



# GSA NEWS & INFORMATION

Monthly Newsletter of  
The Geological Society of America

VOLUME 6, NUMBER 7

JULY 1984

## Council Lists Nominees, Honorary Fellows, Award Winners

At its May 1984 meeting, the GSA Council approved the following councilor nominations, honorary fellowships, medal and award recipients, annual meeting cities and dates, and Penrose Conference.

### Nominees for Council

For Councilor (1985-1986) and President (1985)  
Brian J. Skinner; New Haven, Connecticut

For Councilor and Vice-President (1985)  
W. Gary Ernst; Los Angeles, California

For Councilor and Treasurer (1985)  
Robert L. Fuchs; Denver, Colorado

For Councilors (1985-1987)  
Samuel S. Adams; Boulder, Colorado  
David E. Dunn; New Orleans, Louisiana  
Melvin C. Schroeder; College Station, Texas  
Lee J. Suttner; Bloomington, Indiana

### Honorary Fellowships

*Huang Jiqing*  
Chinese Academy of Geological Sciences  
Baiwanzhuang Road 26  
Beijing, China

*Michael W. McElhinny*  
Bureau of Mineral Resources, Geology, and Geophysics  
P.O. Box 378  
Canberra City, A.C.T., Australia

*Hans Ramberg*  
Division of Mineralogy and Petrology  
University of Uppsala  
Box 555, S-751-22  
Uppsala 1, Sweden

### Medal and Award Winners

Penrose Medal  
Donald E. White  
U.S. Geological Survey  
345 Middlefield Road  
Menlo Park, California 94025

Day Medal  
Wallace S. Broecker  
Lamont-Doherty Geological Observatory  
Columbia University  
Palisades, New York 10964

Archaeological Geology Division Award  
Not available at press time

Gilbert H. Cady Award (Coal Geology Division)  
Presented biennially; no award in 1984

E. B. Burwell Award (Engineering Geology Division)  
Not available at press time

George P. Woollard Award (Geophysics Division)  
Manik Talwani  
Gulf Research & Development Company  
P.O. Box 37048  
Houston, Texas 77236

History of Geology Division Award  
Mary C. Rabbitt  
U.S. Geological Survey  
950 National Center  
Reston, Virginia 22092

O. E. Meinzer Award (Hydrogeology Division)  
Franklin W. Schwartz  
Department of Geology  
University of Alberta  
Edmonton, Alberta T6G 2E1, Canada  
*and*

Leslie Smith  
Department of Geological Sciences  
University of British Columbia  
Vancouver, B.C. V6T 2B4, Canada

G. K. Gilbert Award (Planetary Geology Division)  
George W. Wetherill  
Department of Terrestrial Magnetism  
Carnegie Institution of Washington  
Washington, D.C. 20015

Kirk Bryan Award (Quaternary Geology & Geomorphology  
Division)  
Steven M. Colman  
U.S. Geological Survey  
Quissett Campus  
Woods Hole, Massachusetts 02543

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### Future GSA Annual Meeting Dates

1984	November 5-8	Reno
1985	October 28-31	Orlando
1986	November 10-13	San Antonio
1987	October 26-29	Phoenix
1988	October 31-November 3	Denver
1989	November 9-12	St. Louis

### Penrose Conference

Terranes in the Circum-Atlantic Paleozoic Orogens

May 27-June 2, 1985

Liscombe Lodge

Halifax, Nova Scotia

Conveners:

*John D. Keppie*

Nova Scotia Department of Mines & Energy

P.O. Box 1087, 1690 Hollis Street

Halifax, Nova Scotia B3J 2X1, Canada

(902) 424-5943 or (902) 424-4015

*R. David Dallmeyer*

Department of Geology

University of Georgia

Athens, GA 30602

(404) 542-7448 (direct); (404) 542-2652 (dept.)

## Looking for a Job?

"The hardest thing you will ever do in a job is to get the job" is one of the trite but true statements about employment. Let the GSA Employment Service make your search for a job a little easier. GSA offers an efficient and economical way to locate a new position in the field of geology. Potential employers use the service to find the qualified individuals they need.

You may register any time throughout the year. Your name will be provided to all participating employers who are seeking individuals with your qualifications. Complete the application on page 107 and send it with a one- or two-page resumé and your check, money order, or MasterCard or VISA account number to the address below. A one-year listing for GSA members and students costs \$25; the cost for nonmembers is \$45.

It's worth the cost. Let GSA start you on a profitable career search!

### For additional information and submission of forms, contact:

Clara Hodgson

Membership Coordinator

Geological Society of America

P.O. Box 9140

Boulder, CO 80301

(303) 447-2020

### In Memoriam

Elso S. Barghoorn

Cambridge, Massachusetts

January 22, 1984

Julian E. Duffy

Robard, Kentucky

January 28, 1984

G. Davis Mason

Calgary, Alberta

April 9, 1984

## Nominations Open for William T. Pecora Award

The William T. Pecora Award is presented annually in recognition of outstanding contributions of individuals or groups toward the understanding of Earth by means of remote sensing. The award is sponsored jointly by the National Aeronautics and Space Administration and the Department of the Interior. The award was established in 1974 to honor the memory of William T. Pecora, former Director of the U.S. Geological Survey, and later, Under Secretary, Department of the Interior. Pecora was the motivating force behind the establishment of Earth Resource Sensing from space.

### Eligibility and Criteria

All individuals or groups working in the field of earth resource sensing, including those from both the scientific and nonscientific community, are eligible for this award.

The award recognizes contributions of those in the scientific and technical community as well as those involved in the practical application of remote sensing. Consideration will be given to sustained or single contributions of major importance to the art or science of the understanding of Earth through observations made from space.

### Nomination Procedure

Nominations for the award may be made by any individual, scientific organization, or professional society, by letter (an original and seven copies) to the William T. Pecora Award Committee, Office of Personnel, Department of the Interior, Washington, DC 20240 or to the Incentive Awards Board, NB-45, National Aeronautics and Space Administration, Washington, DC 20546. A brief statement in terms of the criteria outlined above in support of the nomination will be sufficient, but a more developed evaluation of the nominee is preferred. The award committee will consider cumulative achievements as well as single concrete contributions. Previous nominees not selected as recipients will be reconsidered for this year's award. Such nominations should be updated by submitters. Nominations must be received no later than **July 13, 1984**.

### Award

The award consists of three forms of recognition: (1) a citation appropriately framed and jointly signed by the Administrator and the Secretary; (2) a plaque presented to the awardee by the Administrator and the Secretary; (3) inscription and display of the awardee's name as a William T. Pecora Fellow.

## PEOPLE

GSA Fellow **Robert M. Hamilton**, chief geologist of the U.S. Geological Survey, has been awarded a Colorado School of Mines Distinguished Achievement Medal, given to School of Mines graduates who achieve recognition in their chosen field.

Fellow **Jack E. Oliver**, Cornell University, has been elected to the National Academy of Sciences, in recognition of distinguished and continuing achievements in original research.

### GSA News & Information

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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; Assistant Production Manager: Meredith Larson; Production Assistant: June E. Thomas.

## GSA Foundation Announces Second Century Club Membership

The Geological Society of America Foundation was established by the GSA Council in 1980 to provide a source of funds for special projects such as the Decade of North American Geology project and the scientific and educational objectives of the Society. GSA's services, publications, and grants have, in the past, been supported by dues, sales of publications, and endowment income. The costs of operating the Society have risen dramatically in the past few years. The GSA Council and the Foundation trustees are committed to assuring that the Society not only maintains but improves its service to the geological profession. A major goal of the GSA Foundation is to build an

endowment large enough to insure the resources necessary to make GSA's "Second Century" even better than its first.

The Second Century Club was established by the Foundation trustees to recognize different levels of annual giving to the Foundation. Gifts may be unrestricted or designated for a specific use by the Foundation. During 1983, 303 persons qualified for membership by giving or pledging \$25,078.70 to the Foundation. Membership credit was also given to those 353 persons who made Second Century level gifts from 1980 to 1982.

The Foundation gratefully acknowledges the following members.

### 1983

#### Sustaining

John P. Albanese  
Katharine C. Albino  
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Laramie M. Winczewski  
George R. Wulf  
Kenzo Yagi

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Laurence L. Sloss  
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J. E. Wilson  
Virgil D. Winkler  
P. A. Witherspoon  
M. Gordon Wolman  
E-an Zen

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**1983**

**Fellow**

William B. Heroy, Jr.  
Harrison C. Jamison  
Christina Lochman-Balk  
John C. Maxwell  
Bruce T. Pearson  
Chas A. & June Ross  
Terri Toedter  
James W. Tucker  
R. D. Woods

**1983**

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Mr. & Mrs. T. D. Barrow  
Albert D. Warren

**1980-1982**

**Sustaining**

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Marshall Schalk  
Stuart L. Schoff  
Stanley A. Schumm  
Frederic L. Schwab  
Eric Seedorff  
James D. Sell  
H. A. Sellin  
Frank H. Shafroth  
Robert P. Sharp  
Daniel R. Shawe  
John S. Shelton  
Gerald I. Shiller  
Russell G. Slayback  
Marjorie C. Smith  
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Harold H. Sullwold, Jr.  
Donald A. Swanson  
James B. Thompson  
Page C. Twiss  
Comis Tyler  
John H. Tyler  
Lloyd B. Underwood  
Claude N. Valerius  
John W. Vanderwilt  
Robert F. Walters  
Warren B. Weeks  
Gordon W. Weir  
Norman E. Weisbord  
A. E. Weissenborn  
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E. G. Wermund  
James E. Werner  
Brian B. Wernicke  
Donald E. White  
George W. White  
Willis H. White  
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R. H. & K. L. Willoughby  
A. O. Wilson  
Virgil D. Winkler  
Leland W. Younker  
E-an Zen  
Frederick P. Zoerner

**1980-1982**

**Century**

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Robert A. Cadigan  
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Aureal T. Cross  
Timothy A. Cross  
Anton M. Dainty  
Dan A. Davis  
Don U. Deere  
Ronald K. DeFord  
William Dickinson  
Paul L. Drummond  
John C. Dunlap  
Oscar Bradley Eckhoff  
G. Donald Emigh  
Gilbert H. Espenshade  
Dolf W. Fieldman  
Thomas W. Fluhr  
Dr. & Mrs. R. P. Goldthwait  
Sidney S. Goodwin  
William Graustein  
Frank L. Greene  
Joseph T. Gregory  
Ralph & Frances Grim  
Daniel H. Griswold  
Gilmor S. Hamill  
Bruce & Penny Hanshaw  
Byron S. Hardie  
Clyde T. Hardy  
Pembroke J. Hart

To join GSA Foundation's Second Century Club, fill in the form below and send it to GSA Foundation, 3300 Penrose Place, P.O. Box 9140, Boulder, CO 80301.

**GSA Foundation Second Century Club**

I am pleased to further the objectives of GSA's second century by becoming a member of the Second Century Club.

- |                                    |   |  |
|------------------------------------|---|--|
| Accept my:                         | <input type="checkbox"/> \$ 25—Sustaining | Please bill me                         |
| <input type="checkbox"/> Gift of   | <input type="checkbox"/> \$ 100—Century   | <input type="checkbox"/> Quarterly     |
| <input type="checkbox"/> Pledge of | <input type="checkbox"/> \$ 500—Fellow    | <input type="checkbox"/> Semi-annually |
|                                    | <input type="checkbox"/> \$1000—Founder   | <input type="checkbox"/> Annually      |

Name \_\_\_\_\_

Address \_\_\_\_\_

Signature \_\_\_\_\_

Robert D. Hatcher, Jr.  
 John D. Haun  
 Hollis D. Hedberg  
 John J. Hill  
 M. E. Hriskevich  
 Joseph P. D. Hull, Jr.  
 James D. Hume  
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 Anna Jespersen  
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 Helen Tappan Loeblich  
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T. S. Lovering  
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 J. A. MacDonell  
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 Douglas W. Rankin  
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 R. Dana Russell  
 Guillermo P. Salas  
 Eberhard A. Schmidt  
 R. A. & S. F. Schwarzlose  
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 Ira D. Taylor  
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 William A. Thomas  
 Peter R. Vail  
 F. M. & D. Wahl  
 Clyde Wahrhaftig  
 David A. White  
 Richard D. White  
 Pat Wilde

J. E. Wilson  
 Wendell P. Woodring  
 J. Lamar Worzel

**1980-1982  
 Fellow**

William C. Bradley  
 Preston E. Cloud  
 Mabel Crittenden  
 George L. Freeland  
 August Goldstein, Jr.  
 George C. Grow  
 David E. Jensen  
 Christina Lochman-Balk  
 Haydn H. Murray  
 Donald F. Todd  
 R. D. Woods

**1980-1982  
 Founder**

Fred Barnard  
 James Boyd  
 John C. Frye  
 Ruth H. Frye  
 Robert L. Fuchs  
 Howard Gould  
 Michel T. Halbouty  
 William B. Heroy, Jr.  
 Paul V. Hoover  
 John C. Maxwell  
 Caswell Silver  
 Leon T. Silver  
 Jack E. Simon  
 Laurence L. Sloss  
 Thomas W. Stern

**CALL FOR PAPERS  
 FOR 1985 GSA SECTION MEETINGS**

**Northeastern**  
 Host Farms  
 Lancaster, Pennsylvania  
 March 13-16, 1985  
 ABSTRACT DEADLINE:  
 October 17, 1984  
 Submit completed abstracts to  
 William Jordan  
 Dept. of Earth Sciences  
 Millersville University  
 Millersville, PA 17551  
 (717) 872-3289/872-3290

**South-Central**  
 University of Arkansas  
 Fayetteville, Arkansas  
 April 14-16, 1985  
 ABSTRACT DEADLINE:  
 November 21, 1984  
 Submit completed abstracts to  
 Robert C. Morris  
 Dept. of Geology, 118 Ozark Hall  
 University of Arkansas  
 Fayetteville, AR 72701  
 (505) 575-3355

**North-Central**  
 Northern Illinois University  
 DeKalb, Illinois  
 April 25-26, 1985  
 ABSTRACT DEADLINE:  
 December 7, 1984  
 Submit completed abstracts to  
 Clarence J. Casella  
 Dept. of Geology  
 Northern Illinois University  
 DeKalb, IL 60115  
 (815) 753-1944

**Southeastern**  
 Knoxville Hilton  
 Knoxville, Tennessee  
 March 20-22, 1985  
 ABSTRACT DEADLINE:  
 October 23, 1984  
 Submit completed abstracts to  
 Lawrence A. Taylor  
 Dept. of Geological Sciences  
 University of Tennessee  
 Knoxville, TN 37996-1410  
 (615) 974-2366

**Rocky Mountain**  
 Boise State University  
 Boise, Idaho  
 April 22-24, 1985  
 ABSTRACT DEADLINE:  
 December 3, 1984  
 Submit completed abstracts to  
 Gordon Stephenson  
 Dept. of Geology and Geophysics  
 Boise State University  
 Boise, ID 83725  
 (208) 334-9174/334-1750

**Cordilleran**  
 University of British Columbia  
 Vancouver, British Columbia  
 May 8-11, 1985  
 ABSTRACT DEADLINE:  
 December 11, 1984

*SUBMIT ALL CANADIAN ABSTRACTS TO*  
 W. R. Danner  
 Dept. of Geological Sciences  
 University of British Columbia  
 Vancouver, B.C. V6T 2B4, Canada  
 (604) 228-2449

*SUBMIT ALL U.S. ABSTRACTS TO*  
 Martin L. Stout  
 Dept. of Geology  
 California State University  
 Los Angeles, CA 90032  
 (213) 224-3388

**1985 ABSTRACT FORM REQUEST**

To: GSA Abstracts Coordinator  
 P.O. Box 9140  
 Boulder, CO 80301

Please send \_\_\_\_\_ copies of the 1985 GSA abstract form. I understand that the same form may be used for all 1985 GSA meetings—the six Section Meetings and the Annual Meeting.

Name \_\_\_\_\_  
 Organization \_\_\_\_\_  
 Address \_\_\_\_\_  
 City \_\_\_\_\_ State \_\_\_\_\_ ZIP \_\_\_\_\_

\_\_\_\_\_ Please check here if you have NOT been receiving mailings about GSA's publication sales but would like to be added to our mailing list.

## CAN YOU INTERVIEW IN NOVEMBER?

Are you looking for a new position in the field of geology? Would you like to interview with potential employers in November? Take advantage of GSA's Employment Interview Service, which is provided each fall in conjunction with the Society's Annual Meeting. The service brings potential employers and employees together for face-to-face interviews. Mark your calendar for November 5-8, 1984, in Reno, Nevada.

If you plan to interview at the GSA Annual Meeting, GSA *must* receive your



material no later than August 20, 1984. Complete the application on the following page and send it with a one- or two-page resumé and your check, money order, or MasterCard or VISA account number to the address on the form. A one-year listing for GSA members and students costs \$25; the cost for non-members is \$45. If we receive your

materials by August 20, your record will be included in the information that employers receive prior to the meeting. Submit your forms early to receive maximum exposure! Don't forget to indicate on your application form that you would like to interview in November.

Plan now for the annual Interview Service in Reno. See you there!

APPLICANT AND EMPLOYER FORMS ARE  
BACK-TO-BACK ON THE FOLLOWING PAGES

## SEARCHING FOR A NEW GEOSCIENTIST?

When was the last time you hired a new employee? Do you remember how much time and effort you wasted in your search for a qualified geoscientist? Let the GSA computerized search file make your job easier.

How does it work? Complete the Employer's Request for Earth Science Applicants on the following page. Remember to specify educational and professional experience requirements as well as the specialty area or areas of expertise your applicant should have. The GSA computer will take it from there.

You will receive 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. In 1984, the cost of a printout for one or two specialty codes is \$120. In a recent job search for an analyst of inorganic materials, the employer requested the specialty codes of geochemistry and petrology. Each additional specialty is \$40. A printout of the entire applicant listing in all specialties is available for \$325. If you have any questions about your personalized computerized search, GSA's Membership Department will assist you.

The GSA Employment Service is available year long. Now is an excellent time to use the service—in conjunction

with the annual *Employment Interview Service*. The interview service is offered each fall at the Society's Annual Meeting. The 1984 Annual Meeting will be held in Reno, Nevada, November 5-8. You may rent interview space in half-day increments from GSA. Our staff will schedule all interviews with applicants for you, the recruiter. In addition, GSA offers a message service, complete listing of applicants, copies of resumé's at no additional charge, and a posting of all vacancies.

You can attend the Annual Meeting and still have that new position filled before you return to work! See you in Reno.

## Society for Organic Petrology Formed

The Society for Organic Petrology was founded in Houston, Texas, on March 10, 1984, to consolidate and foster the organizational activities of scientists and engineers involved with coal petrology, kerogen petrology, organic geochemistry, and related disciplines.

At the March founding meeting the proposed constitution and bylaws were approved, and elections were held, with the following results: President: GSA Fellow John Clendening, Amoco Production Co.; President Elect: William Spackman, Pennsylvania State University; Vice-President: John Castano, Shell Development Co.; Secretary-Treasurer: Ann Brooke Reaugh, GeoChem Laboratories; Editor: Margaret E. Hildick, Gulf Oil E & P Co.; Councilors: Joseph T. Senftle, Union Oil Co., and John D. Shane, Exxon Co., U.S.A.

The society's first annual meeting will be held October 16 and 17, 1984, in Tysons Corner, Virginia (the metropolitan area of Washington, D.C.). Four technical sessions are planned. For more information on the annual meeting, contact Ann Brooke Reaugh (Chairman), GeoChem Laboratories, Inc., 1143-C Brittmore, Houston, Texas 77043, (713) 467-7011.

Persons interested in becoming members of the Society for Organic Petrology should contact either John A. Clendening, Amoco Production Co., P.O. Box 3092, Houston, TX 77253, (713) 556-3549; or Harvey S. Zeiss, P.O. Box 2906, Houston, TX 77252, (713) 870-2904.



# THE GEOLOGICAL SOCIETY OF AMERICA

3300 Penrose Place, P.O. Box 9140  
Boulder, Colorado 80301  
(303) 447-2020

FOR ACCTG. USE ONLY

Rec. \$25 \$45

Ck # \_\_\_\_\_

Ltr. \_\_\_\_\_

GSA \_\_\_\_\_

Add. \_\_\_\_\_

## APPLICATION FOR EMPLOYMENT MATCHING SERVICE (Please type or print legibly with black ink)

(Mr. )  
**NAME** (Ms. ) \_\_\_\_\_ **Date** \_\_\_\_\_  
(last name first)

**Mailing Address** \_\_\_\_\_

**City** \_\_\_\_\_ **State** \_\_\_\_\_ **Zip Code** \_\_\_\_\_

**Date Available** \_\_\_\_\_ **Telephone (** \_\_\_\_\_ **)** \_\_\_\_\_ **Business** \_\_\_\_\_ **Home** \_\_\_\_\_ **Visa** \_\_\_\_\_

area code

If not U.S. citizen, list visa

**Members of GSA ONLY:** Check here if you **DO NOT WISH** to have this number included in the Membership Directory

### EXPERIENCE

Must use specialty codes listed below. Choose three that best describe your expertise in order of importance.

\* 1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_

### Interested in

- Academic
- Government
- Industry
- Other

### TYPE OF POSITION DESIRED

#### Specific Interest

- Administration
- Exploration/Production
- Field
- Research
- Teaching

#### Will accept employment in

- U.S. only
- U.S. with foreign assignments
- Either

### \* PRESENT SPECIALTY

Choose one from codes listed below \_\_\_\_\_ **YEARS EXPERIENCE IN THIS SPECIALTY** \_\_\_\_\_

**PRESENT EMPLOYER** \_\_\_\_\_ **May he/she be contacted?** Yes  No

If you do not wish to be listed for employment with a specific organization, check here  and list organization on an attached sheet.

### Give number of years experience for any of the following that are applicable:

Administrative \_\_\_\_\_ Exploration/Production \_\_\_\_\_ Field \_\_\_\_\_ Research \_\_\_\_\_ Teaching \_\_\_\_\_ Total geological working experience \_\_\_\_\_

**KNOWLEDGE OF FOREIGN LANGUAGES:** French \_\_\_\_\_ ; German \_\_\_\_\_ ; Russian \_\_\_\_\_ ; Spanish \_\_\_\_\_ ; Other \_\_\_\_\_

### ACADEMIC TRAINING

College or University	Degree (rec'd or expected)	Year	Major	Minor

**Postgraduate work beyond highest degree in (field)** \_\_\_\_\_ **Number of years** \_\_\_\_\_

### SPECIALTY CODES

Select those that best describe your ability. Use codes in bold face only when other breakdowns are inadequate.

- |  |                                  |                              |                               |                                |
|--|----------------------------------|------------------------------|-------------------------------|--------------------------------|
| 100. Economic Geology                            | 224. stable isotopes             | 351. computer science        | <b>500. Petroleum Geology</b> | <b>630. Science Editing</b>    |
| 101. coal geology                                | 225. geochronology               | 352. statistical geology     | 501. exploration              | <b>650. Sedimentology</b>      |
| 102. geothermal, etc.                            | <b>250. Geomorphology</b>        | <b>400. Mineralogy</b>       | 502. subsurface stratigraphy  | 651. sedimentary processes     |
| 103. metallic deposits                           | 251. Pleistocene geology         | 401. crystallography         | <b>520. Petrology</b>         | 652. sedimentary environments  |
| 104. nonmetallic deposits                        | <b>300. Geophysics</b>           | 402. clay mineralogy         | 521. igneous                  | <b>720. Stratigraphy</b>       |
| 105. mining geology                              | 301. seismic                     | <b>410. Museum (curator)</b> | 522. metamorphic              | <b>750. Structural Geology</b> |
| <b>120. Engineering Geology</b>                  | 302. gravity/magnetics           | <b>420. Oceanography</b>     | 523. sedimentary (clastic)    | 751. tectonics                 |
| <b>150. Environmental Geology</b>                | 303. seismicity                  | 421. marine geology          | 524. sedimentary (carbonate)  | 752. tectonophysics            |
| <b>160. Public Education &amp; Communication</b> | 304. paleomagnetism              | 422. coastal geology         | 525. experimental             | 753. rock mechanics            |
| <b>200. General Geology</b>                      | <b>320. Hydrogeology</b>         | <b>450. Paleontology</b>     | <b>550. Planetology</b>       | <b>800. Volcanology</b>        |
| <b>220. Geochemistry</b>                         | 321. hydrochemistry              | 451. invertebrate            | <b>600. Regional Geology</b>  |                                |
| 221. organic                                     | 322. ground water                | 452. vertebrate              | <b>620. Remote Sensing</b>    |                                |
| 222. high temperature                            | 323. surface water               | 453. micropaleontology       | 621. photogeology             |                                |
| 223. low temperature                             | <b>330. Library</b>              | 454. paleobotany             | 622. photogrammetry           |                                |
|  | <b>350. Mathematical Geology</b> | 455. paleoecology            |                               |                                |

- \* **Résumé must be attached, limited to two pages, typewritten on one side only, to be acceptable for reproduction to employers. Include your name, address, and phone number; concise details of work experience; and majors/minors on degrees.**
- \* **Fee: \$25 if you are a Member or Student Associate of GSA in good standing (Member # \_\_\_\_\_) \$45 if you are not a member of GSA. Payment in U.S. funds (check or money order; or charge information, MasterCard or VISA) MUST ACCOMPANY FORM.**

### MAKE CHECK PAYABLE TO THE GEOLOGICAL SOCIETY OF AMERICA

Check or Money Order  Card Number \_\_\_\_\_

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Signature \_\_\_\_\_ (Required for credit card payment)

I agree to release GSA or their representatives from responsibility for errors that may occur in processing or distributing this data. I understand that GSA makes **no guarantees** of contact by an employer in this service. I agree to notify GSA Employment Service immediately of (1) change of address, (2) acceptance of a position.

I will attend the 19\_\_\_\_ GSA Annual Meeting in \_\_\_\_\_

\* **SIGNATURE (required)**

\* **THESE ITEMS ARE ABSOLUTELY NECESSARY TO PROCESS THIS APPLICATION**

This application will be active for 1 year

1/84



# THE GEOLOGICAL SOCIETY OF AMERICA

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## EMPLOYER'S REQUEST FOR EARTH SCIENCE APPLICANTS

(Please type or print legibly)

Name \_\_\_\_\_ Date \_\_\_\_\_

Organization \_\_\_\_\_

Mailing address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip code \_\_\_\_\_ Telephone number \_\_\_\_\_  
(Area code) Number

### SPECIALTY CODES (see list below)

List the specialty code numbers that you wish to order, or  check here if you want entire file of applicants in ALL specialties.

1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_ 4. \_\_\_\_\_ 5. \_\_\_\_\_ 6. \_\_\_\_\_

### SPECIALTY CODES

100. Economic Geology	224. stable isotopes	351. computer science	500. Petroleum Geology	630. Science Editing
101. coal geology	225. geochronology	352. statistical geology	501. exploration	650. Sedimentology
102. geothermal, etc.	250. <b>Geomorphology</b>	400. <b>Mineralogy</b>	502. subsurface	651. sedimentary processes
103. metallic deposits	251. Pleistocene geology	401. crystallography	stratigraphy	652. sedimentary environments
104. nonmetallic deposits	300. <b>Geophysics</b>	402. clay mineralogy	520. <b>Petrology</b>	720. <b>Stratigraphy</b>
105. mining geology	301. seismic	410. <b>Museum (curator)</b>	521. igneous	750. <b>Structural Geology</b>
120. <b>Engineering Geology</b>	302. gravity/magnetics	420. <b>Oceanography</b>	522. metamorphic	751. tectonics
150. <b>Environmental Geology</b>	303. seismicity	421. marine geology	523. sedimentary (clastic)	752. tectonophysics
160. <b>Public Education &amp; Communication</b>	304. paleomagnetism	422. coastal geology	524. sedimentary (carbonate)	753. rock mechanics
200. <b>General Geology</b>	320. <b>Hydrogeology</b>	450. <b>Paleontology</b>	525. experimental	800. <b>Volcanology</b>
220. <b>Geochemistry</b>	321. hydrochemistry	451. invertebrate	550. <b>Planetology</b>	
221. organic	322. ground water	452. vertebrate	600. <b>Regional Geology</b>	
222. high temperature	323. surface water	453. micropaleontology	620. <b>Remote Sensing</b>	
223. low temperature	330. <b>Library</b>	454. paleobotany	621. photogeology	
	350. <b>Mathematical Geology</b>	455. paleoecology	622. photogrammetry	

#### Applicants seeking employment in:

- Academic  
 Government  
 Industry  
 Other \_\_\_\_\_

#### Minimum degree required

- None  
 B.A. or B.S.  
 M.A. or M.S.  
 Ph.D

#### Minimum professional experience

- None  
 1-5 yrs.  
 6-plus

#### Experience desired (yrs.)

	None	1-5	6-plus
Administrative	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Exploration/Production	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Field	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Research	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teaching	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

I am interested in interviewing applicants through the GSA Employment Service at the 19\_\_\_\_ Annual Meeting in \_\_\_\_\_

See attached sheet for current fee schedule.

1. I agree to use this service for valid recruiting purposes.  
2. I agree that no placement charges will be assessed to any applicant participating in the GSA Employment Matching Service.

Total fee enclosed .....\$ \_\_\_\_\_

or invoice requested .....\$ \_\_\_\_\_

Signature (required) \_\_\_\_\_



## Conveners Announce Two 1985 Penrose Conferences

**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 November 15, 1984**.

**Terranes in the Circum-Atlantic Paleozoic Orogens**, May 27-June 2, 1985, Liscombe Lodge, Nova Scotia, Canada. Conveners: **J. D. Keppie**, Nova Scotia Department of Mines and Energy, P.O. Box 1087, Halifax, Nova Scotia B3J 2X1, Canada (902) 424-5943; and **R. D. Dallmeyer**, Department of Geology, University of Georgia, Athens, Georgia 30602, (404) 542-7448

Tectonic analysis of orogens has evolved from theories based upon geosynclines through simple plate-tectonic concepts to much more complex (and realistic) models that attempt to resolve the interactions of microplates and discrete terranes. The latter concept provides a powerful new tool for delineating individual tectonic elements within the orogenic belts and thereby form the basis for a quantum leap in genetic modeling of deformed zones. Applications of these new concepts to the Appalachian-Caledonide-Hercynide-Mauritanide orogen are in the initial, formative stages; the many differing definitions of basic tectonic units have led to a spectrum of conflicting terrane maps. The time is ripe to assemble a group of specialists with a variety of backgrounds who have been attempting terrane analysis of various segments of the Appalachian-Caledonian-Hercynide-Mauritanide orogen. The goals of this conference are to (1) clarify the basic tectonic units (terranes) that compose the orogen; (2) prepare a preliminary terrane map (1:5,000,000); (3) provide constraints on the times of

terrane amalgamation and their accretion to the various continental units that border the orogen; (4) delineate pre-, syn-, and post-accretionary movements that have complicated terrane boundaries, both from a geologic and a paleomagnetic perspective; (5) interpret the tectonic elements within each terrane and their overstepping sequences in the context of their significance for the genesis of the entire orogen; and (6) outline those areas where such data are lacking and which should be targeted for future collaborative research projects.

A field trip to the Meguma and Antigonish terranes and an examination of the terrane boundary is planned during the conference. The registration fee will be US \$400 for GSA members and \$410 for nonmembers, payable by **January 1, 1985** to J. Duncan Keppie, Nova Scotia Department of Mines and Energy, P.O. Box 1087, Halifax, Nova Scotia B3J 2X1, Canada.

### *Other Upcoming Penrose Conferences*

#### **Geochemistry of the Environment near a High-level Nuclear Waste Repository**

September 9-14, 1984, Rippling River Resort, Welches, Oregon  
Conveners: David G. Coles, Michael J. Apted, Floyd N. Hodges, Battelle Pacific Northwest Labs, P.O. Box 999, Richland, WA 99352, (509) 376-0882; Donald H. Alexander, Nuclear Regulatory Commission, Office of Research, 16912 Olde Mill Run, Rockville, MD 20855, (301) 427-4210

#### **Transport Processes in Fractured Rock**

September 23-28, 1984, Park City, Utah  
Conveners: Leslie J. Smith, Dept. of Geological Sciences, University of British Columbia, Vancouver, British Columbia V6T 2B4, Canada, (604) 228-2449; Frank W. Schwartz, Dept. of Geology, University of Alberta, Edmonton, Alberta T6G 2E3, Canada, (403) 432-3265

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### **Proposed Indian Ocean Scientific Drilling**

Tentative plans for the Ocean Drilling Project (ODP) are for the drilling vessel *SEDCO-471* to work in the Indian Ocean during all or parts of 1987 and 1988. The Indian Ocean Advisory Panel of ODP solicits letters of intent or proposals for possible scientific ocean drilling during that period. All areas within the Indian Ocean and any important problems, including tectonics, nature of the lithosphere, paleoceanography, and sedimentary processes will be considered. Send proposals, with appropriate charts and copies of pertinent data, in triplicate to the Office of Joint Oceanographic Institutions Deep Earth Sampling (JOIDES Office, Rosenstiel School of Marine and Atmospheric Science, University of Miami, 4600 Rickenbacker Causeway, Miami, FL 33149), and, if possible, also send one copy to the chairman or to any other members of the panel. Proposals and letters received before September 1, 1984, will be reviewed at the Panel Meeting scheduled for the first week of September. Indian Ocean Panel Members are J. R. Curray (Chairman), Scripps Institution of Oceanography, La Jolla, CA 92093; J. R. Cochran, Lamont-Doherty Geological Observatory, Palisades, NY 10964; F. Gradstein, BIO-Geological Survey of Canada, Dartmouth, N.S. B2Y 4A2, Canada; R. Herb, University of Bern, CH-3001 Bern, Switzerland; W. L. Prell, Brown University, Providence, RI 02912; R. Schlich, Université Louis Pasteur, 67084 Strasbourg Cedex, France; U. von Rad, Bundesanstalt für Geowissenschaften und Rohstoffe, D-3000 Hannover 51, Postfach 5101053, West Germany; and R. White, Cambridge University, Cambridge, England.

## Rocky Mountain Coal Scholarships Awarded

The Rocky Mountain Coal Scholarship Committee has selected two recipients for scholarships jointly awarded by the Symposium on the Geology of Rocky Mountain Coal and the Coal Geology Division of GSA. The \$1,000 scholarship award for 1984 was divided between the two winners.

### 1984 Awards

A first-place scholarship of \$500 was awarded to Peter D. Warwick of Lexington, Kentucky. Warwick is a candidate for a Doctorate at the University of Kentucky. His dissertation is titled "A paleoenvironmental study of the Felix coal interval, Wasatch Formation, Powder River Basin, north-central Wyoming." He is developing a depositional model to evaluate the interrelationships between the petrographic characteristics of the Felix coal and the geometry of the coal bed and adjacent rocks in the Eocene Wasatch Formation. There has been no detailed work on the Felix coal bed other than mapping, and much of the mapping dates back to the early 1900s.

A first-place scholarship of \$500 was also awarded to Steven T. Johnston of Edmonton, Alberta. Johnston is a Master's candidate at the University of Alberta. His thesis is titled "Structure of the Triangle Zone near Robb, Alberta." He is conducting a detailed structural analysis in the "Triangle Zone," the outermost structural unit in the foothills of the Canadian Rocky Mountains.

### Area of Study

The Rocky Mountain Coal Scholarship Program was established to further interest in and research on coal within the Rocky Mountain and northern Great Plains coal provinces by providing scholarship funds for field and laboratory expenses, books, and tuition. Funding for the program comes from surplus money accumulated by the Symposium on the Geology of Rocky Mountain Coal. These funds have been invested in the Geological Society

of America Foundation, and the interest now forms the basis of the scholarship. There is, however, no assurance of the amount of the funds or that funds will be available every year.

Coal research pertaining to coal in the states or provinces of Arizona, Alberta, British Columbia, Colorado, Idaho, Montana, New Mexico, North Dakota, Utah, Saskatchewan, South Dakota, and Wyoming is considered for support. Applicants for the scholarship must be currently enrolled in a graduate program (M.S. or Ph.D.) at a private or state college or university. The main theme of an applicant's research must be an aspect of coal research, and the research must pertain to coal in the states or provinces listed above (the institution where the research is being conducted need not be in the listed states or provinces). Although the applicant must be involved in coal research, he or she need not be a geology major.

### Application and Award

Scholarship applications can be obtained from the Geological Society of America, P.O. Box 9140, Boulder, CO 80301, or from Gary B. Glass, Chairman of the Coal Scholarship Committee, c/o Geological Survey of Wyoming, Box 3008, University Station, Laramie, Wyoming 82071. The deadline for applications for next year's scholarship is February 1, 1985.

A committee composed of two ad hoc members of the Symposium on the Geology of Rocky Mountain Coal and two GSA Coal Geology Division members screens applications and selects the most appropriate proposal by May 1. At the time of selection, scholarship monies are transferred directly to the grantee by the GSA Foundation. When the scholarship winner's research is complete, one copy of the dissertation or thesis should be sent to the Chairman of the Rocky Mountain Coal Scholarship Committee.

## MEETINGS

**Geotechnical Engineering Practice, lecture series**, July 9-10, 1984, Medford, Massachusetts. Information: Tufts University Conference Bureau, Medford, MA 02155; (617) 381-3568.

**Fossil Fuels of Europe Conference**, July 15-18, 1984, Geneva, Switzerland. Information: AAPG, P.O. Box 979, Tulsa, OK 74101; (918) 584-2555.

**8th World Conference on Earthquake Engineering**, July 21-28, 1984, San Francisco, California. Information: EERI-8WCEE, 2620 Telegraph Ave., Berkeley, CA 94704.

**Current Issues in Systematics**, international meeting, July 1984, London, England. Information: C. J. Humphries, Dept. of Botany, British Museum, Cromwell Rd., London SW7 5BD, England; 01-589 6323, ext. 405.

**27th International Geological Congress**, August 4-14, 1984, Moscow, USSR. Information: Secretary General, 27th International Geological Congress, Institute of the Lithosphere, USSR Academy of Sciences, 22, Staromonetny, Moscow, 109180, USSR; 231-48-36; Telex LITOS 411484.

**International Cartographic Association 12th Conference and 7th General Assembly**, August 6-10, 1984, Perth, Australia. Information: ICA Conference Director, P.O. Box 6208, Hay St., East Perth, Western Australia 6001; Telex AA95791 Minewa.

**American Water Resources Association 20th Annual Conference and Symposium**, August 12-17, 1984, Washington,

D.C. Information: Kenneth D. Reid, AWRA, 5410 Grosvenor Lane, Suite 220, Bethesda, MD 20814; (301) 493-8600.

**American Quaternary Association Eighth Biennial Meeting**, August 13-15, 1984, Boulder, Colorado. Information: AMQUA, Office of Conference Services, Campus Box 153, University of Colorado, Boulder, CO 80310; (303) 492-5151.

**NATO Advanced Study Institute Field Excursion in the British Caledonides**, August 19-September 2, 1984. Information: A. L. Harris, Jane Herdman Laboratories of Geology, University of Liverpool, Brownlow St., P.O. Box 147, Liverpool L69 3BX, England.

**Geothermal Resources Council 8th Annual Meeting**, August 26-29, 1984, Reno, Nevada. Information: Grace Mata, Meetings Group, Geothermal Resources Council, P.O. Box 1350, Davis, CA 95617; (916) 758-2360.

**Sixth International Palynological Conference**, August 26-September 1, 1984, Calgary, Alberta, Canada. Information: Lois Kokoski, Conference Office, Faculty of Continuing Education, University of Calgary, Education Tower Room 102, Calgary, Alberta T2N 1N4, Canada; (403) 284-5051.

**Symposium on Evolution of the Caledonide-Appalachian Orogen**, September 3-8, 1984, Glasgow, Scotland. Information: Matt Bates, A. T. Mays, 12 Nineyard St., Scottcoats, Scotland KA21 5HP, U.K.

# MEETINGS

**Oceans 84: Industry, Government, and Education—Designs for the Future**, conference and exposition, September 10-12, 1984, Washington, D.C. Information: Oceans 84, Marine Technology Society, 1730 M St. N.W., Suite 412, Washington, DC 20036; (202) 659-3251.

**International Gas Research Conference**, September 10-13, 1984, Washington, D.C. Information: International Gas Research Conference, c/o Gas Research Institute, 8600 West Bryn Mawr Ave., Chicago, IL 60631; (312) 399-8300; Telex 253812.

**Recent Advances in Petroleum Exploration and Development**, September 24-28, 1984, Beijing, China. Information: BHP Petroleum, G.P.O. Box 1911R, Melbourne, 3001, Australia.

**Tectonic Geomorphology**, 15th Annual Binghamton Geomorphology Symposium, September 28-29, 1984, Binghamton, New York. Information: Marie Morisawa, Dept. of Geological Sciences, SUNY, Binghamton, NY 13901; (607) 798-2615.

**Clay Minerals Society Annual Meeting**, September 30-October 3, 1984, Baton Rouge, Louisiana. Information: Ray E. Ferrell, Dept. of Geology, Louisiana State University, Baton Rouge, LA 70803; (504) 388-5306.

**International Symposium on Recent Investigations in the Zone of Aeration**, October 1-5, 1984, Munich, West Germany. Information: P. Udluft, Inst. für Wasserchemie der TU München, Marchioninstr. 17, 8000 München 70, West Germany; telephone 089/7095 7086-98-80.

**Research Methods on Mini- and Microcomputers**, 13th Annual Geochautauqua, October 4-5, 1984, Morgantown, West Virginia. Information: M. E. Hohn, West Virginia Geological Survey, Morgantown, WV 26507; (304) 594-2331.

**Association of Engineering Geologists 27th Annual Meeting**, October 7-13, Boston, Massachusetts. Information: Richard Sherman, Meeting Chairman, Metcalf & Eddy, 50 Staniford St., Boston, MA 02114; (617) 367-4236.

**Society for Organic Petrology First Annual Meeting**, October 16-17, 1984, Tysons Corner, Virginia. Information: Ann B. Reaugh, GeoChem Laboratories, Inc., 1143-C Brittmore, Houston, TX 77043; (713) 467-7011.

**American Institute of Professional Geologists Annual Meeting**, October 17-19, 1984, Orlando, Florida. Information: Bobby J. Timmons, Timmons Associates, P.O. Box 50606, Jacksonville Beach, FL 32250; (904) 246-4533.

**Advances in Reef Science**, Joint Meeting of Atlantic Reef Committee and International Society for Reef Studies, October 26-28, 1984, Miami, Florida. Information: Alice Kashuba, Rosenstiel School of Marine and Atmospheric Science, University of Miami, Miami, FL 33139; (305) 672-1840.

**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.

**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. (Abstracts deadline is September 1, 1984.)

## GSA 1984 Meetings

**Program Review Committee and Associated Society Representatives**, July 12, Boulder, Colorado  
**Joint Technical Program Committee**, July 13, Boulder, Colorado

## 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.

**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, 1984, 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.

**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.

**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.

GSA SPECIAL PAPER 194

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