

# Quaternary Geologist and Geomorphologist

NEWSLETTER OF THE QUATERNARY GEOLOGY AND GEOMORPHOLOGY DIVISION

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**JUNE 1982** 

# SUGGESTIONS WANTED FOR THE DIVISION PROJECT FOR THE DECADE OF NORTH AMERICAN GEOLOGY (DNAG)

The Society has extended the following invitation to all Divisions: "GSA welcomes proposals from its Divisions for scientific publications to recognize its Centennial. Such publications (books, maps, charts) should synthesize and advance the state of knowledge of disciplines or subdisciplines. Support for publication, but not for manuscript preparation, will be provided through GSA's conventional publications procedures or, if the publication is closely related to North American geology, it may, on the recommendation of the DNAG Steering Committee, be published as part of the DNAG

series using DNAG funds."
Each volume will be 8 1/2 x 11 inches in size and about 400 pages long. The volumes will be published in time to commemorate the GSA Centennial in 1988, and will be available for the 28th International Geological

Congress when it meets in the United States in 1989. Topics suggested for the Division volume to date include: (1) a summary of the "state of knowledge" of nonglacial Quaternary stratigraphy, (2) geomorphology and neotectonics, (3) frontiers in Quaternary geology, (4) topics that would interface with those of the volumes of other Divisions, such as Archeological

Geology and Tectonics, and (5) applied geomorphology. The Division Management Board would like to have more input from the membership with regard to themes for the DNAG volume.

This is an excellent opportunity for the Division to make a contribution that is unique, timely, and comprehensive presented in a stylish format. If you wish to make suggestions about the theme, title, or content of the DNAG volume, write or call the Division Secretary, Richard F. Madole, U.S. Geological Survey, Box 25046, MS 913, Denver, CO 80225; (303) 234-5258. Your input, however, must be received by September 15, 1082 in order to be considered in the planning that 1982, in order to be considered in the planning that will begin prior to the Annual Meeting in New Orleans in October. Suggestions need not be elaborate, nor carefully composed. Selection of a theme is the principal goal at this point. Of course, the sooner your suggestions are received, the better, as it will leave more time for additional thought and interaction before decisions are made in October. A plan that identifies topic(s), chapters, authors, and graphics must be completed by April 1983.

### 1982 KIRK BRYAN AWARD

The Quaternary Geology and Geomorphology Division has named Kenneth L. Pierce as the recipient of the 1982 Kirk Bryan Award for his paper History and dynamics of glaciation in the northern Yellowstone Park area: U.S. Geological Survey Professional Paper 729-F, 90 p., 1979.

The award will be presented during the Quaternary Geology and Geomorphology luncheon and business meeting that will be held during the GSA Annual Meeting in New Orleans, October 18-21, 1982.

# GLADYS W. COLE MEMORIAL RESEARCH AWARD

The first Cole Grant has been awarded to William J. Breed, Flagstaff, Ariz., for research on the processes that form and control the distribution of giant star dunes in Gran Desierto, northwest Sonora, Mexico. The amount of the award this year is \$1,200.

In accordance with the guidelines specified by the

donor, this grant is restricted to investigation of the

geomorphology of semiarid and arid terrains in the United States and Mexico. It will be given each year to a GSA Fellow between 35 and 60 years of age who has published one or more significant papers on geomorphology.

# 1982 MACKIN GRANT WINNERS

Thomas F. Bullard, Master's degree candidate, University of New Mexico, has been awarded a Mackin Grant of \$500 for study of the Quaternary geomorphic evolution of a tributary to the Chaco River, northwestern New Mexico, and the influence of bedrock on complex geomorphic responses within a large drainage system. J. Steven Kite, Ph. D. candidate, University of Wisconsin, has been awarded a Mackin Grant of \$500 for study of the late-glacial and Holocene environmental history and Holocene alluvial chronology in the St. Johns River drainage basin, northern Maine and southern New Brunswick and Quebec.

PROPOSALS WANTED FOR DIVISION-SPONSORED SYMPOSIUM, 1984 JOINT MEETING, NORTH-CENTRAL AND SOUTHEAST SECTIONS, GSA

The first joint meeting of the North-Central and Southeast sections of GSA will be held at the University of Kentucky, Lexington, April 1984. William I. Ausich, Wright State University, and John Thrailkill, University of Kentucky, are Program Co-Chairmen. They want to include a symposium sponsored by the Quaternary Geology and Geomorphology Division in the program, and have requested assistance in identifying prospective organizers within the Division. Joint organization and chairing by representatives of the two sections would seem to be most appropriate, but it is realized that this may not be possible for all divisions. The facilities in Lexington are good, but because the meeting is expected to attract a large audience and many papers, only a limited number of symposia can be accommodated. The Program Co-Chairmen will meet shortly after January 1, 1983, to decide which symposia can be fit into the program. Symposia will be selected on the basis of one-page proposals that indicate the topic, organizer(s), and sponsorship. Contact either William I. Ausich, Department of Geological Sciences, Wright State University, Dayton OH 45435, or John Thrailkill, Department of Geology, University of Kentucky, Lexington, KY 40506, if you have any questions.

## NOMINATIONS NEEDED FOR THE KIRK BRYAN AWARD FOR 1983

The next time you read an impressive paper dealing with geomorphology or a related field in Quaternary geology, published within the past five years, consider nominating it for the Kirk Bryan Award. The Division depends on the membership to draw attention to significant new contributions before they become ineligible for this award.

Any member may nominate a paper for the Kirk Bryan Award at any time simply by identifying the paper and supplying a brief statement about its significance. Send the nomination to the Division Secretary, Richard F. Madole, U.S. Geological Survey, Box 25046, MS 913, Denver, CO 80225. Ideally, nominations for the Kirk Bryan Award for 1983 should be received by December 15, 1982, to allow the Committee, which consists of the six members of the Division Panel, time to read and evaluate the papers nominated. However, nominations will be accepted until January 30, 1983.

The Kirk Bryan Award is for a specific paper, rather

The Kirk Bryan Award is for a specific paper, rather than for many years of distinguished contributions. The Penrose Medal, not the Kirk Bryan Award, is the instrument for recognizing distinguished careers. Also, it should be noted that papers written by more than one person are eligible for nomination. Co-authored papers won the award in 1958 and in 1980. Previous winners of the Kirk Bryan Award are listed below.

- 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.
- $\frac{\text{1959, Jack L. Hough (University of Illinois), } \underbrace{\text{Geology of}}_{\text{p., 1958.}} \text{University of Illinois Press, } 313}_{\text{p.}}$
- 1960, John F. Nye (University of Bristol), The distribution of stress and velocity in glaciers and lice sheets: Royal Society Academy, Proceedings A, v. 239, p. 113-133, 1957.

- 1961, John T. Hack (U.S. Geological Survey), Studies of Iongitudinal stream profiles in Virginia and Maryland: U.S. Geological Survey Professional Paper 294B, 97 p., 1957.
- development of mountain slopes in Karkevagge and surroundings, northern Scandinavia: Geografiska Annaler, v. 42, p. 71-200, 1960.
- 1963, Arther 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.
- 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-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, 55 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
  1 and Scapes in Iowa: Iowa State University Press, 255
  p., 1969.
- 1975, James B. Benedict, 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,
  Geomorphology Symposium, 5th, Proceedings, 1974.
- 1977, Michael Church (University of British Columbia), Baffin Island sandur: Geological Survey of Canada, Bulletin 216, 208 p.

- 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.
- 1979, Stanley Schumm (Colorado State University), The Fluvial System: Geological Society of America Bulletin.
- 1980, James A. Clark, William E. Farrell, W. Richard
  Peltier, 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: Geographical Physical Quaternary, v.
  33, no. 1, p. 3-61, 1979.

### MACKIN FUND

As noted in the January 1982 Newsletter, the Management Board authorized that two Mackin Grants be awarded annually beginning in 1982. One grant will be awarded to a Master's degree candidate and one to a Ph. D. candidate. This change helps Master degree candidates by eliminating competition with the generally more elaborate proposals received from Ph. D. candidates. However, it also increases the demand on the Mackin Fund. Half of the Division fund balance remaining at the end of 1981 was transferred to the Mackin Fund to meet the increased demand. Even so, support from individuals such as those listed below continues to be needed. Contributions may be made in any amount and sent to the Executive Director, The Geological Society of America, P.O. Box 9140, Boulder, CO 80301

Recent contributors to the Mackin Fund include: Michael Church Dwight L. Schmidt

# DIVISION-SPONSORED EVENTS AT THE 1982 ANNUAL MEETING, NEW ORLEANS

The Division is sponsoring a premeeting field trip, two symposia, and a luncheon at the Annual Meeting in October 1982. James Coleman and David Pryor, Coastal Studies Institute, Louisiana State University, will lead a premeeting field trip concerned with 'Mississippi River delta depositional environments." John T. Andrews, has organized a half-day symposium entitled "Quaternary geology and chronology of Arctic areas." Gifford H. Miller, P. E. Hare, and John F. Wehmiller have organized a "Sunday at large" symposium entitled "Amino acid geochronology: applications to late Cenozoic geology." The Division luncheon is scheduled for Wednesday, October 20, from 1130 to 1330.

### MEETINGS IN 1982

June 28-30. . . . AMQUA, Seventh Biennial Meeting, Seattle, Washington

August 1-9. . . . XI INQUA Congress, Moscow, USSR

August 22-28. . . . International Association of Sedimentologists 11th International Congress on Sedimentology, McMaster University, Hamilton, Canada

August 23-27. . . . Second Symposium on Applied Glaciology by the International Glaciological Society, Hanover, New Hampshire

August 23-27. . . . Sth Symposium on Prospecting Glaciated Terrain, St. John's Newfoundland

October 18-21. . . . Geological Society of America Annual Meeting, New Orleans, Louisiana