



Quaternary Geologist and Geomorphologist

NEWSLETTER OF THE QUATERNARY GEOLOGY AND GEOMORPHOLOGY DIVISION

Volume 32, Number 2

September 1992

RESULTS OF 1992 DIVISION ELECTION

873 Division members were mailed ballots and 255 valid ballots were returned to GSA headquarters. Division officers and Panel members elected for 1993 are:

OFFICERS:

Chair Stephen G. Wells
First Vice-Chair Parker E. Calkin
Second Vice-Chair Steven M. Colman
Secretary (continuing) Deborah R. Harden

NEW PANEL MEMBERS (1992-1994):

Alan R. Gillespie
Ardith K. Hansel
Thomas V. Lowell

CURRENT OFFICERS:

Chair David M. Mickelson
First Vice-Chair Stephen G. Wells
Second Vice-Chair Parker E. Calkin
Secretary Deborah R. Harden

CONTINUING PANEL MEMBERS (1991-1993):

P. Thompson Davis
Thomas W. Gardner
William J. Wayne

CONTINUING PANEL MEMBERS (1990-1992):

Carolyn H. Eyles
Leslie D. McFadden
Richard B. Waitt

HOW TO HAVE INPUT TO THE DIVISION

1. Submit nominations for Division offices and awards.
2. Submit suggestions, gripes, etc., for consideration by the Division Management Board.
3. Submit contributions to the Division Newsletter.

Correspondence to the Division may be sent to our Division Secretary:

Deborah R. Harden
Department of Geology
San Jose State University
San Jose, CA 95192-0102
Telefax (408) 924-5053

Or you may write directly to the Division Chair. The present Chair is:

David M. Mickelson
Department of Geology and Geophysics
University of Wisconsin—Madison
Madison, WI 53706-1692

Following the Cincinnati GSA Meeting, the Chair will be:

Stephen G. Wells
Department of Earth Sciences
University of California, Riverside
Riverside, CA 92521

Newsletters are mailed in February and August of each year. Members are encouraged to use their Division newsletter to communicate with other members. Deadline for the February Newsletter is January 15 and July 15 for the August Newsletter. Please send information to the Newsletter Editor at the following address:

Richard B. Waitt
Cascades Volcano Observatory
U.S. Geological Survey
5400 MacArthur Blvd.
Vancouver, WA 98661
Phone (206) 696-7558
Telefax (206) 696-7866

1992 MACKIN GRANT WINNERS

The J. Hoover Mackin Grant is for outstanding student research. One grant was awarded to a M.S. candidate:

* **Matthew C. Goss**, Department of Geology, Rutgers University, who is studying "High resolution seismics and ice-marginal sedimentation on Block Island Sound and adjacent Rhode Island," under the supervision of Gail Ashley.

and one to a Ph.D. candidate:

* **Judith Kay Haschenburger**, Department of Geography, University of British Columbia, who is studying "Scour and fill in gravel bed rivers," under the supervision of Michael Church.

MACKIN GRANT APPLICATIONS FOR 1993

The deadline for receipt of applications for the Mackin Grant for research in geomorphology or Quaternary geology is February 15, 1993. Two awards will be given; both M.S. (or M.A.) and Ph.D. candidates are eligible. Winners will be selected by April 15, 1993.

Application forms are available from the Division Secretary, Deborah Harden, Department of Geology, San Jose State University, San Jose, CA 95192-0102.

CONTRIBUTE TO THE MACKIN GRANT FUND

The fund that supports the Mackin Grant is now administered by the GSA Foundation. Therefore, you will be able to contribute to the fund when you renew your GSA membership or by designating the Mackin

Grant when you contribute to the GSA Foundation through the 2nd Century Challenge or Geostar. The hope is to enlarge the fund's principal so that the amount awarded annually, presently about \$1500, may be increased. Please give generously so that the Division will be able to better support deserving graduate students.

RECIPIENTS OF THE MACKIN GRANT 1974-1992

- 1974 **Louis D. Carter**, University of Southern California, *Quaternary geology in Baja, California.*
- 1975 **P. Thompson Davis**, University of Colorado, *Cirque glacier fluctuations and lacustrine chronologies.*
- 1976 Award date changed.
- 1977 **Daniel R. Muhs**, University of Colorado, *Marine terraces-soil development, San Clemente Island, California."*
- 1978 **Lisa Osterman**, University of Colorado, *Quaternary geology of Frobisher Bay, Baffin Island.*
- 1979 **Donna Marron**, University of California, Berkeley, *Slope processes in Redwood National Park.*
- 1980 **Susan L. Gawarecki**, Lehigh University, *Origin of the Railroad Ridge diamicton.*
- 1981 **Mary L. Gillam**, University of Colorado, *Age and climate effects on soil development, Colorado and New Mexico.*
- 1981 **Julie Brigham**, University of Colorado, *Chronology of Pleistocene marine deposits in coastal Alaska.*
- 1982 **Thomas F. Bullard**, University of New Mexico, *Quaternary geomorphic evolution of a tributary to the Chaco River, northwestern New Mexico.*
- 1982 **J. Steven Kite**, University of Wisconsin, *Late-glacial and Holocene alluvial chronology, St. Johns drainage basin, northern Maine and southern New Brunswick and Quebec.*
- 1983 **Jonathan M. Harbor**, University of Colorado, *Chronology of Holocene events, geomorphic response, and eolian influx in alpine lakes in the Front Range, Colorado.*
- 1983 **David S. Shafer**, University of Tennessee, *Quaternary climatic change, landscape evolution, and paleoecologic history, southern Appalachians, western North Carolina.*
- 1983 **Carolyn H. Eyles**, University of Toronto, *Scarborough Bluffs, Lake Ontario basin, lithofacies codes and the model of diamict deposition below floating ice.*
- 1984 **Jim E. O'Connor**, University of Arizona, *Paleohydrology and hydraulics as interpreted from geologic evidence: Boulder Creek, Utah.*
- 1984 **Leonard H. Thorleifson**, University of Colorado, *The Quaternary stratigraphy of the Hudson Bay lowlands.*
- 1985 **Karin A. Hoover**, University of Washington, *The relation of fluvial processes to facies—The Holocene stratigraphy and sedimentology of the Wells Reservoir area, eastern Washington.*
- 1985 **Peter E. Lea**, University of Colorado, *Late-Quaternary stratigraphy and paleoenvironments of the Nushagak region, southwestern Alaska.*
- 1986 **Mark A. Gonzales**, University of Wisconsin, *Fluvial geomorphology, geochronology, and paleoclimatology of Paddock Creek, Little Missouri Badlands, southwestern North Dakota.*
- 1986 **Christopher M. Menges**, University of New Mexico, *Systematic and quantitative analyses of the landforms of a mountain front within a basin and range landscape in the northern Rio Grande rift near Taos, north-central New Mexico.*
- 1986 **Dorothy I. Sack**, University of Utah, *Geomorphology of alluvial fans in the Bonneville Basin, Utah—Modeling alluvial fan activity.*
- 1987 **Kevin M. O'Dea**, Humboldt State University, *Quaternary terrace formation and deformation on Yager Creek, Humboldt County, California.*
- 1987 **Leal A.K. Mertes**, University of Washington, *Morphology and construction of the Solimoes-Amazon River flood plain in Brazil.*
- 1987 **Jim E. O'Connor**, University of Arizona, *Hydraulics and sediment transport of Pleistocene Lake Bonneville flooding on the Snake River.*
- 1988 **Jay S. Noller**, University of Colorado, *History of El Nino in soil chronosequences of the Peruvian desert.*
- 1988 **Donald T. Rodbell**, University of Colorado, *Late Quaternary glacial and climatic history of the northern Peruvian Andes based on glacial geology, glaciolacustrine sedimentology, and soils.*
- 1988 **Eric A. Oches**, University of Massachusetts, *Late Quaternary paleotemperature estimates of the northern Mississippi and Illinois River valleys, U.S.A..*
- 1989 **Andrew Fox**, Cornell University, *Glacial history of the central Andes Mountains.*
- 1989 **Garrett Jackson**, University of Arizona, *Tectonic geomorphology of the Toroweap Fault, western Grand Canyon, Arizona.*
- 1990 **Grant A. Meyer**, University of New Mexico, *Holocene and modern geomorphic response to wildfires and climate change in northeastern Yellowstone National Park.*
- 1990 **Kelin X. Whipple**, University of Washington, *The construction of alluvial-fan landforms by debris flows.*
- 1990 **Robert B. Genau**, University of Delaware, *A shallow land-based seismic reflection approach to mapping Quaternary paleochannel(s) of the Susquehanna River system at Taylor's Island, Maryland.*
- 1990 **Martin Thomas Kammerer**, Arizona State University, *The use of heavy metal concentrations and concentration-ratios to cross-correlate alluvial deposits.*
- 1991 **Eric Von McDonald**, University of New Mexico, *The influence of climate change and dust flux on soils developed on Quaternary deposits in arid and semi-arid environments.*
- 1991 **Robert S. Young**, Duke University, *The impact of sea-level rise on the coastal wetlands of Albemarle and Pamlico Sounds, North Carolina: A study of wetland dynamics.*
- 1992 **Matthew C. Goss**, Rutgers University, *High resolution seismics and ice-marginal sedimentation in Block Island Sound and adjacent Rhode Island.*
- 1992 **Judith Kay Haschenburger**, University of British Columbia, *Scour and fill in gravel bed rivers.*

1992 KIRK BRYAN AWARD

The winner of the 1992 Kirk Bryan Award is **R. Dale Guthrie** of the Institute of Arctic Biology at the University of Alaska for his 1990 book, **Frozen Fauna of the Mammoth Steppe: The Story of Blue Babe**, which was published by the University of Chicago Press. The award will be presented at the Annual QG&G Awards and Business Meeting in Cincinnati on Tuesday, October 27, 1992, 7:15-9:00 PM. The following is excerpted from the letter of nomination written by Troy Péwé:

Over the last two and a half decades, Dr. Guthrie has brilliantly described and interpreted the animals of, and especially the environment during, the last part of Pleistocene time in polar and subpolar areas around the world, notably Alaska. Most of this work is now summarized in the 1990 book on the "Mammoth Steppe," the term used by Guthrie for the immense cold grassy plains that existed south of the ice sheets. To set the stage and to develop the existence and distribution of this all-important, now extinct, Pleistocene environment, Guthrie has used as the centerpiece the exciting discovery, study, and reconstruction of a late Pleistocene frozen bison carcass (Blue Babe) from the perennially frozen retransported loess near Fairbanks, Alaska. He demonstrates in detail that this steppe was the home of megafauna and early man throughout late Pleistocene time and not just during interglacials and interstadials as had been suggested previously. This book transcends the boundaries of many scientific disciplines and successfully integrates geology, paleontology, ecology, palynology, and archaeology. It is indeed a tour de force.

**NOMINATIONS FOR THE
KIRK BRYAN AWARD FOR 1993**

Nominations for the Kirk Bryan Award for 1993 will be accepted until **December 1, 1992**. The Kirk Bryan Award is given for a paper or book published within the past five years. The work may be single or multi-authored. Nominations are made by writing a letter that identifies the work and provides a statement about its significance. Send nominations to the Division Secretary, Deborah Harden, Department of Geology, San Jose State University, San Jose, CA 95192-0102.

RECIPIENTS OF THE KIRK BRYAN AWARD 1958-1992

- 1958 **Luna B. Leopold and Thomas J. Maddock, Jr.** (U.S. Geological Survey), *The hydraulic geometry of stream channels and some physiographic implications*: U.S. Geological Survey Professional Paper 252, 57 p., 1953.
- 1959 **Jack L. Hough** (University of Illinois), *Geology of the Great Lakes*: University of Illinois Press, 313 p., 1958.
- 1960 **John F. Nye** (University of Bristol), *The distribution of stress and velocity in glaciers and ice sheets*: Royal Society Academy, Proceedings A, v. 239, p. 113-133, 1957.
- 1961 **John T. Hack** (U.S. Geological Survey), *Studies of longitudinal stream profiles in Virginia and Maryland*: U.S. Geological Survey Professional Paper 294B, 97 p., 1957.
- 1962 **Anders Rapp** (University of Uppsala), *Recent development of mountain slopes in Karkevagge and surroundings, northern Scandinavia*: Geografiska Annaler, v. 42, p. 71-200, 1960.
- 1963 **Arthur H. Lachenbruch** (U.S. Geological Survey), *Mechanics of thermal contraction cracks and ice-wedge polygons in permafrost*: Geological Society of America Special Paper 70, 69 p., 1962.
- 1964 **Robert P. Sharp** (California Institute of Technology), *Wind ripples*: Journal of Geology, v. 71, p. 617-636, 1963.
- 1965 **Gerald M. Richmond** (U.S. Geological Survey), *Quaternary stratigraphy of the La Sal Mountains, Utah*: U.S. Geological Survey Professional Paper 324, 135 p., 1962.
- 1966 **Charles S. Denny** (U.S. Geological Survey), *Alluvial fans in the Death Valley region*: U.S. Geological Survey Professional Paper 466, 62 p., 1965.
- 1967 **Clyde A. Wahrhaftig** (University of California at Berkeley), *Stepped topography of the southern Sierra Nevada, California*: Geological Society of America Bulletin, v. 76, p. 1165-1190, 1965.
- 1968 **David M. Hopkins** (U.S. Geological Survey), *Quaternary marine transgressions in Alaska*, in *The Bering Land Bridge*: Stanford University Press, p. 47-90, 1967.
- 1969 **Ronald L. Shreve** (University of California at Los Angeles), *The Blackhawk landslide*: Geological Society of America Special Paper 108, 47 p., 1968.
- 1970 **Harold E. Malde** (U.S. Geological Survey), *The catastrophic late Pleistocene Bonneville flood in the Snake River Plain, Idaho*: U.S. Geological Survey Professional Paper 596, 52 p., 1968.
- 1971 **A. Lincoln Washburn** (University of Washington), *Instrumental observations of mass wasting in the Mesters Vig district, northeast Greenland*: Medd. Gronland, bd. 166, nr. 4, 1967; and *Weathering, frost action, and patterned ground in the Mesters Vig district, northeast Greenland*: Med. Gronland, bd. 166, nr. 4, 1969.
- 1972 **Dwight R. Crandell** (U.S. Geological Survey), *Postglacial lahars from Mount Rainier volcano, Washington*: U.S. Geological Survey Professional Paper 677, 75 p., 1971.
- 1973 **John T. Andrews** (University of Colorado), *A geomorphological study of post-glacial uplift*: London, Institute of British Geographers, Special Publication No. 2, 156 p., 1970.
- 1974 **Robert V. Ruhe** (Indiana University), *Quaternary landscapes in Iowa*: Iowa State University Press, 255 p., 1969.
- 1975 **James B. Benedict** (Colorado State University), *Downslope soil movement in a Colorado alpine region—rates, processes and climatic significance*: Arctic and Alpine Research, v. 2, p. 165-226, 1970.
- 1976 **Geoffrey S. Boulton** (University of East Anglia), *Processes and patterns of glacial erosion*: Binghamton, State University of New York, Proceedings of the 5th Geomorphology Symposium, 1974.
- 1977 **Michael A. Church** (University of British Columbia), *Baffin Island sandurs: A study of Arctic fluvial processes*: Geological Survey of Canada Bulletin 216, 208 p., 1972.
- 1978 **Richard L. Hay** (University of California at Berkeley), *Geology of the Olduvai Gorge—a study of sedimentation in a semiarid basin*: Berkeley, University of California Press, 1976.
- 1979 **Stanley A. Schumm** (Colorado State University), *The Fluvial System*: New York, John Wiley and Sons, 338 p., 1977.
- 1980 **James A. Clark** (Cornell University), **William E. Farrel** (University of California at Berkeley), and **W. Richard Peltier** (University of Toronto), *Global changes in postglacial sea level—A numerical calculation*: Quaternary Research, v. 9, p. 265-287, 1978.
- 1981 **J. Ross Mackay** (University of British Columbia), *Pingos of the Tuktoyaktuk Peninsula area, Northwest Territories*: Geographie Physique et Quaternaire, v. 33, no. 1, p. 3-61, 1979.
- 1982 **Kenneth L. Pierce** (U.S. Geological Survey), *History and dynamics of glaciation in the northern Yellowstone Park area*: U.S. Geological Survey Professional Paper 729-F, 90 p., 1979.
- 1983 **Leland H. Gile, John W. Hawley, Robert B. Grossman** (U.S. Soil Conservation Service), *Soils and Geomorphology in the Basin and Range Area of Southern New Mexico—Guidebook to the Desert Project*: New Mexico Bureau of Mines and Mineral Resources Memoir 39, 222 p., 1981.
- 1984 **Steven M. Colman** (U.S. Geological Survey), *Chemical weathering of basalts and andesites—Evidence from weathering rinds*: U.S. Geological Survey Professional Paper 1246, 51 p., 1982.
- 1985 No award given
- 1986 **Ronald I. Dorn** (University of California at Berkeley) and **Theodore M. Oberlander** (University of California at Berkeley), *Rock varnish*: Progress in Physical Geography, v. 6, no. 3, p. 317-367, 1982.
- 1987 **Richard B. Waitt, Jr.** (U.S. Geological Survey), *Case for periglacial, colossal jokulhlaups from Pleistocene glacial Lake Missoula*: Geological Society of America Bulletin, v. 96, p. 1271-1286, 1985.
- 1988 **Peter W. Birkeland** (University of Colorado), *Soils and Geomorphology*: New York, Oxford University Press, 372 p. 1984.
- 1989 **Kevin M. Scott** (U.S. Geological Survey), *Origins, behavior, and sedimentology of lahars and lahar-runout flows in the Toulte-Cowlitz river system*: U.S. Geological Survey Professional Paper 1447-A, 74 p., 1988.
- 1990 **Arthur S. Dyke and Victor K. Prest** (Geological Survey of Canada), *Late Wisconsinan and Holocene history of the Laurentide ice sheet*: Géographie Physique et Quaternaire, v. 41, no. 2, p. 237-263, 1987.
- 1991 **Milan J. Pavich** (U.S. Geological Survey), *Processes and rates of saprolite production and erosion on a foliated granitic rock of the Virginia Piedmont*, in S.M. Colman and D.P. Dethier, eds., *Rates of chemical weathering of rocks and minerals*: New York, Academic Press, Inc., p. 552-590, 1986.
- 1992 **R. Dale Guthrie** (University of Alaska), *Frozen fauna of the Mammoth Steppe: The Story of Blue Babe*: Chicago, University of Chicago Press, 323 p., 1990.

**1992 DISTINGUISHED CAREER AWARD WINNER—
HERBERT E. WRIGHT**

The Quaternary Geology and Geomorphology Division is pleased to announce that Herbert E. Wright, Professor Emeritus at the University of Minnesota, is the 1992 recipient of the Distinguished Career Award. The

Award will be presented to Professor Wright at the Annual QG&G Awards and Business Meeting in Cincinnati on Tuesday, October 27, 1992, 7:15–9:00 PM. The following is excerpted from the letter of nomination by Allan Schneider.

Perhaps more than any other individual, Herb Wright personifies the interdisciplinary nature of Quaternary studies. In addition to his contributions to geomorphology, glacial geology, paleoecology, and palynology, he has also distinguished himself in the fields of paleolimnology, paleoclimatology, and archaeology. During the past four decades, I have watched with absolute amazement the wonderful contributions that this unpretentious man has made to Quaternary science. Herb Wright has published important papers on the Tertiary and Quaternary geology of the Southwest United States, geoarchaeology of the Middle East, and studies of several arctic and subarctic areas. However, he is best known for his work in the glacial geology, stratigraphy, and vegetational history of Minnesota, which he began in 1947. Under his direction, the Limnological Research Center at the University of Minnesota, emerged as a leading international research center in palynology, paleolimnology, paleoclimatology, and peatland and boreal ecology. During his tenure at Minnesota, he supervised nearly 30 Ph.D. and 35 M.S. students in geology, ecology, botany, and archaeology.

In addition to authoring or co-authoring more than 180 journal articles, Wright has been editor or co-editor of nearly a dozen books on the Quaternary. Best known was the monumental volume, *The Quaternary of the United States*, prepared for the 1965 INQUA meeting, which Herb co-edited with David Frey. The others include the 2-volume *Late-Quaternary Environments of the United States* (1983) and the recent DNAG volume on *North America and Adjacent Oceans during the Last Deglaciation*.

Herb Wright has also served our profession well—as associate editor of several journals, second and first vice-chair and chair of the QG&G Division of GSA, and President of AMQUA. In recognition of his distinguished career, he has been the recipient of many awards, including election to the National Academy of Science in 1977. Without question, Herb is a giant of the Quaternary and one of the most highly respected Friends of the Pleistocene in the country. He is truly worthy of this award.

Professor Wright joins the previous recipients of the Distinguished Career Award: Richard Goldthwait, Alexis Dreimanis, Lincoln Washburn, Clyde Wahrhaftig, John Hack, and Luna Leopold.

NOMINATIONS FOR 1993 DISTINGUISHED CAREER AWARD

The Distinguished Career Award was established in 1985 to recognize Quaternary geologists and geomorphologists who have demonstrated excellence in their contributions to science. The recipient need not be a member of the Geological Society of America or the QG&G Division. Nominations will be accepted at any time during the year, but the **deadline is April 15, 1993**. Nominations should be sent to the Division Secretary, Deborah Harden, and require: (1) a supporting letter of nomination documenting the contributions of the nominee, (2) three letters or signatures of additional members supporting the nomination, (3) a résumé of the candidate (such as a photocopy from *American Men and Women of Science*), along with a bibliography of the nominee's most significant papers. The Division Chair will appoint a committee to oversee the collection and completion of award nominations. The names of unsuccessful candidates proposed for the award will remain open without renomination for the following three years. Further consideration after this period will require renomination.

1992 ROBERT K. FAHNESTOCK MEMORIAL RESEARCH AWARD

Douglas R. Hardy of the Department of Geology and Geography at the University of Massachusetts, is the recipient of the Robert K. Fahnestock Memorial Research Award for 1992. The award is given annually to the student who submits the most outstanding research proposal to the Geological Society of America in the field of fluvial geomorphology. Douglas' study, "Sediment transfer from a mountainous High Arctic watershed," is being supervised by Raymond Bradley (UMASS) and Michael Retelle (Bates College).

1992 GLADYS W. COLE MEMORIAL RESEARCH AWARD

R. Craig Kochel of the Department of Geology, Bucknell University, is the recipient of the Gladys W. Cole Memorial Research Award for 1992. Craig's project is titled "Geomorphic response to small-scale cyclic climate changes, Anza-Borrego desert and vicinity, San Diego County, California. The amount of the award for 1992 was \$6000.

GLADYS W. COLE MEMORIAL RESEARCH AWARD APPLICATION FOR 1993

The Gladys W. Cole Memorial Research Award provides research support for investigations of the geomorphology of semiarid and arid terrains in the U.S. and Mexico. The amount of the award in 1993 will be \$7,000. It is given annually to a GSA Member or Fellow between the ages of 35 and 60 who has published one or more significant papers on geomorphology. The application form is available from the Research Grants Administrator, Geological Society of America, P.O. Box 9140, Boulder, CO 80301; phone (303) 447-2020. **Applications must be post-marked by February 15, 1993**, to be eligible; the award is made in April.

KEY EVENTS AT 1992 ANNUAL MEETING IN CINCINNATI OCTOBER 26–29

Division-Sponsored Symposium: Wednesday, October 28, 11:30–5:35 p.m., "History of Late Glacial Runoff from the Southern Laurentide Ice Sheet."

Division-Sponsored Theme Sessions: Monday, October 26, 1:00–3:15 p.m., "Environmental Issues in Urban Settings," sponsored jointly with Institute for Environmental Education. Wednesday, October 28, 10:00 a.m.–12:00 noon, "Origin and Nature of Meltwater Release from the Laurentide Ice Sheet and Impact on Late Glacial Oceans."

Management Board Meeting: Monday, October 26, 9:00 a.m.–12:00 noon.

Annual QG&G Business Meeting and Award Presentations: Tuesday evening, October 27, from 7:15–9:00 p.m. with a reception following from 9:00–10:30 p.m.

Short Courses of QG&G Interest: "Geographic Information System Software: Facts and Fiction," October 23–25; faculty, Stephen A. Krajewski and Betty Gibbs. "Environmental/Engineering Geology and Land-Use Planning—An Interface Between Science and Regulations," October 25; faculty, Charles W. Welby and Jerome V. DeGraff. "Paleosols for Sedimentologists," October 25; faculty, Greg H. Mack and W. Calvin James.

AMERICAN GEOMORPHOLOGY COORDINATING BOARD

The following proposal, presented by Ron Dorn, was accepted by the Geomorphology Specialty Group of the American Association of Geographers at their annual business meeting in April in San Diego. QG&G Chair Dave Mickelson will propose formalizing QG&G Division's association with the American Geomorphology Coordinating Board at the business meeting in Cincinnati and ask that two members serve as our representative. Until that time Dave will serve as our representative should that be necessary.

PROPOSAL FOR THE CREATION OF AN "AMERICAN GEOMORPHOLOGY COORDINATING BOARD"—Approved at San Diego Business Meeting, April 1992, Geomorphology Specialty Group, Association of American Geographers

Background: The International Association of Geomorphologists (IAG)

was created to coordinate the activity of geomorphologists, foster increased communication among geomorphologists, and provide a greater international awareness of the science of geomorphology. Many countries have single national organizations of geomorphologists. In contrast the United States has three major groups of geomorphologists: Geomorphology Specialty Group of the Association of American Geographers (GSG-AAG); Quaternary Geology and Geomorphology Division of the Geological Society of America (QG&G-GSA); and Hydrology Section of the American Geophysical Union (Hydrology-AGU). While geomorphologists are also found in forestry, ecology, soils, engineering, and remote sensing organizations, many of these also interact with AAG, GSA, or AGU. The lack of a single voice has created certain problems for the IAG, including a paucity of financial support, the inability to speak for U.S. geomorphologists to international scientific organizations, and the inability to represent U.S. geomorphologists to such national agencies as the National Academy of Sciences. While the GSA and AAG geomorphologists alternate nominating our representative to the IAG, this individual is not empowered to represent U.S. geomorphologists to national and international scientific organizations.

Proposal: Creation of an "American Geomorphology Coordinating Board (AGCB)."

Purpose of the AGCB: The function of the AGCB will be to enhance communication among geomorphologists within the United States, and to serve as a single representative of U.S. geomorphologists in dealing with other scientific and non-scientific organizations.

Composition of the AGCB: The AGCB will be composed of six individuals, two representatives from the Geomorphology Specialty Group of the Association of American Geographers; two representatives from the Quaternary Geology and Geomorphology Division of the Geological Society of America; and two representatives of the Hydrology Section of the American Geophysical Union.

Procedure for the start-up of the AGCB: Individuals will be nominated by the AAG, GSA, and AGU to serve a term of three years. The individual to be nominated at the annual business meetings of the geomorphologists within the GSG-AAG, QG&G-GSA, and Hydrology-AGU. The first set of terms will be staggered in such a way as to rotate new board members either earlier or later than 3 years. This will permit new board members to serve with more experienced members, providing a degree of institutional memory and continuity.

Changes to the AGCB: This agreement to establish a single voice for U.S. geomorphologists may require changes from time to time. Such adjustments will be made by resolutions in the business meetings of geomorphologists in the AAG, GSA, and AGU.

A CLARIFICATION

From the Ad Hoc Committee on the Scientific Health of Geomorphology and Quaternary Geology

In March 1991, an ad hoc committee of the Quaternary Geology and Geomorphology Division (QG&G) convened to assess the scientific health of QG&G. We discussed what we perceived as problems and concerns, opportunities, and possible steps to increase the vitality of our discipline. A summary of these discussions was presented in the August 1991 issue of the "Quaternary Geologist and Geomorphologist." At the last GSA Annual Meeting, a noon-time discussion focussed on a misconception, or at least an unexpected reaction, to one of the committee's recommendations. This comment we hope may help clarify the point we were advocating in regard to geomorphology and surficial-process studies.

Five recommendations were made in the August 1991 issue, but they can be condensed to the single judgement that highly noteworthy problems, such as possible global-climate change and its effects on landscapes, confront society, but we have had minimal participation in addressing

such problems. These problems require interdisciplinary efforts, and thus an informal umbrella organization was suggested. The purpose was to consolidate the spectrum of expertise required to address large-scale (regional to global) surface-process studies—the scale necessary if we are to participate meaningfully in the understanding of complex changes resulting from modification of Earth's atmosphere and its land, water, and biotic resources. The judgement is predicated in part on the observation that various groups, such as QG&G, represent or speak in support of geomorphic studies well, but that a similar voice is lacking for the much broader range of surface-process studies.

Studies of surficial processes are poorly coordinated and funded and are widely dispersed, in part because society has been slow to recognize the potential magnitude of their importance. We think an advocacy organization is appropriate to help coordinate the efforts of all those concerned with the study of landscape dynamics. In retrospect, we think it was inappropriate to have suggested the name "American Geomorphological Association." Our intent was not to separate geomorphology from geology, QG&G, or GSA, but simply to advocate a loosely-knit interdisciplinary group that could function independently of any other defined discipline or organization. It is unrealistic to presume that the QG&G Division does or could include all subdisciplines involved in the study of landscape dynamics. The study of landscapes must include geomorphologists, hydrologists, ecologists, paleoecologists, physical geographers, hydraulic engineers, aquatic chemists, soil scientists, meteorologists, global-climate modellers, oceanographers, and others. By combining forces under a small but representative leadership group to propose and coordinate studies, we submit that our surficial-process expertise can provide information essential to the global community. To this end we solicit continuing discussion at the next QG&G meeting in Cincinnati, and the development of a unified effort.

From: Waite Osterkamp, Ken Pierce, Milan Pavich, Vic Baker

It is emphasized that the above statement is a consensus of the ad hoc committee, not a unanimous position. Committee members Art Bloom and John Costa, especially, have voiced thoughtful dissenting views, a principal one of which was presented by Art, who feels that another organization competing for talent, time, and money would inevitably have difficulties with leadership and defined function. The clarification, as presented here, was revised in response to Art's comments, but those comments remain valid concerns that we recognize must be addressed more thoroughly. In concurrence with the clarification, Vic Baker requested that the following thoughts be included:

Background Statement: Land-Surface Process Dynamics Vic Baker, University of Arizona

The solid Earth surface is the habitat for humankind. Human beings not only inhabit this surface, they exert their maximum impact upon it and they are most intimately affected by the processes that act on or near it. Obviously, Earth's land surface is the most critical portion of the physical environment for scientific understanding.

Despite the obvious critical importance of surficial geological processes for habitability of Earth, the academic environment has fragmented land-process study across diverse disciplines, including hydrology, geography, climatology, and geology. This problem, in its hydrological context is well summarized by the recent report of the Committee on Opportunities in the Hydrologic Sciences (National Research Council, 1991a). As various national research priorities have been set for "global change" (National Research Council, 1990a; Committee on Earth Sciences, 1991) and "Earth-system science" (NASA Earth-System Sciences Committee, 1988), the original motivation of planetary habitability (Goody, 1982) is not always remembered.

A geological approach is absolutely essential for achieving scientific understanding of land-surface processes. This approach involves the

inference of probable causes for observed phenomena, and the spatial/temporal extension of knowledge of those phenomena. This geological approach complements the theoretical-predictive approach commonly used in physics and chemistry. The causative conditions that must be assumed in predictive modeling are best evaluated by geological inference, and the predicted results of those models are best related to the complex reality of the world at varying temporal/spatial scales with the aid of geological insights. These insights involve the experience-based knowledge of soil, rock, groundwater, topography, crustal structure, and processes of weathering, transport, and deposition of crustal materials.

In prioritizing the global change concerns of the International Geosphere-Biosphere Program (IGBP), the International Council of Scientific Unions (ICSU, 1986) emphasized the need to understand changes on short time scales (decades to centuries). The most spectacular short-term changes arise from cataclysmic processes, such as earthquakes, flooding, and other storm-triggered episodes (mass movement, coastal erosion, and soil erosion). These processes have been emphasized for concern by the International Decade for National Disaster Reduction (IDNDR), initially proposed by the U.S. (National Research Council, 1987). The U.S. advocates a new approach to disaster reduction (National Research Council, 1991b) that includes "understanding of the causes of disasters" to "provide a foundation for improved planning."

Another area of critical importance to planetary habitability is waste disposal. Again, the geological approach to the problem, while critical, does not always receive emphasis. The point was made clearly by the National Research Council (1990b): "One scientifically sound objective of geological modeling is to learn, over time, how to achieve reasonable assurance about the long-term isolation of radioactive waste. That objective is profoundly different from predicting quantitatively the long-term behavior of a repository. Yet, in the face of public concerns about the safety of HLW disposal, it is the latter use to which models have been put." In our program of geological training, researchers will gain experience with the process of implementing the "scientifically sound objective." Moreover, the program will generate insights to the broad range of Earth-surface processes that pose problems to hazardous waste disposal, complementing the prevailing emphases on subsurface contaminant transport analyzed by ground-water fluid process modeling.

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THANKS TO QG&G MEMBERS WHO HELPED THE DIVISION

The Management Board, on behalf of the membership, thanks those members who generously donated their time and energy to the Division during the past year.

Division Panel: P. Thompson Davis, Bentley College; Carolyn H. Eyles, McMaster University; Thomas W. Gardner, Pennsylvania State University; Leslie D. McFadden, University of New Mexico; Richard B. Waitt, U.S. Geological Survey; and William J. Wayne, University of Nebraska.

At-Large Member, Mackin Grant Committee: Athol Abrahams, SUNY- Buffalo; Nicholas Coch, Queens College; Darrell Kaufman, University of Colorado; and Dorothy Merritts, Franklin and Marshall College.

Outside Member, Cole Award Committee: Ben A. van der Pluijm, University of Michigan.

Committee on Scientific Health of QG&G: Victor R. Baker (Chair), University of Arizona; Arthur L. Bloom, Cornell University; John E. Costa, U.S. Geological Survey; William E. Dietrich, University of California-Berkeley; Waite R. Ostercamp, U.S. Geological Survey; Milan J. Pavich, U.S. Geological Survey; Kenneth L. Pierce, U.S. Geological Survey; and Cathy Whitlock, University of Oregon.

Committee on Environment: John Vitek, Oklahoma State University; Marie Morisawa, SUNY-Binghamton; Gary McKenzie, Ohio State University; and Jack Ridge, Tufts University.

QG&G Standing Committee on Educational Problems and Issues: About a dozen people responded to our request for help in the last newsletter. Brian Tormey (Penn State—Altoona) will help organize the committee before the Cincinnati meeting.

Reviewers of Abstracts for 1992 Meeting: Steven Kite, West Virginia University; Stephen Wells, University of California, Riverside; David Mickelson, University of Wisconsin.

Richard F. Madole continues to take an active role in the administration of the Division and was a representative of the Division at the 1992 Joint Technical Program Committee along with Steve Wells.

RICHARD P. GOLDTHWAIT

Richard P. Goldthwait passed away in Wolfeboro, New Hampshire, on July 7, 1992. There will be a memorial service for him on Friday, October 30 at 10:30 am at The Ohio State University Fawcett Center, 2400 Olentangy River Road in Columbus. People attending the GSA meeting in Cincinnati may wish to make travel arrangements that include the memorial service. Contact Gary McKenzie (614-422-0655) for further information.

RICHARD J. JANDA, 1939-1992

Richard J. Janda, a geologist at the U.S. Geological Survey, Cascades Volcano Observatory in Vancouver, Washington, died on May 4, 1992, following a brief illness. Dick's 31-year Survey career included work in the Sierra Nevada and Central Valley of California, in coastal California and Oregon, and at Mount St. Helens and numerous other volcanoes around the world. In addition, he served as visiting professor at University of California-Berkeley, Pennsylvania State University, and University of California-Santa Cruz.

Throughout the 1970s, Dick's research focused on the impact of land-management practices on erosion and sediment transport in the landslide-prone terranes of northwestern California and southwestern Oregon. During that time he served on various advisory panels concerned with methods of protecting Redwood National Park. His research and testimony resulted in expansion of the park, revision of the California

Forest Practices Act, and modification of U.S. Forest Service timber management in California and the Pacific Northwest.

Dick's expertise and interest in surface processes in impacted watersheds led him to Mount St. Helens following the 1980 eruption, where he studied the huge debris avalanche, lahars, stream processes, and sediment production. He worked effectively in helping governmental agencies, land managers, and citizens understand the hazards associated with ongoing eruptions and the dynamically changing landscape. Dick cared greatly about reducing the hazards associated with volcanic activity and its hydrologic aftermath as well as with nonvolcanic surface processes. He shared his expertise with colleagues in many countries including Colombia, Ecuador, Japan, China, Indonesia, and The Philippines. At erupting or restless volcanos such as Nevado del Ruiz, Galeras, Redoubt, and Pinatubo, he provided critically needed advice to public officials who had to make difficult decisions to protect lives and property.

"Dr. Entropy's" incredible energy, keen questioning mind, and infectious good humor will be greatly missed, but his life has and will continue to be a source of inspiration to his colleagues. Many friends and colleagues shared tributes and stories about Dick at a memorial service on May 10, followed by a gathering at the Janda home. Dick is survived by his wife, Christine, a scientific illustrator at the USGS; a son, Thor, 27; and a daughter, Janel, 22.

FRIENDS OF THE PLEISTOCENE NEWS AND 1992 FIELD TRIPS

Rocky Mountain Cell: September 11-13, 1992

Ken Pierce (US Geological Survey-Denver) and John Good (National Park Service) are organizing a trip to Jackson Hole, Wyoming, that focuses on glacial history and includes discussion of neotectonics, archeology, soils, and vegetation history. Announcements and registration materials have been sent out, but if you need information contact Kenneth L. Pierce (FOP), U.S. Geological Survey, MS 913, Box 25046, Federal Center, Denver, CO 80225.

Pacific Cell: Southwest/Northwest Split Proposed

At the Pacific Cell trip in Humboldt County, California, in June 1992, Scott Burns (Portland State University) proposed splitting the cell into Pacific Southwest and Pacific Northwest cells. As the area of the Pacific cell is large, the split would provide participants a trip closer to home and, for FOP die-hards, the opportunity to attend two trips in the Pacific region each year. The group appeared to favor the proposal. Scott and Kurt Peterson (also of PSU) will lead a trip to the northern Oregon Coast in Spring 1993 to inaugurate the Pacific Northwest Cell. But the future of the cell(s) is uncertain as there was no proposal for a Pacific Southwest trip and the northwesterners will use the Pacific Cell mailing list. In any case, Scott and Kurt will focus on issues of neotectonics and coastal terraces—more information will be forthcoming. The split will probably be discussed more during the 1993 trip.

Southeastern Cell: November 13-15, 1992

G. Richard Whittecar (Old Dominion University), R. Craig Kochel (Bucknell University), and J. Steven Kite (West Virginia University) will lead a trip "Boulder Streams, Debris Fans, and Alluvial Fans in the Blue Ridge and Shenandoah Valley of West-Central Virginia." Join them to visit Quaternary debris fans and some extraordinary exposures of Quaternary to Tertiary alluvial fan sediments. Some fans have multiple surfaces that display wide variations in soil development and clast weathering. The interpretations of radiocarbon dates in some fans and the distribution of fan surfaces may have broad regional significance to climatic and tectonic models. Boulder streams fill chutes that lead downhill to debris fans and they provide evidence about both periglacial and interglacial processes. Registration forms have been sent out; if you need one contact Rich Whittecar at Department of Geological Sciences, Old Dominion University, Norfolk, VA 23529, or phone (804) 683-4301.

FIRST WINNER OF JONATHAN O. DAVIS SCHOLARSHIP Quaternary Sciences Center Desert Research Institute

Stan L. Soles of the Department of Geology, San Jose State University, is the first winner of the Jonathan O. Davis Scholarship, from the Quaternary Sciences Center of the Desert Research Institute. Stan's study, "Age investigation of the Tahoe moraine at Bloody Canyon using tephrochronology," is being supervised by Deborah Harden (SJSU) and Andrei Sarna-Wojcicki (USGS).

JONATHAN O. DAVIS SCHOLARSHIP Quaternary Sciences Center Desert Research Institute

Jonathan O. Davis, a prominent U.S. geologist and geoarchaeologist, was tragically killed in an automobile accident in December 1990. The family and friends of Jonathan have established an endowment which provides monies for the Jonathan O. Davis Scholarship. This scholarship will be given annually to support the field research of a graduate student working on the Quaternary geology of the Great Basin or surrounding areas. The initial grant will be \$750. The scholarship, administered by the Quaternary Sciences Center of the Desert Research Institute, is open to graduate students enrolled in a M.S. or Ph.D. program at any U.S. university. Quaternary geology as used here encompasses a wide range of topics normally considered as part of Quaternary science. The research, however, must have a substantial geologic component or demonstrate a strong reliance on geologic techniques.

Applications should include (1) a current resume or vita, (2) a two-page (single-spaced) description of the thesis/dissertation research which also clearly documents the geologic orientation and research significance, and (3) a letter of recommendation from the thesis/dissertation supervisor that emphasizes the student's research ability and potential as a Quaternary scientist.

Applications must be received by February 1, 1993, so that the scholarship can be utilized in the subsequent summer. Applications should be addressed to: Executive Director, Quaternary Sciences Center, Desert Research Institute, P.O. Box 60220, Reno, NV 89506.

If you wish to help the endowment grow, contributions may be sent to the above address. Checks should be made out to the Board of Regents-DRI. Please indicate on the check or in a separate note that the donation is for the Jonathan O. Davis Scholarship Fund.

SUBSCRIPTION OFFER FOR "GEOMORPHOLOGY"

Those of you who gave your names to Debbie Harden and have been waiting to hear from Elsevier will be happy to find an enclosure in this newsletter that explains how to obtain a reduced-rate subscription for the journal, *Geomorphology*.

BINGHAMPTON GEOMORPHOLOGY SYMPOSIA

The 24th symposium will be held August 25, 1993, as part of the Third International Geomorphology Conference (see below) at McMaster University in Hamilton, Ontario, Canada. J.D. Vitek (Oklahoma State University) and J.R. Giardino (Texas A&M) are organizing a symposium of invited papers on **Geomorphology: the Research Frontier and Beyond**.

TENTH SYMPOSIUM ON COASTAL SEDIMENTOLOGY

The 10th Symposium on Coastal Sedimentology will be held as part of the Third International Geomorphology Conference (see below), McMaster University, Hamilton, Ontario, Canada. The topic will be Beach Ridges. William F. Tanner (Geology Department, Florida State University, Tallahassee, FL 32306) is organizing the Coastal Sedimentology Symposium; contact him for more information.

**THE OTHER KIND OF DATING GAME—
SCIENCE CONNECTION, INC.**

A network to bring together singles in science

Science professionals and academics who are unattached often report difficulty in finding dates or mates who are intellectually compatible. In answer to this problem, a singles network has been started specifically for people interested in science or nature. Begun in 1991, "Science Connection" has over 700 members across North America, ranging in age from 20 to 78. Organizers expect the network to number in the thousands within a year or two. A majority of members have science-related jobs, but many are amateurs, with occupations ranging from farming to law. All have a curiosity about natural phenomena, and many enjoy outdoor pursuits, especially nature-related ones.

According to coordinator, Anne Lambert, the network facilitates contacts among members rather than trying to match up people. For an annual fee of \$60 (US), members receive monthly listings of short profiles of members of the opposite sex, and can obtain the "biographical profile sheet" of members they'd like to know more about. They then contact each other directly.

Articles about "Science Connection" have appeared in periodicals ranging from *Science* to *The Wall Street Journal*; it has also caught the attention of both NPR and CBC.

For more information write to: Science Connection, P.O. Box 188, Youngstown, NY 14174, or call 1-800-667-5179.

**THIRD INTERNATIONAL
GEOMORPHOLOGY CONFERENCE**

**With 24th Binghampton Symposium
and 10th Symposium on Coastal Sedimentology**

**International Association of Geomorphologists
23-29 August 1993, McMaster University**

The second circular with registration, abstract, and field excursion details has been sent out; a third circular will be mailed in March 1993 to all persons who have completed advanced registration. Deadline for advanced registration, abstracts, and 20% deposit for field conference excursions is December 31, 1992. For more information contact Third International Geomorphology Conference, Department of Geography, McMaster University, Hamilton, Ontario, Canada L8S 4K1, (416) 525-9140 Ext. 4535, FAX (416) 546-0463, E-Mail GEOMORPH.



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