



The Hydrogeologist

NEWSLETTER OF THE HYDROGEOLOGY DIVISION OF THE GEOLOGICAL SOCIETY OF AMERICA, SEPTEMBER 1979

1979 MEINZER AWARD GOES TO

JOHN M. SHARP, JR., and PATRICK A. DOMENICO

The 1979 Meinzer Award Panel, consisting of Eugene Simpson (Chairman), John Cherry, Martin Mifflin, Philip Cohen, and Irwin Remson, has named John M. Sharp, Jr., and Patrick A. Domenico the recipients of the 1979 Meinzer Award for their paper, "Energy Transport in Thick Sequences of Compacting Sediment": *Geological Society of America Bulletin*, 1976, v. 87, no. 3, p. 390-400.

Past records of award-winning papers indicate that this is the first paper selected from GSA's *Bulletin* publication; a previous selection was published by GSA in a special-interest volume. The award will be presented at the Division's luncheon-business meeting in San Diego on Tuesday, November 6, 1979, from 1200 to 1600 hours, in the Sunset Room, Town and Country Hotel.

1979 ANNUAL MEETING AT SAN DIEGO

There will be several sessions of interest to hydrogeologists at the 1979 Annual Meeting to be held at the Town and Country Hotel, San Diego, California, November 5-8, 1979. The Division will sponsor two general sessions consisting of a total of 20 papers, 15 minutes each, on Monday morning, November 5 (California Room) and afternoon (San Diego Room).

The poster session of five papers will be Tuesday morning, November 6, followed by the luncheon-business meeting from 1200 to 1500 hours (Sunset Room). Admission to the luncheon is by ticket (\$8.00), available by preregistration or purchase at the registration desk up to 24 hours before the meeting.

A symposium on "Water Quality Management" consisting of 8 papers, 25 minutes each, will be held Wednesday morning, November 7 (San Diego Room).

The schedule of Hydrogeology Division-sponsored events affords a minimum of overlap with Engineering Geology and Geochemistry sessions.

On Saturday, November 3, 1979, there will be a pre-convention field trip, "Water Management Practices in Coastal Southern California," led by Darwin Knochenmus, William Hardt, and John Mann. Re-use of water, artificial recharge, water treatment, and salt water encroachment prohibition will be examined between San Diego and Los Angeles. The all-day trip will depart from the Town and Country Hotel and will cost \$15.00 for bus fare, box lunch, and printed

material. The maximum number of participants is 44; pre-registration is strongly recommended.

1980 MEETING AT ATLANTA

The 1980 Annual Meeting will be held November 17-20, 1980, at the Marriott Hotel, Atlanta, Georgia. Paul R. Seaber will be Program Chairman for the Hydrogeology Division. He can be reached at U.S. Geological Survey, 325 John Knox Road, Suite F-240, Tallahassee, Florida 32303 (904-386-1118) and welcomes suggestions for the technical sessions. The Field Trip Chairman and plans for the field trip will be announced at the business meeting, November 6.

HIGHLIGHTS OF THE 1978

ANNUAL MEETING AT TORONTO

John A. Cherry, Program Chairman, organized an outstanding program for the 1978 Annual Meeting, Toronto, Canada, October 23-26, 1978. (It had been 25 years since GSA last had its annual meeting in Canada.) In addition to the general session the Division sponsored two symposia: "Dispersion in Groundwater Flow Systems" and "Geochemical Models in Groundwater Evolution." Other technical sessions of interest were: "Environmental Geochemistry of Radionuclides" and "Disposal of High-Level Radioactive Waste: The Canadian Program." The field trip was on "Hydrogeology and Subsurface Waste Disposal in the Toronto Area."

The annual luncheon and business meeting was held in the Upper Canada Room, Royal York Hotel, October 23, 1978. Seventy members attended. The minutes of the meeting prepared by Richard L. Cooley, 1978 Secretary-Treasurer, follow:

The meeting was opened at 1:05 p.m. by Chairman Steven M. Born. Born then introduced the people at the head table: Robert J. Dingman, 1978 Second Vice-Chairman and 1979 First Vice-Chairman; John E. Stone, 1979 Second Vice-Chairman; Claire B. Davidson, 1979-1980 Secretary-Treasurer; Richard L. Cooley, 1977-1978 Secretary-Treasurer; Keros Cartwright, 1978 First Vice-Chairman and 1979 Chairman; and John A. Cherry, 1978 Division Program Chairman.

The first item of business was the Secretary-Treasurer's report by Richard Cooley. Cooley called for approval of the minutes of the 1977 annual business meeting, gave the treasurer's report as of June 30, 1978, and reported on ballots cast for the 1979 management board. For Chairman Cartwright, 161 votes were cast with no write-

ins; for First Vice-Chairman Dingman, 155 votes were cast with three write-ins; for Second Vice-Chairman Stone, 157 votes were cast with two write-ins; and for Secretary-Treasurer Davidson, 156 votes were cast with one write-in.

Cooley read the necrology list since the 1977 business meeting: Richard M. Eastwood, Otto H. Haas, and Leopold A. Heindl.

Cooley reported that the three amendments dealing with procedures for selecting the O. E. Meinzer awardee and with treatment of the principal of the John Birdsall bequest passed. They are now part of the bylaws of the Division.

Small replica Meinzer bowls approved for purchase at the 1976 annual meeting were presented to those former O. E. Meinzer awardees present at the 1978 meeting: George H. Davis, William Back, Bruce B. Hanshaw, R. Allan Freeze, Paul A. Witherspoon, and Shlomo P. Neuman. Those awardees not present will receive their replica bowls by mail after the Toronto meeting. The bowls will subsequently be presented to Meinzer awardees at the time the Meinzer award and certificate are given out.

The 1978 Meinzer award was presented by Eugene S. Simpson, 1978 Meinzer Award Panel Chairman, to R. William Nelson for his paper "Evaluating the environmental consequences of ground-water contamination," which appeared as BSC Richland report 6/UC-11, December, 1976. In his speech Simpson cited Nelson's biography and the background leading to the paper. Nelson in turn gave his appreciation for his professional background, for his family background, and to colleagues and teachers who aided him. Nelson reported that major challenges are to develop methods to measure quantities in and over-all quantification of actual ground-water systems, and to assure effective communication of results to managers and other users.

Chairman Born announced that William Back is to be the 1979 Birdsall Distinguished Lecturer. He also discussed Back's suggestions concerning arrangement of the lectureship by academic year, as reported in the September, 1978, Hydrogeologist.

John Cherry gave the agenda for Division events and events of potential interest to Division members at the Toronto meeting. He remarked that in the future more papers should be submitted in order to ensure enough papers for a hydrogeology general session.

John Mann, 1979 Division Program Chairman, was not present so Born announced preliminary plans for the 1979 meeting at San Diego. He indicated that Darwin Knochenmus had agreed to serve as Field Trip Chairman and that plans are being made for a symposium on water quality management and a field trip on ground-water management in Southern California.

Dave Stephenson, as GSA representative to the U.S. Committee on Scientific Hydrology, gave the report on the International Hydrological Program, with which the Committee is affiliated. He reported that as Executive Secretary of the Committee, Leopold Heindl had put together a position paper of the Committee detailing U.S. cooperation together with research and education efforts.

Leonard Wood reported that the International Association of Hydrogeologists was undergoing organization pains and asked the members to please bear with them.

Born reported that Conference Travel Services, a private travel organization, had requested to promote low cost transportation to foreign meetings, specifically the July 1979 ground-water meetings in USSR, for Division members. He asked for recommendations. The suggestion was made to contact the U.S. National Committee on Scientific Hydrology to see if they plan to send a delegation and, if so, if they plan to use the agency. George White suggested that the management board investigate the agency and also the services, prices, etc. of other firms. George Davis made a motion to that effect and added that the management board then pick the appropriate firm. The motion was seconded and passed.

Bruce Hanshaw reported on the status of Penrose Conferences. Of the 54 conferences held in the past, six had been sponsored by the Division. In addition, one more was planned for November, 1978. Letters soliciting more conferences had been sent out to other societies, organizations and other GSA sections. Dave Stephenson asked for suggestions for further hydrogeologically oriented Penrose Conferences.

Dave Stephenson discussed the Division regional representatives as indicated in the September, 1978, Hydrogeologist. He suggested that the duties and length of service of the representatives be firmed up or that the representative system be disbanded and the management board take over the duties. He then asked for further suggestions. Eugene Simpson suggested that the board appoint a representative for each regional meeting, and Born suggested that Vice-Chairman take over the duties. Stephenson pointed out that the program chairmen for the regional meetings are almost never Division members and that some system is necessary to ensure active participation by hydrogeologists. George Davis suggested that, until the system is fully evaluated, a Vice-Chairman supervise the regional representatives. The consensus was that this idea be followed for the next year or so.

William Back summarized progress on the Maxey memorial volume. This is to be a volume of papers written by friends and colleagues of the late G. B. Maxey to be published by the Journal of Hydrology. Back reported that some papers are somewhat late but that otherwise the progress is satisfactory.

Allan Freeze announced that a symposium entitled "Recent Trends in Hydrogeology" is being organized for February 8-9, 1979, by the Earth Sciences Division of Lawrence Berkeley Laboratory in honor of Paul Witherspoon's sixtieth birthday. He indicated that papers are invited but that anyone may attend. Freeze suggested that GSA sponsor publication of the papers given at the symposium as a Special Paper. He requested a letter from the Division indicating nonfinancial support of the idea. George Davis moved for enthusiastic support of this plan and the motion was seconded. In subsequent discussion of the motion, Harry LeGrand wondered about obtaining review and approval by GSA. Freeze also indicated the possibility that there may not be enough copies of the volume sold to break even financially. The motion was passed unanimously.

Born opened the meeting to other business. Freeze suggested that, since the firm Conference Travel Services has indicated that for every 15 tickets sold the 16th is free, the 16th ticket be given to the current Meinzer awardee. Keros Cartwright asked for suggestions to make the election of officers more democratic. Bruce Hanshaw suggested announcement of a slate of officers considered elected unless some designated number of people object. Freeze indicated that competitive elections are not good because losers may not want to run again, and the potential list of candidates is not large anyway. Born agreed and further suggested that competitive elections could be divisive. He also suggested bylaw changes to implement Hanshaw's idea, and for the next management board to deal with the issue.

DAVE STEPHENSON, BIRDSALL DISTINGUISHED LECTURER

The third Birdsall Distinguished Lecturer is Dave Stephenson of Woodward-Clyde Consultants, San Francisco, California. Prior to his new position, Dr. Stephenson was with the University of Wisconsin, Madison. During the tour he will present talks and seminars on "Hydrogeologic Aspects of Energy Development" and "The Challenge for Earth Scientists in Water Resources."

A firm itinerary has not been established at this time, but it will coincide with the 1979-1980 academic year. If you

would like your institution to be considered a part of Dr. Stephenson's Distinguished Lecture Tour, please contact William Back, Coordinator, Birdsall Lecture Tour, U.S. Geological Survey, WRD, 432 National Center, Reston, VA 22092 (703-860-6951).

PENROSE CONFERENCE OF DIVISION INTEREST

T. N. Narasimhan, Lawrence Berkeley Laboratory; W. N. Houston, University of California; and Amos Nur, Stanford University, will convene a Penrose Conference on the "Role of Pore Pressure on Deformation in Geologic Processes" on November 8-12, 1979, in San Diego, California. Many field problems in earth sciences are related to pore pressure and deformation. Comprehension of the physics of the phenomena involved is essential to understanding these problems. Research work on these phenomena is being pursued by scientists of different disciplines, including hydrogeology, structural geology, geophysics, seismology, soil mechanics, soil physics, and petroleum engineering. The purpose of the conference is to convene these scientists to discuss the latest developments in the understanding of the relationships between deformation and pore pressure. Sessions will include talks and discussions on mechanisms of pore-pressure generation, effective stress laws; stress-strain relations and material properties; failure criteria; induced seismicity; liquefaction; subsidence, fault movements, and earth fissures; hydraulic fracturing; response of aquifers to Earth tides; and stability of natural slopes.

INTERNATIONAL HYDROLOGIC PROGRAM

Dave Stephenson is the GSA delegate to the U.S. National Committee on Scientific Hydrology which coordinates U.S. activity in the International Hydrologic Program (IHP). Paul Witherspoon is the alternate.

The IHP Committee on the "Influence of Man on the Hydrologic Cycle," of which Stephenson is a member, will convene at UNESCO, Paris, France, November 1979. The purpose of the meeting is to discuss further implementation of the second phase of IHP, which is concerned with education and training for developing countries and continued support for scientific programs. Plans for the beginning of the third phase, 1981-1986, will be discussed.

1980 MEETING OF INTERNATIONAL ASSOCIATION OF HYDROGEOLOGISTS

Leonard A. Wood, Chairman, and John E. Moore, Secretary-Treasurer, U.S. National Committee, International Association of Hydrogeologists (IAH), report that the General Assembly of IAH will be held in Paris, France, July 7-17, 1980, in conjunction with the 26th International Geological Congress (IGC) which will celebrate the centennial of IGC. Section 15, Hydrogeology, will be concerned with three themes: (1) Contribution of lithostratigraphy and structural analysis to the understanding of aquifer systems and to the evaluation of their sources of supply; (2) Hydrogeological studies of aquifer basins or systems: quantitative methods of evaluating reserves and resources; (3) Regional syntheses or methodological studies showing attempts at quantifying hydrological data.

William Back, second Birdsall Distinguished Lecturer, will chair an inter-sectional symposium with Section 10, Geo-

chemistry, on "Geochemistry of Underground Waters and Reservoir Rocks."

Several pre- and post-convention field excursions on hydrogeology will be held in Europe in addition to one-day excursions during the Congress. For information write to:

The Secretary General

26th International Geological Congress, Maison de la Géologie
77-79 rue Claude-Bernard, 75005 Paris, France

GEORGE BURKE MAXEY MEMORIAL VOLUME

A prominent hydrogeologist, a founder of the Hydrogeology Division, and 1971 Meinzer Award recipient, Dr. Maxey was Director of the Water Resources Center, Desert Research Institute, University of Nevada, Reno, Nevada, at the time of his sudden death in 1977.

The Memorial Volume consists of papers prepared by Dr. Maxey's students and close colleagues and is being published by the *Journal of Hydrology*. A specially bound copy of the volume will be presented to Jane Maxey at the Division's annual luncheon-business meeting, Tuesday, November 6, San Diego, California.

REVISION OF AMENDED BYLAWS

Before ratification by Council, GSA suggests the following revision of the amended bylaws as approved by Division affiliates in 1978:

3. O. E. Meinzer Award Committee

(e) Selection procedure

7. As approved by affiliates, 1978:

The chairman of the Hydrogeology Division, either alone or with the help of the other officers, shall select the winning paper. Normally this will be the paper with the lowest score, unless there is a strong reason to select one of the other two. The division chairman shall then *notify the author(s) of the paper selected and present the award to the author(s) or their representative(s) at the annual meeting of the division*. If the winner(s) or their representative(s) are not present at the annual meeting, the division chairman will present the award in absentia, and mail the certificate(s) and miniature silver (Revere-style) bowl(s) to the author(s).

7. GSA revision:

The chairman of the Hydrogeology Division, either alone or with the help of the other officers, shall select the winning paper. Normally this will be the paper with the lowest score, unless there is a strong reason to select one of the other two. The division chairman shall then *submit the name and address of the author(s), title of paper selected, publishing agency, and date, to the executive director, Society headquarters, Boulder, who will place the nomination on the agenda of the spring Council meeting for ratification*. Following the Council meeting, the president will inform the author(s) of the winning paper. The division chairman will be notified of the ratification at the same time; he will present the certificate(s) and bowl(s) (which have been prepared by the executive director's office) to the author(s) or his/her representative(s) at the annual meeting of the division. If the winner(s) or his/her representative(s) is/are not present at the annual meeting, the division chairman will present the award in absentia, and mail the certificate(s) and miniature silver (Revere-style) bowl(s) to the author(s).

Division affiliates will vote on the revision at the business meeting November 6, in San Diego.

1980 GSA SECTION MEETINGS

AND DIVISION REPRESENTATIVES

South Central March 3-4, 1980, Wichita, Kansas
A. G. Winslow
 Northeastern March 13-15, 1980, Philadelphia,
R. J. Dingman Pennsylvania
 Cordilleran March 19-21, 1980, Corvallis, Oregon
J. F. Poland
 Southeastern March 27-28, 1980, Birmingham,
P. R. Seaber Alabama
 North Central April 10-11, 1980, Bloomington,
D. A. Stephenson Indiana
 Rocky Mountain May 16-17, 1980, Ogden, Utah
J. S. Rosenshein

Paul R. Seaber, Southeastern representative, wants to schedule a hydrogeology session and field trip at the Birmingham meeting if there is sufficient interest. Please contact him at: U.S. Geological Survey, 325 John Knox Road, Suite F-240, Tallahassee, Florida 32303 (904-386-1118). Abstract deadline is October 26, 1979.

TREASURER'S REPORT

As of June 30, 1979 the Division had a balance of \$1223.00 in the treasury.

Income:	
Dues 1979	\$1598.00
Earnings on Birdsall bequest	757.00
(Only through 12/31/78;	
1979 earnings in treasury	\$2355.00
12/31/79)	
Expenses:	
To GSA	\$726.00
From Birdsall bequest	406.00
	\$1132.00
Balance:	
Dues	\$872.00
Birdsall bequest	351.00
	\$1223.00

HYDROGEOLOGY DIVISION

1979 Management Board

Chairman

Keros Cartwright, Urbana, Illinois

First Vice-Chairman

Robert J. Dingman, Atlanta, Georgia

Second Vice-Chairman

John E. Stone, Stillwater, Oklahoma

Secretary-Treasurer

Claire B. Davidson, Reston, Virginia

1979 Committees

Meinzer Award Panel

Eugene S. Simpson, Chairman

John A. Cherry

Philip Cohen

Martin Mifflin

Irwin Remson

JTPC Representative

Keros Cartwright

Nominating Committee

John E. Moore, Chairman

Roy Williams

Robert E. Bergstrom

Program Chairman

John F. Mann, Jr.

Field Trip Chairman

Darwin Knochenmus

