



# GSA news & information

VOLUME 4, NUMBER 12

G.S.A. ARCHIVES

DECEMBER 1982

## JOHN C. FRYE (1912-1982)

### A Fellow of The Geological Society of America



Dr. John Chapman Frye, recently retired executive director of the Geological Society of America, died peacefully November 12, 1982, at Community Hospital in Boulder, Colorado, following a short illness.

He is survived by his wife of 46 years, Ruth L. Frye, of 4470 Chippewa Drive, Boulder, Colorado 80303, two daughters, Sally Jean Schwarzlose, of Evanston,

Illinois, and Terri Ruth Toedter, of Riyadh, Saudi Arabia, and three grandchildren. A son, John Douglas, preceded him in death.

John was born in Marietta, Ohio, July 25, 1912. He earned his Bachelor of Science at Marietta College in 1934, and his Master of Science and his Ph.D. in geology at the University of Iowa in 1937 and 1938, respectively. He was awarded an honorary Doctorate of Science by Marietta College in 1955.

He began his professional career, spanning 47 years, in 1935 as research assistant at the University of Iowa. In 1938 he became junior geologist at the Groundwater Division of the U.S. Geological Survey, and 1940 to 1941 he was assistant geologist there. He then became the assistant state geologist and assistant director of the Kansas State Geological Survey, where he served until 1945, at which time he was named executive director of the Kansas State Geological Survey, a position he held until 1954. Concurrently from 1952 to 1954, he served as state geologist.

In 1954, John was named chief of the Illinois State Geological Survey, a position he held until he retired in 1974, at which time he accepted the appointment as executive director of the Geological Society of America. He served in this position until his second retirement in June of this year.

John held academic appointments as professor at the University of Kansas and the University of Illinois, Urbana. In addition to being a Fellow of the Geological Society of America and the American Association for the Advancement of Science, his membership in national geologic organizations included the following: the National Academy of Engineering; the American Association of Petroleum Geologists; the Society of Economic Geologists; the American Geological Institute (president, 1966); the American Institute of Professional Geologists; the American Geophysical Union; the American Institute of Mining, Metallurgical, and Petroleum Engineers; the Association of American State Geologists (president, 1960); and the Society of Economic Paleontologists and Mineralogists (vice-president, 1965-1966). He was a Mason and a Rotarian, and he held membership in Sigma Xi, Sigma Gamma Epsilon, Alpha Sigma Phi, and the Cosmos Club of Washington, D.C.

At the time John became executive director of GSA, the Society was facing numerous crises. During his eight-year tenure, there was a dramatic turnaround in the Society's financial health. The GSA Foundation was established and has been successful in obtaining important new funding for such goals as the Decade of North American Geology (DNAG), a project to celebrate the Society's 188th centennial. To John fell the burden of leadership for organizing and managing the start-up of  
*(continued next page)*

(John C. Frye)

this and other new Society endeavors. He did so very successfully, and made major advances in streamlining headquarters operations.

Perhaps, however, John's most important contribution to GSA was his ongoing effort to stimulate and encourage greater participation in the Society's affairs by the membership, especially the officers and members of the various Sections of GSA. The result of that effort has

been a new awareness among the membership of GSA's position and the role the Society must play in the future to best serve the geological sciences.

Memorial services for John will be private. Contributions may be made in his name to the Geological Society of America Foundation, P.O. Box 9140, Boulder, Colorado 80301. At John's request, no GSA Memorial will be published.

### Nominations for Cady Award accepted through February 1, 1983

Nominations of potential recipients of the Gilbert H. Cady Award are invited by the Award Committee of the Coal Geology Division.

The Cady Award is made biennially for outstanding contributions in the field of coal geology. For purposes of the Award, coal geology is defined as referring to "a field of knowledge concerning the origin, occurrence, relationships, and geologic characteristics of the many varieties of coal and associated sedimentary rocks, including economic implications." Generally, the Award is made for contributions by a North American coal geologist which are considered to advance the field of coal geology in North America, but contributions by workers outside of North America deemed to advance coal geology in North America may be considered for the Award.

Nominations are to be submitted to William Spackman, Chairman of the Cady Award Committee, 517 Deike Building, Pennsylvania State University, University Park, PA 16802, telephone (814) 865-6545.

Each nomination must include the following:

- (1) Name, office or title, and affiliation of the nominee.
- (2) Date and place of birth, education, degrees, honors and awards.
- (3) Major events in the nominee's professional career, including a bibliography of the 20 most significant publications.
- (4) Outstanding achievements and accomplishments that warrant the nomination.

Past nominees are kept in an active file and need not be renominated each year.

### American Institute of Physics offers reduced subscription rates to GSA members

It is the policy of the Institute to offer 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. If any GSA member wishes to take advantage of this offer, he should send his subscription order, with remittance, directly to the American Institute of Physics, 335 East 45th Street, New York, NY 10017, and include a statement indicating that he is a member of GSA, an affiliated society.

Following is a list of Institute-owned journals showing the member rates that are available to members of our society, and the nonmember rates, for 1983:

	Domestic rates	
	Member rate	Nonmember rate
Journal of Applied Physics	\$ 65.00	\$300.00
Applied Physics Letters	40.00	175.00
The Journal of Chemical Physics	100.00	525.00
Journal of Mathematical Physics	50.00	300.00
The Physics of Fluids	45.00	275.00
Physics Today	25.00	45.00
Review of Scientific Instruments	40.00	165.00
Current Physics Index	65.00	215.00
Journal of Physical and Chemical Reference Data	42.00	170.00*

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

### GSA News & Information

Vol. 4, no. 12

December 1982

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 by F. Michael Wahl, Executive Director; James R. Clark, Production and Advertising Sales Manager; June Thomas and Ann H. Fogel, Production Assistants.

# CENTENNIAL NEWS

by Allison R. (Pete) Palmer

## ***Sedimentary Cover—North American Craton: U.S.*** **volume organized**



An organizational meeting for the DNAG synthesis volume, *Sedimentary Cover—North American Craton: U.S.* was held at Norman, Oklahoma, on June 12 and 13, 1982. An outline with the names of the chapter organizers is given below. As with the other volumes, the chapter organizers may be contacting additional individual contributors as the synthesis progresses. Final manuscripts and accompanying synthesis maps are to be in the hands of the editors, L. L. Sloss, C. J. Mankin, and P. R. Vail for submittal to GSA by February, 1985.

- A. **Introduction** — L. L. Sloss, C. J. Mankin, P. R. Vail
- B. **Regional Overview**
  - 1. Stratigraphic/Tectonic Evolution — L. L. Sloss, C. J. Mankin, P. R. Vail
  - 2. Geophysical aspects of the Craton — W. J. Hinze
- C. **Stratigraphic Analysis**
  - 1. Cambrian through Mississippian — L. L. Sloss, C. J. Mankin, P. R. Vail
  - 2. Pennsylvanian through Triassic — L. L. Sloss, C. J. Mankin, P. R. Vail
  - 3. Jurassic through Cretaceous — L. L. Sloss, C. J. Mankin, P. R. Vail
  - 4. Tertiary — L. L. Sloss, C. J. Mankin, P. R. Vail
- D. **Basin Analysis**
  - 1. Appalachian Basin — D. G. Patchen, J. M. Dennison
  - 2. Black Warrior Basin — W. A. Thomas
  - 3. Michigan Basin — J. H. Fischer, M. W. Barratt
  - 4. Illinois Basin — C. W. Collinson
  - 5. Forest City/Salina Basins — B. J. Bunker
  - 6. Williston Basin — L. C. Gerhard
  - 7. Western Arkansas/Oklahoma/Northeast Texas Region — K. S. Johnson\*
  - 8. Permian Basin — H. Frenzel\*
  - 9. Denver/Julesburg Basin — J. P. Lockridge
  - 10. Rocky Mountain Region — D. L. Baars\*
- E. **Resources** — C. J. Mankin
- F. **Conclusions** — L. L. Sloss, C. J. Mankin, P. R. Vail

\*regional coordinator

### **Addition to DNAG Fund listing**

Apologies to the Mobil Oil Company!

Despite checking and double-checking the lists of contributors to the DNAG Fund for the November *News & Information*, Mobil Oil Co., whose pledge of support was received in March somehow was left off the list of organizational donors.

The generous support of the DNAG Project by industry is very greatly appreciated.

### **Furthermore . . . . .**

Some contributors to the DNAG Fund have not specified "DNAG Fund" on their checks to the GSA Foundation, and their donations have been credited to the Foundation's unrestricted funds. If this happened to you and your name should have been on the list in November *News & Information*, please write to the GSA Foundation to have your records corrected. **The DNAG Fund must be specified on your donation** if you want your funds to be applied to the support of this important project.

## **GSA OFFICERS AND COUNCILORS FOR 1983**

*Paul A. Baily*, President  
Lakewood, Colorado

*M. Gordon Wolman*, Vice-President  
Baltimore, Maryland

*Robert L. Fuchs*, Treasurer  
Westport, Connecticut

*Digby J. McLaren*, Past-President  
Ottawa, Ontario

### **1981-1983 Councilors**

*Hubert Gabrielse*  
*Bruce B. Hanshaw*  
*John C. Harms*  
*Robert D. Hatcher, Jr.*

### **1982-1984 Councilors**

*Haydn H. Murray*  
*Thornton L. Neathery*  
*Arthur A. Socolow*  
*Rosemary J. Vidale*

### **1983-1985 Councilors**

*Maria Luisa B. Crawford*  
*Doris M. Curtis*  
*George A. Thompson*  
*Peter J. Wyllie*

**FINAL  
NOTICE**

# SOUTH-CENTRAL SECTION, MARCH 3-4, 1983

The **South-Central Section** of the Geological Society of America will hold its 17th Annual Meeting in the University Center at Texas A&M University, College Station, Texas, March 3-4, 1983. The meeting will consist of two days of symposia and volunteered papers, five field trips (one a pre-meeting trip), a welcoming party, annual banquet, and three luncheons. The meeting is sponsored by Texas A&M University assisted by Baylor University.

17th ANNUAL MEETING SOUTH-CENTRAL SECTION, GSA

## PREREGISTRATION FORM

March 3-4, 1983, College Station, Texas

*Mailing Deadline for Advance Registration: February 10, 1983*

Name \_\_\_\_\_

LAST

FIRST

MIDDLE

NICKNAME FOR BADGE

Social Security No. \_\_\_\_\_ Student I.D. No. \_\_\_\_\_

Institution or Firm \_\_\_\_\_

Address \_\_\_\_\_

STREET

CITY

STATE

ZIP

Phone Business ( ) \_\_\_\_\_ Home ( ) \_\_\_\_\_

Spouse or Guest \_\_\_\_\_

LAST

FIRST

MIDDLE

Address \_\_\_\_\_

STREET

CITY

STATE

ZIP

### REGISTRATION

UNTIL FEBRUARY 10  
(mailing date)

AFTER FEBRUARY 10

Regular \$35 \$40 \$ \_\_\_\_\_

Student fee (see below) \$15 \$15 \$ \_\_\_\_\_

### PREREGISTRATION COMPLIMENTARY LUNCHEON CHOICE:

Thursday, March 3;  Friday, March 4: Engineering Geology;  NAGT

### OTHER LUNCHEONS

Thursday, March 3: GSA Luncheon (\$10) \$ \_\_\_\_\_

Friday, March 4: Engineering Geology Luncheon (\$10) \$ \_\_\_\_\_

Friday, March 4: NAGT Business Luncheon (\$10) \$ \_\_\_\_\_

### ANNUAL BANQUET

Thursday, Evening, March 3 (\$13) \$ \_\_\_\_\_

**TOTAL PREREGISTRATION** \$ \_\_\_\_\_

*Note: Refunds Are Subject To A \$10 Processing Fee*

**STUDENT VERIFICATION:** I certify that the above registrant is a full-time student.

SIGNATURE \_\_\_\_\_ Business Phone \_\_\_\_\_  
(head or chairman, dept)

ADDRESS \_\_\_\_\_

Mail this preregistration form and check (payable to TAMU-South-Central GSA) to:  
Melvin C. Schroeder . Geology Department . Texas A&M University . College Station, TX 77843

# PREREGISTRATION DEADLINE, FEBRUARY 10, 1983

**FINAL  
NOTICE**

## ADVANCE REGISTRATION

Advance registration will allow the local committee to make plans more efficiently. Mail preregistration form with a check (payable to TAMU — South-Central GSA) to:

Melvin C. Schroeder, South-Central GSA  
Department of Geology  
Texas A&M University  
College Station, TX 77843

Advance registration is \$35 until February 10, 1983, and includes one luncheon of your choice. After February 10, 1983, registration is \$40 and does not include a complimentary luncheon.

Student's advance registration is \$15 and includes a complimentary luncheon. After February 10, 1983, \$15 with no luncheon.

## TECHNICAL SESSIONS

Eleven symposia have been organized as part of the technical sessions. Titles and convenors are as follows:

- a) **Pennsylvanian Biostratigraphy:** Robert Grayson, Baylor University, Waco, Texas
- b) **Sediment Sources and Dispersal in the Gulf Coast Basin:** Jim Mazzullo, Texas A&M University
- c) **Deposition of Chalk:** Wayne Ahr, Texas A&M University
- d) **Depositional Systems of the Woodbine Sandstone:** R. R. Berg, Texas A&M University
- e) **NAGT; South-Central Section Geology — Decade of North American Geology:** O. T. Hayward, Baylor University
- f) **Holocene Carbonate Deposition:** Richard Rezak, Texas A&M University

(continued next page)

## Lodging Information

The Headquarters Hotel is the Ramada Inn. *The room reservation form may be used for the Ramada Inn only.* Reservations for other motels should be made **directly** with the motel.

HOTEL/MOTEL	Address (College Station, TX 77840)	Phone (713)	Distance (to University Center/Miles)	Rates	
				Single	Twin
Ramada Inn (Headquarters Hotel)	410 S. Texas Ave	696-4242	1½	\$44 (motel) \$65 (tower)	\$50 (motel) \$75 (tower)
Western Motel	204 S. Texas Ave	846-5757	1¾	\$20	\$23
Sands Motel	320 S. Texas Ave	846-5791	1½	\$25	\$35
La Quinta Motor Inn	607 S. Texas Ave	696-7777	1¼	\$29	\$35
Saber Inn	701 S. Texas Ave	696-7755	1¼	\$24	\$32
Lexington Motor Inn	216 Dominik Dr.	693-1220	2	\$30	\$35
Aggieland Inn	1502 S. Texas Ave	693-9891	1¾	\$37	\$43
Holiday Inn (College Sta)	1503 S. Texas	693-1736	1¾	\$36	\$41
Memorial Student Center Hotel	Texas A&M University	845-4253	0	\$27	\$32
E-Z Travel Motel	2007 S. Texas Ave	693-5822	2¼	\$28	\$35
Motel 6	2327 S. Texas Ave	696-1631	2¼	\$15	\$19
Shiloh Inn	2514 S. Texas Ave	696-6988	2¾	\$32	\$37
Ponderosa Motor Inn	3702 S. Texas Ave.	693-6810	3½	\$24	\$32
<b>HOTEL/MOTEL — Bryan, Texas 77801</b>					
Holiday Inn (Bryan)	2300 Texas Ave	823-8131	2¾	\$36	\$40
Holiday Plaza	1720 Texas Ave	822-3748	3	\$22	\$29
Rodeway Inn	1601 Texas Ave	823-5454	3¼	\$33	\$38

All rates are as of September 1982 and will be slightly higher in March 1983. All accommodations are subject to 7% tax.

## Room Reservation Form — South-Central Section, GSA

For use **only** for lodging at the headquarters hotel (Ramada Inn). Reservations for other motels should be made directly to the particular motel. *Mail this room reservation form to **Ramada Inn — 410 S. Texas Ave., College Station, TX 77840.***

Name \_\_\_\_\_  
 Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
 Company \_\_\_\_\_ Address \_\_\_\_\_  
 Arrival Date \_\_\_\_\_ Length of Stay (nights) \_\_\_\_\_  
 Number in party \_\_\_\_\_ Remarks \_\_\_\_\_

**ACCOMMODATIONS:** Single \_\_\_\_\_ Double \_\_\_\_\_ Double Double \_\_\_\_\_ Studio \_\_\_\_\_ Suite \_\_\_\_\_

( ) I will guarantee the above reservation to: (circle one) American Express, VISA, MasterCard, Diners Club, Carte Blanche, Exxon Credit Card  
 Number \_\_\_\_\_ Expir. Date \_\_\_\_\_

( ) I will send first night's payment.

**Deadline for use of this request is February 12, 1983**

(continued from page 173)

- g) **Mechanical Interpretation in Structural Geology:** John Spang, Texas A&M University
- h) **Urban Fluvial Processes:** Mike Wilson, Texas A&M University
- i) **Geological Licensing Topics Related to High- and Low-Level Nuclear Waste:** Norman Tilford, Texas A&M University
- j) **Engineering Geology of the Cities of the South-Central Section:** C. C. Mathewson, Texas A&M University
- k) **Cenozoic-Mesozoic Boundary:** Stefan Gartner, Texas A&M University

**NAGT MEETING**

The Texas Chapter of the National Association of Geology Teachers will hold its annual meeting for the third time with the South-Central Section of GSA. A half-day symposium and a field trip are being sponsored by NAGT. Their luncheon and business meeting will be at noon on Friday, March 4, in the Memorial Student Center.

**ANNUAL BANQUET**

The annual banquet will be held at 1930 hours Thursday, March 3, 1983, at the Ramada Inn, following a cash-bar cocktail party starting at 1830 hours. A guest speaker for the banquet is being selected. Cost of the banquet will be \$13.

**WELCOMING PARTY**

A cash-bar cocktail party will be held for all registrants at Poolside, Ramada Inn from 1800 to 1930 hours, Wednesday, March 2.

**BUSINESS MEETINGS**

The **Management Board** of the South-Central Section will meet from 1630 to 1800 hours on Wednesday, March 2, in a conference room at the Ramada Inn.

The **annual business meeting** of the section will convene at 1600 hours Thursday, March 3, in one of the conference rooms in the University Center.

**LUNCHEONS**

The South-Central Section, GSA, luncheon will be held at noon Thursday, March 3. Representatives from the GSA council will speak and give the state of the Society during this time.

The Engineering Geologists' luncheon and the Texas Chapter of NAGT business luncheon will be held on Friday, March 4.

All luncheons will be held in the Memorial Student Center and the charge for each is \$10. Advance registrants (mailing deadline February 10) may select one free luncheon.

**GUEST ACTIVITIES**

No formal guest activities will be provided. The registration request of guest names is only for statistical reference.

**PROJECTION EQUIPMENT**

Carousel projection equipment will be provided for standard 2" x 2" (35mm) slides only. Please bring your own loaded carousel trays.

**BEST STUDENT PAPER AWARD**

The South-Central Section, GSA, will again offer three awards for the best papers authored and presented exclusively by students. The awards are in the amounts of \$200, \$100, and \$50. We encourage participation in this professional competition.

**FIELD TRIPS**

Preregistration is required for the field trips. The Field Trip Registration form, accompanied by full payment should be sent to *Mel Schroeder* by **February 7, 1983**.

1. **Urban Fluvial Processes (March 5).** Leader: M. P. Wilson.  
A seven-hour trip in the Bryan-College Station area examining local drainage channels and the effects of control structures. Only transportation is provided. Stops for lunch and refreshments will be made. **Leave Ramada Inn at 0800 hours; return at 1500 hours.** *Limit: 60; Cost: \$10 (\$5 student).*
2. **Lower Cretaceous Stratigraphy in Central Texas (NAGT) (pre-meeting trip Tuesday and Wednesday, March 1 and 2).**  
Travel from Stephenville to Waco on Tuesday, and tour the vicinity of Waco on Wednesday. Stops will be made at exposures of the Fredericksburg and Trinity Groups. The trip will end mid-afternoon March 2 at Waco. **Transportation will not be provided.** Travel will be by personal auto although arrangements can be made for those that need transportation. Lunch and dinner will be provided March 1 only. Participants will also receive a guidebook. Registrants will receive motel and additional information prior to departure date. Information may also be obtained from O. T. Hayward, Baylor University, (817) 755-2361 or at his home (817) 772-0159. The trip is sponsored by NAGT and Baylor University. **Leave from Stephenville at 0800 hours Tuesday. Minimum: 10; Limit: 40; Cost: \$35 (\$18 student).**
3. **Austin Chalk in the Austin Area (March 5).** Leader: Wayne Ahr.  
Visit exposures of almost all the section of the Austin Chalk Group. Bus transportation, sack lunch, and drinks will be provided. Dinner will be on a dutch-treat basis from 1700 to 1900 hours. **Leave College Station Ramada Inn 0700 hours Saturday (March 5), return to College Station at 2130 hours. Minimum: 20; Limit: 35; Cost: \$60 (\$30 student).**
4. **Brazos River Point Bar (March 5).** Leader Jim Mazzullo.  
Study a point bar showing grain size variations and numerous sedimentary features. Bus transportation, sack lunch, and beverages will be provided. **Leave College Station Ramada Inn at 0800 hours (March 5), return about 1430 hours. Minimum: 20; Limit: 40; Cost: \$35 (\$17 student).**
5. **Two-Day Central Mineral Region Crystalline Rocks (March 5 and 6).** Leader: David Mohr.  
Field examination of the rocks of the Packsaddle Schist, Valley Springs Gneiss, and the granites of the Enchanted Rock Batholith will be made. Motel accommodations in Llano will be arranged. Cost of meals, lodging, and beverages will be borne by participant. Transportation by vans will be provided. **Leave College Station Ramada Inn 0730 hours Saturday (March 5), return to College Station Sunday (March 6) at 1830 hours. Minimum: 8; Limit: 25; Cost: \$55 (\$35 student).**

**SOUTH-CENTRAL SECTION, GSA  
FIELD TRIP REGISTRATION FORM**

March 1-6, 1983, College Station, Texas

Mailing Deadline  
for Registration:  
**February 7, 1983**

Name \_\_\_\_\_  
LAST FIRST MIDDLE

Institution or Firm \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Phone Business ( ) \_\_\_\_\_ Home ( ) \_\_\_\_\_

Professional  Student  Student I.D. No. \_\_\_\_\_

**STUDENT VERIFICATION:** I certify that the aboved named registrant is a full-time student.

SIGNATURE \_\_\_\_\_ Business Phone \_\_\_\_\_  
(head or chairman, dept.)

ADDRESS \_\_\_\_\_

**PREMEETING TRIP**

Trip 2: March 1-2, Lower Cretaceous of Central Texas \$35 (Student \$18) \$ \_\_\_\_\_

**POSTMEETING TRIPS**

Trip 1: March 5, College Station Urban Geology \$10 (Student \$5) \$ \_\_\_\_\_

Trip 3: March 5, Austin Chalk \$60 (Student \$30) \$ \_\_\_\_\_

Trip 5: March 5-6, Central Mineral Region, Precambrian  
Crystalline Rocks (no lodging or meals included) \$55 (Student \$35) \$ \_\_\_\_\_

Lodging Reservation Request  
Single: \_\_\_\_\_; Twin: \_\_\_\_\_ with \_\_\_\_\_

Trip 4: March 5, Brazos River Point Bar \$35 (Student \$17) \$ \_\_\_\_\_

**TOTAL FIELD TRIPS** \$ \_\_\_\_\_

**Note Regarding Field Trips:** Reservations will be accepted **only if accompanied by full payment and Preregistration Form.** Field trips may be cancelled if registration is insufficient or for reasons beyond GSA's control. Full refund will be made in those circumstances. Personal cancellations must be received **in writing before February 15, 1983.** Refunds are subject to a processing fee.

**Mail this registration form and check (payable to South-Central GSA field trips) to:**  
Melvin C. Schroeder • Geology Department • Texas A&M University • College Station, TX 77843

*The Decade Of North American Geology Presents . . .*

**DNAG SPECIAL PUBLICATION 1**

**Perspectives in  
Regional Geological Synthesis:**

Planning for  
*The Geology of North America*

Edited by A. R. Palmer

A valuable set of preview statements and/or annotated outlines describing the organization of geological information for the 20 volumes of regional geology in *The Geology of North America* to be published by DNAG.

**DNAG Special Publication 1, vi + 176 pages, 8½ x 11", 1982, bound in leatherette cover, CIP, ISBN 0-8137-5201-9. Priced for ALL geologists . . . . . \$7.50\***

\*special low price made possible by a grant from the GSA Foundation

★★★ The price is still better (\$6.00) with GSA 20% member discount ★★★

**Order from: Publication Sales, Geological Society of America, P.O. Box 9140, Boulder, CO 80301**

To order, mail check or money order in U.S. funds for full amount or include MasterCard or VISA account number, expiration date, and your signature. Include GSA membership number with order at discount price. Colorado residents add sales tax.

**GSA/DNAG products still to come:**

The Geology of North America • Continent/Ocean Transects  
The Geological Map of North America • Centennial Field Guides

The Southeastern Section of the Geological Society of America and the Southeastern Sections of the Paleontological Society and National Association of Geology Teachers will hold their annual meetings at the campus of Florida State University, Tallahassee, Florida, March 16, 17, and 18. This will be the 32nd Annual Meeting of the Southeastern Section, and it is sponsored by the Department of Geology, Florida State University; the Florida Bureau of Geology; the Southeastern Geological Society; and the Center for Professional Development and Public Service, Florida State University.

#### REGISTRATION

Registration is required for all of those attending the meetings, field trips, exhibits, short course, and spouse's programs. Registration will be held from 1700 to 2100 hours on March 16, and 0800 to 1700 hours on March 17 and 18 in the Registration Lobby of the Florida State Conference Center.

Preregistration forms must be received by **February 23**. Those planning to attend **field trips** need to preregister by **February 1**. Refunds on cancelled preregistration will be made in full until February 23, 1983. After this date, no refunds will be made except if a field trip or the short course is cancelled.

Admission to the meeting functions is by badge only. A list of preregistrants will be available at the registration desk.

#### WELCOMING PARTY

A welcoming party for all those attending the meeting will be held from 2000 to 2200 hours on Wednesday, March 16, at the Florida State Conference Center on the University Campus.

#### TECHNICAL PROGRAM

**General.** Technical sessions will be scheduled as oral presentations and poster sessions on Thursday (17th) and Friday (18th).

**Symposia.** The following symposia have been organized:

1. *River Transport* (Herb Windom).
2. *Volcanism* (John Puffer).
3. *Chert* (Sam Upchurch).
4. *Environmental Geology* (Walt Schmidt).
5. *Neogene Stratigraphy* (Tom Scott).
6. *Validity of "Ancient Earth" Data* (Robert Gastaldo).
7. *Neotectonics in the Southeast* (Dave Prowell).
8. *Coastal Sedimentology* (William F. Tanner).
9. *Hydrostratigraphy* (Paul Seaber).
10. *Mesozoic-Cenozoic Microfossils of the Southeastern U.S./Caribbean* (Sherwood W. Wise and Ernie Russell).
11. *Paleontology of Clastic-Carbonate Transitions* (Carl Stock and Patricia Kelley).
12. *History of Geological Education in the South* (James C. Corgan).
13. *Petrogenesis of Trondhjemites in the Southern Appalachians* (William B. Size and Marc J. Defant).

#### SHORT COURSE

A five-day short course, an *Introduction to Calcareous Nannofossils* (Sherwood W. Wise, Jr., instructor, 904-644-5860), will be offered at the Department of Geology, Florida State University, March 12–16, 1983.

The course will cover all aspects of calcareous nannofos-

sils with strong emphasis on biostratigraphy. Intended for those with little or no prior experience with this fossil group, each participant will be provided with a microscope to ensure a "hands on" lab and lecture learning experience. Course materials given out will include a set of 50 study slides of Jurassic to Holocene coccoliths plus a set of course notes. Participants should plan to arrive in Tallahassee the evening of Friday, March 11. Cost includes lodging but not meals. Registration deadline: February 23. **Limit: 5; Cost: \$1,000.**

#### SPOUSE ACTIVITIES

A full schedule of activities is being organized, including visits to beautiful Wakulla Springs and Florida's Capitol complex in Tallahassee.

#### PROJECTION EQUIPMENT

All slides used in presentations must be 2" x 2" and fit a standard 35mm carousel tray and projector. Only one projector and screen will be used in the technical sessions. Please plan presentations accordingly and bring your own loaded carousel tray if possible.

#### EXHIBIT SPACE

Exhibits will be in the St. Johns Room of the Florida State Conference Center, adjacent to the technical session area. A single 8' x 10' booth is \$100 for educational and non-profit institutions and \$200 for commercial enterprises. For additional information, contact William C. Parker, Department of Geology, Florida State University, Tallahassee, Florida 32306; Phone (904) 644-5860.

#### SPECIAL EVENTS

All of the following meetings are to be held in the Florida State Conference Center on the University Campus:

The Southeastern Section Management Board Meeting will be held Wednesday, March 16, from 1800 to 1930 hours.

The Southeastern Section Campus Liaison Group Breakfast will be held Thursday, March 17, from 0700 to 0830 hours.

The Southeastern Section Business Meeting will be held Thursday, March 17, from 1700 to 1730 hours.

The Southeastern Paleontological Society Business Meeting will be held Thursday, March 17, from 1700 to 1730 hours.

The Decade of North American Geology (DNAG) Southeastern Section Field Trip Workshop will be held Thursday, March 17, 1630 to 1800 hours.

The Southeastern Section GSA Banquet will be held Thursday, March 17, 1930 hours. A Space Shuttle astronaut is tentatively scheduled as the banquet speaker.



### TRAVEL INFORMATION

Three major airlines, four commuter airlines, and two bus lines bring visitors in and out of Tallahassee with ease. For visitors who drive, Interstate 10 and US Highways 319 and 27 are direct routes to Tallahassee from any point in the Southeast. Parking at the Florida State Conference Center requires a permit (50 cents per day). Permits can be purchased at the Conference Center or ordered on the enclosed preregistration form.

### FIELD TRIPS

Field trip registrants **must also preregister** for the meeting. Field trip registration (see preregistration form) is on a first-come, first-served basis. If a trip is oversubscribed, the full field trip fee will be refunded. Field trip preregistration **must be received by February 1, 1983**, accompanied by full payment. Trips may be cancelled if registration is insufficient. Full refunds will be made under such circumstances. No other trip refunds will be made after February 1, 1983. Postmeeting trips will leave from the Florida State Conference Center.

The following field trips have been organized:

#### Premeeting:

1. **Central Florida Phosphate District** (March 16). Leader: Ralph Hall. The group will leave Tampa International Airport by chartered bus at 0830 hours. First stop will be at the Clear Springs Mine of I.M.C. just south of Bartow, Florida. The Clear Springs Mine is unique because of the extreme supergene alteration of the upper part of the ore zone and affords an unusual chance to view the entire section. The Page 747 dragline at this mine is the largest in the field with a bucket capacity of 72 yds<sup>3</sup>. The next stop will be at the Gardiner, Inc., picnic grounds on the banks of the Peace River near Fort Meade, Florida, where a pork rib barbecue will be served. After the meal the group will visit a mining cut where a typical ore (matrix) section can be studied, including upper (Bone Valley) type material and lower (Hawthorn) ore (matrix). Finally, a series of core samples taken from the Miocene Hawthorn Formation of the Southern Extension of the phosphate district will be exhibited for inspection, sampling, and discussion. This core will be representative of the lower grade phosphate ore (matrix) that will be mined in the near future and will be typical of the reserves held by the major phosphate mining companies of the district. The bus will return to Tampa International Airport at approximately 1830 hours in plenty of time to catch a plane returning to Tallahassee leaving at 1935 hours. Limit: 45. Cost: \$50. Includes transportation, lunch, and guidebook.

2. **Paleogene Stratigraphy of Southwestern Alabama** (March 15-16). Leader: Ernest Mancini. The Paleogene of Southwestern Alabama has been of particular interest to Gulf Coastal Plain stratigraphers over the years because these strata include marine lithofacies which are locally very fossiliferous. This field trip is designed so that the major biostratigraphic units in the Paleogene can be examined. Stops will include classic localities, including Little Stave Creek and St. Stephens quarry. The trip will be of special interest to those who wish to collect microfossil samples from marine Paleocene, Eocene, and Oligocene strata representative of the eastern Gulf Coastal Plain Region. Depart 0800 hours, March 15, 1983, Geological Survey Building, Tuscaloosa, Alabama. Return 1800 hours, March 16, 1983, Tallahassee, Florida. Limit: 20. Cost: \$120. Includes transportation, lodging, lunches, and guidebook.

3. **Western Uchee Belt near Columbus, Georgia** (March 15-16). Leader: Tom Hanley. The Phenix City Gneiss, Standing Boy Quartz Diorite Gneiss, and additional lithologies of the Uchee Belt, as well as

Goat Rock Zone blastomylonites along its northern boundary are well exposed by recent construction projects and in quarries in Columbus, Georgia, and north of Phenix City, Alabama. The trip will demonstrate the presence of a severely strained metasedimentary sequence between the Phenix City Gneiss and the migmatitic terrane of the Standing Boy Quartz Diorite Gneiss. The gradation from the Goat Rock Zone into the Uchee Belt and evidence for this contact resurfacing to the south in this metasedimentary sequence will be examined. The trip will be by private car and is along a convenient route to Tallahassee (about 4 hours away). We hope drivers will accept as passengers any people who choose to fly into Columbus. Assemble on I-185 at the 315 overpass at 0730 hours, March 15, 1983. Return 1500 hours, March 16, 1983, Tallahassee. Limit: 45. Cost: \$45. Includes lunches, lodging, and guidebook.

4. **Cenozoic Vertebrate and Invertebrate Paleontology of North Florida** (March 16). Leaders: Doug Smith, Doug Jones, and Bruce MacFadden. The vertebrate and invertebrate faunas of north Florida are diverse and in some respects unique. This field trip will visit sites that contain Eocene-Oligocene invertebrates and Miocene through Pleistocene vertebrates. The vertebrate sites include the Haile quarry (both Eocene invertebrates and late Miocene-early Pliocene to Pleistocene vertebrates), the McGehee site (late Miocene), and the Thomas Farm site (medial Miocene). Dowling Park Quarry (Eocene-Oligocene invertebrates) will be visited. Also one brief stop will be made in a Pleistocene dune field. Depart 0800 hours, March 16, 1983, Tallahassee. Return 2000 hours, March 16, 1983, Tallahassee. Limit: 45. Cost \$40. Includes transportation, lunch, and guidebook.

5. **Hydrogeology of the Dougherty Plain, Southwest Georgia** (March 16). Leaders: Barry F. Beck and Daniel D. Arden. The Dougherty Plain is a typical karst area as developed on Tertiary Limestones in Georgia and Florida. This trip will traverse the hydrologic system from inputs at sinking streams along the Pelham Escarpment to outflows at springs along the Flint River. Sinkholes, semi-blind valleys, karst windows, and other karst features will be visited. This highly permeable limestone aquifer is the basis for intense agricultural development, and a high volume center pivot irrigation system will also be examined. The hydrogeologic development will also be related to the stratigraphic framework and several typical sections will be examined. Depart 0730 hours, March 16, 1983, Tallahassee. Return 1800 hours, March 16, 1983, Tallahassee. Limit: 38. Cost: \$50. Includes transportation, lunch, and guidebook.

#### Postmeeting

6. **Miocene and Oligocene Geology of North-Central Florida** (March 18-19). Leader: Ron Ceryak. The group will take a bus from Tallahassee at 1700 hours, Friday, March 18, 1983. The bus will arrive at 1900 hours at the Telford House Hotel in White Springs where the participants will dine, be entertained, and stay overnight. For a few hours Saturday morning the group will examine upper Miocene mining cuts at Occidental Chemical Company's phosphate mine in Hamilton County. The remainder of the day will feature a canoe trip on the historic Suwannee River to examine the lower Miocene section and its lower contact with the Oligocene Suwannee Limestone. The Suwannee Limestone is the top of the Floridan Aquifer in this area. Return 2000 hours, March 19, 1983, Tallahassee. Limit: 40. Cost: \$80. Includes meals, lodging, transportation, and guidebook.

7. **Zero and Low Energy Coasts** (March 19). Leaders: W. F. Tanner and P. Lowry. The field trip will investigate the low-to-moderate energy coast southwest of Tallahassee, including evidences of middle-to-late Holocene sea level changes, dunes, beaches, marshes, and if the waves cooperate, specific beach and tidal flat features, such as various kinds of ripple marks, beach pads, and beach cusps. Depart 0700 hours, March 19, 1983, Tallahassee. Return after 1800 hours, March 19, 1983, Tallahassee. Limit: 22. Cost: \$10. Includes transportation and guidebook.

*(continued next page)*

# PREREGISTRATION FORM

**32nd Annual Meeting, Southeastern Section, Geological Society of America  
March 16-18, 1983, Tallahassee, Florida**

**IMPORTANT**

1. Full payment **must** accompany registration.
2. Register **one** professional, student, or spouse.
3. Your check will be your receipt. Copy this form for your records.
4. Preregistration deadline: **Must be postmarked no later than February 23, 1983. (Field trip preregistration deadline is February 1, 1983.)**

**FOR OFFICE USE ONLY**

ck/M.O. # \_\_\_\_\_ Amount \$ \_\_\_\_\_ Personal check \_\_\_\_\_  
Other check \_\_\_\_\_ Issued by \_\_\_\_\_

Name \_\_\_\_\_  
last                      first                      middle  
Registered as: Professional  Student  Spouse/Guest   
Spouse/Guest name for badge \_\_\_\_\_  
Affiliation (abbreviate for badge) \_\_\_\_\_  
Professional address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
Phone: Business \_\_\_\_\_ Home \_\_\_\_\_  
GSA Member    yes     no                       Speaker    yes     no   
GSA Student Associate    yes     no

Preregistration of GSA Member (prior to February 23) .....	\$22.00	\$ _____
Preregistration of non-GSA Member (prior to February 23) .....	\$27.00	\$ _____
Registration of Member (after February 23) .....	\$27.00	\$ _____
Registration of non-GSA Member (after February 23) .....	\$32.00	\$ _____
Preregistration of GSA Student Associate (prior to February 23) .....	\$ 8.00	\$ _____
Preregistration of non-GSA Student Associate (prior to February 23) .....	\$11.00	\$ _____
Registration of GSA Student Associate (after February 23) .....	\$11.00	\$ _____
Registration of non-GSA Student Associate (after February 23) .....	\$14.00	\$ _____
Spouse/Guest Registration .....	\$14.00	\$ _____
GSA Banquet, Florida State Conference Center, March 17 .....	\$13.00	\$ _____
Parking Permit, Florida State Conference Center, 50 cents per day .....		\$ _____

### FIELD TRIPS AND SHORT COURSE

**Preregistration Deadline for Field Trips is February 1, 1983**

All field trip and short course participants must also preregister for the meeting.

**FIELD TRIPS**

Field Trip 1. Central Florida Phosphate District, March 16, per person .....	\$ 50.00	\$ _____
Field Trip 2. Paleogene Stratigraphy of Southwestern Alabama, March 15-16, per person .....	\$120.00	\$ _____
Field Trip 3. Western Uchee Belt near Columbus, Georgia, March 15-16, per person .....	\$ 45.00	\$ _____
Field Trip 4. Cenozoic Vertebrate and Invertebrate Paleontology of North Florida, March 16, per person .....	\$ 40.00	\$ _____
Field Trip 5. Hydrogeology of the Dougherty Plain, Southwest Georgia, March 16, per person .....	\$ 50.00	\$ _____
Field Trip 6. Miocene and Oligocene Geology of North-Central Florida, March 18-19, per person .....	\$ 80.00	\$ _____
Field Trip 7. Zero and Low Energy Coasts, March 19, per person .....	\$ 10.00	\$ _____

**SHORT COURSE**

Introduction to Calcareous Nannofossils, March 12-16, per person .....	\$1000.00	\$ _____
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**TOTAL FEES** (Enclosed is a check or money order, U.S. Funds only,  
made payable to **Florida State University**) .....

\$ \_\_\_\_\_

**PREREGISTRATION FORMS MUST BE RECEIVED NO LATER THAN FEBRUARY 23, 1983**

Refunds on cancelled preregistrations will be made in full until February 23, 1983. After that date no refunds will be made except cancelled field trips. **Mail completed preregistration forms and fee remissions to: Conference Registrar, Center for Professional Development, Florida State Conference Center, Florida State University, Tallahassee, Florida 32306.**



The Northeastern Section of the Geological Society of America will meet Wednesday noon through Friday afternoon, March 23-25, 1983, at The Concord Hotel in Kiamesha Lake, New York, together with the Eastern Section of the National Association of Geology Teachers, the Northeastern Section of the Paleontological Society and the Eastern Section of SEPM. This is the 18th Annual Meeting of the Northeastern Section and is sponsored by the Geology Departments of the Mid-Hudson Region: State University of New York, College at New Paltz; Vassar College; Ulster County Community College; and Orange County Community College.

**PREREGISTRATION AND REGISTRATION**

Registration is required for all of those attending the meeting, field trips, short courses, exhibits, and spouses' programs.

Preregistration will be by mail and preregistration forms for the meeting and field trips must be received by **March 4, 1983**. **Reduced registration fees** for the meeting will be available to GSA members according to the policy adopted by the Northeastern GSA Management Board. To receive this discount, you must specify GSA membership on the registration form or present your membership card when picking up your registration packet. Registration status will be confirmed using records from GSA National Headquarters. **Those planning to attend field trips need to preregister by March 4, 1983.** Refunds on cancelled preregistrations will be made in full until March 4, 1983. After that date, no refunds will be made except if a field trip is cancelled.

On-site registration will take place beginning Wednesday, March 23 at 1000 hours in the lobby of The Concord Hotel and will continue during the meeting. Preregistration fees are US \$10.00 for professionals who are GSA Members and US \$5.00 for GSA Student Associate Members. On-site registration (one to three days) is US \$15.00 for professionals who are GSA Members and US \$10.00 for GSA Student Associates. To qualify for GSA Student Associate preregistration and registration, you must show your 1982 GSA membership card when picking up your preregistration packet. To qualify for the non-member student rate, you must show your student ID when registering or when picking up your preregistration packet.

For non-GSA members, there is a US \$8.00 registration

surcharge for professionals and a US \$4.00 surcharge for students.

Spouse and/or guest preregistration is US \$5.00; on-site registration is US \$10.00.

Admission to meeting functions is by registration badge only. A locator service providing names and lodging location of registrants will be available in the registration area.

**STARTING TIME**

The meeting will begin with the first session at 1340 hours, Wednesday, March 23, 1983. For Concord guests, the first meal will be dinner that evening. For early arrivals, lunch may be purchased in The Concord's coffee shop or arranged for by purchasing lunch tickets for the dining room. Tickets may be purchased in advance using the **advance meal purchase form** or, if available, on-site at The Concord Hotel.

**WELCOMING PARTY**

A welcoming party for all those attending the meeting will be held from 1800 to 1900 hours on Wednesday, March 23, in the Cordillion Room of The Concord Hotel. For guests of The Concord, this will feature a **free one-hour open bar** with hot and cold hors d'oeuvres prior to dinner. For meeting attendees who are not registered guests of The Concord, guest passes for dinner and the welcoming party can be purchased for US \$26.00 (including gratuities) on a space-available basis. **Please use the form for advance meal purchase for non-Concord guests. Registration badges are required for all attendees.**

(continued page 182)

1983 Meeting Northeastern Section, GSA  
**CONCORD RESORT HOTEL RESERVATION FORM**

This reservation must be accompanied by a deposit of \$25 per person. Make checks payable to the Concord Resort Hotel. Mail blank with check to: Convention Reservation Dept., Concord Resort Hotel, Kiamesha Lake, N.Y. 12751. Deposits are refundable up to 72 hours prior to arrival.

Please make reservations for \_\_\_\_\_ person(s)  
 Name \_\_\_\_\_  
 Address \_\_\_\_\_  
 City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
 Names \_\_\_\_\_  
 Arrival Date \_\_\_\_\_ Departure \_\_\_\_\_

CONCORD TOWERS .....	\$70.00	<input type="checkbox"/>
EXEC. ROOMS, 2 baths, TV, air-cond. ....	\$59.00	<input type="checkbox"/>
SUPERIOR, pvt. bath, TV, air-cond. ....	\$55.00	<input type="checkbox"/>
STANDARD, air cond., TV .....	\$50.00	<input type="checkbox"/>
STUDENT RATE (4/room) per person .....	\$32.00	<input type="checkbox"/>

The above rates are per person, per day, based on two persons in each room from after lunch on Wednesday until after lunch on Friday, and include 3 meals daily.

SINGLE OCCUPANCY: \$26.00 additional daily

GRATUITIES: We will add \$7.85 per person, per day to each person's bill to cover gratuities for Dining Room Staff and Chambermaids. Bellman and other service are NOT included in this figure.

TAX: All rates and amounts are subject to 7% N.Y. State and County Tax.

Please return request promptly. All reservations must be received at one month prior to opening date of convention or they will be subject to refusal.

NORTHEASTERN SECTION, GSA  
**PREREGISTRATION FORM**

March 23-25, 1983, Concord Resort Hotel, Kiamesha Lake, New York

**Preregistration forms must be received no later than March 4, 1983**

**PLEASE PRINT OR TYPE**

Name \_\_\_\_\_  
LAST FIRST MIDDLE NAME FOR BADGE

Registered as: Professional  Student  Spouse/Guest

GSA Member: Yes  No  (note surcharge for non-GSA members)

*Please note: Valid student ID required for student badge pickup.*

Institution or Firm \_\_\_\_\_

Mailing Address \_\_\_\_\_  
STREET CITY STATE ZIP

Phone: Business ( ) Home ( )

Spouse or Guest \_\_\_\_\_  
LAST FIRST MIDDLE INITIAL

Affiliation (abbreviate for badge) \_\_\_\_\_

Mailing Address \_\_\_\_\_  
STREET CITY STATE ZIP

**FEES:**

Preregistration (until March 4) per person .....	\$10.00	\$ _____
Registration (after March 4) per person .....	\$15.00	\$ _____
Student/Guest Preregistration (until March 4) per person .....	\$ 5.00	\$ _____
Student/Guest Registration (after March 4) per person .....	\$10.00	\$ _____
<b>Non-GSA Member Surcharge:</b>		
For Professionals .....	\$ 8.00	\$ _____
For Students/Guests .....	\$ 4.00	\$ _____
Extra Abstracts Volume (Reserved On-Site) .....	\$ 5.00	\$ _____

**FIELD TRIP RESERVATION**

Field Trip 1. Igneous Petrology and Tectonic Setting of the Cortlandt Complex (J. F. Bender and N. Ratcliffe) .....	\$10.00	\$ _____
Field Trip 2. Middle Ordovician Shale-Sandstone Sequences of the Mid-Hudson Region West of the Hudson River (R. Waines, E. Shyer, M. S. Rutstein) .....	\$10.00	\$ _____

**TOTAL FEES**  
 Make check or money order US funds only payable to Northeastern Section GSA \$ \_\_\_\_\_

**Note:** For separate meal purchase, use the **Advance Meal Purchase for Non-Concord Guests Form**;  
 for transportation, use the **Transportation Form — Limousine or Bus**.

**PREREGISTRATION FORMS MUST BE RECEIVED NO LATER THAN MARCH 4, 1983**

Refunds on cancelled preregistration will be made in full if we receive notice by March 4, 1983.  
 After that date no refunds will be made except for cancelled field trips.

**FOR OFFICE USE ONLY**

Date received \_\_\_\_\_

Amount received \_\_\_\_\_

Registration \_\_\_\_\_

Field Trips \_\_\_\_\_

Personal check \_\_\_\_\_

Other \_\_\_\_\_

Issued by \_\_\_\_\_

**Mail completed preregistration forms and full payment to**  
 Constantine Manos  
 Department of Geological Sciences, State University of New York  
 College at New Paltz  
 New Paltz, New York 12561

(continued from page 180)

## TECHNICAL PROGRAM

### General Program

Technical sessions will be scheduled as oral presentations and poster sessions beginning at 1340 hours Wednesday, all day Thursday, and through 1700 hours on Friday. Meal hours at The Concord will be integrated with the technical program schedule. Morning sessions will begin at 0840 hours and afternoon sessions at 1330 hours. Poster sessions will be scheduled from 0930 to 1130, and 1430 to 1630 hours.

### Symposia

The following symposia have been organized:

1. **The Hudson Highlands, Geology of New York City, and Economic Geology of the Lower Hudson River Valley—In Honor of Kurt E. Lowe** (Simon Schaffel and Nicholas K. Coch)
2. **Mafic-Ultramafic Plutonic Rocks of Orogenic Belts** (John F. Bender and Nicholas M. Ratcliffe)
3. **The Late Devonian Catskill Delta** (Donald L. Woodrow and William Sevon)
4. **Environmental Geology** (Donald R. Coates)
5. **Pleistocene Time-, Rock-, and Morpho-Stratigraphy of Eastern New York** (Donald Cadwell and Robert J. Dineen)
6. **Geo-Archeology and Geological Environments of Prehistoric Human Occupation in Northeastern North America** (P. Jay Fleisher and William A. Starna)
7. **Northern Appalachian Geochronology: Recent Advances** (R. David Dallmeyer)
8. **History of Geology: Evolution of Geological Concepts in the Northeast** (William M. Jordan and Clifford H. Dodge)
9. **Glaciated Coasts** (Duncan M. Fitzgerald and Peter S. Rosen)
10. **Rifted Margins of the Appalachians through Time** (Warren Manspeizer and Douglas W. Rankin)
11. **Advances in the Early Mesozoic Paleontology and Paleocology of Eastern North America** (Paul E. Olsen)
12. **Paleontology and Paleocology of the Hamilton Group** (Robert Linsley and Carlton Brett for NE Section, Paleontological Society)
13. **Earthquake Activity and Potential in the Northeastern United States** (Paul Pomeroy)
14. **Innovative Options in Geologic Education** (John Way for Eastern Section, NAGT)

### STUDENT PAPERS

Recognition awards will be given for the best student papers presented in the technical sessions. To be judged and eligible, the abstract must be by a single student author and must be especially designated on the abstract form as a student paper by the student author who wishes to be judged.

### SPOUSE ACTIVITIES

There will be a full range of spouse activities prepared in consultation with the staff of The Concord Hotel. These include use of the indoor and outdoor (weather permitting) facilities, such as health club, swimming pool, tennis courts, golf links, and others.

### PROJECTION EQUIPMENT

All slides must be 2" x 2" and fit a standard 35mm carousel tray and projector. **Only one** projector and screen will be used in each of the technical sessions. Please plan your presentation accordingly and bring your own loaded carousel tray, if possible.

### EXHIBIT SPACE

Exhibits will be in the Little Club of The Concord Hotel. A single 8' x 10' booth is US \$75.00 for educational and non-profit

institutions and US \$150.00 for commercial enterprises. **For additional information, contact** Alvin Konigsberg, Department of Geological Sciences, State University College at New Paltz, New Paltz, New York 12561.

### SCIENCE THEATER

There will be a Science Theater in which will be shown a variety of films of geologic interest. Showings will run concurrently with the technical sessions.

In addition, three special slide-illustrated presentations will be made. These are "Genesis According to Phillip" by Phillip Hewitt; "Art and Geology" by Bradford B. VanDiver; and "Natural Treasures of the Shawangunks" by Stephen J. Egemeier. Time and place for the presentations will be announced in the *Abstracts with Programs*.

### SPECIAL EVENTS

The Northeastern Section Annual Dinner will be held Thursday, March 24, at 1700 hours in the main dining room of The Concord Hotel. There is no charge for guests of The Concord; for non-guests, meal passes can be purchased for US \$18.00 (including gratuity and tax). The business meeting will follow from 2030 to 2100 hours.

Each evening, beginning at 2230 hours, free entertainment will be presented in The Concord nightclub. Admission to the Imperial Room is by meeting registration badge.

### BUSINESS MEETINGS

The Northeastern Management Board dinner and meeting will begin at 2030 hours on Wednesday, March 23.

The Eastern Section of the Paleontological Society and the National Association of Geology Teachers, Eastern Section, will hold their *business meetings* at the close of their respective technical sessions. Time and place will be announced in the *Abstracts with Programs*.

There will be a *joint meeting* of the 1983 and 1984 Local Committees on Thursday, March 24, from 2130 to 2230 hours. Location of meeting will be announced.

There will be a *business meeting* of the Society of Economic Paleontologists and Mineralogists, Eastern Section. Time and place will be announced in the *Abstracts with Programs*.

### ALTERNATIVE HOUSING FACILITIES

There are a limited number of rooms available at area motels and hotels. Costs generally are around US \$24.00 for one double bed and US \$28.00 (plus) for twin beds. **For a listing of such facilities, write to** Larry O'Brien, Department of Geology, Orange County, Community College, Middletown, New York 10940.

### GUEST PASSES

For individual meals, the welcoming party, and the banquet, guest passes will be available for purchase by those who choose not to stay at The Concord. Passes can be purchased with preregistration or, if they remain available, from the cashier of The Concord Hotel. **With preregistration, request such passes using the form for Advance Meal Purchase For Non-Concord Guests.**

# PREREGISTRATION DEADLINE — MARCH 4, 1983

**FINAL  
NOTICE**

## FIELD TRIPS

Field trip registrants **must also** preregister for the meeting. Field trip registration is on a first-come, first-served basis. If a trip is over-subscribed, the full field trip fee will be refunded. **Field trip preregistration must be received by March 4, 1983** accompanied by full payment. Trips may be cancelled if registration is insufficient. Full refunds will be made under such circumstances. No other trip refunds will be made after March 4, 1983.

Participants in Field Trips One and Two will depart from The Concord Hotel Friday afternoon or evening and relocate in the vicinity of Peekskill or New Paltz, respectively. A list of area lodging and dining will be forwarded with acknowledgments of registration, guidebook, and points of departure Saturday morning. Participants will be responsible for arranging their own accommodations for Friday night.

The following field trips have been organized:

### 1. Igneous Petrology and Tectonic Setting of the Cortlandt Complex (March 26). Leaders: J. F. Bender and N. Ratcliffe.

Participants will visit plutonic rocks of the Rosetown and Cortlandt complexes that intrude dynamothermally metamorphosed rocks of the Hudson Highlands and Manhattan Prong. Evidence for the sequence of intrusion of major plutonic phases will be examined in light of geochemical and structural data and the temporal relations of the plutonism to regional metamorphic episodes of Taconic age will be discussed. Participants are responsible for own transportation ("car/van") and lunch. Leave at 0830 hours and return at 1600 hours. *Limit: 40; Cost: \$10.00 (includes guidebook).*

### 2. Middle Ordovician Shale—Sandstone Sequences of the Mid-Hudson Region West of the Hudson River (March 26). Leaders: R. H. Waines, E. B. Shyer, and M. S. Rutstein.

Participants will visit examples of Middle to Upper Ordovician shale-sandstone sequences located between the Hudson River and the Shawangunk Mountains to the west. Stops will include allochthonous Normanskill sequences of Indian River, Mt. Marino, and Austin Glen aspect; a 4,000 meter allochthonous sequence comprised of a lower 700+ meter shale (Martinsburg-Bushkill; Snake Hill); and an upper 3,300 meter five-unit sandstone (Quassaic), the youngest beds of which are dated as early Richmondian. One stop will demonstrate the Ordovician-Silurian angular unconformity and a jarositized paleosol. Another will include faulting between autochthonous and allochthonous strata between which there is a possible 6,000 meter stratigraphic displacement. Participants are responsible for own transportation ("car/van") and lunch. Leave at 0800 hours and return at 1700 hours Saturday. *Limit: 30; Cost: \$10.00 (includes guidebook).*

## ADVANCE MEAL PURCHASE

(Non-Concord Guests)

If available, I wish to purchase meal tickets for the following meals and event. (**Note:** For guests of The Concord, **all** meals, except for lunch Wednesday and dinner Friday, are included in cost of room and lodging).

### WEDNESDAY, MARCH 23

\_\_\_\_\_ \$12.00 Lunch  
 \_\_\_\_\_ \$18.00 Dinner  
 \_\_\_\_\_ \$26.00 Welcoming Party  
 & Dinner  
 \_\_\_\_\_ \$12.00 Welcoming Party

### THURSDAY, MARCH 24

\_\_\_\_\_ \$ 8.00 Breakfast  
 \_\_\_\_\_ \$12.00 Lunch  
 \_\_\_\_\_ \$18.00 Dinner

### FRIDAY, MARCH 25

\_\_\_\_\_ \$ 8.00 Breakfast  
 \_\_\_\_\_ \$12.00 Lunch  
 \_\_\_\_\_ \$18.00 Dinner

\_\_\_\_\_ Total (US)

Please make check or money order (US funds only) payable to The Concord Hotel.

RETURN THIS FORM TO: The Concord Resort Hotel, c/o Convention Reservation Department, Kiamesha Lake, New York 12751.

## TRAVEL INFORMATION AND ACCOMMODATIONS

The Concord Hotel is located in Kiamesha Lake, New York, on New York Rt. 42. By car, it can easily be reached by taking Rt. 17 west from the New York Thruway or south from Binghamton, New York. Air travel to local airports or the Metropolitan New York City area is also possible. If there is sufficient interest, bus and/or limousine service can be arranged from New York City and New York City airports to The Concord. **If you are interested in such transportation, please indicate so on the Transportation Form — Limousine or Bus.**

A map of the hotel and the area will be included in the *Abstracts with Programs* volume.

## TRANSPORTATION FORM LIMOUSINE

Limousine service by Zieres (212-759-9157) between New York City airports and The Concord Resort Hotel is available. Generally, "limos" leave from New York City at 0900 and 1400 hours. The return run from The Concord to the City is at 0930 and 1430 hours. A minimum of three in a limousine is necessary to make a run. The price for one-way service is US \$25 per person. A private limousine is US \$150 each way.

I wish to reserve limousine service from:

New York City to The Concord: date: \_\_\_\_\_ time: \_\_\_\_\_  
 The Concord to New York City: date: \_\_\_\_\_ time: \_\_\_\_\_

Passenger Name \_\_\_\_\_

Address \_\_\_\_\_

Other persons to share limousine: \_\_\_\_\_

Pick-up location \_\_\_\_\_

I am willing to share a limousine as scheduled by Zieres.

YES  NO

DEPOSIT TO HOLD RESERVATION — \$US \$5.00 PER PERSON

Please return with check or money order payable to: Zieres Limousine Service,  
 P.O. Box 75, North Branch, New York 12766.

## TRANSPORTATION FORM BUS

If a sufficient number of persons are interested, then a bus(es) will be chartered to make the run between New York City and The Concord Resort Hotel. Cost will depend upon the number of passengers, but should be less than for limousine service. We expect the cost will be approximately US \$40.00 for a round trip.

If you are interested, please return this form **not later than January 31, 1983**. If there is a sufficient response to warrant chartering a bus, you will be quickly advised as to cost and other details.

**Yes, I am interested in bus transportation for the Northeastern Section Meeting.**

Name \_\_\_\_\_

Address \_\_\_\_\_

Please include names and addresses of others who are also interested.

Name \_\_\_\_\_

Address \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

RETURN THIS FORM BY JANUARY 31, 1983 TO: Martin S. Rutstein, General Chairman, Department of Geological Sciences, State University of New York, College at New Paltz, New Paltz, New York 12561

# NEW MEMBERS

The following 357 Members have been elected to Membership by Council action during the period from March 1, 1982, through August 31, 1982 (\*indicates transfer from Student Associate to Member)

Charles P. Acker II  
Deborah L. Adamczak  
Glen W. Adams  
Timothy J. Allen  
Philip U. Amadi\*  
Michael J. Anderson  
Jose J. Aranda-Gomez  
Sara Arav  
George A. Armbrust  
Craig M. Ashbrook  
James K. Ashton  
Glen W. Atwood  
Mark P. Ausburn  
Jeffrey M. Ayers

Linda S. Bacon  
Kathleen W. Baird  
Kay M. Baker  
Edward A. Banaszek, Jr.  
Tori B. Barr  
Brian D. Bartley  
Mark D. Barton  
Patricia J. Bell  
Steven R. Bell  
Barbara A. Bellemore\*  
Nancy A. Beresky  
John C. Berg  
Thomas M. Berg  
Joyce C. Berry  
Robert B. Biggs  
Michael P. Bingham\*  
Gerald L. Black  
James F. Blasting  
Jon F. Blickwede\*  
Sherman H. Bloomer  
W. Rupert Bodden III  
Douglas T. Bonelli  
David R. Bowers, Jr.  
Karl E. Brand  
Erica L. Bratman  
Thomas F. Bresnahan  
Leo F. F. Brewer  
Patrick W. G. Brock  
Leann A. Brooks  
Robert C. Brown  
Randall D. Buck  
Carol L. Buhmaster

Carlos Bustamante-Camacho  
Michael D. Campbell\*  
Richard W. Carlson  
Roger M. Carpenter  
C. Blaine Cecil  
Patricia L. Chazen  
Seon Hyeong Cho  
Habte Giorgis Churnet  
Radu R. Ciocanelea  
Douglas M. Clark\*  
Stanley R. Cochran, Jr.  
Karen K. Cohen\*  
Lynne Cohen  
Derrick J. Coleman\*  
David G. Coles  
Carol A. Collins  
Heather L. Collins  
Marc R. Connolly  
Richard L. Cook\*  
Linda W. Corwin  
Dan M. Cox  
James R. Creighton, Jr.

Randal W. Cross  
Sylvia A. Cureau  
Kit H. Custis

John J. Danahey  
Gene Davenport  
Ellen I. Davie\*  
Althea De Bellis\*  
G. Michael Dennis  
Richard A. Denton  
Justin V. Devery  
Kathryn R. Dick  
Lawrence A. Dick  
Robin P. Diedrich  
Yildirim Dilek  
Sarantis Dimitriadis  
Mark W. Dobin  
Kurt A. Dodd  
Mark K. Dodds  
John R. Dribun  
Steve H. Dunne  
Alan R. Dutton\*  
Thomas A. Duval

Sarah Eilenberg\*  
Allan A. Ekdale  
Sally J. Ekren  
Arthur R. Elder  
Edward D. Elkins  
Geoffrey S. Elliott  
Dale L. Erlandson

Joe M. Fassio  
Malcolm S. Field  
Mark A. Finnegan  
David J. Fitzgerald  
Gerard M. Flaherty\*  
Raymond C. Fletcher  
Richard M. Fondrow  
Roger A. Formanek  
Michael E. Foster  
Frederic I. Frasse\*  
Mark C. Freeman  
John N. Fricke  
Scott W. Fromme  
Shirley A. Frush

David T. Gambill  
Alexander E. Gates  
Protip K. Ghosh  
Greta E. Gill\*  
Philip M. Glatfelter  
Stephen C. Godfrey  
Kathy A. Goetz  
Henry B. Gold  
Louis P. Goldstein\*  
Xenia Golovchenko  
Wendy A. Gordon  
Robert L. Graham  
David R. Gray  
Glenn D. Green  
Joel P. Gregory  
Timothy J. Grundl  
Chad P. Gubala  
Byron D. Gulick

Royal M. Hagerty  
Hollis Hall  
Linda S. Halley  
Wayne L. Hamilton

Eileen M. Haney  
Catherine L. Hanks\*  
Ronald L. Hansen  
Peter K. Hardcastle  
Phyllis A. Hargrave  
Gregory D. Harper\*  
Tim W. Harvey  
Richard A. Haskin  
Kenneth O. Hasson  
Friedrich Heller  
Frank D. Henderson  
Daniel J. Hendrix  
Joseph R. Hewitt\*  
Robert W. Hickox  
James E. Hillier  
Gregory T. Himes  
Gaylord C. Hinshaw  
Charles W. Holmes  
Lou A. Holt  
Robert W. Horner, Jr.\*  
Heidi A. Horten  
Cheryl L. Humphrey  
Stephen D. Hurst

Alain M. Isnard

Thomas R. Jarvi  
Linda J. Jarvis\*  
Jonathan L. Jee  
Nils P. Johannesen  
Norvel R. Johnson  
Donovan D. Jones, Jr.

Julie K. Kampa  
Herb R. Kane  
Barbara S. Karfunkel  
Karl E. Karlstrom\*  
Malcolm C. Kay\*  
Marcia Mergner Keefer  
J. Jeffrey Kersting  
Richard M. Kettler  
Kathryn C. Kilroy  
In-Soo Kim  
David E. King  
Nancy L. Kiser\*  
H. David Knight\*  
John W. Knox II  
Jonathan J. Koplos  
Colleen A. Kovarik  
Daniel C. Kovarik  
Peter R. Kremer  
Donathon J. Krier  
Scot W. Krueger  
Frank B. Kujawa

Leon Lahiere  
Richard S. Landrum  
T. Matthew Laroche  
Paul T. Latiolait  
Mark H. Leander\*  
Darrell I. Leap  
Stephanie A. Leipzig  
Thomas M. Levy  
Daniel S. Longpre  
Seaira Lovely  
Huan-Zhang Lu  
Harold E. Lucas  
Mary Beth Leaf  
Allan Ludman  
Robert F. Luke

Sue Lupinski\*

Gerda M. MacGregor\*  
Greg H. Mack  
Michael R. Mitland  
Christopher S. Manikas  
J. Phillip Manker  
Kathleen M. Marsaglia\*  
George D. Mayo, Jr.  
James P. McCalpin  
M. Stuart McElhaney\*  
Patrick McLaren  
Marguerite W. McLellan  
Mildred M. McMullen  
Peter L. McSwiggen  
Richard L. Mead  
Barry P. Mercer  
Charles O. Meyer  
Grant F. Miller  
Kevin J. Miller  
Gary J. Mitch  
Joachim Mohn  
Phillip L. Mollicone  
Joseph S. Molnar II  
Dale E. Moncer  
Paul C. Moore  
Juan Manuel Morales-Ramirez  
John T. Morehouse  
Maeve Morgan  
Douglas A. Muckelroy  
Raymond G. Mueller  
Lloyd G. Mullikin  
Barbara H. Murphy  
Steven M. Murray

Joseph N. Nardella  
Edward Nazar  
Margaret Nelson  
Gregory A. Nethery  
Pier Giorgio Nicoletti  
Allyn J. Niles  
Constance J. Nutt

William J. O'Leary  
Jean M. Olson  
Gian G. Ori  
James G. Osborne, Jr.

John J. Pallen  
Thomas H. Patton  
Michael D. Patty  
Robert N. Peale\*  
Kevin J. Phelan  
Lucille A. Piety  
Walter L. Pilant  
David M. Pitcher  
Steven H. Poe  
Barry M. Pollack  
Anna M. Pollard  
Suzanne W. Porter  
David R. Potter  
Lisa M. Pratt\*  
William J. Priore\*

Ernest R. Rahaim  
P. V. Rama Chandran  
Barry J. Rava  
Larisa Joffe Ravinsky  
David R. Ray\*  
James E. Reed

Joseph L. Reese  
Samuel Reich  
Kenneth N. Reiswig\*  
Eric R. Rieken  
Jill Robinson  
Laura N. Robinson  
Emerito Rodriguez Ayarza  
Brian E. Rogan  
Bruce E. Rogers  
Thomas E. Rohn  
Joaquin Ruiz  
Joseph M. Rumann  
John A. Rupp  
Douglas M. T. Ryder

Joseph M. Sabel  
Gary R. Salter  
Jose Rolando R. Santos  
Charles L. Saunders III  
Jiri Savrda  
James S. Sawyer  
Christopher T. Sayre  
Steven J. Schatzel  
Cynthia Scheiner  
N. David Schey  
Louis B. Schipper III  
David S. Schlichtemeier  
Sandra S. Schulz  
Donald C. Scruggs  
Michel L. Sebrier  
Leonardo Seeber  
Diana M. Seely  
John N. Seitz  
Robert M. Sengebusch  
Eric D. Senter  
Monte C. Shalett  
Garth H. Sibbald  
Bruce S. Sibbett  
Paul K. Siegele  
Bruce M. Simonson  
Linda F. Smith  
Roberta L. Smith  
Mark S. Snyder  
Terje Solli  
F. Grant Sovereign  
Christopher F. Steinemann  
Edwrad J. Sterne  
Mark R. Steuer\*  
Ronald B. Stokes  
Catherine Cox Strong  
Richard A. Struble  
Thomas E. Stump  
Kirt W. Suehs  
Michael A. Summerfield  
Joe W. Swindell  
Benjamin D. Sydboten, Jr.\*

Aavo Taal \*  
Shiro Tamanyu  
Stephanie M. Tanaka  
Tom J. Temples  
Stephen M. Testa  
Jake Thamm  
Roger E. Thomas  
Robert D. Townsend  
Daniel M. Truckle  
Henry A. Truebe\*  
Julie A. Tullis  
Norbert E. Turek  
Ryan D. Turner



## NEW FELLOWS

The following candidates were elected to Fellowship by Council action at the October 1982 meeting.

David A. Vanko  
Emil Veakis  
Jan Veizer  
Cesar R. Vilela  
Susan M. Vuke

Horst Wachendorf  
Rory J. Wagner  
Ahmed A. F. Wahib  
Lloyd L. Wall  
John V. Walther  
John F. Wark  
Rodney J. Weick

Robert A. Wells  
James L. Welsh\*  
Judy L. West  
Del L. Wiegand  
Brian James Williams  
David D. Wilson  
Laurence M. Wilson  
Terrie L. Winnett  
Neil M. Woller  
Stephanie R. Wurdinger

Jesse D. Yeakel\*  
Robert A. Zielinski

Athol D. Abrahams  
Rene Blanchet  
Paul R. Carlson  
Frank T. Caruccio  
Edgar S. Driver  
Robert Ehrlich  
Wallace Craft Fallaw  
Stephan A. Graham  
John C. Hepburn  
Norman J. Hyne

Susan Werner Kieffer  
Madhurendu B. Kumar  
Allen F. Mattis  
Bruce Franklin Molnia  
Thomas H. Neel  
Gordon L. Nord, Jr.  
John W. Peirce  
Nelson R. Shaffer  
Glenn L. Shepherd  
Hugh P. Taylor, Jr.

## NEW STUDENT ASSOCIATES

Listed are 373 Student Associates who became affiliated with the Society during the period from March 1, 1982, through August 31, 1982.

Steven S. Abilock  
Ellen P. Abramson  
Spafford C. Ackerly  
Ahmad Abdulla Al-Aswad  
George V. Albino  
Katharine C. Albino  
Michael C. Allison  
Ronald D. Andrus  
Andrew J. Applebaum  
Jon D. Applebaum  
Marilyn J. Aswegan

Michael D. Bacon  
John A. Barnsley  
Geoffrey B. Beardall, Jr.  
Barbara Beatty  
Peter C. Bergmann  
Michael G. Bernard  
C. Richard Berquist, Jr.  
A. Nathaniel Bertram  
J. Scott Bicknell  
John L. Biederman  
Cindy A. Blanchette  
Dale R. Boehme  
Clarence L. Bond, Jr.  
Paul N. Bond  
David E. Borton  
Duane K. Bowers  
Austin E. Boyd  
Roland H. Brady  
G. Robert Brakenridge  
Julie F. Brauer  
Daniel John Brennan  
David P. Brewster  
Robert G. Breynaert  
Stephen S. Briggs  
John D. Broyles  
Robert A. Brozdowski  
James W. Burdett  
Stephen J. Burns  
Arthur B. Busbey  
Julianne E. Butler

Gary J. Calderone  
Donald E. Calhoun III  
Malcolm G. Cameron, Jr.  
Garry J. Carlson  
John A. Carrigan  
Bruce Applegate Carter  
Stephen J. Carter  
Delores A. Cates  
Kay N. Cheek  
Kwo-Ling Chyi  
Jeffrey A. Ciocco  
Patrick C. Clancy  
Christopher C. Clark  
Benjamin L. Clausen  
Thomas W. Colburn  
John S. Compton  
Steven J. Conley  
Douglas E. Connell  
William M. Connolly  
Scott J. Cook  
Bruce D. Coulombe  
John P. Craddock  
Carol J. Craiglow  
Thomas B. Crattie  
Ralph F. Crawford  
Louise J. Criscenti  
Alan E. Cunningham  
Gregory D. Cunningham  
Holly S. Cunningham  
Randall T. Cygan

Mark A. Dagal  
Maggi Dahlgren  
Denis W. D'Amore  
Arlene S. Danby  
Michael A. Dardis  
Daniel J. Daugherty  
E. Ann Davies  
J. Stephen De Albuquerque  
Thomas C. Deane  
Deborah R. Deegan  
Giuseppina D'Elia

William D. Demis  
William J. Devlin  
Arnold G. Doden  
Robert M. Dolfi  
James L. Donald  
Chris J. Donofrio  
Natalie E. R. Drake  
Ra Naye B. Dreier  
Lois A. Dudley  
Philip B. Duran

Henry E. Eby  
John T. Eldridge  
David P. Elfert  
Georgette M. Ember  
Bruce A. Epling  
Dean B. Eppler  
Lauren E. Evans

James E. Faulds  
Timothy A. Fengler  
Mauricio G. Ferreira, Jr.  
Joe P. Ferry  
Karen M. Flannery  
Scott J. Frastaci  
William M. Frazier  
Brett R. Freier  
Kenneth A. Fuller

Janet E. Gabites  
Kenneth C. Gaddy  
Kathleen E. Galloway  
Dale A. Gaudreau  
Brian D. Gebhart  
J. Bruce Gemmill  
Thomas A. Giles  
Maurice B. Gisler  
Paul D. Gjeffe  
Lori B. Glassgold  
John W. Goodge  
David M. Gray  
Robert A. Grazer

Christie M. Griffin  
R. Lyle Griffith, Jr.  
Walter J. Grossman  
John P. Grotzinger

Carlton M. Hall  
Thomas B. Hanna  
Jeffrey J. Hansen  
Vicki L. Hansen  
Tekla A. Harms  
J. Cody Harper  
Mark A. Haskin  
Ralph A. Haugerud  
Ernest C. Hauser  
Jonathan J. Havens  
David L. Hawkins  
Bronson W. Hawley  
Wayne D. Haydon  
Gregory S. Hearne  
Robert E. Helton  
Laurel J. Henderson  
Richard C. Henkel  
Douglas E. Herzog  
Teunis Heyn  
Robert A. Hines  
Kathleen J. Hintzmann  
John F. Hoffelt  
John P. Hogan  
Timothy G. Holdeman  
Cheryl Jane Holden  
Kathy L. Holt  
Martin A. Holubar  
Anne B. Hoos  
John P. Horkowitz  
Dwight A. Hornbacher  
Perry C. Howard  
Robert D. Hunt, Jr.

Susan Ide  
Peter L. Irving  
Thomas S. Isacks  
William P. Iverson

Robert S. Jacobs  
Jerome K. Janish  
Janice A. Jenkins  
Eric M. Johnson  
Roy A. Johnson  
Cheryl S. Jones  
Anne E. R. Jordan  
Martha E. Jordan  
Tony W. Jordan

Todd Keay  
Anita M. Keller  
Alan E. S. Kemp  
Michael S. Kennedy  
Donald J. Kirker  
Marian M. Kirkland  
Barbara R. Kistler  
Susan L. Klapper  
Ernest A. Klatt, Jr.  
Jack J. Klein, Jr.  
Kenneth W. Klewin  
Leo D. Kluger  
Michael A. Knight  
Kimberly L. Kocian  
Teresa L. Koeneke  
Rosemary A. Korn  
Steven A. Kuehl

Leslie A. Landefeld  
George L. Landle  
Anne Marie Larson  
Alan P. Lawson  
Kenneth W. Leach  
Jonathan O. Leason  
Han Yeang Lee  
Sherri L. Lee  
Cheryl Ann Lehr  
Herbert M. Levine  
Jeffrey Ross Levine  
Richard D. Lewis

(continued on page 186)

### NEW STUDENT ASSOCIATES (cont.)

- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Roy W. Lewis<br>Susan K. Liddle<br>Kathleen A. Locke<br>Stephen E. Lovell<br>John A. Lowchy<br>Paula Luborsky                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Samuel B. Mukasa<br>Barbara A. Murphy                                                                                                                                                                                                                                    | John B. Ritter<br>Sharon R. Robertson<br>Jack A. Rogers, Jr.<br>James L. Rogers<br>Janna L. Rohrbaugh<br>Veronica Rojas<br>Robert W. Root, Jr.<br>Murray J. Rosenberg<br>Jody G. Ross<br>Robert L. Rudnick<br>Douglas E. Ruhlin<br>Delfino C. Ruvalcaba<br>Mary J. Ryberg                                                                                                                                                                                                            | Jeffrey H. Simons<br>Marc W. Slechta<br>Niall C. Slowey<br>Robert F. Smalley, Jr.<br>Amos L. Smith<br>Douglas A. Smith<br>David E. Smoak<br>Geoffrey W. Snyder<br>Karl R. Soppeland<br>Sharmon M. Stambaugh<br>Charles B. Stanley<br>Ruth E. Steelman<br>Harlan L. Stein<br>Milton O. Stemmler<br>Eric A. Stern<br>John M. Stewart<br>Teresa L. Stewart<br>Joann M. Stock<br>Philip W. Stoffer<br>Lowell D. Stott<br>Barbara A. Strehle<br>Kevin L. Strunk<br>Richard P. Stumpf<br>Ismail B. Suayah<br>Eileen M. Sullivan<br>David Sussman<br>Michael S. Sutphin<br>David W. Swenson<br>Dorothy L. Swindler<br>Stephen S. Syfrett | Marlene F. Tuesink<br>Stephen R. Van Horn<br>Elizabeth A. Vaverka<br>Frances G. Villiers-Fisher<br>Timothy J. Vogt<br>Jeffrey A. Volk<br>Pete Vos                                                                                                                                                                                                                                                     |
| John M. Macdonald<br>Stephen F. Maher<br>Richard P. Major<br>Kathleen M. Martin<br>Gregory Martinez<br>Rebecca E. Marvil<br>Janet P. Mast<br>Karen O. Maxey<br>Karen A. May<br>Thomas F. McCloskey<br>William Douglas McCoy<br>Robert C. McDaniel<br>Joseph B. McKinney<br>Guy G. McUmber<br>Nicolao S. Melis<br>Christopher V. Metzler<br>Cheney S. Milholland<br>Kathy A. Milla<br>Andrew J. Miller<br>Kenneth G. Miller<br>Marc A. Miller<br>Steven F. Miller<br>Sheri G. Mills<br>M. Kathleen Mladinich<br>Kim A. Montague<br>David J. Monz<br>David W. Morganwalp<br>Michael D. Morris<br>Stan J. Morrison<br>Arthur G. Motes III | Stephen D. Neely<br>Karin E. Nelson<br>Robert W. Newcomer, Jr.<br>Joseph F. Novak                                                                                                                                                                                        | Stephen L. Salyards<br>Marilyn Sartor<br>R. Tyler Sauer<br>John R. Scala<br>Andrew D. Schedl<br>Barbara E. Schertz<br>Paul A. Schiffler<br>Joel D. Schneyer<br>Robert M. Schoch<br>David A. Schroeder<br>William F. Schroeder<br>Jeffrey N. Schuyler<br>Paul W. Shaffer<br>Sally N. Shake<br>Bruce S. Shane<br>Lex D. Shaw<br>Ellen L. Shields<br>Craig A. Shoemaker<br>Catherine H. Shradly<br>Mary T. Siedlecki<br>Kenneth C. Simas<br>Graham H. Simmerman, Jr.<br>Noel G. Simmons | Jeffrey H. Tepper<br>Aram V. Terchunian<br>Janet M. Teshima<br>Jennifer A. Thomson<br>Dianna D. Tiaht<br>Reidar G. Tronnes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Douglas L. Wachtell<br>James Daniel Walker<br>Jeffrey R. Walker<br>C. Phillip Webb<br>Michael Fred Weber<br>J. Keith Weir<br>Deanna L. Wells<br>James Robert Wells, Jr.<br>John R. Wesling<br>Richard V. Wheeler<br>Brian M. Whiting<br>Larry A. Wiedman<br>Mike S. Wielenga<br>Susanne K. Willey<br>Martin C. Williams<br>Nancy A. Williams<br>Mark D. Wilson<br>Patricia A. Winton<br>David D. Wynn |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Peggy A. O'Day<br>Michael P. O'Neill<br>Gale Organist<br>Kristin E. Orr                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Kenneth J. Yeats<br>Michael H. Young                                                                                                                                                                                                                                                                                                                                                                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | David L. Parmelee, Jr.<br>Margie A. Patterson<br>Anne Pavelka<br>Steven M. Pencall<br>T. Michael Pendergrass<br>Mark C. Peterson<br>C. Allen Phelps<br>Milton L. Pierson<br>Harold D. Pitt<br>Susan H. Pleasants<br>Harry H. Posey<br>Wayne R. Premo<br>Alfredo Pugliese |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Andrew Zdon<br>Peter K. Zeitler<br>Geary Zern<br>Edward J. Zofchak                                                                                                                                                                                                                                                                                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Kristin Vala Ragnarsdottir<br>Mark K. Reagan<br>Samuel R. Reeves<br>Drue N. Reiland<br>Matthew E. Richards<br>Steven W. Riddle<br>Robert W. Rieg II<br>Matthew H. Riggs<br>Susan M. Rimmer<br>Rob Risley                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                       |

### Just Received . . .

#### MEMOIR 155

### The Geological Society of America — Life History of a Learned Society

By Edwin B. Eckel

with preface by Robert F. Legget

The Society's makeup, its governance, and its administration, including the management and preservation of its fortune, is presented in a topical rather than chronological form. This history reflects the methods, foibles, successes, and failures of the Presidents, Vice-Presidents, Councilors, and officers during the Society's 90 years. It is a fascinating record and fun reading.

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#### MEMOIR 156

### Geology and Tectonics of the Lake Superior Basin

Edited by Richard J. Wold and William J. Hinze

This state-of-the-knowledge compilation of geologic and geophysical studies will provide an overview of information related to the origin and development of the Lake Superior Basin and to the role and nature of the continental rifting process. Twenty-one papers by leading authorities. Book includes large 31 x 40 4-color map of area and two b&w overlays showing magnetics and gravity.

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## \$1,500 COAL SCHOLARSHIP OFFERED

To further interest and research into coal within the Rocky Mountain and Northern Great Plains Coal Provinces, the Coal Geology Division of GSA and the Ad Hoc Committee for the Symposium on the Geology of Rocky Mountain Coal are offering a \$1,500 scholarship award in 1983. As this scholarship is derived from the Ad Hoc Committee's funds invested in the GSA Foundation, only applicants whose research pertains to the coals in the states or provinces of Arizona, Alberta, British Columbia, Colorado, Idaho, Montana, New Mexico, North Dakota, Utah, Saskatchewan, South Dakota, and Wyoming will be considered.

Applicants must meet the following criteria to qualify for consideration of this scholarship:

A. Currently enrolled in graduate program (M.S. or Ph.D.) at a private or state college or university.

B. The main theme of an applicant's research must be an aspect of coal research, and further, that the research must pertain to coals in the states or provinces listed above.

(The institution where the research is being conducted need not be in the states or provinces listed above.)

C. Although the applicant must be involved in coal research, he or she does not have to be a geology major but can be majoring in another field.

**Applications:** Interested students can obtain scholarship applications from the Chairman of the Scholarship Committee, Gary B. Glass, Geological Survey of Wyoming, Box 3008 University Station, Laramie, WY 82071 and completed applications should be sent to this same address.

**Deadline for Applications:** Scholarship applications should be submitted **no later than February 1.**

**Selection Committee:** A committee made up of two ad hoc members of The Symposium on the Geology of Rocky Mountain Coal and two GSA Coal Geology Division members will screen applications and select the most appropriate proposal by May 1 and announce the winner(s).

### UPCOMING MEETINGS

**51st Annual Convention, Prospectors and Developers Association, March 6-9, 1983,** Royal York Hotel, Toronto, Ontario, Canada. Theme: "Exploration at the Crossroads."

**36th Annual Midwest Meeting and Convention of Society of Exploration Geophysicists, March 6-9, 1983,** Denver, Colorado. Theme: "Complex Geology—A Geophysical Challenge." Host/Contact, Denver Geophysical Society, P.O. Box 5226 TA, Denver, CO 80217 (303) 425-5584.

**24th U.S. Symposium on Rock Mechanics, June 20-23, 1983, and ASTM Symposium: Measurement of Rock Properties at Elevated Temperatures and Pressures, June 20, 1983,** Texas A&M University, College Station, Texas. For further information, contact Earl R. Hoskins, Department of Geophysics, Texas A&M University, College Station, TX 77843.

**10th Meeting, Federation of Analytical Chemistry and Spectroscopy Societies (FACSS), Preliminary Announcement and Call for Papers, Sept. 25-30, 1983,** Franklin Plaza Hotel, Philadelphia, Pennsylvania. Authors who wish to present papers should submit the title of their presentation, current address, and current telephone number by April 8, 1983, to FACSS X Program Chairman, John O. Lephardt, Philip Morris USA, Research Center, P.O. Box 26583, Richmond, VA 23261 (804) 274-3821.

### Volume on Tertiary detachment faulting and Mesozoic thrust faulting now available

Major recent advances in the study of Tertiary detachment faulting and Mesozoic thrust faulting are described in a 608-page volume prepared for the 1982 Cordilleran Section, GSA, meeting. Entitled *Mesozoic-Cenozoic Tectonic Evolution of the Colorado River Region, California, Arizona, and Nevada*, the volume is dedicated to R. Ernest Anderson and Warren B. Hamilton. It contains 51 articles by 78 authors and includes an enormous amount of new structural, geochronologic, geophysical, and geochemical data. The volume is available for \$25 (6% tax for Calif. residents) plus \$2.50 postage from: Cordilleran Publishers, 6203 Lake Alturas Ave., San Diego, CA 92119.

### Research proposals solicited by USGS

The United States Geological Survey invites proposals for research contracts under the continuing Earthquake Hazard Reduction Program.

The proposed research must be directed toward the goal of identifying, evaluating, and characterizing the immediate and long term seismic hazard.

Program objectives and tasks required to achieve those objectives are described in Proposal Information Package No. RFP-1284.

Written inquiries concerning this program and requests for Proposals Information Package No. RFP-1284 should be addressed to: Contracting Officer, U.S. Geological Survey, Mail Stop 85, 345 Middlefield Road, Menlo Park, CA 94025.

Proposals will be due approximately the middle of February 1983, with the exact date being announced in the RFP. It is anticipated that funding of selected programs will start on or after October 1, 1983.

### Opportunities for research in 1983

The National Research Council has announced its NRC Research Associateship Programs for 1983, providing opportunities for research in many areas, including the field of earth sciences.

The NRC administers the Research Associateship Programs in cooperation with selected federal research organizations which have laboratories at about 70 geographic locations in the United States.

Approximately 250 new awards will be made on a competitive basis to recent recipients of the doctorate and, in some programs, to senior investigators as well. Stipends are individually determined and will begin at \$23,500 a year. Grants will be provided for family relocation and for limited professional travel during tenure. Booklets describing the research areas in each program are available. Request further information and application forms from Associateship Programs, JH 610-P, National Research Council, 2101 Constitution Avenue, N.W., Washington, DC 20418. Telephone: (202) 334-2760.

**Postmark deadline for applications is January 15, 1983.**

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