Geology Get's New Cover

by Faith Rogers

Geology's new cover design, beginning with the April 1983 issue, reflects the journal's past success and future promise.

Geology Editor Eldridge Moores, Executive Director F. Michael Wahl, and Production Manager James Clark agreed late in 1982 that the journal should have an updated look. The new design, produced by Howard Smith of Hirschfeld Press, printer for Geology, is the result.

"Geology has become one of the most significant publications in our science," Wahl noted, "and we intend to present it in the best possible way."

A special offer to advertisers brought in color ads for the back covers of the April and May issues. This allows the use of color photos on the front covers of those issues at a fraction of the usual cost—a cost that GSA must bill to authors of articles with color photographs. "The new cover will, I hope, attract more advertising to Geology, thereby helping to keep cost increases to a minimum, and perhaps allow us to publish color photos and maps at less expense," Clark said.

Volume 1, number 1 of Geology was published in September 1973. Starting at 48 pages per issue, the journal has grown to ten 64-page issues and two 48-page issues for 1983. In 1977, five years after its inception, Geology received 183 manuscripts; in 1982 the count was 279.

Originally refereed only by reviewers chosen by authors, who were required to submit two reviews with their manuscripts, Geology is now refereed by an Editorial Board (47 geoscientists) and many other geologists chosen by Editor Moores or recommended by Editorial Board members. Each paper submitted is sent to two (in some cases three) reviewers, who are asked to return reviews 10 days after receiving manuscripts. The editor decides to accept or reject papers mainly on the basis of these reviews. Average time from acceptance of a paper to publication is 12 weeks.

Moores, a professor of geology at the University of California, Davis, was appointed editor in September 1981. He has from the start encouraged feedback on Geology and contributions from readers. A questionnaire in the January 1983 issue has brought in enthusiastic acclaim for the journal as well as thoughtful suggestions for improvements. Moores is also asking readers to send geologically interesting photos for possible use on Geology covers.

Despite the increased number of pages budgeted for Geology, the increasing number of manuscripts submitted requires Moores to insist that authors pare their papers, preferably to four printed pages. "The alternative," Moores said, "is to increase the rejection rate above the current 50%. I don't want to have to do that."

Geology will continue to present short, innovative, provocative papers on all facets of earth science. The redesigned cover celebrates almost 10 years of success for this journal of current awareness in the earth sciences. "The new cover looks trim and elegant, just the way we like Geology articles to be," said Moores.
GSA 1982 Publications Span Wide Range of Subjects

A definitive history of the Society and a hefty study of asteroid and comet impacts on Earth are among the new books GSA published in 1982. Below is the annual summary of new publications. Announcements of these publications are made throughout the year in the Society's journals, in this newsletter, in direct mail letters, and in our twice-annual Publications Price List, and at the annual meeting.

A current Publications Price List can be obtained from the Publications Sales Department. Inquiries, orders, and requests for price lists should be addressed to that department at GSA, P.O. Box 9140, Boulder, CO 80301.

BOOKS
Memoir 155 — The Geological Society of America — Life History of a Learned Society, by Edwin B. Eckel, 181 p., hardbound (the first GSA Memoir to appear in the new format of 8½" x 11"; all Memoirs produced subsequent to this one will be this size). ISBN 0-8137-1155-X.


DNAG PUBLICATIONS (CENTENNIAL SERIES)

PERIODICALS
Bulletin — 1,342 p.
Geology — 688 p.
News & Information — 188 p.

MAP AND CHART PUBLICATIONS
MC-28O — Geologic Cross Section from Cape Sebastian to Upper Klamath Lake, Southwest Oregon, by M. Clark Blake, Jr. One sheet in color, 40½ x 44½ inches at scale 1:250,000; with 1 page text, in illustrated file envelope.

MC-28P — Cross Section of the Eastern Aleutian Arc, from Mount Spurr to the Aleutian Trench near Middleton Island, Alaska, by George Plafker and others. One sheet in color, 56 x 41 inches at scale 1:250,000; with 1 page text, in illustrated file envelope.

MC-28Q — Geologic Cross Section of the Ouachita Mountains, by Jay Zimmerman. One sheet in color 33 x 26 inches at scale 1:250,000; with text, in illustrated file envelope.

MC-28R — Geologic Cross Section from the Arbuckle Mountains to the Muenster Arch, Southern Oklahoma and Texas, by Rodger E. Denison. One sheet in color, 31 x 16 inches at scale 1:125,000; with text, in illustrated file envelope.

(Note: The continuing MC-28 series is from Plate Margins Project, U.S. Geodynamics Committee, John C. Maxwell, Reporter.)

MC-35 — North Atlantic Ocean: Bathymetry and Plate Tectonic Evolution, by R. K. Perry and others. One sheet in color, 56 x 40 inches at scale 1:8,753,909. Text on map, in illustrated file envelope. (Completed in 1981, but author subsequently submitted 122 p. text, which GSA produced and added to the package.)

MC-44 — Stratigraphy of the Montgomery Mountains and the Northern Half of the Nopah and Resting Spring Ranges, Nevada and California, by B. C. Burchfiel, G. S. Hamill IV, and D. E. Wilhelms. Two sheets in black and white, 24 x 40 inches and 22 x

*Fellow and former Executive Secretary Edwin Ecket's The Geological Society of America—Life History of a Learned Society is one of GSA's 1982 publications.*

GSA News & Information
Vol. 5, no. 4 April 1983
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Prepared from contributions from the staff and membership by F. Michael Wahl, Executive Director; James R. Clark, Production and Advertising Manager; Ann H. Fogel and June E. Thomas, Production Assistants.
CENTENNIAL NEWS by Allison R. (Pete) Palmer

DNAG Synthesis Volume on Geology of the Arctic Ocean Region Now Organized

The organizational workshop for the DNAG synthesis volume on the Arctic Region was held in Ottawa, Canada, on January 29 and 30, 1983. More than 40 participants contributed to the planning and polishing of the outline given below. As with the other synthesis volumes, the chapter leaders listed below will be in touch with other contributors to assist in preparing the best possible synthesis about this region. Peer-reviewable copies of the manuscripts and maps for this volume are to be in the hands of the editors by the time of the second Arctic workshop in November 1984.

A. Introduction — A. Grantz, L. Johnson, J. Sweeney

B. History of Geological and Geophysical Exploration and Understanding — F. Roots, N. Ostenso, K. Hunkins, M. Brewer, A. Threshnikov

C. Arctic Ocean Ice Cover
   1. Structure and Dynamics — N. Untersteiner
   2. Geological and Climatological Significance for North America — D. Clark

D. Bathymetry and Physiography

E. Geophysical Data
   2. Gravity Anomalies — L. Sobczak, S. May
   5. Seismic Refraction and Reflection Data — R. Jackson, D. Forsyth, J. Hall
   6. Magnetotelluric Data — A. Camfield

F. The North American Plate Boundary — O. Eldholm, A. Karasik, P. Vogt

G. Continental Margins
   1. East Greenland — H. Larsen, P. Dawes
   2. Canadian Arctic Islands — J. Sweeney, L. Sobczak
   4. Alaska — A. Grantz, S. May
   5. Northeastern Siberia — K. Fujita, J. Pogrebysky

H. Ridges, Borderlands, and Basins
   2. Chukchi Continental Borderland — J. Hall

GSA 1982 Publications (continued from page 54)

17 inches at scale 1:62,500; with three 35 mm color slides of hand-colored version of printed base map.

OTHER PUBLICATIONS
Abstracts with Programs — six books published, 670 p. total.
Division newsletters — 14 published, 82 p. total.
Memorials Volume XIII — 130 p.

REPRINTS
Treatise on Invertebrate Paleontology, Part D, Protista 3 — 206 p.
Treatise on Invertebrate Paleontology, Part I, Mollusca 1 — 374 p.

MEETING

IN MEMORIAM

Carl B. Anderson
Clearwater, Florida

Chauncey G. Tillman
Blacksburg, Virginia

Edward H. Cobb
Menlo Park, California

Claude N. Valerius
Shreveport, Louisiana
GSA COMMITTEES
SEEK CANDIDATES FOR APPOINTMENTS

The GSA Committee on Committees requests help from all members. As one of his duties, Vice-President M. Gordon Wolman has appointed a group to look for talent to serve as members of our committees and as our representatives to other organizations.

The Committee on Committees will meet in late July or early August and will present at least two nominations for each open position to Council at its November 2 meeting in Indianapolis. During that meeting, individual councilors may add other names to the lists for consideration. The entire Council will then select appointees for all positions, thus completing the process of bringing new expertise into Society affairs.

The Committee on Committees for 1983 consists of the following people: Brian J. Skinner, Chairman, Department of Geology, Yale University, New Haven, CT 06520, phone (203) 436-1073; Albert W. Bally, Department of Geology, Box 1892, Rice University, Houston, TX 77001, phone (713) 527-4880; Edward D. Ghent, Department of Geology, University of Calgary, Calgary, Alberta T2N 1N4, phone (403) 284-5847; Susan W. Kieffer, U.S. Geological Survey, 2255 North Gemini Drive, Flagstaff, AZ 86001, phone (602) 779-3311, ext. 1583; William A. Thomas, Department of Geology, University of Alabama, Tuscaloosa, AL 35486, phone (205) 348-5095.

This group is broadly based, both geographically and in disciplines, but its members cannot possibly know all the GSA members who are potential candidates for serving the Society. You can help them by volunteering yourself or by suggesting names of others you think should be considered for any of the openings.

(continued on p. 57)

Penrose Conference Slated on Evolution of Central Atlantic Ocean and Its Continental Margins

A Penrose Conference, "The West-African Connection—Evolution of the Central Atlantic Ocean and Its Continental Margins" will convene January 16-21, 1984, in France. This conference has also been accepted by the NSF-USA and the CNRS-France as a Joint Seminar under the Cooperative Science Program between the United States and France.

The Appalachian Mountains of eastern North America and the Caledonide and Hercynide chains of western Europe have been studied for a long time, yet new ideas about them are constantly appearing. In recent years it has become increasingly evident that they were originally contiguous parts of a much larger entity that extended not only from Europe into North America but also into Africa and probably South America. The "European connection" is well studied and has been the subject of numerous conferences, but the relations with Africa are less well known; indeed, their very existence was hardly suspected until about twenty years ago. Furthermore, only in recent years has much information been available on what is hidden beneath the sediments of the coastal plains on either side of the Atlantic and the history of separation recorded by those sediments and by those on the bottom of the ocean itself.

The goal of this conference is to bring together specialists with new geologic and geophysical data on the various parts of the history of this connection, so that all will better understand how their data contribute to solving problems in other domains and how their own problems could be attacked using the information contributed by others. For this reason, the conveners insist on synthesis in each domain, even if this seems premature, so that the interrelations of the different problems can be discussed at length on the basis of the latest information.

To have enough time to study the history of the "African connection" in some detail, the geographic extent will be restricted to the West African bulge and the opposing Atlantic margin of America (from Maritime Canada to Florida). Conference participants could consider first the later part of the story—spreading of the Atlantic, deposition along its margins—then the rifting episode in the erstwhile continuous continent, then the Paleozoic history (here we would be able to draw on the results of the Rabat meeting of I.G.C. Program 27 in September 1983), and finally the basement and its Pan-African cover, to determine as far as possible the original relations.

The conference will be held at Giens, on the Mediterranean coast of France, not in a resort hotel but in a simple, comfortable vacation village for families, on the shore 6 km from the Toulon airport (two flights a day to Paris). This will, the conveners hope, keep the cost to participants down to $300 (2,000 Fr or less), not including the cost of travel to France for those in the Americas.

Those wishing to participate or to obtain more details should write to Professor J. Sougy at the address below, before June 15, 1983, explaining what their contributions to the subject of the conference would be.

Conveners
J. Sougy, Laboratoire de Géologie dynamique, I.A. CNRS n° 132, Faculté des Sciences et Techniques de Saint-Jérôme, 13397 Marseille Cedex 13, France (Telephone (91)98 90 10, ext. 510)
X. Le Pichon, Laboratoire de Géodynamique, Université Pierre et Marie Curie, 4, place Jussieu, 75230 Paris Cedex 05, France
J. Rodgers, Department of Geology & Geophysics, Yale University, P.O. Box 6666, New Haven, Connecticut 06511
Committees (continued from p. 56)

In making recommendations, please give serious consideration to the special qualifications of the individual for a particular committee. For example, those nominated to serve on the Committee on Investments should be familiar with and have knowledge and experience in the management of funds and securities. To assist you in nominating GSA members for these various positions, the following brief summaries of what each committee does and what qualifications are desirable are provided. Please be sure that your candidates are Members or Fellows of the Society and that they meet fully the requested qualifications.

All nominations sent through headquarters will be forwarded to the committee members. Deadline: June 15, 1983. Listed below are the committees on which vacancies will occur. Appointments will be made by Council at its meeting in Indianapolis on November 2, 1983.

COMMITTEES AND QUALIFICATIONS

Geology & Public Policy

Translates knowledge of the earth sciences into forms most useful for public discussion and decision making.

Committee members should have an awareness of public policy and decisions involving the science of geology. Should also be able to develop, disseminate, and translate information from the geologic sciences into useful forms for the general public and for the Society membership; should be familiar with appropriate techniques for the dissemination of information.

Headquarters Advisory

Gives advice on matters relating to headquarters operations.

Committee members should have an interest in management procedures and live within driving distance of GSA headquarters in Boulder.

Penrose Medal

Selects candidates for the Penrose Medal.

Committee members should be familiar with outstanding achievements in the geological community that are worthy of consideration for the honor. Emphasis is placed on "eminent research in pure geology which marks a major advance in the science of geology."

Day Medal

Selects candidates for the Arthur L. Day medal.

Committee members should have knowledge of those who have made "distinct contributions to geologic knowledge through the application of physics and chemistry to the solution of geologic problems."

Honorary Fellows

Selects candidates for Honorary Fellows, usually non-North Americans.

Committee members should have knowledge of geologists throughout the world who have distinguished themselves through their contributions to the science.

National Medal of Science

Selects candidates for presentation to the committee that advises the President of the United States on this award.

Committee members should know of those whose achievements are of an unusually significant nature and deserve special recognition by reason of their outstanding contributions to knowledge in the physical, biological, mathematical, or engineering sciences.

Investments

Advises the Council about investment and reinvestment of GSA's funds, securities, equities, etc.

Committee members should have knowledge of and experience in portfolio management and be able to make recommendations concerning investment policies.

Membership

Screens Member and Fellow applications; evaluates membership benefits and makes recommendations to the Council about them.

Committee members must be GSA Fellows and must be able to attend one meeting a year. Previous experience in recruitment programs and in the evaluation of professional qualifications is desired.

Nominations

Recommends to the Council nominees for the positions of GSA officers and councilors.

Committee members should be familiar with a broad range of well-known and highly respected geological scientists.

Penrose Conferences

Considers Penrose Conference proposals and makes recommendations to the Council.

Committee members must either be past conveners or have attended two or more Penrose Conferences.

Publications

Makes recommendations to the Council concerning Society publications.

Committee members should be familiar with a wide range of scientific publications and especially GSA publications. Should also have some knowledge of publication processes and costs, and have concern for the quality of content and presentation of GSA publications.

Research Grants

Evaluates research grant applications and selects grant recipients.

Committee members should have experience in directing research projects and in evaluating research grant applications.

GSA Representative to the North American Commission on Stratigraphic Nomenclature

Must be familiar with and have expertise in stratigraphic nomenclature.

SEE NOMINATION FORM ON NEXT PAGE
NOMINATIONS FOR GSA COMMITTEES FOR 1984

Geology & Public Policy
(3 vacancies)

Headquarters Advisory
(2 vacancies)

Penrose Medal
(1 vacancy)

Day Medal
(2 vacancies)

Honorary Fellows
(2 vacancies)

National Medal of Science
(1 vacancy)

Invesiments
(2 vacancies)

Membership
(2 vacancies)

Nominations
(4 vacancies)

Penrose Conferences
(2 vacancies)

Publications
(2 vacancies)

Research Grants
(1 vacancy)

GSA Representative for 1984

North American Commission on
Stratigraphic Nomenclature
(1 vacancy)
GEOLoGICAL SOCIETY
OF AMERICA
96th ANNUAL MEETING
INDIANAPOLIS
October 31 — November 3, 1983

Associated Societies Meeting with GSA
Cushman Foundation, Geochemical Society, Geoscience Information Society, Mineralogical Society, National Association of Geology Teachers, Paleontological Society, Society of Economic Geologists
PRELIMINARY ANNOUNCEMENT AND CALL FOR PAPERS

Technical sessions for the 1983 GSA Annual Meeting consist of both volunteered papers and invited symposia. Chairman of the Joint Technical Program is Haydn Murray, Department of Geology, Indiana University, Bloomington, IN 47405, (812) 335-5582; Co-Chairman is Herbert Howe, Department of Geosciences, Purdue University, West Lafayette, IN 47906, (317) 494-8171.

VOLUNTEERED PAPERS: Abstracts for the technical sessions (both oral presentations and poster sessions) must be submitted on 1983 abstract forms available from GSA Headquarters, Boulder, and from geology departments of most colleges and universities. The abstract form will be used as camera-ready copy for publication of Abstracts with Programs. Senior authors will be charged a $15 fee if retyping is necessary, and there will be no opportunity for authors to review or revise typed abstracts after they are submitted. Note: No more than one abstract from any person as sole or senior author will be accepted for publication, and, due to scheduling difficulties, no author may present more than one accepted paper; these restrictions apply only to technical sessions other than invited symposia.

DEADLINE FOR RECEIPT OF VOLUNTEERED ABSTRACTS AT GSA
FRIDAY, JUNE 3, 1983

Speakers in the regular technical sessions will be allotted 15 minutes, including time for questions and discussion. Projection equipment will consist of a single 35 mm (2 x 2 in.) projector in each room; dual projectors will not be available. Each poster session participant will be provided with three tackboards approximately 4' wide x 8' high for display. No projection equipment, electrical outlets, or tables will be available.

INVITED SYMPOSIUM

Any communication concerning symposia abstracts or participation should be addressed to the specific symposium organizer. Symposia Abstracts Must Be Sent Directly To The Symposium Organizer, Not To GSA.

1. Late Glacial Environments of Early Man in North America: Archaeological Geology Division; H. W. Borns, Jr.
2. Paleoclimatic Controls on Coal Resources of the Pennsylvanian System of North America: Coal Geology Division; C. Blaine Cecil and Tommy L. Phillips.
5. Some Significant Geologic Ideas Originating from the Study of Cratons: History of Geology Division; Ursula B. Marvin.
7. Planetary Volcanism: Planetary Geology Division; Robin Brett.
8. Quaternary Dating Methods: Quaternary Geology and Geomorphology Division; Don J. Easterbrook.
9. Structure and Tectonics of Continental Interiors: Structural Geology Division; Richard H. Groshong, Jr. and Donald Steeple.
13. Silicate-Oxide and Silicate-Native Element Interactions in Igneous and Metamorphic Rock: Mineralogical Society of America; B. Ron Frost and Cornelis Klein.
20. Evolutionary and Environmental Significance of Skeletal Growth Patterns: Gary D. Rosenberg and Richard A. Lutz.

SHORT COURSES

More information will be available in May News & Information, or contact those named.

Strain Measurement: Techniques and Tectonic Implications. Sponsored by the Structural Geology and Tectonics Division. Thursday evening, Nov. 3 to Saturday noon, Nov. 5. For information: R. Klugfield, Dept. of Geological Sciences, University of Colorado, Boulder, CO 80309, (303) 492-8141.


Carbonates: Mineralogy and Chemistry. Sponsored by the Mineralogical Society. Friday morning, Oct. 28 to Sunday noon, Oct. 30. For information: R. J. Reeder, Dept. of Earth and Space Sciences, SUNY at Stony Brook, Stony Brook, NY 11794, (516) 246-6541.

FIELD TRIPS

The field trip locales are in the cratonic area of lowland arches and basins; in the unglaciated cuesta, vale, and karst terranes of the northernmost Highland Rim Penepelain; in the classic area for study of continental glaciation; in the world's largest building-stone district; in the western and southern Great Lakes area of Precambrian exposures and classic Silurian reef study; within both the simplest and most complex of structural conditions; in the village that was home of the first U.S. Geological Survey; in one of the nation's great coalfields; and more.

PREMEETING

1. The Paleozoic Systemic Boundaries of the Southern Indiana-Adjacent Kentucky Area and Their Relations to Depositional and Erosional Patterns—Carl B. Rexroad and Henry H. Gray, Indiana Geological Survey, Bloomington, and Anne V. Noland, University of Louisville. Three days, October 28–30.

2. Paleontology and Stratigraphy of the Borden Delta of Southern Indiana and Northern Kentucky—N. Gary Lane, Indiana University, Bloomington; William I. Ausich, Wright State University, Dayton, Ohio; and Thomas W. Kammer, West Virginia University, Morgantown (Paleontological Society). Two days, October 28–29.


4. Precambrian Geology South of Lake Superior—Campbell Craddock, University of Wisconsin, Madison; Michael G. Mudrey, Jr., Wisconsin Geological and Natural History Survey, Madison; and Timothy B. Holst, University of Minnesota, Duluth (Structural Geology and Tectonics Division). Three days, October 28–30. Begins in Duluth, Minnesota, and ends in Indianapolis.

5. Geology of the Kentland Dome Structurally Complex Anomaly, Northwestern Indiana—An Intimate Look into the Core—Raymond C. Gutschick, University of Notre Dame, Notre Dame, Indiana. One day, October 30.


7. Ground-Water Hydrology and Geomorphology of the Mammoth Cave Region, Kentucky, and of the Mitchell Plain, Indiana—Ralph O. Ewers, Eastern Kentucky University, Richmond; Noel Krothe, Indiana University, Bloomington; Richard L. Powell, Geosciences Research Associates, Inc., Bloomington, Indiana; and James F. Quinlan, National Park Service, Mammoth Cave, Kentucky (Quaternary and Geomorphology Division and Hydrogeology Division). Four days, October 26 (afternoon) –30. Starts in Louisville, Kentucky, and ends in Indianapolis.


POSTMEETING


GSA IS OFF TO INDY

Convenient, friendly, and reasonably priced — that’s Indianapolis. This Midwest city is within a day’s drive of half the U.S. population and is served by major air and bus lines. Best known for the annual Indianapolis 500 auto race, it’s a city with many other attractions: museums, theaters, a symphony orchestra, and professional and amateur sports events. Cost for transportation, lodging, food, and entertainment run as much as 20% less than New York, Chicago, or San Francisco. Technical sessions and exhibits for the 1983 GSA Annual Meeting will be under the same roof in the Indiana Convention Center. The Center has ample meeting space, exhibit area, conversation lounges, food service, phones, and luggage storage. GSA and General Chairman Arthur Mirsky, Indiana University—Purdue University, invite you to Indianapolis for the 1983 Annual Meeting.

GETTING THERE

Indianapolis is a crossroads for interstate highways: east-west I-70, southeast—northwest I-74, south-northwest I-65, and several others. Most national highways converge on Indianapolis than on any other city in the U.S. BY AIR. The close-in international airport, 10 minutes from downtown, is served by major air carriers, including American, TWA, Eastern, Allegheny, Delta, Frontier, United, and Piedmont. Chicago, Detroit, and Cleveland are within an hour’s flying time. Two hours away by air are New York, Miami, and New Orleans. Denver and Boston are less than three hours’ flying time away.

ACCOMMODATIONS

Indianapolis has a wide range of hotels with reasonable rates: from $25 to $65 single and $25 to $75 double. Most of the rooms are in the $40 range. The Hyatt Regency, headquarters hotel, and 12 other hotels, downtown and at the airport, will accommodate those attending the meeting. The downtown hotels are within walking distance of the Convention Center; the airport hotel group (10 minutes from downtown) will be serviced by the GSA shuttle. Housing forms will be published in the August issue of News & Information. SHUTTLE SERVICE. Shuttle service is scheduled from Sunday through Thursday, Oct. 30—Nov. 3, to transport GSA registrants from hotels to meeting events. The shuttle will run at 10–15 minute intervals and will continue into the evening for special events—including the Welcoming Party.

WHAT’S HAPPENING

EXHIBITS. Exhibitors will display books and other publications, measurement equipment, maps, X-ray diffraction and other instruments, photographic equipment, spectrosopes, microscopes, microanalysis equipment, cameras, and rock objets d’art. New exhibitors include computer hardware and software companies that provide services tailored for the geologist. Exhibits will be open Sunday evening, kicking off the 1983 Welcoming Party. Space is available for 144 booths. Exhibitors can call or write to the GSA Exhibits Coordinator for more information. WELCOMING PARTY. The traditional opening-night reception offers a good central place to renew friendships, to make plans, and to share ideas. The party will be in the Convention Center on Sunday evening, Oct. 30. Exhibits will be open, and food and beverages will be available. For added convenience, registration for the meeting will continue through the evening. SPECIAL EVENT. The Indianapolis Annual Meeting hosts are planning Tuesday evening at Market Square, to include free beer and wine, three music groups—bluegrass, jazz, and chamber—and plenty of food—from gyros to crepes, tacos to feta. GUEST PROGRAM. Our Indianapolis hosts will offer morning and afternoon tours of the Conner Prairie Pioneer Settlement, the beautiful Indianapolis Museum of Art, the Children’s Museum (for adults too), and the Indianapolis Speedway. In addition, a stimulating technical session for a nontechnical audience is planned. GROUP FUNCTIONS. Meetings, meal functions, and alumni receptions are scheduled by the GSA Meetings Department. Anyone wishing to reserve space should call or write to the Meetings Department by May 1.

EMPLOYMENT SERVICE

GSA will conduct its employment interview service during the Annual Meeting. Booths are provided for employers to interview applicants who are registered with the service. Staff will be available to assist in scheduling these interviews. Computer listing of our applicant file and resumes are available to employers for screening. See the March issue of News & Information for forms and further information, or contact the Employment Service Coordinator at GSA.

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PREREGISTRATION, FIELD TRIPS, AND HOUSING FORMS

Available in August News & Information

ABSTRACTS DEADLINE—JUNE 3, 1983

PREREGISTRATION DEADLINE: SEPTEMBER 30

CONTACTS FOR INFORMATION

Abstracts Coordinator

Employment Service Coordinator

Exhibits Coordinator

abstract forms

participation by employers/applicants

trade exhibits

Meetings Department

for all other information

Geological Society of America, P.O. Box 9140, Boulder, CO 80301 (303) 447-2020
STUDENT ASSOCIATE APPLICATION

Dear GSA Member:
Do you know a student who wants to join GSA? If so, pass this and the next 3 pages on to him or her. Encourage students to join GSA. They are the Members and Fellows of the future.

STUDENT ASSOCIATE INFORMATION

Minimum Eligibility Requirements
Applicant must be a full-time student in-residence majoring in the geological sciences or a related field at a degree-granting institution.

Sponsorship Requirements
A candidate must have his/her Student Associate application signed by the Department Chairman or GSA Campus Representative, verifying that he/she is a full-time geoscience student in-residence at the respective institution.

Student Associate
Student Associates are added to the membership rolls monthly upon the approval of the Committee on Membership. Dues payment and publication selection is on a calendar year basis (January through December). Publications already issued are back ordered for members sending payments after January 1.

Student Associates may serve on committees as conference; they have all the rights and privileges afforded Members and Fellows except the rights to vote and hold office. Students are also eligible for a membership discount on the first copy of any GSA publications except the periodicals.

Students may transfer to regular membership upon graduation or on leaving graduate school. Annual dues statements for the coming year are mailed in September, and application for transfer should occur at that time. The dues option form provides a place for the Student Associate to obtain the signature of a GSA member as sponsor to transfer to Member status.

Submission of Form
Please forward the completed application, signed by your Department Chairman or official GSA Campus Representative to Membership Department Geological Society of America P.O. Box 9140 Boulder, CO 80301

PAYMENT MUST ACCOMPANY APPLICATION

Address Change
Prompt notification is necessary for uninterrupted mail. At least six weeks notice is required.

Student Associate Dues
See attached dues form for information regarding Student Associate dues.
APPLICATION FOR STUDENT ASSOCIATE

No. __________________________
Leave blank

1. NAME ________________________
   Last ________________________
   First ________________________
   Middle ________________________

2. ADDRESS ____________________________________________________________
   __________________________________________________________
   __________________________________________________________
   City/Province ___________________________ State/Country _______
   Zip __________________________

3. BIRTH DATE __________________________
4. BIRTH PLACE __________________________

5. MARITAL STATUS __________________________
6. TELEPHONE NO. __________________________

7. EDUCATION
   a. Current institution __________________________
      Department __________________________
      Major subject __________________________
      Graduate __________ Undergraduate __________
   
   b. College, university, or other institutions attended
      Date of attendance (from—to) __________________________
      Degree and year received __________________________
      Major subject __________________________
      Department __________________________
      Major subject __________________________

8. SECTION AFFILIATION DESIRED (check one only)
   Cordilleran □ Rocky Mountain □ North-Central □ South-Central □ Northeastern □ Southeastern □

9. DIVISION AFFILIATIONS DESIRED
   Archaeological Geology □ Coal Geology □ Engineering Geology □ Geophysics □ History of Geology □ Hydrogeology □
   Planetary Geology □ Quaternary Geology & Geomorphology □ Structural Geology & Tectonics □

   I am a full-time student in-residence at a degree-granting institution and have fulfilled the eligibility requirements as stated on the reverse side of this form.

   SIGNATURE __________________________

   I certify that the above named student is a full-time geoscience major in residence for the _______ academic year.

   (print name of school and department)

   Signature (Department Chairman) __________________________
   Also print Chairman’s name __________________________
   Date __________________________

DUES STATEMENT AND PAYMENT MUST ACCOMPANY THIS APPLICATION
Dear Student Associate:

Your interest in joining the Society is appreciated. After the Committee on Membership approves your application, you will be sent a new member packet containing a personal membership card, a mini-catalog listing GSA publications, and information on the member discount for GSA books and maps.

Dues payment and publication selection is on a CALENDAR YEAR basis (January through December). Publications already issued are back ordered for members sending payments after January 1.

Please inform us as soon as possible of any address change, as it usually takes four to six weeks to correct the files. Meanwhile, publications continue to be mailed to your former address. Because they are sent second class, the Post Office will not forward them without special instructions and additional expense to you.

STUDENT ASSOCIATES should use a BLUE Student Associate form. Verification of student status is required.

If you are not a STUDENT, please use a MEMBER form.

Information about the publications listed below is on the reverse side of this form.

Sincerely,

Clara Hodgson
Membership Coordinator

1983 ANNUAL DUES AND PUBLICATION SELECTION

Please see explanation on back of form.

GSA MEMBERSHIP DUES:
Dues are required and include receipt of: The Geological Society of America Bulletin, Geology, and GSA News & Information. Both journals will automatically be sent in paper copy unless you indicate your preference for positive microfiche by checking the appropriate box/boxes.

(2) STUDENT ............. $28
(3) SPOUSE/MEMBER ........ $22
(4) Bulletin, positive microfiche
(5) Geology, positive microfiche

TOTAL COST OF ALL DIVISIONS CHECKED

DIVISION DUES:

(10) Archaeological Geology ........ $3
(11) Engineering Geology ........ $5
(12) History of Geology ........ $3
(13) Quaternary Geology & Geomorphology ........ $2
(14) Coal Geology ........ $2
(15) Geophysics ........ $3
(16) Hydrogeology ........ $3
(17) Planetary Geology ........ $3
(18) Structural Geology & Tectonics ........ $3

TOTAL COST OF ALL ABSTRACTS CHECKED

ABSTRACTS WITH PROGRAMS:

(25) Annual Meeting ........ $6
(26) Cordilleran/Rocky Mountain ........ $3
(29) South-Central ........ $3
(30) Northeastern ........ $3
(31) Southeastern ........ $3

MEMBERSHIP DIRECTORY (Yearbook) mailed in spring ........ (32) $6.50


Price differences will be billed.
For your information . . .

MEMBERSHIP DUES
All members are required to pay annual dues. Participation as a member sustains the Society’s activities. In addition to receiving all membership benefits, members receive monthly copies of the Bulletin, Geology, and GSA News & Information. Other publications are optional.

STUDENT VERIFICATION AND MEMBER SPONSORSHIP
If you are continuing your Student Associate status for 1983, you must provide verification by obtaining your department chairman’s signature on the left side of the dues statement. However, when you are no longer a student and wish to transfer to Member status, you must have someone who is a GSA Member or Fellow sponsor your transfer by signing the dues statement on the right-hand side. (If you expect to change your status to Member next year, you may wish to have a faculty member who is a GSA Member or Fellow sign the statement at this time and indicate the calendar year you anticipate the transfer to take effect.) This signature is not required at time of transfer if you have obtained a signature previously.

DIVISION DUES
The annual dues of the divisions support the activities of the specific divisions. Divisions meet at the time of the Society’s annual meeting. Each of the divisions has its own newsletter, issued at irregular intervals.

THE GEOLOGICAL SOCIETY OF AMERICA BULLETIN
The Bulletin is a monthly journal, usually 128 pages. Generally, articles will not exceed 20 printed pages, including tables and illustrations. The Bulletin is published both in the traditional paper copy format and in positive mode microfiche. The microfiche is a reproduction of the printed paper copy. Each microfiche (card) contains 98 frames (pages) and is most easily read at 24X magnification. Positive microfiche is black type on a transparent background which reduces eyestrain when read for prolonged periods with the aid of a microfiche reader.

GEOLOGY
Geology is a monthly journal of 8 to 12 short scientific articles per issue. This journal is also available both in the traditional paper format and in positive microfiche.

ABSTRACTS WITH PROGRAMS
To assure prompt arrival before the meetings, please be sure to order your Abstracts with Programs when you pay your dues. Abstracts with Programs are published approximately two months before each meeting.

OVERSEAS MAILING
Publications mailed overseas by second-class postage take as long as 3-4 months to arrive at their destinations. If you are interested in air-printed-matter postage rates (this is in addition to dues and publications), please check this box.

ADVERTISING LISTINGS
We occasionally allow universities and publishing houses to use our membership list for the purpose of advertising scientific courses, books, or periodicals. If you do not want your name and address to be released for such purposes, please check this box.

SPOUSE MEMBER INFORMATION
Married couples who are both GSA members will be allowed a reduction in 1983 dues. Such couples will pay $54.00 for the first member ($28.00 for Student Associates) and $22.00 for the second. They will receive a single subscription to the Bulletin and Geology, but both members will continue to receive GSA News & Information, ballots, and other miscellaneous mailings. Please identify your spouse and which one is requesting a reduction in the dues in the spaces below. We can activate the policy for married couples only upon specific instructions from you.

Full-paying member’s name

Spouse member receiving reduction in dues

Please contact the Membership Department if you have any questions.

ANY COMMENTS and SUGGESTIONS you have about YOUR SOCIETY may be included in the SPACE BELOW.
WHAT THEY WERE READING

25 years ago . . .

“We may surmise, however, that it [potassium] has been completely removed from the regions below a few hundred kilometers. The principal argument for this is based on considerations of heat flow, though the close association of potassium with uranium in igneous rocks gives qualitative support. With the adopted values for uranium and potassium, the present rates of heat generation are $0.48 \cdot 10^{20}$ cal/year for uranium, $1.35 \cdot 10^{20}$ cal/year for potassium; allowing $0.48 \cdot 10^{20}$ cal/year for thorium, we find a total of $2.3 \cdot 10^{20}$ cal/yr ($1.8 \cdot 10^{20}$ cal/year based on the mass of the mantle). This is not significantly different from the rate of loss of heat from the Earth's interior, $2 \cdot 10^{20}$ cal/year. Unless this is coincidence, it implies that nearly all the heat currently generated is reaching the surface; this in turn, unless we envisage complex schemes of compensation, implies that all the heat sources are close to the surface, probably not deeper than several hundred kilometers. This must be true for oceanic as well as continental sectors because of the equality of heat flow, though the details of the distributions differ markedly with regard to uranium (and presumably thorium), and to a lesser extent with regard to potassium. If the uranium were distributed through a depth of 200 km below the oceans, the average would be about 0.2 ppm, or about one-third that of typical basaltic rocks.”

From “Differentiation of the Mantle” by Francis Birch
Bulletin of the Geological Society of America
v. 69, p. 483-486, April 1958

75 years ago . . .

“To justify fully the emphasis placed on the dual division of the pre-Cambrian, the separating unconformity needs support by other contrasts. Some of the more important of these are as follows:

1. The Archean is a series dominantly composed of igneous rocks, largely volcanic and for extensive areas probably submarine. Sediments are subordinate. The Algonkian is a series of rocks which is mainly sedimentary. Volcanic rocks are subordinate.

2. The Algonkian sediments, where not too greatly metamorphosed, are similar in all essential respects to those which occur in the Paleozoic and later periods. When the Algonkian rocks were laid down essentially the present conditions prevailed on the earth. The Archean rocks, on the other hand, indicate that during this era the physical conditions had not yet become such as to widely lead to the orderly succession of sedimentary rocks like those being formed today.

3. The folding and metamorphism of the Archean are on the whole very much further advanced than the Algonkian. The Archean complex has an intricacy of structure which is approached only locally by the Algonkian.

4. Martin and Leith have noted that the Archean and Algonkian contrast in their surface expression, often making it possible to separate areas of the two groups on a physiographic basis.

In consequence of all of the above differences it follows that ordinary stratigraphic methods may be applied to the Algonkian, while such methods are not applicable at all, or only with extreme difficulty, to the Archean.

From “The Problem of the Pre-Cambrian”
Presidential Address to GSA by Charles Richard Van Hise
Bulletin of the Geological Society of America
v. 19, p. 1-29, March 30, 1908

GSA Past-President, Penrose Medalist Dies

Wendell P. Woodring, geologist and paleontologist, died of coronary failure at Pinecrest Hospital, Santa Barbara, California, January 29, 1983. Woodring, a Research Associate of the Department of Geological Sciences at the University of Santa Barbara, was a member of the National Academy of Sciences and the American Philosophical Society, Penrose Medalist and past-President of the Geological Society of America, and an internationally noted scientist. He made fundamental and pioneering contributions to the Tertiary geology and paleontology of southern coastal California, Central America, and the Caribbean region. Born June 13, 1891 in Reading, Pennsylvania, Woodring received his Ph.D. from Johns Hopkins University in 1916 and then served in World War I. During most of his professional career, he was a geologist with the U.S. Geological Survey and a resident of the Washington, D.C. area. He made his final home in Santa Barbara beginning in 1979. He was a towering figure in the American geology of his day. Persons wishing to honor Dr. Woodring may send contributions to the Woodring Memorial Fund, Department of Geological Sciences, University of California, Santa Barbara, California 93106.

A memorial ceremony for Dr. Woodring will be held in Washington, D.C., on Wednesday afternoon, April 27, 1983, at the Cosmos Club.

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Visit SEPM in Dallas
April 17-20, Booth No. 350

Visit the SEPM exhibit at the AAPG/SEPM/EMD Annual Meeting in Dallas. **SEPM is pleased to extend special SEPM member prices** to all registrants who purchase books during our 1983 Annual Meeting.

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