This body also provides internal support by serving as an information source for QG&GD officers and by nominating division members for offices within the GSA. Should the GSG develop a similar body?

In response to these issues being raised:

1. It was moved and seconded that we spend \$500/yr for annual dues to the IAG. Motion was passed unanimously.

2. A motion for the formation of a GSG Advisory Board was passed unanimously. This Advisory Board will consist of the three most recent past chairs of the GSG (currently Andrew Marcus, Vatche Tchakarian, and Allan James).
  3. It was moved and seconded that the senior member of the advisory committee (currently Andrew Marcus) will act as the official GSG representative to the IAG. Motion passed unanimously.
  4. It was moved and seconded to maintain the existing system of voting in the IAG wherein the representatives from the GSG and QG&GD alternate the voting privilege every four years. Motion passed unanimously.
  5. It was moved and seconded to offer the QG&GD representative voting privileges at the Bologna meeting (with the privilege shifting to the GSG representative four years later). Motion passed unanimously.
- B. Randy Schaetzel reported on the status of grant opportunities for dissertation research through the AAG. During the past year no applications were received from geomorphologists (out of a total of 18 applications) and only one was received from a physical geographer. He encouraged Ph.D. students to apply for this award. Applicants must be a member of the AAG for 2 years and the average amount of the grants is about \$500. Application involves submission of a 2-3 page proposal (approximately 1000 words).

#### C. Announcements

##### 1. Journal Editors

- a. Jim Knox, Associate Editor of the Annals, encouraged submission of manuscripts. In 1995 the Annals

published 26 articles out of 126 submitted. Nine out of the 12 articles submitted by physical geographers were published. However, Carville Earle is stepping down as editor and it remains to be seen how receptive his replacement, John Paul Jones, will be to physical geography. Will Graf mentioned that he suspects that the number of published articles will in general be commensurate with the number of submissions. Concern was voiced about the need to have Annals articles carried by earth-science referencing and abstracting services. This concern has been and will continue to be raised with the new editor.

- b. Stan Trimble, editor of Catena, encouraged submissions from members of the GSG.

- c. Dave Butler, reported that the journal Geomorphology is available at reduced cost to members of the GSG (\$70/yr).

- d. Tony Orme encouraged submission of articles to Physical Geography, which is publishing six issues per year. He also is interested in special "theme" issues.

- e. Bruce Rhoads, a member of the Professional Geographer editorial board, noted that David Hodge, the editor of the PG, has agreed to publish focus sections as a way to increase submissions by physical geographers. Each focus section would include 4 to 5 short articles on a specific topic. If you are interested in putting together a set of submissions for a focus section contact Bruce.

##### 2. Upcoming Meetings

- a. Bruce Rhoads provided details on the 27th Binghamton Geomorphology Symposium on "The Scientific Nature of Geomorphology" to be held in Champaign-Urbana on September 27-29 1996. (for complete details see the section on upcoming meetings elsewhere in this newsletter).

#### D. Miscellaneous

1. In response to a student inquiry about the possibility of a student column in GEOMORPHORUM, Allan James raised the issue of graduate student participation in the GSG. It was generally agreed upon that students currently have access to GEOMORPHORUM and are welcome to make contributions if they wish.
2. Paul Anderson of the Microcomputer Specialty Group is developing a software exchange program. Software from any member of the AAG can be passed to him for distribution and marketing.
3. Frank Weirich has acquired a "Geomorphic Supercomputer". Details can be found at the Web Site: [www.geomorphology.uiowa.edu](http://www.geomorphology.uiowa.edu). He is willing to list software information on his supercomputer site.
4. Katie Hirschboeck announced that a Web Site for the "Friends of Hydrology in Geography" (FOHG) is now available at: [www.LTRR.arizona.edu/fohg/fohg.htm](http://www.LTRR.arizona.edu/fohg/fohg.htm) Contact Katie at: [katie@LTRR.arizona.edu](mailto:katie@LTRR.arizona.edu) if you wish to become a member of FOHG.

#### E. GSG Awards

1. David Butler chastised the audience about the small number of nominations/applications for GSG awards.
2. Student Research Proposals. No applications were received for the dissertation research award. The Awards Committee decided to give three awards to Masters students: a \$300 award and two \$150 awards. The winners are:

- Jill Oppenheim, University of Georgia, (Advisor: David Leigh) \$300  
Ian Walker, University of Guelph (Advisor: Bill Nickling) \$150
3. J. Wayne Boulton, University of Guelph (Advisor: Bill Nickling) \$150
4. Student Papers: The winner of the Student Paper Competition was Gang Li, SUNY at Buffalo, for his paper: "*Effects of Rainfall on Sediment Transport over Slope Surfaces*". Gang Li's advisor is Athol Abrahams. The amount of the award is \$200.
5. The G.K Gilbert award was presented to Jim Knox for his paper "*Large increases in flood magnitudes in response to modest changes in climate*" published in Nature in 1993. Congratulations, Jim!
6. The Distinguished Career Award was presented to Derek C. Ford for his outstanding contributions to karst geomorphology. Congratulations, Derek!
7. Special thanks to the Awards Committee (Dave Butler, Bill Nickling, and Ron Dorn) for their efforts. Anne Chin agreed to serve on the Awards Committee for outgoing chair Dave Butler. Bill Nickling will be chair of the Awards Committee during the coming year.
8. Allan James expressed concern that the current deadline for submission of proposals for the student research awards (two months before the business meeting) is ill-timed for graduate student timetables. He suggested moving the deadline to October 15. A motion to this effect was made and seconded but after considerable discussion it was defeated.

A motion was then made and seconded for a March 10 deadline. A friendly amendment was made to this motion shifting the deadline to three weeks before the business meeting. It was then moved and seconded to table the motion. This motion to table the motion was passed by majority vote.

F. Randy Schaetzl suggested that the voting procedure for the GSG be changed from the current system to one in which election occurs by mailed ballots. The ballot system would allow those who do not attend the business meeting to vote for officers. A motion to change to a mailed-ballot system of electing officers was moved and seconded, but the motion was defeated.

G. Carol Harden was nominated and unanimously elected secretary/treasurer of the GSG for 1996-1997. Send info to Carol at:  
harden@utkvx.utk.edu

H. Allan James welcomed Bruce Rhoads as the new chair of the GSG for 1996-1997.

I. The meeting adjourned at approximately 9:00 p.m.

*Respectfully submitted,* **Bruce Rhoads,**  
**Secretary/Treasurer**

## **Awards**

Don't wait until the last minute (and don't get Dave Butler upset again). Now is the time to nominate individuals for the 1997 G.K. Gilbert and Distinguished Career Awards. The Gilbert Award is given on the basis of a major research contribution in the form of a refereed article, monograph, or book published during the last three years, whereas the Distinguished Career Award recognizes geomorphic contributions over an entire career.

Attention students! Once again a Best Student Paper Award (\$200) competition will be conducted at the Forth Worth AAG Meeting in

1997. Submissions for the student paper competition are due one month prior to the abstract deadline (10 August 1996). Also two Student Research Awards will be offered by the GSG for Spring 1997 to facilitate graduate student research. The awards will be presented at the Fort Worth business meeting of the GSG. Proposals are requested from student members of the GSG who are enrolled full-time in a graduate degree program and who matriculated into the program less than 20 months prior to the business meeting. Prizes: \$200 for the best Master's thesis research proposal; \$400 for the best Ph.D research proposal. To enter submit a completed application form, a short proposal (5 pages or less), and three letters of recommendation. Applications for Student Research Awards are due two months prior to the AAG meeting (February 1, 1997).

Nominations for the Gilbert and Distinguished Career Awards, and requests for information concerning student awards, should be sent to: Dr. William G. Nickling, Department of Geography, University of Guelph, Guelph, Ontario N1G 2W1, CANADA, bill@geonet.css.uoguelph.ca The Honors/Awards Committee of the Geomorphology Specialty Group for 1996/97 is comprised of Bill Nickling, chair, Ron Dorn, and Anne Chin.

## **1996 G.K. Gilbert Award to James C. Knox**

### **Citation by Frank Magilligan**

The G.K. Gilbert award is presented to the author of the most significant and major paper in geomorphology to have come out in the past several years. "Significant" and "major" are very difficult terms to determine, especially within a short time span. However, Jim Knox's recent paper "*Large increases in flood magnitudes in response to modest changes in climate*" published in *Nature* in 1993 represents an extremely eminent piece of work and its realization as a major contribution is imminent.

Although this is a relatively short article, its importance stands out in many ways. First of all, its publication in *Nature* signifies its current and timely value. *Nature* has an especially limited acceptance rate, and it publishes only articles of significance. More importantly, the article's topic and results are of critical significance and

importance to geographers, geomorphologists, and earth scientists everywhere.

As is true of most of Jim's work, this research establishes physical field evidence within the broader rubric of theoretical geomorphology. Jim has examined fluvial response to environmental change throughout his career -- well before it was vogue to be a scientist in environmental issues and well before climate change became a sexy research topic. This article, in many ways, expresses the culmination of Jim's research on fluvial adjustments to climate change: a theme he started on early in the 1970s.

Specifically, the article examines the major changes in flood hydrology associated with subtle climate changes occurring over longer timescales. The evidence consists of paleo-overbank coarse-textured deposits of various ages exposed in cutbanks throughout the Driftless Area of southwestern Wisconsin. Using state-of-the-art sedimentologic, hydrologic, and hydraulic models and theories, Jim determined the flood sizes necessary to transport gravels atop floodplains in well-dated sections. These values are compared to modern discharges to illustrate that at times during the Holocene, flood ratios ranged from 1.2 to 4 times the size of the modern bankfull flood. This field evidence of the impacts of climate change was compared to well documented paleo-climatic reconstructions to demonstrate that minor changes in climate may be associated with major hydrologic responses.

The implications of this research are profound and go well beyond both geography and geomorphology -- which is why it is so deserving of the G.K. Gilbert award. As the scientific community debates the magnitude of potential or realized anthropogenic climate change, Jim's research focuses our attention to the impacts of climate change and highlights the sensitivity of watersheds to even minor changes in climate. Hydrologically, Jim's article further reinforces a theme that Jim has stressed for the past 20 years -- that climate changes occur on various timescales and that the mean and variance are not stationary over time. This powerful implication is more than an ivory tower conclusion: it has major impacts to climatologists and hydrologists everywhere. Many climate models and flood forecasting models currently used to estimate climate changes and flood frequencies assume that the mean and variance are stationary, and Jim's work indicates that a certain error and inherent bias exists in these

models such that their predictions may be erroneous.

Pedagogically, to those who have followed the trajectory of Jim's publication output over the years, it's not hard to see this article as the culmination and embodiment of the corpus of Jim's work. This article builds on earlier work and in it one can discern elements of the 1972 "Biogeomorphic Response Model"; the 1975 theory of the graded stream; and the 1985 article on Holocene channel adjustments to climate change -- each piece was definitive in its ways, but more importantly (as is true of all good science), each article set the foundation for subsequent pieces.

Lastly, this is a paper that G.K. Gilbert himself would read with delight. Jim has followed many similar components of G.K.'s research credo. Jim is a devoted field scientist who firmly believes that field work becomes the intellectual roadmap to our research; that the field site becomes our laboratory; and that a theory is only as good as the field evidence that exists. However, Jim can also work up the theoretical and intellectual ladder as well: the array of field evidence is woven into a broader theoretical framework that can be extended to other sub-disciplines and to other regional and contextual settings.

Jim's 1993 *Nature* piece has all the attributes of a major and significant contribution which is why I am nominating it for this year's G.K. Gilbert award. It is theoretically sound and vital; becomes a building block for future research directions; and has major policy implications.

### **Response by Jim Knox**

I am deeply appreciative to Frank Magilligan who submitted my nomination to the G. K. Gilbert Award Committee and to members of the Award Committee for honoring me with this year's award. Thank you. There are many others I too wish to acknowledge because without their help and guidance I would never have been in a position to develop my research program that led to my 1993 *Nature* paper on the linkage between climate change and floods. At the top of the list is my wife Kathleen who has supported me from my days as a graduate student at Northern Illinois University and the University of Iowa, and through now nearly three decades as a Professor at the University of Wisconsin, Madison. Next is Neil E. Salisbury, my Ph.D. advisor at the University of Iowa. Neil Salisbury developed my

interests in fluvial geomorphology and in quantitative analytical methods. It is also to Neil Salisbury that I owe my interest in paleohydrology and paleoenvironments in general. Salisbury's dynamic enthusiasm for carefully designed field and laboratory studies involving challenging research topics gave me an important model to follow in my research program. The University of Iowa in the mid-1960s was a wonderful and exciting place for studying geomorphology. Leopold, Wolman and Miller's classic book *Fluvial Processes in Geomorphology* had just appeared and Salisbury was one of the key leaders in the process geomorphology group. Salisbury's strong interests in Quaternary stratigraphy and Quaternary environments, coupled with a focus on process geomorphology, provided a framework for new approaches to classic research problems.

There are many others who also were critical in shaping my interests. My undergraduate Professors W. A. Broughton and H. A. Palmer gave me a very sound background in the fundamentals of geology. I have special appreciation for H. A. Winters and his course on *Physiography of the United States*. Duke's physiography course was the best taught course that I ever had, and it resulted in my decision to elect geomorphology as a career. I thank Harold McConnell for introducing me to the discipline of statistics and for his counseling that resulted in my working with Neil Salisbury at Iowa. My interest in climate dynamics began with J. F. Lahey at Northern Illinois and was rekindled through association with my colleague Reid 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. When I joined the University of Wisconsin Geography faculty in 1968 and began field research on fluvial geomorphic responses to Holocene climate change, I enjoyed many very fruitful discussions with Reid Bryson, and this beginning has continued to influence my thinking and research interests. I am particularly grateful to Reid Bryson because, as Director of the University of Wisconsin Center for Climatic Research, he provided many of the initial radiocarbon dates that demonstrated how important even modest climate changes can be for influencing flood magnitudes and recurrence probabilities and watershed sediment budgets. Reid Bryson also involved me in his early 1970s field research in the Northwest Territories of Canada where he

was studying Holocene responses of the forest/tundra ecotone to climate change. That experience sharpened my understanding of regional responses of natural systems to global environmental change. Also deserving special acknowledgment is my former colleague George H. Dury, another of the pioneers of quantitative geomorphology. Although George Dury joined the Wisconsin faculty a year after I did, he came as a senior Professor. George was very supportive and helpful in getting my career launched, and I have many fond memories of our co-taught seminars and field experiences. George introduced me to several optimistic expressions that he had picked up from his Australian experiences. One that vividly sticks in my mind is: "Don't worry! She'll be right, Mate!" as our field vehicle slowly sank in the mud past the level of the wheel hubs.

My research and learning also have benefited from my association with a particularly gifted group of students. I always felt that I learned more from them than they learned from me. Will Graf was one of the first students that I met, and I recall his smiling face from the front row of a large undergraduate course that was my first teaching assignment at the University of Wisconsin. Although my colleague George Dury served as the major advisor for Will's Ph.D. dissertation, Will also worked closely with me and assisted me in the field and as a TA. I especially thank my former Ph.D. advisees that include in chronological order: Curt Sorenson, Larry Onesti, Paul Kay, Bill Johnson, Pat Bartlein, Rich Whittecar, Pat McDowell, Steve Kite, Tod Frolking, Dave May, Allan James, Richard Dunning, Frank Magilligan, David Leigh, Christopher Woltemade, Scott Lecce, Peter Jacobs, Doug Faulkner, Joe Mason, Bob Pavlowsky, and Peter Newell. Sorenson, Johnson, Bartlein, McDowell, and Katie Hirschboeck (one my former M.S. students) were particularly helpful in development of the early data base that I have used to link climate change to hydrogeomorphic processes and events. Field and laboratory efforts that were directly related to the 1993 Nature paper were assisted by the inputs of May, James, Dunning, and Magilligan. I also wish to acknowledge David Leigh for his past outstanding service as a field and laboratory assistant and as a colleague.

My paper, "*Large Increases in Flood Magnitude in Response to Modest Changes in Climate*", which is the basis of this year's G. K. Gilbert Award, would not have been possible without support from the National Science Foundation. The NSF Geology and Paleontology Program along with

supplementary support from the NSF Geography and Regional Science Program provided the necessary financial resources to support extensive and laborious field work and radiocarbon dating needed for compiling the data base. Naturally, I am very grateful to NSF and to the reviewers who viewed this research as worthy of support.

We are clearly living in a most exciting period in the field of geomorphology. The recent and ongoing rapid advances in geochronology involving better definition of decay rates of radioactive isotopes such as  $^{40}\text{Ar}/^{39}\text{Ar}$  and  $^{234}\text{U}/^{230}\text{U}$ , cosmogenic related rare gas isotopes  $^3\text{He}$  and  $^{21}\text{Ne}$ , or other cosmogenic isotopes such as  $^{10}\text{Be}$  and  $^{36}\text{Cl}$ , all are likely to contribute significantly to more precise dating of landforms and their associated sedimentary deposits. The relatively recent development and now general availability of the AMS radiocarbon method has made possible extensive dating of very

small samples from sedimentary units that would have been very difficult for age determinations only a few years ago. Even thermoluminescence (TL), and other similar techniques that are calibrated on the extent of radiation damage, are being further developed and are now providing improved reliability for determining ages of sedimentary units beyond the range of radiocarbon. These geochronology methods will allow geomorphologists to better quantify landscape ages, process rates, and recurrence probabilities of many natural hazards such as earthquakes, landslides, debris flows, floods, and of course erosion and sedimentation rates. I look forward to the future!

Thanks again for honoring me with the G. K. Gilbert Award for Excellence in Geomorphic Research.

**J. C. Knox**, University of Wisconsin, Madison,

## 1996 Distinguished Career to Derek Ford

### Citation by David Butler, Chair, Awards Committee

Derek Ford, this year's recipient of the Distinguished Career Award, was born in Britain in 1935 and was trained at Oxford University. He came to McMaster University in Hamilton, Ontario

in 1959. The following quotations from letters of support and nomination reveal the outstanding breadth and depth of his contributions to geomorphology.

- "I don't think there can be any doubt that (he) is the leading karst geomorphologist of his generation in the world..."
- "He has played a leading role in bringing karst geomorphology into the modern scientific era through his work in speleogenesis and radioisotope dating."
- "He is probably the best known and most respected Canadian geomorphologist worldwide, and one of the best known Canadian geographers, having maintained a career-long loyalty to the broader discipline."
- "His scientific work has progressed from investigation of cave morphology and genesis to a wider interest in groundwater routing and paleokarst, and now rests firmly in the utilization of sophisticated techniques to determine the age of speleothem and other cave deposits."
- "He has won numerous awards of distinction from a variety of countries. These attest to his international involvement and the respect with which he is regarded in the global academic and research arenas. There are many who would agree that his name is legend!"
- "He has compiled (and is compiling) a pan-Canadian synopsis of karst. He has a powerful analytical mind which is able to draw important general inferences from apparently pedestrian observations. Against all odds, this has resulted in Canada gaining some significance for its type localities for karst. Two examples are the Castleguard Karst in Banff National Park, Alberta and the Nahinni Karst in the Northwest Territories."
- "McMaster University has become a standard destination for international sabbaticants, all of whom both contribute and gain from the karstic melting pot."

- "He has an astonishing publication record, diverse, often ground-breaking and abundant. He has authored (with Paul Williams) the definitive karst text, and a seminal collection of paleokarst."

There is an important message for physical geographers in Derek's history. First, that it is the mandate of geography to embrace multiple disciplines, the sciences in the case of physical geography. This requires considerable courage, industry and patience. Derek has done this without ever turning his back on his discipline. Second, if physical geography is to fulfill its potential in the new era of environmental science, this kind of interaction has to be encouraged in training and research.

It is my great privilege to present the Distinguished Career Award of the Geomorphology Specialty Group of the Association of American Geographers to Dr. Derek C. Ford.

### **Response by Derek Ford**

It was a surprise and a delight to learn a few days ago that I was to be this year's recipient of the Distinguished Career award of the AAG's Geomorphology Specialty Group. It is most flattering, a great honour. Thank you very much indeed.

I am an emigrant from Europe who has spent his professional career in North America. As with so many others, this has been a wonderful continent of opportunity for me and I must open my remarks with a thank you to its conserved physical geography. In southern England, where I grew up, the landscapes are so modified that there seems to me little scope for fundamental field research now, only for impact studies. For a karst geomorphologist the New World has great appeal, with pristine or nearly-pristine landforms above ground and underneath it. It is said that 40% of the US east of the Mississippi is underlain by my favourite rock, limestone. It is karstified to greater or lesser extent everywhere, from the plateaus and valleys of Appalachia to the sinkhole plains of Indiana, Kentucky and Tennessee and the drowned plains of Florida. Further west, where aridity limits conventional limestone karst development, there are fascinating paleokarsts and thermal water karsts in the Madison Limestone of S. Dakota, Wyoming and Colorado. New Mexico offers gypsum karst and most

intriguing caverns formed around the perimeter of the Delaware (oil) Basin by the expulsion of H<sub>2</sub>S: the world has seen an explosion in cave exploration during my time but none is more spectacular than the example of Lechuguilla Caverns there. To the south are very diverse tropical karstlands in Mexico, Belize, Guatemala and the Caribbean islands. To the north there is more subtle development in the ice-scoured plains and low plateaus of the US Midwest and interior Canada, all the way to the Arctic islands. In the near northwest, the Wyoming, Montana and Alberta Rockies are rich in alpine karst; north of these the Mackenzie Mountains (NWT) are as extensive as the Alps themselves but virtually uninhabited and full of exotic karst, as my nominator this evening, Dave Butler, learned when he and I were there nearly 20 years ago. For the past several summers (and again this year, no doubt) foresters, physical geographers and environmentalists have been discovering new caves and karst galore on the Alaskan coast and in the Aleutians. All together, what a dish to spread before geomorphologists! Most of the research that is called for remains to be done. I have been privileged to undertake or direct a variety of field studies in eight Canadian provinces and in the Northwest Territories. In surveyor's terms, I have triangulated the country, from Newfoundland (three theses) to Vancouver Island (another three theses) to Baffin Island (just one PhD and a lot of work of my own) but with the main efforts in the Rockies, Mackenzies and amongst the delightful Niagaran dolomite topography of Ontario. Hospitality is a renowned characteristic of Americans; my students and I have also had warm welcomes in West Virginia (focus of four theses and many undergraduate field camps), Kentucky, Tennessee, Missouri, South Dakota, Puerto Rico and most recently (an MSc thesis was successfully defended last week) in Indiana. I have ongoing projects in South Dakota and New Mexico. I sincerely thank the many American geomorphologists, National and State parks and Bureau of Land Management officers and private landowners who have aided us over the years.

Mention of theses will make apparent my great debt to the students who chose to undertake some of their research with me. There have been 45, from 9 different countries. As well, 20 established scientists from other nations have visited for academic leave spells up to two years. There were physicists, chemists, civil engineers and electronic engineers in addition to the physical geographers and geologists that might

be expected: geomorphology has a very wide intellectual and aesthetic appeal. All have taught me a great deal. We have had delightful field seasons and home seminar series. It has been a pleasure to encounter many of them again at the AAG meetings this week. I am especially pleased that Mike Goodchild (now at U.C. Santa Barbara) is this year's recipient of the Association's highest award for scholarship in Geography.

To conclude I'd like to offer four points about the future that derive from my experience as a geomorphologist and university teacher who has also undertaken quite a lot of national and international review work and project organisation. The first is that geomorphologists everywhere have been hesitant (too hesitant) to get into chemistry. We look at physical landscape and so stress physical processes. Our textbooks pay only lip service to the fact that most rock reduction is chemical in part or whole. Being a specialist in bedrock dissolution I have had to learn and apply some chemistry but only that of relatively simple, inorganic processes. There needs to be much more recognition of the importance of biological and chemical interactions to our field, of "biogeochemomorphology" if you like, such as Heather Viles is espousing in Britain. I salute American geomorphologists like Ron Dorn who have had the temerity to probe the complexity of desert weathering rinds and the cosmic radiation damage that contributes to their formation. As a second point it follows that we need to access and use more sophisticated physical and chemical laboratories than physical geographers have tended to seek in the past. There is much to be said for closer collaboration with the geologists and geochemists on our campuses. The barriers have broken down quite a lot in the last twenty years or so, in good part because of the explosion of student interest in environmental problems. Geology departments are facing recruitment problems in traditional mineral resources programs and are converging on our interests. The opportunities for lab linkages and new development need to be seized. Obviously also there is a great future in computer modelling; geomorphology has scarcely touched it as yet. Every college now has clusters of work stations with generous access. Several researchers here tonight have their personal clusters. In modelling, however, please do not lose touch with the field. Our colleagues in climatology are well ahead of us at the present time in their development of General Circulation Models, Energy Balance Models, Global Change Models and so forth, but they cannot test them

with real field experiments - we can. Let us not neglect the opportunity.

Research funding is always a concern to us; we often feel hard done by in comparison with physics, chemistry, engineering, etc. In Canada federal and provincial governments are shrinking or eliminating the funds they put up for fundamental research and also cutting sums directed to solve environmental problems. I believe that the situation is similar in the United States. To geomorphologists beginning their careers I can only say that, despite the cutbacks, the funding opportunities are better than when I began to hunt them out 35 years ago. Please persevere.

In conclusion, I re-emphasize the warmth of the welcome that I personally received from colleagues when I set out on this career in North American geomorphology. I have learned since that it is a global phenomenon. The world's geomorphologists seem to me to be an exceptionally friendly crowd, intoxicated by their enthusiasm for the subject. An International Association of Geomorphologists has now been formed. It had a first meeting at Hamilton, Ontario in 1993 where American academics of both AAG and GSA affiliation made a great contribution. There was a regional meeting in Singapore in 1995 where our South Asian and Australasian colleagues took the lead. Next August (1997) there is a full (quadrennial) Conference in Bologna - not too expensive, great setting, cuisine and company. I look forward to seeing you there and thank you, once again, for the great honour bestowed on me tonight.

- **Derek Ford, McMaster University**

### Meetings and Calls for Papers

- 27-29 Sept. 1996: **27th Binghamton Geomorphology Symposium**, "*The Scientific Nature of Geomorphology*", Urbana-Champaign, IL, Bruce L. Rhoads and Colin E. Thorn, Organizers.
- Registration is now underway for this meeting, which will explore methodological and philosophical issues in geomorphology. Registration materials have been posted on GEOMORPHLIST and can be retrieved from the archives at: <http://www.ttu.edu/~geomorph> R registration forms have also been mailed to

all geography and geology departments in the United States (and some in Canada). The form is also available on the WWW at: <http://ux1.cso.uiuc.edu:80/~jdomier/binghamton.html> If you cannot access one of these sources please contact me at the address on the front of this newsletter. Registration cost is \$65 for professionals and \$45 for students and includes the banquet on Saturday evening.

- Aug 5 - 10, 1996: **28th International Geographical Congress**. *The Hague*, Netherlands. Contact: Congress Secretariate 28th IGC, Faculteit Ruimtelijke Wetenschappen Universiteit Utrecht, Postbus 80.155, 3508 TC Utrecht, The Netherlands email: [r.vanderlinden@frw.ruu.nl](mailto:r.vanderlinden@frw.ruu.nl).
- Aug. 24 -29, 1996 **Workshop on: The Geomorphic, Kinematic, and Climatic Significance of Rock Glaciers**, D. H. Clark, N. Potter, E. Steig, B. Whalley, conveners. This workshop will be based in northwest Wyoming adjacent to the Absaroka Mountains east of Yellowstone National Park, at the Northwest College Field Station on Dead Indian Hill next to Sunlight Basin. The conference schedule tentatively includes 3-4 days of talks and discussions at the field station, with a 2-day field trip to inspect the Galena Creek rock glacier sometime during the meeting. For further information, please contact Brian Whalley ([b.whalley@qub.ac.uk](mailto:b.whalley@qub.ac.uk)).
- Sept. 22-26, 1996 **RIVERTECH96: 1st International Conference on New/Emerging Concepts for Rivers**, Chicago, IL International Water Resources Association. e-mail: [nbarrett@uiuc.edu](mailto:nbarrett@uiuc.edu); [http://www.conted.ceps.uiuc.edu/CI/river\\_tech](http://www.conted.ceps.uiuc.edu/CI/river_tech)
- Oct 28-31, 1996: **Geological Society of America, Annual Meeting**. Denver, Colorado. Abstract Deadline, July 9, 1996.
- Dec. 15-19, 1996 **American Geophysical Union, Fall Meeting, San Francisco**, CA. Abstract Deadline: September 11, 1996. [fm-request@earth.agu.org](mailto:fm-request@earth.agu.org)
- April 1-5, 1997 **Association of American Geographers, Annual Meeting**, Fort Worth, Texas. Abstract Deadline, Sept, 10, 1996.
- April 9 - 10, 1997 **International Conference on Geography and Environmental Consultancy: Present Problems and Future Prospects**, The University of Birmingham, UK. Second

Call for papers: Dr. Damian Lawler and Professor Geoff Petts of the University of Birmingham, UK, are convening the above 2-day conference on behalf of The Environmental Research Group (ERG) of the Royal Geographical Society/Institute of British Geographers. The aim of this meeting is to examine, through critical reviews of past experiences (good and bad!), present problems and future prospects, the ways in which Geography is responding to the challenges associated with Environmental Consultancy. Please send titles and 250-word Abstracts by 30 August 1996 to: Dr Damian Lawler, School of Geography, The University of Birmingham, Edgbaston, Birmingham, B15 2TT, UK. Tel: +44-121-414-5532/5544; Fax: +44-121-414-5528; Email:

- D.M.Lawler@bham.ac.uk; Full papers will be needed in December 1996.
- May 19-21, 1997, **Geoenvironmental Mapping: Applying Geoscience to Hazard and Land-Use Issues in the 21st Century**, Geological Association of Canada / Mineralogical Association of Canada (GAC/MAC), Annual Joint Meeting, Ottawa, Canada. Organizers: Steve Sibbick, British Columbia Geological Survey, Bryan Schreiner, Saskatchewan Research Council, Co-Sponsored by: IUGS COGEOENVIRONMENT GAC Environmental Earth Sciences Division. This symposium will bring together individuals with a wide spectrum of experience in the use and development of geoscience data to issues which impact our environment. Geoenvironmental mapping offers a means of effectively integrating geoscience data into processes such as hazard identification and mitigation, land-use management and urban planning. Proposed themes include: hazard and land-use concerns; geoscience data required by planners; geoenvironmental map types; data integration; risk assessment; case histories; public policy; communication; and future challenges. Talks and discussion will focus on issues relevant to the Canadian landscape and draw upon national and international perspectives. An accompanying workshop and field trip have also been proposed to compliment this symposium. It is also intended to publish a volume of the symposium proceedings. For more information contact: Steve Sibbick,

British Columbia Geological Survey, 5-1810 Blanshard St., Victoria, BC, Canada, V8V 1X4, Tel: 604-952-0399, fax: 604-952-0381, email: ssibbick@galaxy.gov.bc.ca

- 20-22 May, 1997 **Conference on Management of Landscapes Disturbed by Channel Incision: Stabilization, Rehabilitation, Restoration**, Oxford, MS USA, Hosted by USDA National Sedimentation Laboratory, US Army Corps of Engineers - Vicksburg, and The University of Mississippi. The conference is to provide a forum for technology transfer among researchers, scholars, potential users, state engineers, environmental engineers, fisheries and wildlife personnel, general contractors, etc. in the field of upland soil erosion/control, sediment yield, channel stabilization, bank erosion, stream ecology, restoration, and environmental impact. At the conference, the latest technologies developed by scientists and engineers shall be reported to professionals interested in solving similar problems outside the DEC areas, and researchers and experts are invited to present their latest contributions to advance the state of technology. Technical areas include Hydrology and Research Methodology, Sediment Transport and Geomorphology, Hydraulics and Design, Environment and Ecology. Paper contributions reporting the latest advancements, valuable findings and experience, reviewing the state of the art related to the areas listed are invited. Abstracts of approximately 300 words including some preliminary results should be submitted no later than July 15, 1996 by hard copy regular mail or, preferably, by ASCII email to the following address: Dr. Eddy Langendoen, CCHE, School of Engineering, The University of Mississippi, University, MS 38677, DEC@hydra.cche.olemiss.edu, Voice: (601)232-5083 Fax: (601)232-7796
- 3-5 June, 1997 **Wind Erosion: An International Symposium/Workshop Commemorating the 50th Anniversary of the USDA's Wind Erosion Research** at Kansas State University, Manhattan, Kansas, USA. Scientists, engineers and conservationists are invited to present papers and/or attend sessions related to the occurrence, measurement, and prediction and control of wind erosion and related processes and consequences.

Plenary, concurrent, and poster sessions are planned. Keynote addresses will feature various aspects of wind erosion. Authors intending to offer an oral/poster presentation are required to submit an abstract (English preferred) of no more than one-page by 31 December 1996. Abstracts should include in this order: author, title, text, and corresponding author's address and telephone number. Registration deadline: September 30, 1996. For further information: E-Mail: sym@weru.ksu.edu, FAX: USA 913-532-6528, Phone: USA 913-532-6495, World Wide Web URL:

<http://www.weru.ksu.edu/>

- 18 - 19 June 1997, **Late Quaternary Coastal Tectonics**, Geological Society of London, Burlington House, London, UK. Convenors: Dr Ian Stewart (Brunel University, Borough Road, Isleworth TW7 5DU, UK; tel: 44 181 8910121; fax: 0044 181 5699198; e-mail: iain.stewart@brunel.ac.uk) & Prof. Claudio Vita-Finzi (University College London, Gower Street, London W1E 6BT, UK; tel: 44 171 3877050 x2383; fax: 0044 171 3887614; e-mail: ucfbcvf@ucl.ac.uk) Abstract deadline is January 1, 1997, but early proposals are welcome. A conference volume is planned.
- Aug. 28 - Sept 3, 1997: **4th International Conference on Geomorphology**, Bologna, Italy. Registration deadline is October 31, 1996 Contact: I.C.G., Planning Congress s.r.l., Via Crociali 2, I-40138 Bologna, Italy email: forti@geomin.unibo.it. **28th Binghamton Geomorphology Symposium**, *Engineering Geomorphology*, will be held at the 4th ICG in Bologna. Contact: Rick Giardino (giardino@astra.tamu.edu).

#### **New WWW Address**

The WWW address for the Geomorphology Specialty Group home page has been changed to :  
<http://www.cla.sc.edu/geog/gsgdocs/home.html>

#### **Journals, Newsletters, Reports**

The ***Tropical Geomorphology Newsletter*** is a semi-regular bulletin for scholars concerned with geomorphic processes and landscapes in the tropics. It is published by the Department of Geography, National University of Singapore in conjunction with the Department of Geography, Nanyang Technological University.

In an effort to reduce mailing costs and to widen readership the decision has been made to make TGN available via e-mail. If you are a current subscriber to TGN and would be interested to receive the electronic edition instead of the 'physical' edition could you please send an message to [tgn@zikzak.net](mailto:tgn@zikzak.net) to that effect. In the message could you please also provide your name and address as they occur on your mailing label as this will aide your removal from the 'physical' mailing list.

If you are not on the current mailing list but would like to receive the new electronic edition, please send a note to that effect to the same address. Again, we ask that you state the fact that you are not currently on the mailing list to save us a bit of effort.

Back issues of TGN will also be made available at the following

URL: <http://www.zikzak.net/tgn> - David Godley, TGN E-list Administrator, Avijit Gupta, (Editor)

***Glacial Geology and Geomorphology*** is an Electronic Journal of the **British Geomorphological Research Group** that seeks previously unpublished, high quality articles in the general field of glacial processes, sediments and related landforms. Each article will be reviewed by at least two referees. Reviewers will be asked to return articles within 4 weeks of receipt and the intention is to speed publication in all ways possible by using electronic media. Articles are published in English. Volume 1 will start in March 1996. Even if authors do not have full or easy access to WWW etc., provision can be made for articles submitted in a 'conventional' manner. More information, about subscription, submission format etc. is on the GGG 'Home Pages'. If you do not have a 'browser', you should be able obtain them as shareware. 'Web' facilities are now available for access via modems so full dedicated lines are not necessarily required. We can provide further information if you need it. You will be able to see the advantages of colour, video and sound as well as hypertext linkages and searching for yourself on the GGG mock up. The URL you require is: <http://ggg.qub.ac.uk/ggg> - Editors: Prof. W. Brian Whalley, School of Geosciences, The

Queen's University of Belfast, Belfast, BT7 1NN, UK, [b.whalley@qub.ac.uk](mailto:b.whalley@qub.ac.uk), [e.journal@qub.ac.uk](mailto:e.journal@qub.ac.uk);  
Prof. Martin J. Sharp, Department of Geography, University of Alberta, Edmonton, [msharp@geog.ualberta.ca](mailto:msharp@geog.ualberta.ca)

**A Colloquium on Quaternary Paleodrainage Systems** organized by the *Laboratoires de Geographie des Universites de Nancy 2 et de Metz* was convened at the Conservatoire National de Musique in Nancy, France 6-8 September 1995. The colloquium was sponsored by the Groupe Francais de Geomorphologie et du Comite National de Geographie, Commission du Karst. Fifty-one researchers assembled in Nancy from 12 countries. Forty papers were presented and a half-day field trip was conducted in the valley of the Moselle and the Ane. The colloquium was scheduled on the 100th anniversary of the publication of the benchmark article "La Seine, la Meuse et la Moselle" (*Annales de Geographie, 1895*) in which William Morris Davis described the capture of the Moselle. The purpose of this colloquium was to reexamine the interest of geomorphologists in classical and somewhat abandoned themes regarding the capture and reorganization of river drainages. A good portion of the papers, presented by research scientists from laboratories in Liege, Amsterdam, Montreal, Aix-en-Provence, Metz et Nancy, examined arguments which proposed that the processes of capture of the Moselle were not an isolated event in space and time, but rather part of a vast reorganization of the river drainages in the east of France, and that the action of regressive erosion, cherished by Davis, had been amplified by the karstic processes.

Most of the other papers, centered on the temperate world and concentrated on the study of examples of captures and reorganizations of river drainages in the context of various morphostructural and morphoclimatic situations: sedimentary basins and old European massifs (basins of Paris, London, Hungarian Plains, Massif Central, Ardenne Massif) plus the American Great Plains, Canadian Shield, and tectonically active Mediterranean margins of France, Italy, and North America. The papers emphasized the respective roles of tectonics, climate change, and the notion of regressive erosion in the evolution of river drainages. Some of these papers focused on the postglacial evolutions of river drainages, for example in the Paris Basin, valley of Saone, in Poland, in Hungary, and in the valley of the St. Lawrence in Canada.

During the discussion which closed the colloquium, Professor Jean-Paul Bravard (Univ.

Paris IV) presented a synthesis of the processes of river capture. Professor Pissart (Liege) underlined the importance and current views of the work of W.M. Davis on the evolution of river drainages.

The papers on the capture of the Moselle will be collected in a 1995 volume (no. 3-4) of the *Revue Geographie de l'Est* published in Nancy. The other papers will appear in a series of special thematic issues in the journals *Geographie Physique et Quaternaire* published in Montreal and *Geomorphologie* published in Paris.

Michel Deshaies and Andre Weisrock, Laboratoire de Geographie, Universite de Nancy 2, and Richard Marston, University of Wyoming.

## News from Members and Friends

### from Vance Holliday

I am finishing up field work and am in the final stages of analysis of an NSF-sponsored study of dunes on the Southern High Plains (including both sand dune fields and lunettes). The work focuses on stratigraphy, chronology, landscape evolution, and paleoenvironmental significance. Depending on funding, I hope to start a systematic study of the ubiquitous small "playa lake" basins in the region. I am also continuing investigations of Paleoindian geoarchaeology of the Southern High Plains. In other activities, this spring I will take over as President of the American Quaternary Association (AMQUA) at the Biennial meetings in Flagstaff.

### Recent Publications:

- V.T. Holliday, 1995. Stratigraphy and Paleoenvironments of Late Quaternary Valley Fills on the Southern High Plains. Geological Society of America Memoir 186.
- V.T. Holliday. 1995. Late Quaternary stratigraphy of the Southern High Plains. In: E. Johnson (Ed.), Ancient Peoples and Landscapes, Museum of Texas Tech University, p. 289-313.
- T.C. Gustavson, V.T. Holliday, and S.D. Hovorka, 1995. Origin and development of playa basins, sources of recharge to the Ogallala aquifer, Southern High Plains, Texas and New Mexico. The University of Texas at Austin,

Bureau of Economic Geology  
Report of Investigation 229.

- M.G. Hill, V.T. Holliday, and D.J. Stanford, 1995. A further evaluation of the San Jon site, New Mexico. *Plains Anthropologist*, v. 40, p. 369-390
- T. Sabin and V.T. Holliday, 1995. Morphometric and spatial relationships of playas and lunettes on the Southern High Plains. *Annals of the Association of American Geographers*, v. 85, pp. 286-305.
- D.R. Muhs and V.T. Holliday, 1995. Active dune sand on the Great Plains in the 19th century: Evidence from accounts of early explorers. *Quaternary Research*, v. 43, p. 198-208.
- E. Johnson and V.T. Holliday, 1995. Archaeology and late Quaternary environments of the Southern High Plains. *Bulletin of the Texas Archeological Society*, v. 66, p. 519-540.

### from Matthew Larson, USGS

A new USGS publication of landslides in a tropical environment is available. The study used aerial photography and GIS to determine the spatial controls on landslide distribution. In addition, rainfall intensity and duration data from 41 landslide-triggering storms were used to characterize the temporal controls on landslide frequency. The report is available by contacting: USGS, Open-file reports-ESIC, Federal Center, Box 25425, Denver, CO, 80225, or calling 303-202-4200 Limited copies are available through the author, contact [mclarsen@usgs.gov](mailto:mclarsen@usgs.gov)

- Larsen, M.C., Torres Sanchez, A.J., 1996, Geographic relations of landslide distribution and assessment of landslide hazards in the Blanco, Cibuco, and Coamo river basins, Puerto Rico: U.S. Geological Survey Water Resources Investigations Report 95-4029, 56 p.

Matthew C. Larsen, Hydrologist, U.S. Geological Survey, GSA Center, Suite 400-15, 651 Federal Drive, Guaynabo, Puerto Rico 00965-5703, U.S.A., phone 809-749-4346, fax 809-

749-4462, note: sometime in 1996 the phone area code will become 787, <http://geochange.er.usgs.gov/pub/info/html/wrd/larsen.html>

#### from John Menzies, Brock University

- Menzies, J. (Ed.) 1995 Modern Glacial Environments: Processes, Dynamics and Sediments, (Volume I), Butterworth-Heineman publ., 621pp. \$69.95
- Menzies, J. (Ed.) 1996 Past Glacial Environments: Sediments, Forms and Techniques, (Volume II), Butterworth-Heineman publ., 598pp. \$69.95

Can be ordered from: Butterworth-Heineman Publishers, 313 Washington Street, Newton, Mass. 02158-1626 U.S.A. Tel.# 1 800 366 2665; FAX# 1 800 446 6520

#### University of Iowa

Geomorphic Super Computer goes online at the U. of Iowa. Professor Frank Weirich, Associate Professor of Geography, Civil Environmental Engineering and Research Engineer in the Iowa Institute of Hydraulic Research (IIHR) at the University of Iowa, has received a \$1,250,000 equipment grant from the SiliconGraphics Corporation. This grant, along with an additional matching grant of \$200,000 he has received from the Office of Research of the University of Iowa, and in conjunction with other funds provided from within the university has enabled the purchase of a Silicon Graphics supercomputer and the establishment of a new supercomputing facility at the University of Iowa. The approx. \$2,000,000 system will aid fluvial, watershed and fire modeling and other advanced computational fluid dynamic research to be undertaken. The system's performance is measured in multiple Cray C90 computer units. The system will rank as the 19th fastest computer in the country (among all academic systems). The main processor units will be housed in the Institute of Hydraulic Research (where Weirich holds a faculty appointment). Moreover, as part of the grant, an additional supercomputer-class SGI Onyx system will be located in the Geomorphology computer laboratory at the University of Iowa. This system with its advanced graphics capabilities will be directly linked to the main processors via dedicated high speed fiber. This arrangement will enable all of the processes to be fully integrated

in larger computational efforts. The initial system configuration involves over 4 gigabytes of RAM, 20 highend processors and a potential mass storage in the terabyte range. The system will be operated as a limited access research system with geomorphic research being one of its principal uses. This facility may represent one of the first dedicated geomorphic supercomputer systems to become operational. Some of the specific applications that will be run on the system are outlined in more detail on the University of Iowa Geomorphology homepage that may be reached

at: <http://www.geomorphology.uiowa.edu/>  
or by  
contacting: [weirich@geomorphology.uiowa.edu](mailto:weirich@geomorphology.uiowa.edu)  
[brian@geomorphology.uiowa.edu](mailto:brian@geomorphology.uiowa.edu)

#### from Terry Toy

- Toy, T.J., Osterkamp, W.R., and Renard, K.G., 1993, "Prediction by regression and intra-range data scatter in surface-process studies," *Environmental Geology and Water Science*, v. 22, 121-128.
- Toy, T.J., Ryder, D.M., and Longbrake, D.B., 1993, "Identification of potential sediment sources in the Kawuneeche Valley using a geographic information system," *Proceedings of Geographic Information Systems and Water Resources, American Water Resources Association*, p.141-146, 595.
- Toy, T.J., and Longbrake, D.B., 1994, "The begetting of a GIS lab," *ARC News*, v. 16, no. 2, p.19.
- Simanton, J.R., and Toy, T.J., 1994, "The relation between surface rock-fragment cover and semiarid hillslope profile morphology," *Catena*, v. 23, 213-225.
- Osterkamp, W.R., and Toy, T.J., 1994, "The healing of disturbed hillslopes by Gully Gravure," *Bulletin, Geological Society of America*, v. 106, no. 10, 1233-1241.
- Toy, T.J., and Osterkamp, W.R., 1995, "The applicability of RUSLE to geomorphic studies." *Journal of Soil and Water Conservation*, v. 50, no. 5, 498-503.

- Osterkamp. W.R., and Toy, T.J., (in press), "Geomorphic Considerations for soil-erosion prediction Technology," Environmental Geology and Water Science.
- Toy, T.J. and Osterkamp. W.R., (in press), "The prospect of gully gravure on reclaimed hillslopes, Proceedings of the American Society for Surface Mining and Reclamation.

Tennessee, Knoxville, TN 37996-1420. e-mail:  
harden@utkvx.utk.edu

In addition I am presently serving as the chair of the western division of the American Society for Surface Mining and Reclamation and consulting with a gold and silver mine in Nevada.

### **Mission Statement**

*Geomorphorum* is issued twice a year by the Geomorphology Specialty Group (GSG) of the Association of American Geographers. The purpose of this newsletter is to exchange ideas and news about geomorphology, and to foster improved communication within our community of scholars and professionals. The editor welcomes news, comments, suggestions, and assistance from all members of the geomorphological community. *Geomorphorum* circulates to over 500 scientists on our surface mail list and is distributed over the *Geomorphlist* listing service maintained by Jeff Lee at Texas Tech University (adgjl@ttacs1.ttu.edu). If you are a member of the GSG and download the newsletter from *Geomorphlist*, to help save mailing costs, please notify the editor that you do not need a hard copy of the newsletter. (Just send an e-mail communication with your name and the message "no hard copy").

The contents of this newsletter depend on contributions from members and from anyone who has an interest in geomorphology. Please send to the editor relevant thoughts, comments, reports, news, lists of recent publications or activities, program updates, or any other item you would like to have considered for inclusion in the next edition.

As of July 1996 the new editor of GEOMORPHORUM will be Carol Harden, Department of Geography, University of