



# GSA NEWS & INFORMATION

Monthly Newsletter of  
The Geological Society of America

VOLUME 6, NUMBER 11

NOVEMBER 1984

## Specialists Find Useful Networks in GSA Divisions

By Faith Rogers

If you have a special interest in archaeology, coal, engineering, geomorphology, geophysics, history, hydrogeology, planetary geology, or structure and tectonics, GSA has a division—a group of like-minded specialists—that caters to that interest.

The nine divisions were each formed by a group of specialists who petitioned the GSA Council for official recognition. All the divisions have some common purposes: to promote their specialty by interaction with each other, to promote research and the publication of research results, and to advise and assist the officers and committees of the Society in matters pertaining to the specialty. Each has bylaws compatible with those of the Society and with its Constitution, and each is administered by a small group of officers and a management board elected by the division affiliates. They all participate in setting up the GSA Annual Meeting program through representation on the Joint Technical Program Committee. Divisions also sponsor symposia, field trips, and technical sessions at both the Annual Meeting and GSA Section meetings. Each division gives an award for contributions to the specialty. Each publishes a newsletter, at varying intervals during the year.

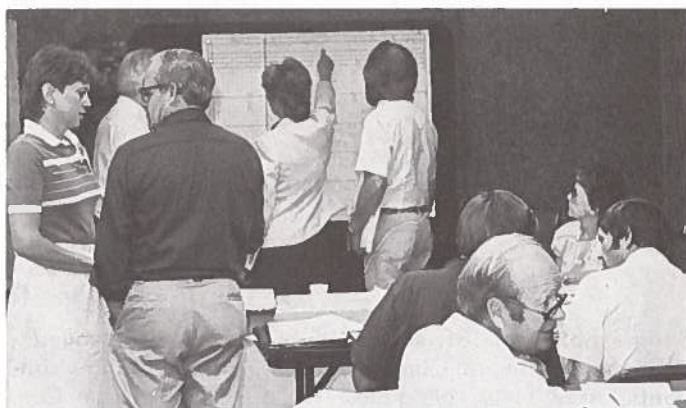
Only GSA members can affiliate with the divisions. All divisions and their yearly dues are listed on the GSA dues statement. GSA members indicate their division preferences and include the dues with their membership dues payment.

### Engineering Geology

GSA's oldest division, Engineering Geology, was formed in 1947. It is responsible for two of GSA's book series, Engineering Geology Case Histories and Reviews in Engineering Geology. Since 1969 the division has sponsored the E. B. Burwell, Jr., Award, given to the authors of published papers of distinction that advance knowledge of principles or practice of engineering geology. The Engineering Geology Division currently has 977 members. Dues for affiliation are \$5 for 1985.

### Coal Geology

Established in 1954, the Coal Geology Division now has 522 affiliates. It sponsors the Gilbert H. Cady Award, generally given biennially, for recognition of outstanding contributions by an individual that advance the field of coal geology in North America.



Division representatives on the Joint Technical Program Committee participate in organizing sessions for GSA's Annual Meeting.

This award was first given in 1973. The division has also established Rocky Mountain Coal Scholarship awards for support of research on coal in the Rocky Mountain region. Dues for 1985 for the division are \$2.

### Quaternary Geology and Geomorphology

Formed in 1956 as the Geomorphology Group, this division assumed its present name in 1970. Beginning in 1958, it has honored authors of published papers of distinction that advance the science of geomorphology or a related field with the Kirk Bryan Award. The division also sponsors the J. Hoover Mackin Research Grant. The Quaternary Geology and Geomorphology Division currently has 1183 affiliates. Dues for 1985 are \$2.

### Hydrogeology

The Hydrogeology Group, formed in 1960, became a division in 1964. It now has 961 affiliates. Its O. E. Meinzer Award, established in 1963, honors authors of published papers of distinction that advance the science of hydrogeology or a closely related field. The division also sponsors the Birdsall Distinguished Lecturer program, begun in 1976. Dues for 1985 for this division are \$5 for GSA Members and Fellows and \$2 for GSA Student Associates.

(continued on p. 178)

**GSA Divisions** (continued from p. 177)

### **Geophysics**

Formed in 1971, this division currently has 611 affiliates. In 1981 it established the George P. Woollard Award for outstanding contributions to geology through the application of the principles and techniques of geophysics. The division dues for 1985 are \$3.

### **History of Geology**

This division, formed in 1976, established the History of Geology Award in 1981 for contributions of fundamental importance to the understanding of the history of the geological sciences. The division has 378 affiliates. Dues for 1985 are \$3.

### **Archaeological Geology**

Formed in 1977, this division now has 401 affiliates. It established the Archaeological Geology Division Award in 1982 to honor individuals who contribute in an outstanding manner to the interdisciplinary field of archaeological geology. Division dues for 1985 are \$3.

### **Structural Geology and Tectonics**

Its 1818 affiliates make this the largest GSA division. The group sponsors a Best Paper Award, established in 1984, for published work of distinction that advances the science of structural geology or tectonics. This division was formed in 1980. Its dues for 1985 are \$3.

### **Planetary Geology**

GSA's youngest division was formed in 1982, and it almost immediately established the G. K. Gilbert Award for outstanding

published work that contributes to the solution of a fundamental problem in planetary geology. The division currently has 334 affiliates. Its dues for 1985 are \$3.

### **Benefits of Division Affiliation**

GSA's divisions are active groups, participating in the advancement of their specialties by sponsoring publications, awards, and technical sessions at meetings. Their newsletters keep affiliates informed of current research, conferences, publications, and educational and professional opportunities. For more information on divisions, contact the 1985 secretaries:

Archaeological Geology: Vance T. Holliday, Dept. Geography, Texas A&M, University, College Station, TX 77843

Coal Geology: Gilbert E. Smith, Inst. Mining and Mineral Research, P.O. Box 13015, Lexington, KY 40583

Engineering Geology: Christopher C. Mathewson, Dept. Geology, Texas A&M University, College Station, TX 77843

Geophysics: Mary Lou Zoback, U.S. Geological Survey, M.S. 77, 345 Middlefield Rd., Menlo Park, CA 94025

History of Geology: Michele L. Aldrich, AAAS, 1776 Massachusetts Ave., NW, Washington, DC 20036

Hydrogeology: Phyllis M. Garman, 7570 Bidwell Rd., Joelton, TN 37080

Planetary Geology: Raymond E. Arvidson, Dept. Earth and Planetary Sciences, Washington University, St. Louis, MO 63130

Quaternary Geology and Geomorphology: Richard F. Madole, U.S. Geological Survey, M.S. 966, Federal Center, Denver, CO 80225

Structural Geology and Tectonics: James A. Helwig, ARCO, P.O. Box 2819, Dallas, TX 75221.

## **Deadline Is Close for Penrose Conference**

**Geomorphic and Stratigraphic Indicators of Neogene-Quaternary Climatic Change in Arid and Semiarid Environments**, April 14-19, 1985, Lake Havasu City, Arizona. Conveners: **John C. Dohrenwend**, U.S. Geological Survey, Menlo Park, CA 94025, (415) 323-8111, ext. 2169; and **Stephen G. Wells and Leslie D. McFadden**, Department of Geology, University of New Mexico, Albuquerque, NM 87131, (505) 277-4204.

Participants of this conference will examine the impact of climatic change on landscape degradation and associated alluvial, eolian, and lacustrine deposition in arid and semiarid environments. Recent advances in relative and "absolute" age dating techniques, Quaternary paleoclimatology, and continental sedimentology will be examined to establish an overall framework for discussion of process models of landscape evolution and for evaluation of geomorphic and stratigraphic indicators of climatic change. Two days of field conferences are planned to provide participants with the opportunity to apply abstract models to specific field situations.

The problems involved in the reconstruction of Quaternary paleoclimatic history and in the dating and correlation of Quaternary stratigraphic units are complex, and they require multidisciplinary collaboration if more general solutions are to be attained. Therefore, the conveners hope that this Penrose Conference will attract participation from a wide range of disciplines including, but not necessarily limited to, paleoclimatology, paleobotany, sedimentology, geomorphology, soils stratigraphy, paleohydrology, radiometric dating, and general surficial geology.

The registration fee for the five-day conference is expected to be about \$400-\$450 per person, including food and lodging. Those interested in attending the conference should contact John

C. Dohrenwend, U.S. Geological Survey, MS 41, 345 Middlefield Road, Menlo Park, CA 94025, **before November 30, 1984**. Applications should include specific reasons for desiring to attend the conference and a summary of research and/or work experience relevant to the conference topic. Most of the conference will be devoted to discussion; however, persons interested in presenting an oral paper or poster should submit a title and abstract-length summary **no later than Dec. 1, 1984**.

### **GIS Brochure on Career Opportunities Available**

The Geoscience Information Society has published a brochure, "Careers in Geoscience Information," that includes information on career opportunities, education required, salaries and job hunting, and a short list of other helpful publications. The brochure is available on request from

Secretary

Geoscience Information Society  
c/o American Geological Institute  
4220 King St.  
Alexandria, VA 22302.

### **GSA News & Information**

Vol. 6, no. 11

November 1984

GSA NEWS & INFORMATION (ISSN 0164-5854) is the monthly newsletter of The Geological Society of America, Inc., P.O. Box 9140, Boulder, Colorado 80301. Second-class postage rates paid at Boulder, Colorado.

Prepared from contributions from the staff and membership. Executive Director: F. Michael Wahl; Managing Editor: Faith Rogers; Associate Editor: Lee Gladish; Director of Communications: Nancy A. Reed; Production and Advertising Manager: James R. Clark; Marketing/Advertising Assistant: Ann H. Fogel; Assistant Production Manager: Meredith Larson; Production Assistant: June E. Thomas.





### NSF, Smithsonian Fellowships (continued from p. 179)

have independent research experience in the academic, industrial, or public sectors; be currently or recently affiliated with a U.S. institution; not have a salaried position (or the promise of one) with the host institution at the time of application. (The candidate is responsible for selecting and making all arrangements with the host institution.)

The application deadline is **November 15, 1984**. For more information, write to Visiting Professorships for Women Program, National Science Foundation, Washington, DC 20550.

### Smithsonian Research Fellowships

Smithsonian Fellowships are awarded to support independent research in residence at the Smithsonian related to research interests of the Institution's professional staff and using the Institution's collections, facilities, and laboratories. Predoctoral and postdoctoral fellowship appointments for six to twelve months

### AIP Offers GSA Members Reduced-rate Subscriptions

The American Institute of Physics offers reduced-rate subscriptions for its own journals to *individual* members of affiliated societies. This offer is limited to one subscription per person to each journal. At right is a list of AIP-owned journals showing the member rate for 1985, available to members of GSA, and, for comparison, the nonmember rates. (The 1985 member rate for *Review of Scientific Instruments* has been decreased.)

Send subscription orders, with remittances, directly to the American Institute of Physics, 335 E. 45th St., New York, NY 10017. Include a statement indicating that you are a member of GSA.

and graduate student appointments for ten weeks are awarded. Proposals for research in the following areas of interest to earth scientists may be made: archaeology, systematics, evolutionary biology, environmental studies, sedimentology, planetary geology, mineralogy, petrology, meteoritics, volcanology, paleobiology, history of physical sciences, history of science in America, and industrial archaeology.

Applications are due **January 15, 1985**. Stipends supporting these awards are \$18,000 per year plus allowances for postdoctoral fellows; \$11,000 per year plus allowances for predoctoral fellows; and \$2,000 for graduate students for the ten-week period of appointment. Predoctoral and postdoctoral stipends are prorated on a monthly basis for periods less than one year.

For more information and application forms, write to Office of Fellowships and Grants, Desk J, 3300 L'Enfant Plaza, Smithsonian Institution, Washington, DC 20560. Indicate the particular area in which you propose to conduct research and give the dates of degrees received or expected.

	Domestic Rates		Foreign Rates	
	Member	Nonmember	Incl. Canada & Mexico Member	Nonmember
Journal of Applied Physics	\$ 80.00	\$450.00	\$126.00	\$496.00
Applied Physics Letters	40.00	260.00	63.00	283.00
Journal of Chemical Physics	100.00	760.00	160.00	820.00
Journal of Mathematical Physics	50.00	440.00	66.00	456.00
Physics of Fluids	45.00	395.00	65.00	415.00
Physics Today	20.00	50.00	33.00	63.00
Review of Scientific Instruments	30.00	250.00	45.00	265.00
Current Physics Index	65.00	290.00	81.00	306.00
Journal of Physical and Chemical Reference Data*	50.00	200.00	60.00	210.00
General Physics Advance Abstracts	12.00	150.00	24.00	162.00

\*Nonmember subscriptions are handled by the American Chemical Society in Columbus, Ohio.

## From the GSA DICTIONARY OF IMPORTANT DEFINITIONS:

**last-min·ute mug·ger** (lǎst mi-nōōt' mŭg'ər) n. One who recruits a new member for the Geological Society of America *after* the "Every-Member-Get-A-Member" campaign deadline, but *in 1984*. One who *still* receives a fine English ironstone mug for recruiting that new member.

**MUG**  
-A-  
**MEMBER**

## AGI Minority Participation Scholarships Go to 48 Students

The American Geological Institute has awarded 48 scholarships for the 1984-1985 academic year through its Minority Participation Program. Black, Hispanic, and Native American applicants are selected on the basis of academic performance,

work skills, career direction, motivation, and financial need. The program funds come from industrial firms, member professional societies such as GSA, and individuals. A total of \$53,450 has been awarded to the 1984-1985 scholars listed here.

### First-year Students

Jacquez Detiege  
University of New Orleans

Tardie Lee Roupe  
South Dakota School of Mines and Technology

### Undergraduate Students

Jannette Aguilar  
University of New Orleans

Edward A. Arias  
Southern Connecticut State University

Ruth E. Blake  
Wayne State University

Angela Daniels  
California State University, Long Beach

Shirl D. Davis  
Virginia State University

Robert DeBerry  
University of Georgia

Diane F. Elder  
Northern Arizona University

Kathryn R. Fink  
Colorado School of Mines

William L. Fink  
Colorado School of Mines

Jake Gallegos  
New Mexico State University

Sipriano Gonzales, Jr.  
University of Texas at Austin

Ronald L. Keas  
Colorado School of Mines

Orlinda M. Marquez  
Colorado School of Mines

Gregory F. Martin  
Fort Lewis College

Lisa Navarrete  
University of New Mexico

Johnathan D. Peterson  
Baylor University

### Graduate Students

Cathleen A. Aviles  
Columbia University

Shelley J. Bougan  
Arizona State University

Deborah M. Brooks  
Virginia State University

Rufus Catchings  
Stanford University

Jerry B. Coleman  
Louisiana State University

Katherine A. Conners  
Colorado School of Mines

Victor S. Glenn  
University of Pennsylvania

David A. Gonzales  
Northern Arizona University

Luis A. Gonzalez  
University of Michigan

Lisa P. Helton  
Howard University

Peter A. Herrera  
Colorado School of Mines

Michael W. Howell  
University of South Carolina

Eve Iverson  
San Francisco State University

Kathleen E. Johnson  
Southern Methodist University

Conrad C. Labandeira  
University of Chicago

Christine Lopez  
New Mexico Highlands University

Jolecia Mitchell  
Howard University

Reinaldo Mercado  
Syracuse University

Claudia Inez Mora  
University of Wisconsin, Madison

Lori C. Robison  
University of Arizona

Lauret E. Savoy  
University of California, Santa Cruz

Joe J. Sequeira  
Texas A&M University

Robert R. Solis  
Southern Methodist University

Ramon H. Trevino  
University of Texas, Arlington

Peter K. Valles  
University of California, Los Angeles

Raul J. Viera  
University of Southwestern Louisiana

William F. Ware  
Adelphi University

Lisa D. White  
University of California, Santa Cruz

Sherilyn Williams  
Johns Hopkins University

Richardo L. Zepeda  
University of California

### In Memoriam

Erling Dorf  
Princeton, New Jersey  
April 16, 1984

Yakov Vinkovetsky  
Houston, Texas

### HELP DIRECT GSA'S FUTURE

The GSA Committee on Nominations requests your help in compiling a list of GSA members qualified for service as officers and councilors of the Society. The committee requests that each nomination be accompanied by basic data and a description of the qualifications of the individual for the position recommended (vice-president, treasurer, councilor).

NOMINATIONS MUST BE RECEIVED at GSA headquarters no later than FEBRUARY 15, 1985.

Please send nominations and backup material to  
Administrative Department  
Geological Society of America  
P.O. Box 9140  
Boulder, CO 80301.

# MEETINGS

**Geological Society of America Annual Meeting**, November 5-8, Reno, Nevada.

**North Atlantic Palaeoceanography Conference**, November 6-7, 1984, London, England. Information: N. Shackleton, Dept. of Quaternary Research, Godwin Laboratory, Free School Lane, Cambridge CB2 3RS, England.

**International Conference on Ground-Water Technology**, November 12-17, 1984, Johannesburg, South Africa. Information: David M. Nielsen, National Water Well Association, 500 West Wilson Bridge Rd., Worthington, OH 43085; (614) 846-9355.

**American Petroleum Institute Annual Meeting**, November 12-13, 1984. Information: Edward Hammerbeck, API, 2101 L St., NW, Washington, DC 20037; (202) 457-7000.

**Symposium on Geophysics in Kansas—A 25-year Update**, November 13-14, 1984. Information: Don Steeples, Kansas Geological Survey, Lawrence, KS 66044; (913) 864-4991.

**Ophiolites through Time**, November 13-15, 1984, Nancy, France. Information: Jacqueline Desmons, Université de Nancy I, Faculté des Sciences, Laboratoire de Petrologie, B.P. n° 239, F-54506 Vandoeuvre-les-Nancy Cedex, France.

**Coastal Zone and Continental Shelf Conflict Resolution Conference**, November 14-15, 1984, Cambridge, Massachusetts. Information: T. Z. Henderson, MIT Sea Grant Information Center, 77 Massachusetts Ave., Bldg. E38-301, Cambridge, MA 02139; (617) 253-7041.

## 1985

**International Association of Hydrogeologists 17th International Congress, Hydrogeology of Rocks of Low Permeability**, January 7-12, 1985, Tucson, Arizona. Information: Eugene S. Simpson, Hydrology & Water Resources, University of Arizona, Tucson, AZ 85721.

**U.S. Geological Survey Forum on Research in Mineral Resources**, February 6-7, 1985, Denver, Colorado. Information: William R. Miller, USGS, P.O. Box 25046, M.S. 912, Federal Center, Denver, CO 80225; (303) 236-5558.

**Salts and Brines '85**, February 24-28, 1985, New York. Information: William C. Larson, Twin Cities Research Center, Bureau of Mines, 5629 Minnehaha Ave. S., Minneapolis, MN 55417; (612) 725-3464.

**American Institute of Mining, Metallurgical and Petroleum Engineers Annual Meeting**, February 24-28, 1985, New York. Information: Joan M. Andelman, AIME, 345 E. 47th St., New York, NY 10017; (212) 705-7677.

**Geology of the Oceans**, Geologische Vereinigung 75th annual meeting, February 27-March 2, 1985. Information: Michael Sarnthein, Geologisch-Palaeontologisches Institut, Universitaet, Ols-hausenstrasse, D-2300 Kiel, Federal Republic of Germany.

**Paul F. Kerr Memorial Symposium**, February 28, 1985, New York. Information: Otto C. Kopp, Dept. of Geological Sciences, University of Tennessee, Knoxville, TN 37996-1410.

**American Association of Petroleum Geologists Annual Convention**, March 24-27, 1985, New Orleans, Louisiana. Information: Kathy Watson, AAPG, P.O. Box 979, Tulsa, OK 74101; (918) 584-2555.

**Geological Association of Canada—Mineralogical Association of Canada Annual Meeting**, May 15-18, 1985, Fredericton, New Brunswick, Canada. Information: H. W. Van de Poll, Dept. of Geology, University of New Brunswick, P.O. Box 4400, Fredericton, N.B., Canada E3B 5A3; (506) 453-4803; Telex 014-46-202.

**26th U.S. Symposium on Rock Mechanics**, June 26-28, 1985, Rapid City, South Dakota. Information: Eileen Ashworth, Dept. of Mining Engineering, South Dakota School of Mines and Technology, Rapid City, SD 57701-3995; (605) 394-2344.

**International Symposium on Karst Water Resources**, July 7-19, 1985, Ankara and Antalya, Turkey. Information: A. Ivan Johnson, Woodward-Clyde Consultants, 7600 East Orchard Rd., Harlequin Plaza North, Englewood, CO 80111.

**International Estuarine Conference**, July 28-August 2, 1985, Durham, New Hampshire. Information: Bjorn Kjerfve, Belle W. Baruch Institute for Marine Biology and Coastal Research, University of South Carolina, Columbia, SC 29208; (803) 777-4529. Abstracts deadline is February 18, 1985.

**International Clay Conference**, July 28-August 2, 1985, Denver, Colorado. Information: Western Experience, Ltd., 2450 Central Ave., P2, Boulder, CO 80302; (303) 449-3352.

**Zeolite '85**, August 12-16, 1985, Budapest, Hungary. Information: J. Engelhardt, Central Research Institute for Chemistry, Hungarian Academy of Sciences, H-1525 Budapest, P.O. Box 17, Hungary.

**IVth Chilean Geological Congress**, August 19-24, 1985, Antofagasta, Chile. Information: Organizing Committee, IVth Chilean Geological Congress, Dept. of Geosciences, Universidad del Norte, Casilla 1280, Antofagasta, Chile; phone 222040-205.

**Symposium on Modern and Ancient Clastic Tidal Deposits**, August 26-28, 1985, Utrecht, Netherlands. Information: S. D. Nio, Comparative Sedimentology Division, University of Utrecht, Budapestlaan 4, 3584 CD Utrecht, Netherlands; telephone 030/53.51.21.

**Problems of the Stratigraphy and Paleogeography of Loesses**, September 6-10, 1985, Lublin, Poland. Information: Henryk Maruszczak, Department of Physical Geography, University Marie Curie-Sklodowska, Akademicka 19, 20-33 Lublin, Poland.

## 1985 Penrose Conferences

**Geomorphic and Stratigraphic Indicators of Neogene-Quaternary Climatic Change in Arid and Semiarid Environments**, April 14-19, 1985. Information: John C. Dohrenwend, U.S. Geological Survey, M.S. 41, 345 Middlefield Rd., Menlo Park, CA 94025; (415) 323-8111, ext. 2169.

**Terranes in the Circum-Atlantic Paleozoic Orogens**, May 27-June 2, 1985, Halifax, Nova Scotia. Information: John D. Keppie, Nova Scotia Department of Mines & Energy, P.O. Box 1087, 1690 Hollis St., Halifax, Nova Scotia, Canada B3J 2X1; (902) 424-5943 or 4015.

## 1985 GSA Section Meetings

**Northeastern Section**, March 13-16, 1985, Lancaster, Pennsylvania. Information: William M. Jordan, Dept. Earth Sciences, Millersville University, Millersville, PA 17551; (717) 872-3289.



# CLASSIFIED ADVERTISING

Ads (or cancellations) for the January issue must reach the GSA office by November 15.

Per line per issue	1x	3x	6x	12x
<b>Situations Wanted:</b>	\$1.25	\$1.10	\$ .95	\$ .85
<b>Positions Open:</b>	\$3.00	\$2.64	\$2.28	\$2.04
<b>Consultants:</b>	\$3.00	\$3.00	\$2.64	\$2.28
<b>Services &amp; Supplies:</b>	\$3.20	\$3.20	\$2.81	\$2.17

Code number \$2.75 extra.

Agencies and organizations may submit purchase order or payment with copy. Individuals must send prepayment with copy.

To answer coded ads, use this address:  
Code # . . . . . GSA News, P.O. Box 9140, Boulder, CO 80301

All coded mail will be forwarded within 24 hours of arrival at GSA News office.

## Situations Wanted

**Earth Scientists seeking employment or change in position!** Now you can advertise your availability, qualifications, and goals in this column each month for a very modest investment. You will reach more than 13,500 earth scientists through these pages -- the very people who are most likely to need your skills. Blind box numbers available for privacy. See above for rates, details, and closing dates.

## Positions Open

**Employers seeking qualified earth science job candidates!** This column will be read every month by more than 13,500 earth scientists around the world. These readers are some of the most highly qualified in every discipline. They're the scientists you most want to contact. Check our low rates for this column. See above for details and closing dates.

## Consultants

**Geologic consulting firms & individuals!** Use this new, low cost GSA advertising medium to promote your services throughout the geologic community. More than 13,500 earth scientists from around the world, working in every discipline, read this news magazine every month. Talk to them! See above for rates, details, and closing dates.

## Services & Supplies

**Pocket Gophers:** Microcomputer programs for geophysics industry and education. Interactive modeling of gravity, magnetics, and resistivity. SKW Enterprises (Dept GSA), Box 3135, Boulder, CO 80307. 1012

**Wear the GSA seal,** now available as a handsome solid brass belt buckle, 2 3/4" in diameter, for belts up to 1 1/2" wide at the buckle loop. Great for field or everyday wear, this attractive buckle makes an ideal gift. Only \$9.75 postage paid. Order from Publication Sales, GSA, P.O. Box 9140, Boulder, CO 80301. Enclose check, money order, or VISA/MC charge information & expiration date. Member discount applies.

**Wall-size Geologic Time Scale Chart,** highly detailed, produced in 1983 by GSA's Decade of North American Geology. Chart is 30" x 36" printed on sturdy, tear resistant stock. Only \$8.50 postage paid. Order MC-50 from GSA Publication Sales, P.O. Box 9140, Boulder, CO 80301. Shipped rolled in tube with illustrated file envelope and 2 pages of text.

**Pocket-size Geologic Time Scale,** in packs of 25 for distribution to students or staff. Contains same detail as wall chart described above, printed front and back on wallet-sized solid vinyl card.

Extremely fine resolution and clarity, although hand lens will be wanted for the extra fine detail. Only \$6.00 postage paid for package of 25 cards. Order CTS-03 pack from GSA Publication Sales, P.O. Box 9140, Boulder, CO 80301.

**The Decade of North American Geology,** GSA's gigantic project celebrating the Society's centennial, is on the move with its totally new synthesis of the geology of North America and adjoining oceanic regions. If you'd like to be one of the first to receive mailings on the various publications (transects, maps, and volumes), send a postcard or letter with the words "DNAG Information" and your name, address, city, state, and ZIP code to: DNAG Marketing, GSA, P.O. Box 9140, Boulder, CO 80301.

**Membership in GSA** provides opportunities for Growth, Support, and Achievement in the earth sciences. Tell your colleagues about GSA and encourage them to grow with us! Membership information and applications are available from GSA Membership Coordinator, P.O. Box 9140, Boulder, CO 80301, (303) 447-2020.

**Employment Service.** Searching for a new geoscientist? Let the GSA Employment Service help you locate that qualified individual. Our computerized data file will provide a printout that includes the applicants' names, addresses, phone numbers, areas of specialty, type of employment desired, degrees held, years of professional experience, and current employment status. For more information contact: Clara Hodgson, GSA Employment Service, P.O. Box 9140, Boulder, CO 80301, (303) 447-2020.

## MEETINGS

**Southeastern Section,** March 20-22, 1985, Knoxville, Tennessee. Information: Kenneth R. Walker, Dept. Geological Sciences, University of Tennessee, Knoxville, TN 37996; (615) 974-5499.

**South-Central Section,** April 14-16, 1985, Fayetteville, Arkansas. Information: Robert C. Morris, Dept. of Geology, OH 118, University of Arkansas, Fayetteville, AR 72701; (501) 575-3355.

**Rocky Mountain Section,** April 22-24, 1985, Boise, Idaho. Information: Claude Spinosa, Dept. Geology and Geophysics, Boise State University, Boise, ID 83725; (208) 385-3660.

**North-Central Section,** April 25-26, DeKalb, Illinois. Information: Jonathan H. Berg, Dept. Geology, Northern Illinois University, DeKalb, IL 60115; (815) 753-1943.

**Cordilleran Section,** May 8-10, 1985, Vancouver, British Columbia. Information: W. H. Mathews, Dept. Geological Sciences, University of British Columbia, Vancouver, B.C., Canada V6T 2B4; (604) 228-2624.

## REMINDER

### 1985 GSA ANNUAL MEETING ORLANDO, FLORIDA October 28-31

Symposia proposals due January 1, 1985

For information, please contact  
**James F. Tull, Dept. of Geology,**  
Florida State University, Tallahassee, FL 32306; (904) 644-1448

## Future GSA Annual Meetings

- 1986 San Antonio, Texas, November 10-13
- 1987 Phoenix, Arizona, October 26-29
- 1988 Denver, Colorado, October 31-Nov. 3
- 1989 St. Louis, Missouri, November 9-12

GSA  
MEMOIR 162

# The Caribbean- South American Plate Boundary and Regional Tectonics

The fact that the debate continues on the evolution of the Caribbean plate and its borderlands is reflected in the 28 papers included in this volume. Some authors postulate a distant Pacific source for Caribbean crust; others consider the geometry, timing, and effects of collision; still others view the process of evolution from the vantage point of the craton, from the time prior to collision, through the ensuing orogeny caused by collision, to the youngest phases of Plio-Pleistocene time.

Surprising to the editors is the accumulating evidence for increasingly radical, large-scale rotations and translations in the heretofore sacrosanct cratonic "autochthon." Most evidence is for such occurrence prior to the earliest Cretaceous, but there is also evidence that such movement is continuing today.

Pocket in back of book contains a 35x29" 4-color map of the area.

EDITED BY WILLIAM E. BONINI,  
ROBERT B. HARGRAVES, AND  
REGINALD SHAGAM

Memoir 162, x + 422, 8½ x 11, hard bound, CIP, ISBN  
0-8137-1162-2 ..... \$47.50

Check, money order (in U.S. funds), or MC/Visa  
accepted. Colorado residents add sales tax. We  
pay surface postage on prepaid orders.



Order today from:  
GSA Publication Sales  
P.O. Box 9140  
Boulder, CO 80301 • (303) 447-2020

**THE GEOLOGICAL SOCIETY OF AMERICA**

## INSIDE \_ \_ \_

GSA Divisions .....	p. 177
AGI Scholarship Winners .....	p. 181



**THE  
GEOLOGICAL SOCIETY  
OF AMERICA**  
3300 Penrose Place \* P.O. Box 9140  
Boulder, Colorado 80301

**SECOND CLASS**  
Postage Paid  
at Boulder, Colorado