GEOMORPHORUM

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

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TABLE OF CONTENTS

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MESSAGE FROM THE OUTGOING CHAIR

by Frank Magilligan

That great and vital time of the year is soon about to commence--field season! The semester has ended and the reason why most of us became geomorphologists is now upon us. We now have the opportunity to pursue the passion that engendered us becoming geomorphologists. It is also a time of great reflection as we enter the field--where's my equipment, which site should I start first, and, more importantly, what are my research objectives? The AAG meetings serve an important role not only in presenting the results of last year's field season, but perhaps also in spawning new ideas for the upcoming field season. So what is that sense of reflection as we embark upon this year's field season?

That reflection perhaps extends to where we as a subdiscipline are heading--not only for this field season, but also into the next decade. Tremendous changes have occurred in the past few years in geomorphology, and it's incumbent on us in geography to be cognizant of these changes as they emerge in peer organizations of AGU and GSA. At a special session organized this year by the Geomorphology Specialty Group, we tried to look into the crystal ball of the immediate future and detect emerging questions and trends in geomorphology. The two most salient themes that emerged from this session were a greater focus on scale and on interdisciplinary studies. Geomorphologists, especially in geography, have always been adept at doing interdisciplinary approaches, but as Pat McDowell suggested, the links to ecology and watershed science, more broadly, have never been as forefront or as critical as now. There is a tremendous surge in interest in watershed dynamics, including hillslope and channel processes, and this is an area where we can make significant contributions. There is an emerging focus on the process-based dynamics coupling

natural and human systems with a focus on linkages and feedbacks between nature and human activities. The focus on scale emerges on both ends: small-scales and large-scales. As both Vatche Tchakerian and Mary Bourke pointed out, the use of remote sensing imagery is providing an important platform to analyze mega-scale features, including large sand seas or the geomorphic properties of Mars, in unprecedented ways. But the importance of scale also emerges at finer levels. The use of cosmogenic nuclides and other new isotopic techniques is re-directing the discipline and is providing the opportunity to describe large-scale landscape evolution using microscopic geochemical techniques.

So as we become aware of these emerging trends, the question we are forced to ask is: do we lead, follow, or ignore? There is a great fear that if we ignore these trends we may marginalize ourselves into irrelevancy. Are we content to merely be followers of these trends, or can we formulate research activities that establish the trends for the next decade? If we wish to prevent that downward spiral into irrelevancy, we need to confront some big issues in the discipline concerning our awareness of these emerging trends and our ability to respond to and participate in them from the beginning. Geographers have always participated in interdisciplinary approaches, but we have unfortunately been followers of the new directions in watershed science, which is largely being driven by ecologists and a handful of hydrologists and geomorphologists from other disciplines. We should, however, be at the forefront of this research venture. One question that plagues me is why aren't we at the forefront of this research trajectory? As the array of organized sessions at the AAG meetings attest, we have always been concerned with the links between natural phenomena and human agency and our interest in fluvial geomorphology would suggest that we are fundamental to this research trajectory. We need to be careful of being asleep at the wheel, and one way to prevent this is to make sure that we are first aware of the new directions in other disciplines and also that we get our work out there and noticed by scholars in other disciplines. This of course requires that we publish high quality work in high profile journals. It also requires getting on the radar screen of other disciplines, which requires, in part, attending other meetings and conferences. This participation in other conferences will not only help get our work out there, but it may also serve to illuminate us early on about trends in other disciplines.

We also need to be aware of the new analytical approaches in other parts of the discipline of geomorphology. We have always integrated our work well with spatial imagery, and as the scale of inquiry focuses more on mega-scale features and processes it is becoming even more incumbent on us to incorporate GIS and spatial imagery in our work. Similarly, we have also always had a lab component in our work, but as geomorphology becomes more geochemically oriented, are we able to keep up analytically with this program? A quick perusal of the key geomorphic journals indicates that isotopes of both cosmogenic and fallout nuclides are becoming an increasingly fundamental part of geomorphic analyses. Again, do we lead, follow, or ignore this trend? For some of us, it will require a modicum of re-tooling, but for graduate students, who represent the future of the discipline, these are the areas to be sensitive to and perhaps to incorporate as an important part of your curriculum.

The future looms large for geomorphology, and as we become progressively a larger part of the AAG, it's also important for us to become an increasingly larger part of the broader discipline of geomorphology. So as we head out into the field this summer, let's hope we are cognizant of these trends. I look forward to seeing y'all and your data in Philadelphia in March. Enjoy the field!

Cheers,
Frank

MESSAGE FROM THE INCOMING CHAIR

by Dorothy Sack

With the next annual AAG meeting being the association's 100th, I encourage you all to attend and to help celebrate the society's centennial. In reading over the names of the 48 charter AAG members in *The Association of American Geographers, the First Seventy-Five Years* (James and Martin, 1978), one can't help but notice that many of those individuals either were geomorphologists or had strong ties to geomorphology. The list of founding members includes not only W.M. Davis and G.K. Gilbert, but also A.P. Brigham, A.H. Brooks, H.G. Bryant, R.A. Daly, N.M. Fenneman, H. Gannett, H.E. Gregory, F.P. Gulliver, F.E. Matthes, W.J. McGee, H.F. Reid, R.D.

Salisbury, B. Willis, and probably others who could be considered geomorphologists. Certainly all but a few of the 48 charter members were either physical geographers or geologists.

Because geomorphologists in particular figured prominently in establishing the association, it would be especially fitting for geomorphology papers and sessions to figure prominently in the AAG centennial celebration. I encourage you to participate in geomorphology sessions and to organize Geomorphology Specialty Group sponsored or co-sponsored sessions for the Philadelphia meeting, to be held March 14-19, 2004.

The occasion of the AAG centennial meeting is an especially good time to look back over the history of the discipline. Historical considerations provide context, perspective, and insight into the nature and present status of our field. Because of the prominent role of physical geography in the early history of the association, the chairs of the Geomorphology, Cryosphere, Climate, and Biogeography Specialty Groups are organizing for the centennial meeting paper sessions on historical aspects of these disciplines, under the topic *Celebrating a Century of Physical Geography*. This theme is broadly defined in that contributions will not be limited to the last 100 years or to the U.S. Sessions may be dedicated to historical aspects of a single discipline, but there could also be some interesting opportunities to group papers thematically across these disciplines. *Celebrating a Century of Physical Geography* will call attention to physical geography, to cooperation among physical geographers, and to the value of historical research while also maintaining a high profile for each component discipline. The full call for papers appears on page 11 of this newsletter and will be posted on the Geomorphlist. Please consider contributing to *Celebrating a Century of Physical Geography* at the Philadelphia meeting by presenting a paper pertaining to some aspect of the history of geomorphology.

The AAG's abstract submission deadline is October 9 for paper and illustrated paper presentations, and October 30 for poster presentations, but special session organizers often request participants to submit their abstracts a bit before the AAG deadline. In addition to posting calls for papers on the specialty group website (www.cla.sc.edu/geog/gsgdocs), the International Association of Geomorphologists (IAG) Geomorphlist is an excellent way to send and receive announcements about organized sessions for the AAG meeting. Information about subscribing to the Geomorphlist can be found at the IAG website (www.geomorph.org). On behalf of the GSG, I would like to thank Allan James (GSG website), Karen Lempke (GSG website), and Bill Locke (Geomorphlist) for serving the geomorphology community by maintaining the specialty group website and managing the Geomorphlist.

Best wishes,
Dorothy

MINUTES OF THE GEOMORPHOLOGY SPECIALTY GROUP BUSINESS MEETING MARCH 5, 2003 NEW ORLEANS, LOUISIANA

Frank Magilligan, Chair
Dorothy Sack, Secretary/Treasurer

Frank called the meeting to order at 7:40 p.m. with approximately 55 people in attendance.

Announcements from the Chair:

1. With 336 members, geomorphology is the ninth largest of the 52 AAG specialty groups. The Geomorphology Specialty Group (GSG), however, is first in terms of finances. Much of this financial health is due to proceeds from the sale of the cd-rom of geomorphology images. Frank thanked Mike Slattery of Texas Christian University for organizing and directing that project.

2. Despite the new rotating dues structure, the AAG will deposit dues to specialty group accounts once a year. The last deposit occurred on August 31, 2002. The next deposit is scheduled for October 2003.

3. The Blackwell Lecture in Geomorphology and Society is an important annual series that is sponsored by the specialty group and generously supported by the Blackwell Publishing Company. Frank encouraged specialty group members to attend and to invite others to attend the lecture every year. The Blackwell lecture is typically scheduled to start at 11:40 a.m. on the first day of paper sessions.

Specialty Group Reports:

1. Minutes--The minutes of the 2002 business meeting in Los Angeles were approved as posted on the specialty group website.

2. Treasurer's Report--The AAG central office administers the financial account for the specialty group and recorded the most recent transaction on August 31, 2002. Between February 28 and August 31, 2002, the $8,396.04 of total receipts consisted of $4,539.75 from dues plus $3,856.29 from sales of the cd of geomorphology images. Expenditures for that period related to specialty group awards and totalled $1,008.29. Account balance as of August 31, 2002 was $7,958.47.

3. Web Editor's Report--Allan James (AJ) of the University of South Carolina could not attend the business meeting, but provided a written report summarizing what he had done in the past year to keep the web site current. AJ asked members to send him information on relevant sites that are not currently linked to the specialty group's web site.

Old Business:

1. The International Association of Geomorphologists (IAG) has had problems in past years obtaining dues from the U.S. largely because of the dual affiliation of geomorphology in this country with geography and geology. This matter has now been settled, with the IAG agreeing to bill the GSG and the Quaternary Geology and Geomorphology Division of the GSA separately, each for half of the dues amount.

New Business:

1. Mike Slattery provided the latest figures on proceeds from sales of the cd of geomorphology images--approximately $5,400 to date. In addition, Wiley is considering bundling the cd with a geology textbook, which would lead to more revenue. Mike initiated the discussion of how the specialty group might want to use the funds. Suggestions included raising the amount of money given for the present student research awards, increasing the number of student research awards given, initiating other types of awards, such as for student travel to the AAG meeting or undergraduate student research, or starting an endowment to provide spendable interest money while preserving the long-term integrity of the principal. The decision was made to table the matter to give members the opportunity to think about these, and to offer other, options.

General Announcements:

1. Carol Harden of the University of Tennessee serves on the IAG executive committee and announced that she will be the new IAG publications officer. Upcoming meetings include the IAG regional meeting on geomorphic hazards Oct. 27-Nov. 2, 2003, in Mexico City. The Sixth International Conference on Geomorphology will be held in Spain in 2005.

2. Joe Desloges (University of Toronto), past president of the Canadian Geomorphology Research Group (CGRG), congratulated the GSG on its great range of activities and accomplishments. Joe, speaking also on behalf of the current CGRG president, Tony Lewkowicz (University of Ottawa), encouraged GSG members to think about possible future opportunities for joint or co-sponsored GSG and CGRG activities, such as workshops or IAG-sponsored regional conferences on specific themes.

3. Next year's meeting in Philadelphia will be the AAG's 100th annual meeting. Dorothy Sack offered to organize or help organize a special session on the history of geomorphology. Jon Harbor (Purdue University) suggested a special session that focuses on geomorphic events that have occurred during the last 100 years and/or on geomorphic data and processes that operate on the temporal scale of a century.

4. Steve Gordon (USAF) noted that the weathering sessions have been moved to an earlier slot in the annual meeting schedule. They are also moving to a more discussion-oriented format. Weathering sessions for next year will include a focus on the human geography/geomorphology interface.

5. Dave Butler of Southwest Texas State University reported that the 2001 Binghamton Geomorphology Symposium volume on mountain geomorphology is now "in the hands of the publisher."

6. Dave Butler outlined the organization of and recent additions to the Binghamton Geomorphology Symposium steering committee. He reminded folks that Pete Knuepfer at Binghamton University is organizing the 2003 symposium, which is on ice sheets. Alice Turkington, Sean Campbell, and Jonathan Phillips at the University of Kentucky are hosting the 2004 symposium on weathering and landscape evolution. The steering committee welcomes solid proposals for future symposia.

7. Dave Butler, who is the book review editor for Geomorphology, asked individuals interested in reviewing books on GIS and geomorphology to please contact him.

8. Basil Gomez (Indiana State University), Environmental Sciences Editor for the Annals, encouraged submissions of physical geography manuscripts to the journal. Submissions of physical geography manuscripts remain low despite the reorganization of the journal. Basil outlined the current review process.

9. Jon Harbor announced an upcoming special issue of Geomorphology on human impacts. Please contact him to discuss potential submissions.

10. Tony Orme (UCLA) reported that Physical Geography is on track with a number of forthcoming papers.

11. The Gaile and Wilmott volume, Geography in America, should appear in late 2003 or early 2004. The GSG chapter is in press, with galley proofs expected in July.

2003 Specialty Group Awards:

1. GSG awards committee chair Greg Pope (Montclair State University) thanked specialty group members for the healthy number of proposal and nomination submissions this year. Greg presented the awards listed below. He could not announce recipients of the 2003 student paper awards because those sessions were still to come. [*Editor's note--These, and additional information on all of the awards, appear in following sections of the newsletter.*]

   A. Student research award, doctoral--Joseph P. Hupy, Michigan State University (Randy Schaetzl, advisor)

   B. Student research award, master's--Hannah J. Haynie, Dartmouth College (Frank Magilligan, advisor)

   C. G.K. Gilbert Award for Excellence in Geomorphic Research--Ellen Wohl (Colorado State University) and Dave Merritt (USFS) for Wohl, E.E., and Merritt, D.M., 2001, Bedrock channel morphology: Geological Society of America Bulletin, v. 113(9), p. 1205-1212.

   D. Melvin G. Marcus Distinguished Career Award--Athol Abrahams, University at Buffalo

Appointments and Election of Officers:

1. Susan Millar (Syracuse University) will join Bob Pavlowsky (Southwest Missouri State University) and Mike Slattery on the awards committee as Greg rotates off and Mike Slattery takes over as committee chair.

2. Dorothy Sack will leave the office of secretary/treasurer to replace Frank Magilligan as specialty group chair.

3. Greg Pope was elected to the office of secretary/treasurer. The vote was unanimous.

The business meeting was adjourned at 8:55 p.m.

GSG STUDENT AWARDS FOR 2003

Thanks to all of the students who participated in the Geomorphology Specialty Group student award competitions for 2003, and to the 2003 GSG Awards Committee--Greg Pope (Chair), Mike Slattery, and Bob Pavlowsky--for their hard work. The quality of paper presentations and research proposals was so high that two student paper presentation and two student research awards were given this year.

Bruce MacVicar of the University of Montreal received the 2003 GSG award for best student paper at the doctoral level for "ROQ-B: A riverbed simulation model," co-authored with Andre G. Roy and Lael Parrott, also of the University of Montreal.

Susan Licher of Southwest Missouri State University earned the award for the best paper at the master's level. Her presentation was entitled "Spatial and temporal patterns of sedimentation and contamination in a small reservoir draining karst."

Joseph P. Hupy of Michigan State University was awarded $400 for his doctoral-level proposal to research "Effects of explosive munitions on soil and landscape properties: The WW I battlefield of Verdun, France." Joseph's advisor is Randy Schaetzl.

Hannah J. Haynie of Dartmouth College received the $200 master's-level research award for "Geomorphic response to impoundment in streams of the upper Connecticut River Valley." Frank Magilligan is Hannah's advisor.

2003 G.K. GILBERT AWARD

Ellen E. Wohl of Colorado State University and **David M. Merritt** of the U.S. Forest Service received the Geomorphology Specialty Group's G.K. Gilbert Award for Excellence in Geomorphic Research this year for their 2001 paper entitled "Bedrock channel morphology." Greg Springer of Ohio University and Andrew Wilcox of Colorado State University nominated the paper, which appeared in vol. 113 (p. 1205-1212) of the *Geological Society of America Bulletin*.

2003 MELVIN G. MARCUS DISTINGUISHED CAREER AWARD

Athol D. Abrahams of the University at Buffalo is this year's recipient of the Melvin G. Marcus Distinguished Career Award. The GSG Awards Committee received two separate submissions nominating Athol for the award. Both citations are presented here, followed by Athol's acceptance remarks.

Marcus Award Citation I

by Frank Magilligan

I wanted to take this opportunity to nominate Athol Abrahams for the Mel Marcus Distinguished Career Award. Athol's distinguished career epitomizes what we all strive to attain: he has excelled as a scholar, as a teacher, and, more importantly, as a person. He has been a model to us all in the discipline, and his effortless devotion to geography and to geomorphology has enriched all of our careers.

Athol came to us from down under, and did his Ph.D. work at the University of Sydney with the eminent George H. Dury. Despite working with Dury, Athol never worked on underfit streams although that may be the only topic in fluvial geomorphology that Athol has not published on. In the past 25 years he has published over a hundred refereed articles or book chapters, and he has edited four major books. Besides the impressive output of scholarship, what have been more impressive have been Athol's range of scholarship and his continued evolution as a scholar. Athol was never content to focus on one research theme. He won the G.K. Gilbert award in 1985 for his impressive and exhaustive work on channel networks. Since then, he has changed research foci at least two or three times, which I think is a lesson to all of us to develop and act on our research creativity. He moved effortlessly from morphometric analyses of drainage basins to field-based research on hillslope runoff processes. After enduring a decade of desert heat studying the hydraulics and erosion mechanics of overland flow, he has shifted his interests again and has become progressively more focused on sediment transport modeling. Using data from the literature, Athol is developing a bed-load transport equation for sheet flow and, in collaboration with his recent Ph.D. student, Peng Gao, two bed-load transport equations.

Besides his tireless devotion to his scholarship, he has always given of himself to the discipline. He has served as an Associate Editor for the *Annals, Water Resources Research*, and *Geographical Analysis*, and he has been one of the guiding forces behind the Binghamton Geomorphology Symposium. He has guided the careers of numerous graduate students, including many that were not his, yet he always found time to interact with them professionally and personally. There are many of us in the room who can each

share a story of Athol 's professional advice that was critical to us at an important stage of our early careers.

His devotion to his scholarship and his service to the broader geographic and geomorphic community has not gone unnoticed by others. In addition to receiving the G.K. Gilbert Award from the GSG, Athol has been awarded the prestigious Gladys W. Cole Research Award from the Geological Society of America as well as being appointed as a Fellow to the Geological Society of America. More recently, he has been honored by the AAG and was awarded Honors by the Association of American Geographers.

I think the Mel Marcus Award would be a fitting honor as well for Athol. His work, life, and friendship have been an inspiration for all of us in geomorphology, and it is with great pleasure that I nominate Athol D. Abrahams to be this year's recipient of the Mel Marcus Distinguished Career Award.

Frank Magilligan, Dartmouth College

Marcus Award Citation II

by Anne Chin and others

Rarely does someone come along who truly epitomizes what we all strive for as scholars. Dr. Athol Abrahams has been that person in every sense of the word--an excellent researcher, a caring teacher, a steadfast mentor, and a supportive colleague. Athol has been a model to many of us. His career is truly worthy of celebration.

Athol received his Ph.D. from the University of Sydney in 1971. He was a post-doctoral fellow at the University of Alberta, and then served as a lecturer at the University of New South Wales, before joining the geography faculty at the University at Buffalo in 1977. In the years following, Athol would help establish the University at Buffalo as one of the top geography programs in the nation.

The quantity and quality of Athol's research output have been remarkable. I will only highlight two major strands here. Early on, Athol's research focused on river networks, culminating in 1984 with his seminal paper, "Channel networks: A geomorphological perspective," that was published in *Water Resources Research.* As Frank mentioned, that excellent paper was recognized by the Geomorphology Specialty Group when Athol received the G.K. Gilbert Award for Excellence in Geomorphic Research.

In that same year, Athol organized the Binghamton Geomorphology Symposium on the topic of hillslope processes. That important meeting served to direct Dr. Abrahams' research toward the desert hillslopes of the American Southwest. And for two decades, Athol's detailed field and laboratory research would redefine our understanding of interrill erosion, roughness on desert hillslopes, and sediment transport by overland flow.

To appreciate the magnitude of Athol's contributions in this area, I'd like to read a short paragraph from a letter that Dr. Reds Wolman sent in. Dr. Wolman wrote, "Geomorphologists, hydraulic engineers, hydrologists, and soil scientists all deal with aspects of how water and sediment move upon the land surface. Whether the goal is to understand how the shape of the landscape evolves over time, or to predict the movement of water and sediment, or to control this movement in perfecting conservation techniques, one must turn to Abrahams' work to develop and test models, to verify hypotheses, or to evaluate field experiments…. Dr. Abrahams' studies of hillslope processes in semi-arid regions are not only the most comprehensive in the field, but each facet of his studies is characterized by careful field and laboratory measurement, observation, and critical analysis. Together, they are a remarkable achievement."

All in all, Athol's work over the past three and a half decades has included four edited books, over 100 journal articles, and 17 book chapters and conference proceedings. Of these, 27 are single authored and 51 are first authored. Thirty-two were co-authored with students.

For his substantial research contributions, the British Geomorphological Research Group awarded Dr. Abrahams the prestigious David Linton Award just last year.

However, it is in the area of teaching and mentoring, that Athol has really left a legacy and impacted the lives of many people. Athol has supervised 22 graduate students, including 10 at the Ph.D. level, many of whom are scattered in research, teaching, and administrative positions in the United

States and across the world. Countless other young geomorphologists have sought Athol's counsel at the AAG meetings and other conferences. Indeed, this is one of Athol's special qualities. He has many "unofficial" students. If I may now quote Dave Montgomery in a recent email that he sent me, Dave said, "Other than my own advisor, Athol was one of the first people who gave me some really good advice on my research." Similarly, Scott Lecce wrote in his letter, "Athol ALWAYS had the time and patience each year at the AAG meeting to sit and talk about our research… Without his critical comments on an early draft of my first journal article, it probably would not have been published, at least not in ESPL." Indeed, these are some of the stories that Frank mentioned that many of us would have.

In addition to his research and teaching accomplishments, Athol has been an invaluable representative of the geographical community. He has served as editor or associate editor of leading journals. He has been member or chair of important committees within the AAG, the IGU, and the National Academy of Sciences. He has been a stalwart member of the Association of American Geographers, as evidenced by the AAG Honors that he received in 1992.

In summary, Dr. Athol Abrahams has been one of the critical pillars in the discipline of geomorphology for much of the past three decades. This is evidenced by his superlative research and teaching programs, by his service record, and by the numerous geomorphologists with whom Athol has interacted. Many of these colleagues and students sent in letters supporting our nominations. They span the disciplines of geography, geology, environmental sciences, and engineering. These letters came from countries all over the world, including Canada, Israel, and Australia, and even Antarctica, in addition to the U.S.

Athol, we all feel fortunate to have benefited from crossing paths with you at various stages of our careers, and we are very happy that, tonight, we get to share in a celebration of your very distinguished career indeed. It is our great pleasure to present the 2003 Melvin G. Marcus Distinguished Career Award to Dr. Athol Abrahams.

Anne Chin, Texas A&M University
(also representing Mike O'Neill, Mike Slattery, Peng Gao, and Normand Bergeron)

Marcus Award Acceptance Remarks

by Athol Abrahams

I am delighted to be this year's recipient of the Melvin Marcus Distinguished Career Award. I have Frank Magilligan and Anne Chin and her cohorts (Mike O'Neill, Mike Slattery, Peng Gao, and Norman Bergeron) to thank for this award. They beat the bushes for letters of support, and more than 20 people responded. For those of you who took the time to write, please accept my sincere thanks. I am honored by your kind remarks and pleased to discover that at least some people have read some of my papers over the years.

I owe my interest in geomorphology to George Dury. George was appointed Head of the Department of Geography at the University of Sydney shortly before I entered the university as a geography major in 1963. George was a gifted speaker and an inspiring teacher. After taking his course in fluvial geomorphology, I resolved to become an academic and study geomorphology. Upon graduation I was awarded a Commonwealth Scholarship to do a Ph.D. at the University of Sydney. Although George was my supervisor, I doubt if he spoke 100 words to me during my four years as a doctoral student. (Mind you, he was at the University of Wisconsin for two of these years!) Benign neglect by one's supervisor was not unusual in those days. Faculty were often aloof, and students had to fend for themselves. It was very much a case of sink or swim.

I completed my Ph.D. in 1971 and accepted a Killam Post-Doctoral Fellowship at the University of Alberta. Two years later, much to my chagrin, I moved back to Sydney, as the only geomorphology job I could find on the planet was at the University of New South Wales. My workaholic tendencies were not appreciated in Australia. Consequently, for this and other reasons, I began looking for an opportunity to return to North America. The opportunity came in 1977 when, by chance, I saw an advertisement for a geomorphologist at SUNY-Buffalo. The geography department already had two active researchers in channel networks (Mike Woldenberg and Richard Jarvis), and it was looking for a third. So I was hired. Then, two years later the department hired a fourth person whose expertise was in networks (David Mark). Although we all got along just fine, the hoped-for

synergy never happened, and we eventually went our separate ways.

By the mid-1980s I had been studying channel networks for 15 years. The fact that few people seemed to be reading my papers did not diminish either the excitement or the intellectual challenge I felt as I tried to understand the factors controlling the morphology of these networks. The elegance of Ron Shreve's random topology model misled many people into thinking that networks branched randomly. My task, as I saw it, was to demonstrate that this was not the case; it only appeared to be so when data were aggregated for purposes of statistical testing. I was eventually able to show that the topological and length properties of channel networks are controlled to a large degree by space-filling requirements, by the size, sinuosity, and migration rates of valley bends, and by the length and steepness of valley sides. I summarized much of this work in a review that appeared in *Water Resources Research* in 1984. This review was a swan song of sorts, as my research interests were already shifting to desert hillslopes.

My field-based research on desert hillslopes was wholly a collaborative effort with Tony Parsons. Tony and I met at the University of New South Wales. When I moved to Buffalo in 1977, Tony moved to the University of Keele in England. We had both previously visited the Mojave Desert and were fascinated by the landscape. So when Tony suggested that we spend a few weeks in the spring of 1982 doing field work there, I jumped at the opportunity. The prospect of getting some exercise and sun was irresistible. So we met in Los Angeles and drove out into the desert to see what we could find. We spent an intense few weeks attempting to unravel the mysteries of piedmonts and debris slopes and eventually produced papers that appeared in *Journal of Geology* and *American Journal of Science*. Although we returned to the Mojave in the spring of 1983 and 1984, it was becoming clear to us that we needed to measure the processes shaping the landscape rather than inferring them from measurements of ground slope and debris size. The way forward we concluded was to conduct field experiments using simulated rainfall. But we knew very little about simulated rainfall and even less about the logistics of field experiments.

As luck would have it, I ran into Shiu Luk at a conference. I knew Shiu from my sojourn at the University of Alberta. Shiu had recently designed, built, and tested a rainfall simulator and he was looking for an opportunity to use it. I invited him to join Tony and me in the Southwest the following summer even though at the time we still had not found a suitable field site. I had heard of the Walnut Gulch Experimental Watershed, but I knew nothing about it. Guessing that it was administered by the USDA, I called Information, requested a number for the USDA in Tucson, and was eventually transferred to the Agricultural Research Service (ARS) Southwest Watershed Research Center (SWRC). Roger Simanton picked up the phone, listened to me prattle on for five minutes, and then invited us to come to Walnut Gulch and conduct rainfall simulation experiments. With that phone conversation the focus of my research shifted from channel networks to overland flow on desert hillslopes!

Walnut Gulch turned out to be the perfect place for our research. We worked there for 10 years with the support of a succession of SWRC Research Leaders (namely, Ken Renard, David Woolhiser, Gary Frasier, and Mark Weltz) who arranged for us to use ARS vehicles, equipment, workshops, and living quarters at Walnut Gulch. In addition, Roger Simanton spent countless days in the field with us sharing his knowledge and experience, while the technicians at Walnut Gulch, notably Howard Larsen and John Smith, fabricated various items of equipment, solved our plumbing problems, and trucked water to our field sites. Our research at Walnut Gulch would not have been possible without the generosity and goodwill of these individuals. Many other people too numerous to mention also helped out in lots of little ways, especially when we ran the large plot experiments. We are grateful to you all.

Eventually, research commitments in China forced Shiu to leave our group. Soon after, John Wainwright joined us bringing much-needed modeling skills.

In broad terms the purpose of the field experiments at Walnut Gulch was to elucidate the effect of ground surface properties on the processes of runoff and erosion. We conducted many experiments for many different reasons, but perhaps the most significant were those on resistance to overland flow. Prior to our work it was widely assumed that flow resistance was controlled by the state of the flow (i.e., laminar or turbulent). Our experiments showed that, on the contrary, flow resistance on desert hillslopes is largely controlled by surface roughness. This finding has

important implications for modeling overland flow not just on desert hillslopes but on all ground surfaces where the roughness height is approximately equal to or greater than the flow depth.

While I was performing field experiments at Walnut Gulch, a graduate student, Paul Hirsch, was conducting flume experiments at SUNY-Buffalo aimed at developing a mathematical model for predicting resistance to overland flow on fixed beds covered with cylinders. Paul's project introduced me to the world of laboratory experiments, and opened my eyes to the advantages of studying sediment transport in a flume. Although field experiments are a valuable means of studying hillslope runoff and erosion, they have their limitations. In particular, they are of little use in determining sediment transport capacity (an essential component of soil erosion models), as sediment transport rates on hillslopes are almost always supply-limited. Flume experiments with noncohesive sediments do not have this problem. Thus it became clear to me that if we were to develop an equation for predicting transport capacity, it would have to be based on flume experiments.

So in 1992 I applied for an NSF grant to develop an equation for predicting the sediment transport capacity of overland flow on rough surfaces. The grant permitted me to hire Gary Li who worked on the project initially as a research assistant and later as a Ph.D. student. Gary played a major role in all parts of the project. For his dissertation, however, he concentrated on laminar flow, while I focused on turbulent flow. After Gary moved to Hayward in 1996 I took another look at the problem of developing a sediment transport equation for turbulent overland flow. Using dimensional analysis I derived a total-load transport equation for open-channel flow and then applied it to overland flow. Much to my delight the equation worked splendidly. Especially pleasing was the fact that it worked on rough beds.

Thus, in order to understand sediment transport by overland flow I first had to acquire a working knowledge of sediment transport in open-channel flow. A graduate student, Peng Gao, was simultaneously working in bed-load transport at high shear stress. Our interests overlapped to such an extent that we finally agreed to collaborate. This collaboration has proven to be very fruitful. In particular, it has produced a theoretical model for bed-load transport that has illuminated the mechanics of the transport process. We are currently writing up this research, but progress is slow because once again I have changed fields and there is a long learning curve.

In closing, I wish to thank the cadre of graduate students whom I have had the privilege of supervising over the years. Interacting with these students and sharing their discoveries has been a pleasure. I would also like to thank Tony Parsons for his companionship and sense of humor during our 20 years of collaboration. I don't know why our collaboration succeeded when so many fail. But the fact is that it did, and I have always been grateful for that. Finally, I owe a debt of gratitude to my wife, Lorraine Oak, who has tolerated my excesses for almost 30 years. I have assured her that now I have the Mel Marcus Award, things are going to change! But she is skeptical!!

Athol Abrahams, University at Buffalo

GEOMORPHOLOGY AT THE 2003 AAG MEETING, NEW ORLEANS

At the New Orleans meeting, results of geomorphic research were conveyed in 40 posters, 12 illustrated papers, and 114 oral papers. The GSG on its own sponsored 11 oral paper sessions and one panel discussion. The GSG co-sponsored two additional paper sessions and one illustrated paper session with the Cultural and Political Ecology Specialty Group.

All of the geomorphology posters, most of the illustrated papers, and 20% of the oral papers appeared in nonsponsored sessions put together by the AAG program committee. The rest of the oral papers on geomorphic topics were evenly split between paper sessions sponsored or co-sponsored by the GSG and sessions sponsored by specialty groups other than Geomorphology. In other words, 40% of the geomorphology-related oral papers given in New Orleans were presented in sponsored sessions in which the GSG was not involved. These other sponsoring specialty groups were the Coastal and Marine Geography, Mountain Geography, Water Resources, Cryosphere, GIS, Remote Sensing, Hazards, Climate, Biogeography, Cartography, Environmental Perception and Behavioral Geography, and Geography Education Specialty Groups.

GSG-sponsored sessions concerned fluvial geomorphology, human impacts in geomorphology, soils in a cultural context, karst landscapes, weathering, and the GSG student paper competition sessions. Thanks to all of the individuals who organized and/or presented in the 2003 GSG-sponsored sessions.

CALLS FOR PAPERS
AAG CENTENNIAL MEETING
PHILADELPHIA, MARCH 14-19, 2004

Celebrating A Century of Physical Geography

The Centennial Meeting of the Association of American Geographers will provide an excellent opportunity to take stock of geography's accomplishments (and the people involved in them) over the past century. To mark this occasion, the Geomorphology, Cryosphere, Climate, and Biogeography Specialty Groups are proposing one or more sessions devoted to historical aspects of physical geography. "Historical aspects" is interpreted broadly, and will encompass both biographically and topically oriented contributions relating to physical geography and its subdisciplines. Contributions are not restricted to the 1904-2004 period, or to the United States.

The theme is intentionally broad in order to attract a large number of presentations. If the response is sufficiently large, the need for several sessions may arise, and these could be subdivided topically or by some other criterion. Our present intent is to have the papers presented orally, but if there is sufficient interest, poster or illustrated paper sessions could be included. At this relatively early stage we are attempting to determine the number of people interested in contributing to such a session or sessions at the Philadelphia meeting. If there is sufficient interest, a special issue of the journal *Physical Geography* may be organized to publish papers arising from the session(s).

If you are interested in presenting a paper related specifically to the history of geomorphology, please email (a) a tentative title; (b) preferred mode of presentation (oral, poster, illustrated paper); (c) authors' names; and (d) contact information (lead author only) to **Dorothy Sack** (sack@ohio.edu) at your earliest convenience, but no later than September 1, 2003. For papers related to the history of other parts of physical geography, please email the organizer representing the physical geography discipline closest to your topic by September 1. Formal abstracts will be due no later than September 25 in order to meet the AAG's deadline of October 9 for submission of organized sessions.

Please consider this opportunity to participate in this examination of our discipline's development. We want to maximize participation in these activities and have submitted this call to several email distribution lists.

Dorothy Sack
Chair, AAG Geomorphology Specialty Group
sack@ohio.edu

Fritz Nelson
Chair, AAG Cryosphere Specialty Group
fnelson@udel.edu

Andrew Comrie
Chair, AAG Climate Specialty Group
comrie@climate.geog.arizona.edu

John Kupfer
Chair, AAG Biogeography Specialty Group
kupfer@email.arizona.edu

Geomorphology and the Military

Guntram Herb of Middlebury College is organizing a paper session for the Philadelphia AAG meeting on geomorphology and the military, to be co-sponsored by the Military Geography and Geomorphology Specialty Groups. He is very open to any related paper topics. Guntram invites anyone interested in participating to contact him by email (herb@middlebury.edu), phone (802-443-5714), or fax (802-443-2072).

Linking Geomorphology and Ecology

Michael Urban (University of Missouri), **Melinda Daniels** (University of Connecticut), and **Martin Doyle** (University of North Carolina) are organizing

one or more special sessions for the 2004 AAG meeting focusing on linkages between ecology and geomorphology. The scope of these sessions includes the role of geomorphic processes and forms in changing rates and types of ecological processes (e.g., nutrient cycling) and habitat states, as well as investigations of ecological controls on geomorphic processes and forms. Theoretical, monitoring, historical, applied, and management papers are welcome. Papers that involve collaborations between geomorphologists and ecologists/biogeographers are particularly encouraged, as are papers from those doing work outside of academia (e.g., consulting, industry, government).

GSG 2004 Student Paper Competition

The GSG Awards Committee invites graduate students to participate in the specialty group's Student Paper Award competition at the 2004 AAG meeting in Philadelphia. Students must be members of the AAG and the Geomorphology Specialty Group to be eligible for the $200 award. Applicants for the student paper competition will be placed into special sessions organized specifically for the competition. The GSG Awards Committee will evaluate the presentations, which may deal with any aspect of geomorphology. Papers are evaluated on the research contribution to the field of geomorphology and on the effectiveness of the presentation. The award will be presented at the Philadelphia Geomorphology Specialty Group business meeting and at the AAG Awards Banquet.

Student participants must register for the meeting and submit their abstract online at the AAG website (www.aag.org). After receiving a participant number from the AAG, which could take a day, mail or email your application package to **Dr. Mike Slattery**, the GSG Awards Committee Chair, at the address listed below. Your application package must include your participant number, one copy of the standard abstract required by the AAG, and three copies of an 800-1000 word extended abstract. Your materials must reach Dr. Slattery before October 3, 2003.

Dr. Mike Slattery
Texas Christian University
Department of Geology
P.O. Box 298830
Fort Worth, TX 76129
m.slattery@tcu.edu

OTHER CALLS FOR PAPERS

Coastal Zone Remote Sensing

Shivaji Prasad of Frostburg State University is interested in organizing a session for the October 2003 meeting of the East Lakes Division of the AAG in Kalamazoo, Michigan, on remote sensing of coastal areas. Anyone interested in contributing a paper on related research should contact Shivaji by email at sprasad@frostburg.edu.

UPCOMING CONFERENCES

International Permafrost Association's 8th International Conference on Permafrost--July 21-25, 2003, Zurich, Switzerland. Topics cover all major scientific, technical, and engineering aspects of past and present frozen ground in polar and high-mountain areas, together with planetary processes. An extensive technical program is planned, along with a variety of pre- and post-conference field trips to areas of arctic, alpine, and Pleistocene permafrost. Visit the conference website at www.geo.unizh.ch/ICOP2003.

XVI INQUA Congress--July 23-30, 2003, Reno, Nevada. *Shaping the Earth: A Quaternary Perspective.* For details consult the conference website at http://inqua2003.dri.edu.

XXVII Plenary Session of the Geomorphological Committee of the Russian Academy of Science--August 25-30, 2003. Email pzd@iom.tomsknet.ru for more information.

Rocky Mountain Cell Friends of the Pleistocene Field Conference--September 5-7, 2003, Payette-Boise River and Sawtooth Mountains Region, Central Idaho. Highlights will include major debris flow and flash-flood deposits, a variety of erosional features resulting from recent fires and storms, interpretation of alluvial fan stratigraphy, Pleistocene and Holocene terrace sequences, large-scale Quaternary landscape features, landscape evolution in the Idaho batholith region, and the glacial geology and Quaternary paleoclimatology of the spectacular Sawtooth Mountains. The trip begins in the South Fork Payette-North Fork Boise River area and ends in Ketchum, Idaho. If you are interested in participating and would like to be

added to the email list, please contact the primary organizer, Jennifer Pierce (jpierce@unm.edu) of the University of New Mexico. Other trip leaders are Grant Meyer, Charlie Luce, Tom Black, and Glenn Thackray.

British Geomorphological Research Group Annual Meeting--September 5-7, 2003, Oxford, England. The provisional program, booking forms, and other details are available from the conference webpage at www.geog.ox.ac.uk/news/conference07.html or by email from heather.viles@geog.ox.ac.uk. Although the abstract deadline has passed, there is still plenty of time to register to attend the meeting. Booking forms should be returned by August 15th to avoid the 20% late booking surcharge.

International Geological Correlation Programme (IGCP) 437 Final Meeting--September 22-28, 2003, Puglia, Italy. *Coastal Environmental Change during Sea-Level Highstands: A Global Synthesis with Implications for Management of Future Coastal Change*. For more information visit the website http://axpmat.unile.it/IGCP437finalconference/.

2003 Binghamton Geomorphology Symposium--October 3-5, 2003, Binghamton, New York. *Ice Sheet Geomorphology, Past and Present Processes and Landforms*. The 34th annual Binghamton Symposium will be held at Binghamton University. The deadline for poster submissions is August 31, 2003. Contact conference organizers P. Jay Fleisher or Pete Knuepfer (fleishpj@oneonta.edu, Peter.Knuepfer@binghamton .edu) for further information.

Pacific Cell Friends of the Pleistocene Field Conference--October 3-5, 2003, Sequoia and Kings Canyon National Park. This field conference focuses on climatic and geomorphic processes that have shaped this dramatic landscape, as revealed by diverse sources of evidence. Participants will visit and discuss caves in the region that are being used to constrain Quaternary river incision rates and to test hypothesized late Cenozoic uplift of the Sierra Nevada. Several stops will address Quaternary climate change in the region as recorded in speleothems, sequoia and foxtail pine tree rings, and alluvial fan sequences in the eastern Great Valley. The conference will also consider the dating of geomorphic surfaces using lichenometry. One-day lichenometry short courses will bracket the FOP weekend. For more information, please contact Greg Stock (gstock@es.ucsc.edu).

IAG/SMG Mexico 2003 Regional Geomorphology Conference--October 27-November 2, 2003, Mexico City. *Geomorphic Hazards: Towards the Prevention of Disasters*. Contact Dr. Irasema Alcantara-Ayala of UNAM at IAGMEXICO2003@igiris.igeograf.unam.mx.

Geological Society of America Annual Meeting--November 2-4, 2003, Seattle, Washington. Information is available at www.geosociety.org.

Australian and New Zealand Geomorphology Group (ANZGG) Conference--February 15-20, 2004, Mt. Buffalo Chalet, Victoria, Australia. Conference organizers invite papers on any aspect of geomorphology. Special sessions will be held on the topics of mountain geomorphology and geomorphology and society. Pre-conference, mid-conference, and post-conference field trips will be offered. The first circular and an expression of interest form are currently available on the ANZGG website (www.anzgg.org). Email questions to enquiries@anzgg.org or to Dr. Sandra Brizga (sbrizga@ozemail.com.au).

IAG Regional Conference on Geomorphology and International Workshop on Landslides in Darjiling and Sikkim, Himalayas, India--February 27-March 6, 2004, Calcutta, India. See the IAG website at www.geomorph.org for more information.

2004 Binghamton Geomorphology Symposium--October 1-3, 2004, Lexington, Kentucky. *Weathering and Landscape Evolution.* The 35th Binghamton Geomorphology Symposium will be held on the campus of the University of Kentucky, Lexington. Sean Campbell, Alice Turkington, and Jonathan Phillips of the U.K. Department of Geography are co-organizers of the conference, which is co-sponsored by the U.K. Departments of Geography and Geological Sciences and the Kentucky Geological Survey. There is an impressive list of invited speakers, and poster presentations are welcome from anyone. Specific details on registration and poster submissions will be forthcoming in future newsletters and via the Geomorphlist. In the meantime, inquiries can be directed to the co-organizers (swcamp@uky.edu, alicet@uky.edu, jdp@uky.edu).

Shifting Lands: New Insights into Periglacial Geomorphology--January 20-22, 2005, Clermont-Ferrand, France. The conference focuses on recent advances in the geomorphology of periglacial areas. Topics include periglacial dynamics, weathering in

cold areas, and paraglacial landscapes. Individuals wishing to participate should email a paper or poster title relating to one of these subjects to Dr. Samuel Etienne (setienne@seteun.net) before October 1, 2003. January 1, 2004 is the deadline for abstracts, which should be 350-400 words long. Send abstracts to Shifting Lands Laboratory of Physical Geography, GEOLAB, 4 rue Ledru, 63057 Clermont-Ferrand cedex 1, France.

Sixth International Conference on Geomorphology--September 7-11, 2005, Zaragoza Spain. The conference theme is *Geomorphology in Regions of Environmental Contrasts*. Zaragoza is in northern Spain, and field excursions will include trips to the Pyrenees. The first circular is available on the conference website at http://wzar.unizar.es/actos/SEG/index.html.

OTHER NEWS AND ANNOUNCEMENTS

Carol Harden of the University of Tennessee has been selected to be the Publications Officer of the International Association of Geomorphologists (IAG) from spring 2003 to fall 2005. As Publications Officer she becomes a member of the IAG Executive Committee. Her duties include producing the IAG newsletter four times a year, so she enthusiastically welcomes submissions (charden@utk.edu) on geomorphic news and issues, meetings, field trips, or newsworthy geomorphologists. The IAG newsletter is archived at www.geomorph.org/pb/pbnew.html and is published in international journals of geomorphology. Carol will also help coordinate publications resulting from IAG meetings. Carol is currently the only person from the U.S. on the IAG Executive Committee, and she encourages more Americans to take an active interest in IAG activities. She especially encourages attendance at two upcoming IAG meetings--the Regional Geomorphology Conference in Mexico City October 27 to November 2, 2003, and the Sixth International Conference on Geomorphology to be held in Zaragoza, Spain, in September of 2005.

Tom Farr of the Jet Propulsion Laboratory reports that JPL recently released to the public the 90 m digital elevation models of North America and South America. These constitute part of a series of public releases of data from the Shuttle Radar Topography Mission, which flew in February 2000. A full resolution (30 m) DEM of the US was released earlier. The data are available at the USGS EROS Data Center and can be accessed through the SRTM data distribution web site at www.jpl.nasa.gov/srtm/cbanddataproducts.html.

From **Ted Zobeck, John Stout, Tom Gill, and Jeff Lee**.... In July 2002, Texas Tech University and the USDA-ARS Wind Erosion and Water Conservation Lab in Lubbock, Texas, hosted a joint meeting of the 5th International Conference on Aeolian Research and the Global Change & Terrestrial Ecosystem-Soil Erosion Network (ICAR-5/GCTE-SEN). The meeting, attended by 130 scholars from 18 countries, was held at Texas Tech University. There were 133 papers presented in seven sessions. The conference web site is www.lbk.ars.usda.gov/wewc/icar5/index.html, and the entire proceedings volume (abstract and short papers) can be downloaded from this page.

Antoinette WinklerPrins of Michigan State University is involved with the International Union of Soil Science (IUSS) Commission on the History, Sociology, and Philosophy of Soil Science. She would like to compile a list of geographers who are interested in the social aspects of soil science so they can stay informed of commission activities and for networking purposes. There is also the possibility of an organized symposium at the next IUSS meeting in Philadelphia in 2006. Please send Antoinette an email message (antoinet@msu.edu) if you wish to add your name to the list.

The **U.S. Permafrost Association** invites interested geomorphologists to consider joining the association. The annual membership fee for individuals is $10. Additional details are available at the association's website (www.uspermafrost.org) or by contacting Larry Hinzman, U.S. Permafrost Association, P.O. Box 750141, Fairbanks, AK, 99775-0141.

Channa Pelpola at Jacques Whitford in Burnaby, British Columbia, and co-author **E.J. Hickin** of Simon Fraser University have a paper forthcoming in *Geomorphology* entitled "Long-term bed-load transport rate based on aerial-photo and ground penetrating radar surveys of fan-delta growth, Coast Mountains, British Columbia."

Jaakko Putkonen and **Terry Swanson** of the University of Washington published a paper on cosmogenic isotopes and surface erosion in the March

2003 issue (v. 59, no. 2, p. 255-261) of *Quaternary Research*. The paper is entitled "Accuracy of cosmogenic ages for moraines."

Jean Ellis of Texas A&M University announces the recent appearance of "Retention of beach sands by dams and debris basins in southern California," which she co-authored with Doug Sherman and Kamron Barron. The article appears in a 2002 special issue of the *Journal of Coastal Research* (SI #36, p. 662-674).

A paper entitled "New Frontiers: The evolution of William G. Tight from geomorphologist to university president," by **Ken Bork** of Denison University, was published in the latest issue (2003, v. 22, no. 1, p. 10-35) of *Earth Sciences History*.

Geomorphorum News--Please send at any time information on recent publications, accomplishments, upcoming meetings, and other newsworthy items for future issues of the *Geomorphorum* to Dorothy Sack (sack@ohio.edu). Thanks to the many people who contributed items to this issue.