GSA
NEWS & INFORMATION

Monthly Newsletter of
The Geological Society of America

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New Editors Appointed for GSA *Bulletin* and Books

Three geoscientists will begin three-year terms as editors of the GSA *Bulletin* and the book series in January 1989.

John M. Costa, U.S. Geological Survey Cascades Volcano Observatory, and Arthur G. Sylvester, University of California, Santa Barbara, will be the new *Bulletin* editors. They succeed Robert D. Hatcher, Jr., University of Tennessee, Knoxville, and William A. Thomas, University of Alabama, who are finishing two three-year terms with a one-year extension. Richard G. Hoppin, University of Iowa, will be the new editor of GSA books—Memoirs, Special Papers, Engineering Geology Case Histories, Reviews in Engineering Geology, and Microform Publications. He succeeds Campbell Craddock, University of Wisconsin, Madison, who is finishing two three-year terms.

Costa has been Chief of Research of the Water Resources Division at the Cascades Volcano Observatory since August 1986; he was with the National Research Program of the USGS Water Resources Division in Denver from 1983 to 1986. Previously, he was a professor in the Department of Geography at the University of Denver.

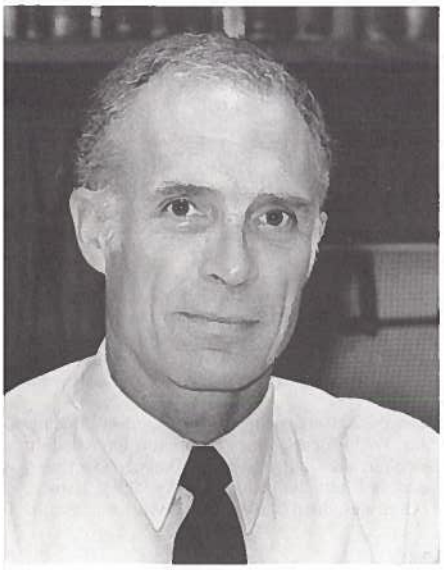
Sylvester began teaching at the University of California, Santa Barbara in 1968, after working as a research geologist with Shell Development. Currently, his main interests are structural geology, neotectonics, and structural petrology.

Hoppin has been teaching at the University of Iowa since 1952. His current interests are structural geology, tectonics, and remote sensing.

All of the science editors for GSA publications work closely with headquarters staff in Boulder, Colorado, to ensure that submitted manuscripts are critically reviewed and in appropriate format for the journals or books. The *Bulletin* editors use a panel of Associate Editors to help them determine what papers should be published in the journal. An average of 22 manuscripts per month have been submitted to the *Bulletin* in 1988. The books editor handles inquiries from potential book authors and enlists appropriate reviewers for book manuscripts. GSA has published 17 books in the Memoirs and Special Papers series in 1988.

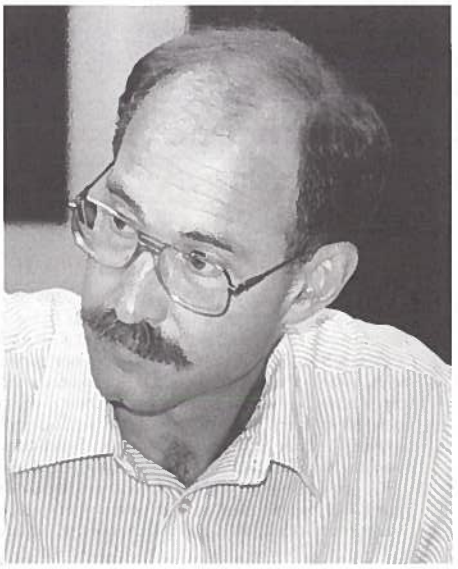
The science editors receive no salary for their GSA publications work, but GSA pays their publications-related expenses and for travel to meetings.

All manuscripts submitted to the *Bulletin* must be sent to GSA headquarters, 3300 Penrose Place (for courier mail) or P.O. Box 9140, Boulder, CO 80301, *not* to the science editors. Authors of potential GSA books should contact headquarters for information about manuscript submission.



Arthur Sylvester

Richard Hoppin



John Costa

National Research Council Seeks Applicants for Senior and Postdoctoral Research Associateships

The National Research Council announces the 1989 Resident, Cooperative, and Postdoctoral Research Associateship Programs for research in the sciences and engineering to be conducted on behalf of 30 federal agencies or research institutions, whose 115 participating research laboratories are located throughout the United States. The programs provide opportunities for Ph.D. scientists and engineers of unusual promise and ability to perform research on problems largely of their own choosing yet compatible with the research interests of the supporting laboratory.

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PS Form 3526, Dec. 1985 *(See instruction on reverse)*

Approximately 450 new full-time Associateships will be awarded on a competitive basis in 1989 for research in chemistry; earth and atmospheric sciences; engineering and applied sciences; biological, health, and behavioral sciences and biotechnology; mathematics; space and planetary sciences; and physics. Most of the programs are open to both U.S. and non-U.S. nationals, and to both recent Ph.D. degree recipients and senior investigators.

Awards are made for one or two years, renewable to a maximum of three years; senior applicants who have held the doctorate at least five years may request shorter tenure. Annual stipends for recent Ph.D.s for the 1989 program year will vary from $27,150 to $35,000, depending upon the sponsoring laboratory; stipends will be appropriately higher for senior Associates.

Reimbursement is provided for allowable relocation costs and for limited professional travel during tenure. The host laboratory provides the Associate with programmatic assistance including facilities, support services, necessary equipment, and travel necessary for the conduct of the approved research program.

Applications to the National Research Council must be postmarked no later than January 15, 1989 (December 15, 1988, for NASA), April 15, and August 15, 1989. Initial awards will be announced in March and April (July and November for the two later competitions); awards to alternates will be announced later.

Information on specific research opportunities and federal laboratories, as well as application materials, may be obtained from the Associateship Programs (GR430A-D2), Office of Scientific and Engineering Personnel, National Research Council, 2101 Constitution Avenue, N.W., Washington, DC 20418, (202) 334-2760.

Alternates Receive Research Grants

Each year the GSA Committee on Research Grants selects recipients for grants up to the maximum amount of funding available for that year. An alternate group of recipients is also selected in the event that some of the grantees return part or all of their funds because they have received funding elsewhere or their research project changes. As the returned funds become available they are re-awarded by the Research Grants Administrator to the alternates named by the committee.

In 1988 six alternates received funding following the initial awarding of grants:

Jeremy J. Bartlett, McMaster University
Cathleen Beaudoin, University of South Florida
Emily Anne CoBabe, Harvard University
Jeanne L. Cooper, Miami University
Cecilia A. Howkins, University of Toronto
Mary Beth Kitz, University of Pittsburgh

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Subscriptions for 1988 calendar year: **Society Members**: GSA News & Information is provided as part of membership dues. Contact the Membership Department at (303) 447-2020 for membership requirements. **Nonmembers**: $24.00 for United States, Canada, and Mexico; $34.00 elsewhere. **Ordering**: Nonmember subscriptions may be ordered through Publication Sales Department, P.O. Box 9140, Boulder, CO 80301, telephone (303) 447-2020. **Claims**: Nonmember claims for nonreceipt or damaged copies should be made to the Publication Sales Department. Member claims should be made to the Membership Department. Claims are honored for one year.

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***Advertising**: Contact James R. Clark or Ann H. Crawford (303) 447-2020.

DNAG NEWS

by Allison R. (Pete) Palmer

Kudos Again

Now that the *Hydrogeology* volume is safely at the printer and is expected to appear this month, it is time to acknowledge the outstanding effort by the editors, Bill Back, Joe Rosenshein, and Paul Seaber. They arranged for the peer reviews for their chapters, encouraged their authors to use the two-color option for text figures, and carefully worked over the chapter texts before sending them on to GSA for production. This was a major effort, coordinating the products of 98 authors and co-authors among 50 chapters. Many thanks to those listed below who helped to make this book possible.

T. W. Anderson
W. Back
V. R. Baker
G. L. Bertoldi
J. V. Brahana
J. D. Bredehoeft
J. J. Carillo R.
R. Chavez
J. A. Cherry
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J. Thrailkill
J. Toth
F. W. Trainer
A. Trujillo
J. J. Vaccaro
R. O. van Everdingen
C. I. Voss
R. L. Wait
W. C. Ward
J. B. Weeks
A. E. Weide
G. E. Welder
W. B. White
W. W. Wood

Miscellanea

The list of authors and co-authors for the *Hydrogeology* volume brings to 1109 the number of contributors to the 13 completed DNAG books, and we still have 16 in the mill! In addition, we have in hand one completed book in Spanish (*Geología Económica de México*) that is now being translated. This book, edited by G. P. Salas, has 58 chapters and 77 authors. If we add these authors to those who contributed to the 11 transects and 3 major wall maps that have already been completed, the number of formal DNAG contributors who have completed their commitments is approaching 1400! That's a bunch!

Many thanks to everybody who has completed a contribution, and best wishes for the coming year to all, including those whose commitments are still to be completed.

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Association for Women Geoscientists Foundation Offers Scholarship

The Association for Women Geoscientists Foundation (AWGF) announces the availability of the Chrysalis Scholarship to be awarded March 1, 1989. The $250 award will be made to a geoscience Master or Ph.D. candidate to cover expenses associated with finishing her thesis. Chrysalis is for candidates who have returned to school after an interruption of one year or longer in their education. The support can be used for typing, drafting, child-care expenses, or anything necessary to allow a degree candidate to finish her thesis and enter a geoscience profession.

The applicant should write a letter stating her career goals and objectives and how she will use the money, and explaining the length and nature of the interruption to her education. Her thesis adviser must submit a letter stating when the candidate will finish her degree and what requirements are as yet unfinished. This letter should also include reference to the applicant's prospects for future contributions to the geosciences. Two additional letters of recommendation are required.

Applications should be made by *January 31, 1989*, to the Foundation. For more information or applications, please write Chrysalis Scholarship, Association for Women Geoscientists Foundation, c/o Resource Center for Associations, 10200 West 44th Avenue #304, Wheat Ridge, CO 80033.

Science Advice for Congress

by James Evans
GSA Congressional Science Fellow

Decisions made by the U.S. Congress have a significant impact on the earth sciences. Through enacting legislation, Congress sets national priorities, establishes or terminates programs, and sets the funding priorities of these programs. These facts are obvious, but they have two important corollaries. First, because congressional action has such an effect on the earth sciences, as a profession we should be more aware and involved in the legislative process. Second, because of the critical importance of the exact phrasing of legislation, it is important that we assist Congress in developing better access to science advice.

For me, one of the most important lessons of "a year on the Hill" has been realizing the practical considerations that limit the flow of objective scientific advice to Congress. I would summarize these as follows: (1) There are practical and legal constraints on how scientists from federal agencies (such as the U.S. Geological Survey) can be involved in the legislative process; (2) there are relatively few technically trained staff directly working for Congress; and (3) there is increasing technical expertise demonstrated by special interest groups.

Role of Federal Agency Scientists

Earth scientists work for several federal agencies, such as the U.S. Geological Survey, National Aeronautics and Space Administration, National Oceanic and Atmospheric Administration, Bureau of Land Management, Environmental Protection Agency, and the Department of Energy. What constraints are placed on the manner in which these scientists interact with Congress?

First, these scientists are prohibited by law from *initiating* contacts on specific pieces of legislation that could be considered as an effort to lobby Congress. If Congress initiates a formal request for information, that request is channeled through agency heads and their congressional liaison staffs. It may be possible, under certain circumstances, for federal agency scientists to interact informally with congressional staff. However, if an agency is asked to "go on record" with formal written or oral testimony at a congressional hearing, the testimony is reviewed beforehand by the Office of Management and Budget (OMB).

OMB, as a matter of principle, is opposed to any legislation that calls for new programs or increased funding levels for existing programs, if this represents a change from the President's Budget Request. OMB will not permit federal agency scientists to testify in favor of legislation that establishes such new programs or increases funding in such manner. This opposition is completely independent of the scientific or social merit of the legislation. One of the strongest possible lessons one can learn about the operation of our government comes from attending a hearing where federal agency scientists officially testify against the legislation that they helped formulate.

Congressional Staff Expertise

Over the past two decades, Congress has been confronted with increasingly technical issues and concerns and has responded by the enlargement of committee staff, hiring of technically trained personnel, and establishment of congressional agencies with a science-oriented mission. Despite these efforts, there is a real need for increased technical expertise.

None of the 535 members of Congress are earth scientists, anc only a few have had any scientific training. Each member o Congress has a personal staff, which typically includes one of more people who specialize in scientific and environmental issues. The background of these staff members is confidential, but it is very unlikely that any are technically trained scientists, let alone earth scientists.

Most of the technically trained staff work for the committees and subcommittees. There are three Senate committees (Commerce, Science and Transportation; Energy and Natural Resources Environment and Public Works) and four House committees (Energy and Commerce; Interior and Insular Affairs; Merchant Marine and Fisheries; Science, Space and Technology) with jurisdiction over scientific issues. The jurisdictions (and personnel) are further split into subcommittees. Committee (and subcommittee staff consist of legal advisers, professional (technical) staff, and research assistants. There are generally one or more technically trained persons in each subcommittee, and several additional technically trained persons at the full committee level. Again, the background data are confidential, but I found only two earth scientists (one being last year's GSA Congressional Science Fellow) among all the staff.

None of this discussion is intended to disparage the ability o the staff. Legal issues tend to dominate the activities surrounding legislation; thus, it is not surprising that considerably more of the staff have legal training than scientific training. Awareness of the legal implications of scientific programs or environmental laws is particularly high. In addition, as certain issues continue to come up year after year, many of the staff have had what amounts to extensive "on-the-job" scientific training.

In my opinion, the problem is that few of the staff members understand the assumptions and uncertainties behind scientific data. For example, I attended a hearing where an earth scientist made a graphic presentation of trends which seemed to clearly lead the audience to certain conclusions. However, the analysis of the data was questionable, which may invalidate the conclusions. Generally, scientists giving verbal testimony have about five minutes to make their presentation. Few of them use any of this time to present a candid analysis of the limitations of their data or analytical uncertainties, or even to make known disagreements with other scientists about interpretation of the data. As a result, scientists often project themselves before Congress as being considerably more certain of their results than they would if presenting the same data to an audience of their peers.

(*continued on p. 325*)

ɔcience Advice for Congress *(continued from p. 324)*

ɪole of Congressional Agencies

These three agencies have scientific expertise and are directly esponsible to the Congress: Congressional Research Service CRS, a part of the Library of Congress), General Accounting)ffice (GAO), and Office of Technology Assessment (OTA). Each mploys technically trained staff (see Table 1), and has a different nission.

Congressional Research Service. CRS staff members under- ake reviews and analyses of issues at the request of individual nembers of Congress or committees. These requests can be public ır confidential, and the resulting documents are not widely distrib- ıted. CRS also initiates various types of reports (e.g., issue briefs, ıformation packages) about issues relevant to present legislation. he strong points of CRS research are that it is relatively fast (days o weeks) and comprehensive and provides statistical analysis, if ıeeded. The limitation of CRS research is that it is generally a review ıf published documents.

TABLE 1. NUMBERS OF TECHNICALLY TRAINED STAFF (M.S. or Ph.D.)

ɔield	OTA	CRS	GAO	Congressional Science Fellows*
ɔiology and ecology	11	5	5	3
ɔhemistry	1	1	2	1
ɔarth science	2	4	3	3
ɔngineering	12	5	28	4
Math and statistics	1	0	36	0
Medicine and health	5	5	23	6
)ceanography	1	1	0	0
ɔhysics	10	4	5	2

*Information on the Congressional Science Fellow program is ncluded for purposes of discussion.

General Accounting Office. GAO undertakes studies at the ɔequest of any individual member of Congress and committees, but n reality, assignments by committee and subcommittee chairmen ake priority. GAO reports generally take weeks to months to ɔomplete, and they become public documents with wide public listribution. The strength of GAO is in auditing and accounting ıctivities. GAO has established a technical staff because of the ncreasing need to audit and evaluate scientific programs for their nerit, compliance with the law, and use of funding. The limitation of GAO research is that traditionally it has not been directed toward ɔesolving purely scientific controversies.

Office of Technology Assessment. OTA study requests can be nitiated by individual members of Congress or committees, but hey are screened somewhat, because of the high volume of ɔequests. The formal procedure of starting an OTA study requires hat OTA staff members compile a detailed study proposal that is ıubmitted to the OTA Governing Board (six Senators and six Representatives) for approval. OTA studies might take several ɣears to complete, are public documents, and are widely distrib- ıted. OTA staff has a large number of technically trained personnel ınd also contracts outside expertise for specific projects. The ıtrengths of OTA studies are examining the adequacy of present ɔechnology, future technology needs, and relationships between ɔechnology needs and legislative or funding needs. One limitation to)TA studies is the length of time needed to initiate and complete the ıtudies.

Professional Lobbyists

As technical issues have become more important in Congress, the level of technical expertise among representatives of special interest groups has also grown. Many such groups routinely prepare and distribute position papers, technical reports, and analyses that support their goals. My experience this year led me to conclude that lobbyists typically provided honest responses to any question I asked. The problem is that lobbyists, of their own volition, will be selective about volunteering information that may work against their goals.

Summary

I end my assignment as a GSA Congressional Science Fellow by calling upon the Society to recognize that its needs, as a professional scientific society, go beyond its present level of involvement in legislative affairs. I suggest that the goals of the Society include a commitment to public service, to basic scientific research, and to science education—all of which depend upon actions of the U.S. Congress. Further, as I hope to have demonstrated, there are clear needs for the earth science community to provide advice to Congress. I suggest that a professional scientific society is uniquely suited to fulfill that role, because it is objective and nonpartisan and has a broad constituency of members from the academic, industrial, and governmental sectors.

I strongly support the Congressional Science Fellowship program sponsored by GSA; however, there are limits to what individual Fellows can accomplish. She or he will work for either the House or the Senate, for either the majority or minority party, and for either a personal office or committee. Each of these choices sequentially limits the scope of activities the Fellow can be involved in. It would be a mistake to characterize the Fellow as some kind of roving scientific SWAT team. In fact, for areas outside his or her jurisdiction, the Fellow's advice is neither solicited nor (in many cases) welcome.

I believe that the Society, while continuing to support the Congressional Science Fellowship program, should look for additional mechanisms for providing science advice to the Congress. One such way would be to establish an office and representative in Washington, D.C. The goals of this representative would be (1) to develop long-term contacts with appropriate committee staff; (2) to provide Congress with lists of expert witnesses on subjects of interest; (3) to distribute technical reports, analyses, or position papers that GSA may produce; (4) to testify on behalf of the Society; (5) to notify the membership about critical issues; and (6) to coordinate symposia for the purpose of educating congressional staff.

Thank you again for the opportunity to represent you as the GSA Congressional Science Fellow for 1987–1988.

CORRECTION

The Cordilleran and Rocky Mountain Sections Abstract Deadline:

DECEMBER 12, 1988

THE GEOLOGICAL SOCIETY OF AMERICA

Annual research awards program 1989

The Geological Society of America will continue its annual research awards program in 1989. Eligibility is not restricted to GSA members. New application forms for the current year and detailed requirements are available each fall in the geology departments of colleges and universities offering graduate degrees in earth sciences. Forms are mailed annually to GSA Campus Representatives and department secretaries and chairmen in the United States and Canada. They are also available upon request from the Research Grants Administrator, Geological Society of America, P.O. Box 9140, Boulder, Colorado 80301. PLEASE USE ONLY THE 1989 APPLICATION AND APPRAISAL FORMS.

The primary role of the research grant program is to provide partial support of master's and doctoral thesis research for graduate students at universities in the United States, Canada, Mexico, and Central America.

The Geological Society of America awarded $178,800 in grants in 1988. The awards went to 213 students doing research for advanced degrees. The average amount awarded was $850. The largest award was $1,500, but there is no predetermined maximum amount.

Confidential evaluations from two faculty members are required from master's and doctoral candidates and must accompany applications submitted. PLEASE USE THE "APPRAISAL OF APPLICANT" FORMS, WHICH ACCOMPANY THE 1989 APPLICATION FORMS.

Applications will also be accepted for the Harold T. Stearns Fellowship(s). These grants are awarded periodically in support of research on one or more aspects of the geology of Pacific Islands and of the circum-Pacific region. They are distinct from the GSA Penrose research grants and are restricted in their use to the particular region. The awardee(s) will be selected by the Research Grants Committee. Applications must be postmarked by **February 15.** Application forms are the same as those used for the Penrose research grants.

The Committee on Research Grants will meet in April to evaluate applications and award grants. In April, all applicants for grants will be informed of the committee's actions by the Executive Director of the Geological Society of America.

ALL APPLICATIONS MUST BE SUBMITTED ON THE 1989 FORMS

AND POSTMARKED BY FEBRUARY 15, 1989

Final Announcement

SOUTH-CENTRAL SECTION, GSA, 23rd Annual Meeting

Arlington, Texas
March 12–14, 1989

The South-Central Section of the Geological Society of America will meet in the Arlington Rodeway Inn Conference Center, Arlington, Texas. The meeting is sponsored by the Department of Geology of the University of Texas at Arlington and will be held jointly with the Texas Section of the National Association of Geology Teachers.

LOCAL COMMITTEE

Chairman: Charles I. Smith, Department of Geology, University of Texas at Arlington, Box 19049, Arlington, TX 76019, (817) 273-2987.

Vice-Chairman and Meeting Manager: Donald F. Reaser, (817) 273-2984.

Technical Program: William L. Balsam, (817) 273-2997, and Brooks B. Ellwood, (817) 273-2339.

Symposia: Burke Burkart, (817) 273-2998, and John A. Wolff, (817) 273-2989.

Field Trips: Merlynd K. Nestell, (817) 273-2983, and Juergen Schieber, (817) 273-2980.

Registration: Rex E. Crick, (817) 273-2987.

REGISTRATION

Registration is required for all participants in any event, including technical sessions, symposia, exhibits, planned social events, and field trips.

Preregistration. You are urged to register in advance to aid the local committee in making final plans. A discount is offered to those who register **before February 9, 1989**, using the accompanying forms. Preregistration is required for those who plan to attend field trips. Return completed preregistration forms with check or money order in U.S. currency (made payable to South-Central Section GSA Annual Meeting) to South-Central GSA, Department of Geology, Box 19049, University of Texas at Arlington, Arlington, TX 76019. Preregistration must be postmarked by February 9, 1989, to qualify for discounted registration rates. Refunds on canceled registrations will be made until February 9, 1989. After that date, no refunds will be made except for field trips or other events that are canceled or oversubscribed.

On-site Registration. Registration will take place on Sunday, March 12, 1989, from 3 to 8 p.m. at the Conference Desk of the Arlington Rodeway Inn and will continue there daily from 7:45 a.m. to 5 p.m. for the duration of the meeting. For lower registration fees and to assist the local committee in planning PREREGISTER BY FEBRUARY 9, 1989!

WELCOMING PARTY

A welcoming party for those attending the meeting will be held Sunday evening, March 12, from 6:30 to 8:30 p.m. in the Rodeway Inn Conference Center. Hors d'oeuvres will be served, and there will be a cash bar.

TECHNICAL PROGRAM

Oral and poster technical sessions on a variety of topics and symposia will be presented on Monday and Tuesday, March 13 and 14. In addition to the general sessions, the following symposia will be presented during the meeting. Contact the convener(s) of symposia for further information.

1. **Intraplate and Alkaline Magmatism.** John A. Wolff, Dept. Geology, University of Texas, Arlington, TX 76019.
2. **The Caribbean–North American Plate Boundary: Terranes and Tectonics.** T. W. Donnelly, Dept. Geological Sciences, SUNY, Binghamton, NY 13901; B. Burkart, Dept. Geology, University of Texas, Arlington, TX 76019.
3. **Secondary Magnetic Minerals and Their Implications for Exploration and Paleomagnetism.** R. Douglas Elmore, School of Geology and Geophysics, University of Oklahoma, Norman, OK 73019; Chad McCabe, Dept. Geology, Louisiana State University, Baton Rouge, LA 70803.
4. **Archeological Geology of the Southern Midcontinent.** C. Reid Ferring, Inst. Applied Sciences, University of North Texas, Denton, TX 76203; Brooks B. Ellwood, Dept. Geology, University of Texas, Arlington, TX 76019.
5. **Stratigraphy, Sedimentology, and Paleontology of Upper Cretaceous and Lower Tertiary (Paleogene) Rocks in Trans-Pecos Texas.** Arthur B. Busbey, Dept. Geology, Texas Christian University, Fort Worth, TX 76129; Thomas M. Lehman, Dept. Geosciences, Texas Tech University, Lubbock, TX 79409.
6. **Midcontinent Middle and Late Pennsylvanian Chronostratigraphy, Biostratigraphy, and Paleoecology.** Merlynd K. Nestell, Dept. Geology, University of Texas, Arlington, TX 76019, and leaders of Middle and Late Pennsylvanian field trip.

STUDENT AWARDS

The South-Central Section will present three cash awards ($200, $100, $50) for the best student papers. The first-place winner is eligible to receive up to $300 for travel to the 1989 GSA Annual Meeting in St. Louis. Only student-written and student-presented papers are eligible.

FIELD TRIPS

Participants in field trips must preregister for the meeting. Field-trip registration is on a first-come, first-served basis. Preregistration for field trips, accompanied by full payment, must be postmarked by **February 9, 1989**. Requests for refunds will be honored until that date. Trips may be canceled by South-Central GSA if registration is insufficient or for reasons beyond our control. If a trip is oversubscribed or canceled, the field-trip fee will be refunded. (If you are not attending meeting technical sessions, the registration fee will also be refunded.) Notification of cancellation will be made if possible by March 1, 1989. All field trips will depart from the Rodeway Inn.

1. **Stratigraphic and Structural Overview of Upper Cretaceous Rocks Exposed in the Waxahachie Vicinity, Northeast Texas.** A one-day visit to classic Dallas area Upper Cretaceous exposures of the Eagle Ford Shale, Austin Chalk, and Taylor Marl near and at the proposed Dallas/Fort Worth site of the Superconducting Super Collider. Donald F. Reaser, Dept. Geology, University of Texas, Arlington, TX 76019.

(*continued on p. 328*)

South-Central Section (*continued from p. 327*)

Limit: 25; cost: $25, including transportation, catered bar-b-que lunch in historic Waxahachie, and guidebook. Bus departs Rodeway Inn Conference Center at 8:30 a.m., Saturday, March 11.

2. **Middle and Late Pennsylvanian Chronostratigraphic Boundaries in North-Central Texas: Glacial Eustatic Events, Biostratigraphy, and Paleoecology.** A two-day field trip in the Mineral Wells–Jacksboro–Graham area to examine classic Middle and Upper Pennsylvanian exposures related to chronostratigraphic boundaries. Planned in conjunction with Symposium 6. Darwin R. Boardman and James E. Barrick, Dept. Geology, Texas Tech University, Lubbock, TX 74909; Jim Cocke, Dept. Geology, Southwest Missouri State University, Warrensburg, MO 65804; Merlynd K. Nestell, Dept. Geology, University of Texas, Arlington, TX 76019.

   Limit: 40; cost: $125, including transportation, two buffet breakfasts, two lunches, snacks, lodging (double occupancy, two nights, Park Inn, Mineral Wells, Texas), and guidebook. Saturday and Sunday, March 11 and 12. Bus departs Rodeway Inn Conference Center at 6 p.m., Friday, March 10. Guidebook will be available after the meeting from Department of Geosciences, Texas Tech University, Lubbock, TX 79409.

3. **Clastic-Carbonate Shoreline Depositional Environments of the Glen Rose Formation (Lower Cretaceous) in North-Central Texas.** A one-day trip to visit classic exposures and dinosaur tracks in the Glen Rose Formation in the Glen Rose area. Gail R. Bergen, Reservoir Inc., Houston, TX 77043; Jeffrey G. Pittman, Wann Langston, Jr., Vertebrate Paleontology Lab., Balcones Research Center, University of Texas, Austin, TX 78712; Bob F. Perkins, Graduate School, University of Texas, Arlington, TX 76019.

   Limit: 40; cost: $30, including transportation, one lunch, snacks, and guidebook. Bus departs Rodeway Inn Conference Center 8 a.m., Sunday, March 12.

4. **Archeological Geology in the Upper Trinity Basin.** Planned in conjunction with Symposium 4. A one-day field trip will provide participants with the opportunity to visit localities in the Trinity River Basin with excellent exposures of upper Quaternary alluvium, soils, and archeological horizons. The trip will focus on local alluvial history, paleoenvironments, and records of site-formation processes. C. Reid Ferring, Inst. Applied Sciences, University of North Texas, Denton, TX 76203; Duane Peter, Geomarine, Forth Worth, TX 76102; Brooks Ellwood, Dept. Geology, University of Texas, Arlington, TX 76019.

   Limit: 40; cost: $40, including transportation, one lunch, and guidebook. Bus departs Rodeway Inn Conference Center 7:30 a.m., Sunday, March 12.

PUBLICATIONS

Abstracts with Programs for the meeting and copies of the field-trip guidebooks can be purchased at the registration desk.

PROJECTION EQUIPMENT

Two 35-mm slide projectors, two screens, and a light pointer will be provided in each technical session and symposium. *Carousel trays will not be provided.* Overhead projectors *will not* be available.

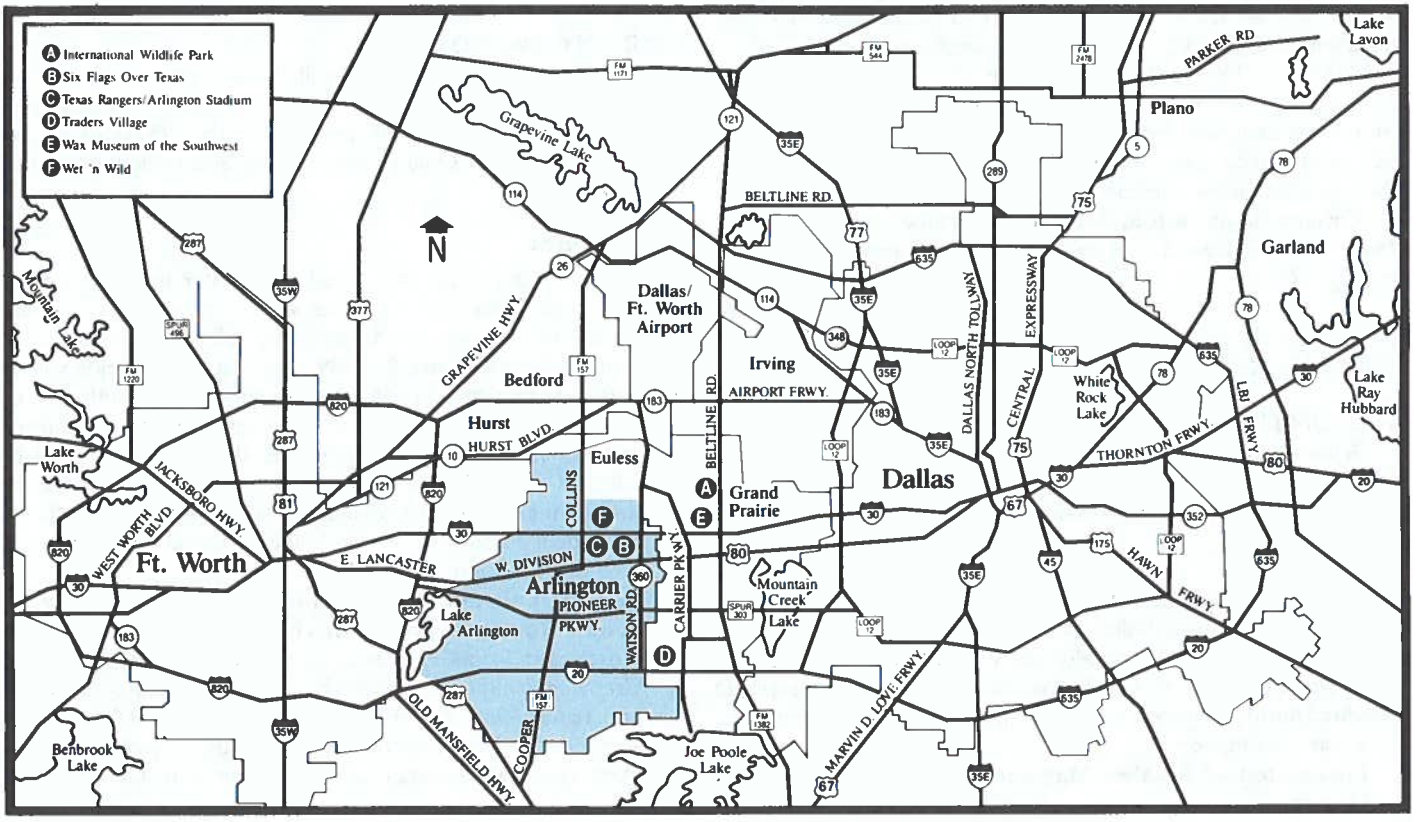
EXHIBITS

Exhibits will be adjacent to the technical session rooms in the same room with poster presentations. The cost of booths for educational and nonprofit institutions will be reduced. For further information, contact C. I. Smith, Dept. Geology, University of Texas, P.O. Box 19049, Arlington, TX 76019, (817) 273-2987.

SPECIAL EVENTS

Welcoming Party: From 6:30 to 8:30 p.m., Sunday evening, March 12, 1989, in the Johnson Station and Cross Timbers rooms of the Rodeway Inn Conference Center. Hors d'oeuvres with cash bar.

(*continued on p. 329*)



South-Central Section (*continued from p. 328*)

Annual Banquet: GSA South-Central Section, in the Dallas and Fort Worth rooms of the Rodeway Inn at 7 p.m., March 13. Free beer, cash bar, and appetizers available at 6 p.m. Cost: $12.50, including tax and gratuity. Following the banquet there will be a brief business meeting. The after-dinner speaker will be Peter A. Scholle, who holds the Claude C. Albritton Chair in Geological Sciences at Southern Methodist University.

National Association of Geology Teachers, Texas Section Luncheon: At 12 noon, March 13, Dallas Room. Cost: $9, including tax and gratuity.

GSA South-Central Section Paleontology Luncheon: At 12 noon, March 14, Dallas Room. Cost: $9, including tax and gratuity.

SPOUSE AND GUEST PROGRAM

We have not made special arrangements for guest activities, but personnel at the registration desk can provide literature and other information on places of interest in the area. Fort Worth's museum complex (Kimbell Art Museum, Amon Carter Museum, Museum of Modern Art, and Museum of Science and History), recognized throughout the nation for its variety and quality, is only 20 minutes from the Rodeway Inn. Thirty minutes in the opposite direction is Dallas, with, among other points of interest, Williams Square at Los Colinas (actually in Irving) and Prestonwood Mall in north Dallas. Both are renowned for their artistic decor and fine stores. Unfortunately, Six Flags Amusement Park, adjacent to the Rodeway, will not open until the week after the meeting.

(*continued on p. 330*)

PREREGISTRATION FORM

South-Central Section, GSA, 23rd Annual Meeting
March 12–14, 1989, Arlington, Texas

Important

1. Full payment must accompany registration.
2. Register one professional or student per form.
3. Students requesting special housing rates: check box in lower right corner.
4. Your check will be your receipt. Copy this form for your records. If you wish acknowledgment of your preregistration, please enclose a self-addressed, stamped envelope.
5. Preregistration deadline: Must be postmarked no later than *February 9, 1989.* Preregistration deadline for field trips is also February 9.

For Office Use Only
Ck or MO# _____
Amount _____
Issued by _____
_____

Name _____
(Last or family name) (First) (Middle)

Registered as: ____ Professional ____ Student ____ Spouse or Guest

Affiliation (abbreviate for badge) _____

Professional address _____

_____

Telephone: ( ) _____ Nickname for badge _____

GSA Member: ____ yes ____ no GSA Student Associate: ____ yes ____ no

Preregistration (postmarked by Feb. 9, 1989)

GSA Member	$ 36.00	_____
Other Professional	$ 42.00	_____
GSA Student Associate	$ 12.00	_____
Other Student	$ 15.00	_____

Registration (postmarked after Feb. 9, 1989)

GSA Member	$ 42.00	_____
Other Professional	$ 47.00	_____
GSA Student Associate	$ 15.00	_____
Other Student	$ 18.00	_____
Spouse or guest registration	$ 10.00	_____

Special Events

South-Central Section Banquet (March 13)	$ 12.50	_____
Texas Section NAGT Luncheon (March 13)	$ 9.00	_____
GSA South-Central Section Paleontology Luncheon (March 14)	$ 9.00	_____

Field Trips (preregistration must be postmarked by Feb. 9, 1989)

1. Upper Cretaceous Rocks, Waxahachie Vicinity (Saturday, March 11)	$ 25.00	_____
2. Pennsylvanian Chronostratigraphy (Saturday and Sunday, March 11 and 12)	$125.00	_____
3. Glen Rose Depositional Environments (Sunday, March 12)	$ 30.00	_____
4. Archeological Geology (Sunday, March 12)	$ 40.00	_____
TOTAL FEES	$	_____

Enclose check or money order (U.S. funds) payable to *South-Central GSA*

Mail completed registration form and full payment to
South-Central GSA
Department of Geology
Box 19049
U.T. Arlington
Arlington, TX 76019

☐ I request special student housing rates and room assignment.

University affiliation _____

South-Central Section (*continued from p. 329*)

TRAVEL

Arlington is between Dallas and Fort Worth and only 20 minutes southwest of the Dallas/Fort Worth Airport. The Rodeway Inn (31 on detailed map of Arlington) is located just off I-30 (old Dallas–Fort Worth Turnpike) near the Six Flags Amusement Park (B on regional map). The Rodeway provides transportation to and from the Dallas/Fort Worth Airport.

HOUSING

A block of rooms at special rates has been reserved at the Rodeway Inn, where all meeting activities will be held. There are other motels in the area (see map), but they have not been asked to provide reduced rates.

Rodeway Inn Rates

$48 (plus tax) per room with 1 or 2 double beds, for 1–4 persons.

$75 (plus tax) for suites, with wet bar and refrigerator, for 6 persons.

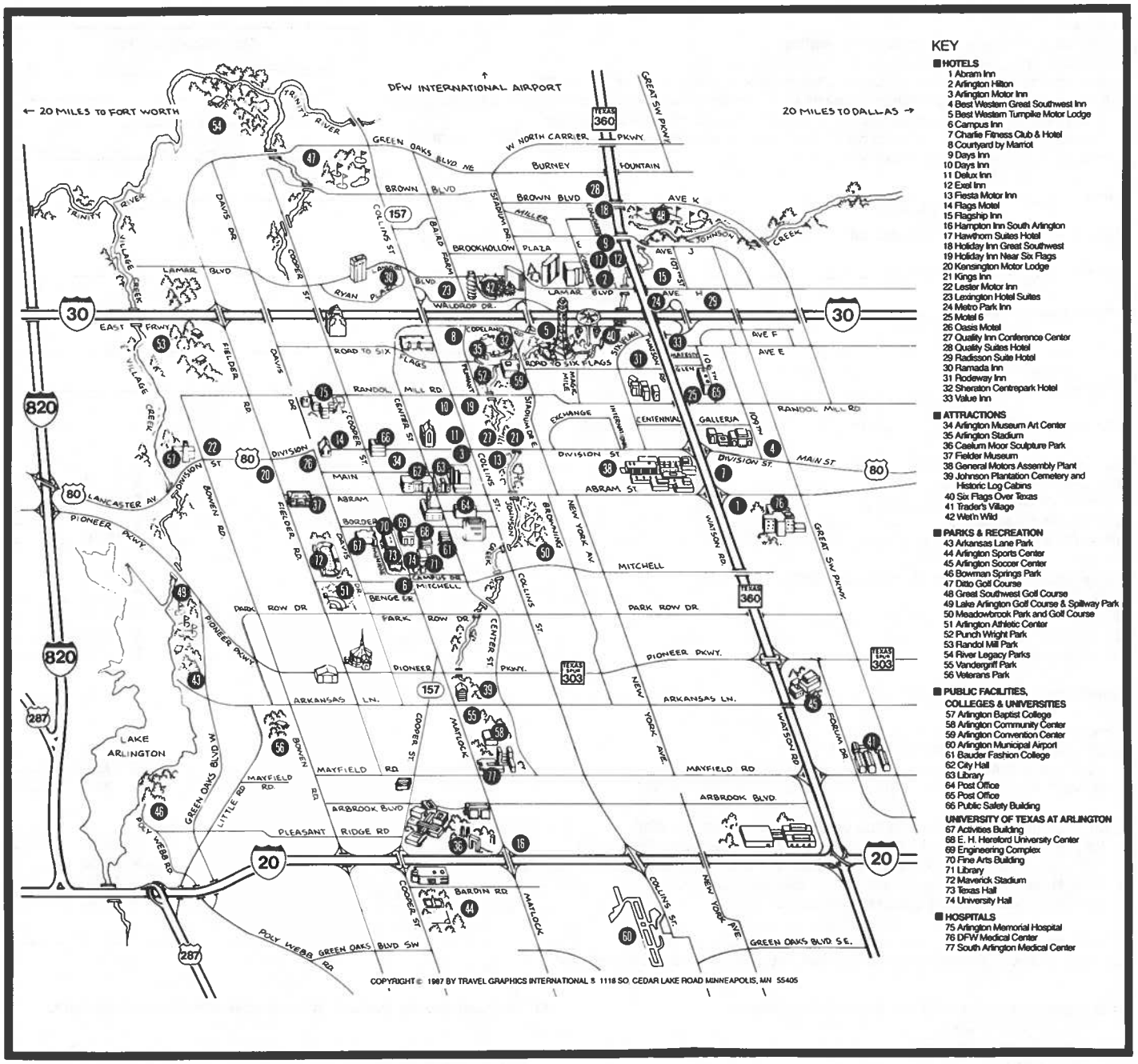
Meeting attendees should contact the Rodeway directly (and identify themselves as GSA South-Central Section attendees) to make reservations, at (817) 640-7080.

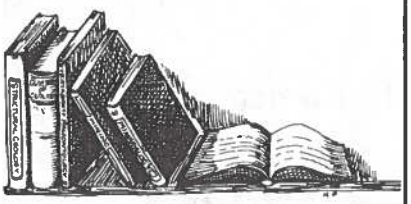
Special Student Accommodations: $11 to $14 (*including tax*) per person in multiple-occupancy rooms. Higher rates apply for rooms not fully occupied. Rooms will be either for 4 persons (2 double beds) or 6-person suites (3 double beds with wet bar and refrigerator). These low rates are available subject to the following:

1. Preregistration is required. A space is provided on the form to request student housing rates.

2. Occupancy must be for both Sunday and Monday nights (March 12 and 13). Additional nights will be at regular convention rates.

The meeting management will make room assignments. If possible, students with the same university affiliation will be housed together.





WANTED:

Geoscience Journals

Do you have sets of geological journals that are not being used? Consider donating them to college or university libraries. Many geology departments are surprisingly deficient in reference materials and lack funds to purchase them. Most will reimburse donors for costs of packing and transportation.

A volunteer service in cooperation with the American Geological Institute will collect information on library needs and supply this information to prospective donors. Journals from all fields of geology are needed.

Prospective donors should state:

- titles and dates of publications available
- issues missing from sets
- telephone number and mailing address

Libraries or departments should state on school letterhead:

- specific data on journals desired
- brief reasons for need
- name, title, telephone number and address of an official to contact

Write to F.L. Klinger, c/o AGI Publications Department, 4220 King St., Alexandria, Va., 22302

FROM THE GSA BOOKSHELF

Special Papers

LACCOLITHS; MECHANICS OF EMPLACEMENT AND GROWTH
by Charles E. Corry (SPE220, $27.50)

THE LATE CRETACEOUS SAN JUAN THRUST SYSTEM, SAN JUAN ISLANDS, WASHINGTON
by M.T. Brandon, Darrell S. Cowen, and Joseph A. Vance (SPE221, $19.00)

GEOMETRIES AND MECHANISMS OF THRUSTING, WITH SPECIAL REFERENCE TO THE APPALACHIANS
by G. Mitra (SPE222, $35.00)

THE ART OF GEOLOGY
edited by E.M. Moores and F. Michael Wahl (SPE225, $37.50)

DATING QUATERNARY SEDIMENTS
edited by D.J. Esterbrook (SPE227, $28.75)

Memoirs

GEOLOGY OF THE HENRY MOUNTAINS, UTAH, AS RECORDED IN THE NOTEBOOKS OF G.K. GILBERT, 1875-76
edited by Charles B. Hunt (MWR167, $36.00)

THE CRETACEOUS SYSTEM OF SOUTHERN SOUTH AMERICA
by A.C. Riccardi (MWR168, $32.00)

GEOLOGY AND PALEONTOLOGY OF SEYMOUR ISLAND, ANTARCTIC PENINSULA
edited by R.M. Feldmann and M.O. Woodburne (MWR169, $85.00)

ORDER YOUR COPY TODAY!
GSA Publication Sales, P.O. Box 9140, Boulder, CO 80301
(303) 447/2020 or 1/800/GSA/1988
Major Credit Cards Accepted On All Orders

HAVE YOU PAID YOUR 1989 DUES?

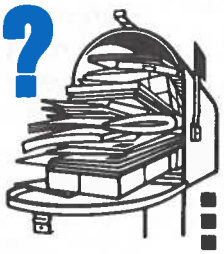
Last year, most members remitted their annual dues payment before the November 30 deadline. As a result, they received their GSA publications without delay. This year, the timing is again critical because all section meeting *Abstracts with Programs* will be mailed to members early in 1989. If we do not receive your dues payment before mid-December, you may not receive that much-needed *Abstracts with Programs* in time for the section meeting that you plan to attend. Remember, back orders take 6 to 8 weeks to reach you! Please use the 1989 dues and publications selection form mailed to you earlier. Dues for 1989 are $70 for Members and Fellows and $32 for Students (the same as 1988).

If you have any questions, please call or write the GSA Membership Services Department, P.O. Box 9140, Boulder, CO 80301, (303) 447-2020.

MOVING?

Don't risk missing a single issue of **GSA News & Information**! If you're planning on changing your address, please give us 8 weeks notice. Simply write in your new address below and mail this coupon — ALONG WITH YOUR SUBSCRIPTION MAILING LABEL — to:

The Geological Society of America
Membership Department
P.O. Box 9140
Boulder, Colorado 80301



(please print)
Name .....
Address .....
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Phone number during business hours ( ) .....
If you do not wish to have this number included in the Membership Directory, check here .. ☐
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Geological Society of America

CONGRESSIONAL SCIENCE FELLOWSHIP 1989–1990

The Geological Society of America invites applications for the 1989–1990 Congressional Science Fellowship. The Fellow selected will spend a year (September 1989–August 1990) in the office of an individual member of Congress or a congressional committee advising on a wide range of scientific issues as they pertain to public questions. Guided by the American Association for the Advancement of Science, the Fellow selects a congressional staff position in which he or she can work on major legislative issues.

CRITERIA

The program is aimed at highly qualified earth scientists in early or mid-career. Candidates should have exceptional competence in some area of the earth sciences, cognizance of a broad range of matters outside the Fellow's particular area, and a strong interest in working on a range of public policy problems.

AWARD

The GSA Congressional Science Fellowship carries with it a $28,000 stipend and a limited relocation and travel allowance. The fellowship is funded by GSA and by a grant from the U.S. Geological Survey. (Employees of the USGS are ineligible to apply for this fellowship.)

TO APPLY

Procedures for application and detailed requirements are available in the geology departments of most colleges and universities in the United States or upon request from

Executive Director
Geological Society of America
P.O. Box 9140
Boulder, Colorado 80301

Deadline for receipt of all application materials is March 15, 1989

PREPARED BY THE COMMITTEE ON GEOLOGY AND PUBLIC POLICY

Guide to USA Legislative Information and Contacts

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The purpose of this guide is to assist members of the Geological Society of America (GSA) in communicating with legislators and government officials in the USA on matters relating the geosciences to issues of public policy, and to delineate some of the constraints under which GSA must operate when undertaking activities in this area. This guide is intended to encourage the participation of the individual geoscientist as an articulate, technically educated citizen in the public arena. Such activity would enhance the influence of geoscientists in formulating policy concerning areas in which we are uniquely qualified to contribute.

LEGISLATIVE PROCESS

Before becoming law and having funds appropriated to carry it out, legislation at the federal level and at most state levels can go through more than 20 different steps. Certain steps offer opportunity for persons and groups to provide information with both written and in-person testimony. A few of the key steps in the legislative process are presented.

For a proposed law to be enacted, it must go through an authorization process and, if it requires money, a separate funding or appropriations process. This is necessary in each chamber or house of the legislature. Generally, if legislation is authorized but no funds are appropriated, little if anything is accomplished.

At the federal level and in most state legislatures the authorization and the appropriations processes in each house are handled in separate steps by different legislative committees. Assignment of a bill to the proper committee is handled by the parliamentarian of each chamber, and is based upon the content of the bill and the jurisdiction of the committee(s). Often, if the content of the bill is sufficiently broad, the bill will be referred to more than one committee. This is known as joint referral.

Once a bill is in committee, a subcommittee is assigned responsibility to consider and recommend action on activities to the full committee. A successful bill must be voted out of subcommittee and out of full committee, and it must pass a vote on the floor of each chamber. Within each step of the process, the bill can be amended and changed.

The House and Senate Budget Committees are responsible for developing the overall budget for the federal government. Authorizing committees are responsible for individual federal agencies, developing their budget ceilings and overseeing their programs and priorities. The House and Senate Appropriations Committees are responsible for legislation that enables the agencies to expend funds. The Senate Finance Committee and the House Ways and Means Committee are responsible for taxes (as well as other legislation).

Although any member of Congress can introduce a bill on any topic, it is generally the members of the appropriate subcommittee and committee who have the most influence over the bill. (For this reason, legislation is crafted in such a way that it is referred by the parliamentarian to a committee of which the legislator introducing the bill is a member.) The most influential members are the chairman (member of the majority party in that chamber), the ranking minority member (member of the minority party) of the committee and subcommittee, and the sponsor of the bill.

At the federal level, all appropriations bills originate in the House of Representatives. If either the authorization or appropriation approved by the Senate differs from the provisions approved by the House, a conference committee is established with representation from each legislative chamber. The conference committee is asked to form a compromise version of the differences within a limited time. The conference recommendations must be acted on by each house of Congress. The unified version of the bill is then submitted to the President for action. If vetoed by the President, the bill must have the approval of two-thirds of the members of both the Senate and House to be enacted. Proposed legislation may die for lack of approval or definitive action at the various steps in this process.

Since many major decisions on legislation at federal, state, and local levels of government are made in committees, the members seek information and opinions of important groups and individuals for help in making their decisions. Views from the government agency officials concerned with the activity that would be affected if it became law are usually requested by the committee(s) considering the bill. Relevant facts and scientific opinion are also welcomed by the committees.

Often information is solicited prior to the drafting of legislation, in informational hearings before the Congress. Usually before a bill is drafted, a hearing record is established which delineates the need for the legislation and provides support for the bill.

LEGISLATIVE INFORMATION: WHERE TO GET IT

Before you react to proposals for legislation, familiarity with the written specifics of the proposed legislative measures is necessary. This is also a sound practice when you wish to comment on a proposed government agency regulation. Get a copy of the bill (proposed legislation) or of the public law and/or the related agency regulation that is of concern.

Once you know the specifics of what is being proposed, your comments and recommendations can be better addressed to the scientific implications. If you agree with the proposed action, say so. Whenever you disagree with proposed legislation or government regulatory rules but do agree with the intent or with a part of what is proposed, say that. If you disagree, suggest alternatives. Most legislators and agency administrators will appreciate favorable comments. They will usually work hard to accommodate responsible suggestions, particularly from sources who have been interested enough to tell them when they have been pleased with their work.

To Obtain a Copy of a Federal Bill Proposed Legislation)

1. Write or telephone the legislator who has introduced the bill and request a copy. Cite the bill's title and number, if known. The number will be preceded by "S" if introduced in the Senate or by "H.R." if introduced in the House of Representatives (e.g., S 123 or H.R. 123). You may also request bills from the Senate Document Room, B-04 Hart Building, Washington, DC 20510.

Sometimes identical bills are introduced at the same time before both houses. Often multiple bills are introduced on the same topic in each house during a congressional session by different sponsors. Often a bill will be introduced in one house and returned to one (or more) committee(s) in that house for consideration and recommendations before the same or a revised version is considered by the other house via its committee(s) on the subject. Sometimes a copy of draft legislation (no number assigned) may be obtained from members of the committee considering a particular measure or need.

When requesting a copy of a bill, give the bill number if it is known. If you do not have the bill number, cite the bill's title or subject and intent and the date (or approximately when) it was introduced. Allow five days after the date introduced before requesting a bill. Enclose a self-addressed mailing label. Quantity is limited to one copy of up to six items per day. No phone requests are honored.

2. Other sources of information on proposed legislation:

a. The staff director of the committee to which the bill has been referred for consideration can be a valuable source of up-to-date information on what is happening on bills referred to that committee. Sometimes staff will supply a copy of a specific bill the committee is considering. The staff director can also provide a list of the hearings scheduled on a particular bill or topic.

b. See the legislature's public proceedings for the day the bill was introduced. When a bill is introduced, the legislator will often cite background on need and rationale for provisions in the bill to assist congressional colleagues and other interested parties in considering it. At the federal level, the *U.S. Congressional Record* is published for each day that one or both houses are in session. (Subscriptions to the *U.S. Congressional Record* are $225 per year or $1.50 per copy, prepaid, from U.S. Government Printing Office, Washington, DC 20402.)

3. In most instances, however, the bill itself is not reproduced in the *U.S. Congressional Record,* and mention is made only of the bill's topic and sponsor on the day of its introduction.

To Obtain a Copy of Federal Hearings or Committee Reports

Contact the committee handling the matter. The publication process takes from one to three months. The records of some hearings, but not all, are also on sale from the Government Printing Office. A copy of statements of witnesses is best obtained from them at the time of the hearing.

Sometimes extra copies left from those supplied by the witness at the time of the hearing may be obtained from the committee.

To Obtain a Copy of a Federal Law

Write to the U.S. Government Printing Office, Washington, DC 20402, or to the Senate Document Room. When requesting, give the number of the public law. The number will be preceded by the letters "P.L." The first digits designate the session of Congress that enacted the law. The remaining numbers, preceded by a dash, are those identifying the law; they are usually used in referring to it (e.g., P.L. 98-1234). Enclose a self-addressed mailing label.

To Obtain Government Regulations and Legal Notices

Write for single copies to the government agency or department responsible for administering activities in the specific area (e.g., the Environmental Protection Agency [EPA] for environmental standards, the U.S. Geological Survey [USGS] for offshore drilling).

Alternatively, request these from the office of the *Federal Register* if the specific volume number and/or date are known. Official operational regulations and notices issued by federal agencies are required to be published in the *Federal Register.* (Subscriptions to the *Federal Register* are $340 per year or $1.50 per issue, prepaid. This periodical, the *Congressional Directory,* and the *U.S. Government Organization Manual* [see below] are all available from Superintendent of Documents, U.S. Government Printing Office [GPO], Washington, DC 20402. There are no restrictions on reproducing any of the materials in these government documents, with the exception of copyrighted articles.)

Public legislative records of the state legislatures are available, as well as subscriptions to state notices of official regulations and notices, by request to the state chief executive.

To Obtain Names and Addresses of Legislators, Congressional Committees, and Executive Officials

There is a *Congressional Directory* of federal legislators and legislative committees published for each Congress and distributed by the U.S. Government Printing Office (address given above). The price is $15.

Another useful handbook is the *U.S. Government Organization Manual,* available from the GPO for $20 (1987-1988 edition; address given above). It contains information on the responsibilities and organizational structure of the federal agencies and certain advisory, study, and regulatory boards, committees, and commissions. This book lists the names of top staff administrators for various operations within each federal agency, and for study and regulatory commissions. This publication and the GPO *Congressional Directory* are not usually available until several months after start of the legislative sessions. To pick up materials published by the Government Printing Office in person:

In Washington, D.C.: Go to the GPO Bookstore, 710 North Capitol Street, Washington, DC 20402. Call (202) 783-3238 to place an order for later pickup.

In other cities: There are GPO branches in eleven cities across the nation. Locations of these branches may be obtained upon request from the Superintendent of Documents, U.S. GPO, Washington, DC 20402.

To Obtain Information on Legislation at the State Level

There are different legislative structures, calendars, and information procedures among the states. In general, the process described above for the federal level is typical in states with bicameral or two legislative chambers. The state Chamber of Commerce and state League of Women Voters are frequently good sources of information about the state legislative process and its members.

LIMITATIONS OF INVOLVEMENT BY GSA

Caution is needed in submitting uninvited testimony or comment in the name of a tax-exempt society before federal, state, or local legislative bodies. GSA, like many groups in the scientific/education fields, is classified under section 501(c)(3) of the federal tax law (Internal Revenue Service [IRS] Code). These groups are not incorporated to lobby any governmental level for any cause, and if they do so to any "substantial" extent, they could lose their tax-exempt status.

Such tax-exempt groups are prohibited from participating in any way in election campaigns. Certain activity of scientific groups, such as conferences, seminars, and news reports may be considered as part of a larger and "substantial" legislative program if the thrust is toward shaping of opinion and encouraging participation on legislative issues. It is important to evaluate the appropriateness of any specific program activity in relation to GSA's total operations and to avoid a series of activities that, when put together, relate to influencing policy at any level of government—not just on the federal scene.

There are other scientific and educational organizations also classified as "tax-exempt" under sections 501(c)(4), (c)(5), or (c)(6) of the IRS Code. They have fewer restrictions than those under 501(c)(3) on participating in legislative activities. These non-501(c)(3) tax-exempt classifications include many of the "professional societies" of scientists. Such groups do not pay federal taxes on income from member dues or on income from providing scientific or educational services to the members or to the general public. However, income from activities not "directly related" to its scientific/educational purposes is taxable. Unlike the 501(c)(3), voluntary gifts from individuals, corporations, etc., to non-501(c)(3) "tax-exempt" societies are not tax deductible for the contributor. Since public gifts or contributions to such societies are not tax deductible for the donor, these societies do not have the lobbying restriction.

This does not mean that a 501(c)(3) tax-exempt society, and GSA specifically, cannot express its viewpoint at all to legislators on subjects relevant to them. They may respond to invitations for testimony from legislative committees. The invitation will usually come from one individual speaking on behalf of the committee. Legislative committees of the U.S. Congress may issue "standing" invitations to tax-exempt organizations with desired expertise. Such open invitations, however, must be renewed by the legislative committee for each Congress. Invited testimony does not weigh as heavily on questions of whether the positions presented are appropriately "lobbying" in nature by the person or organization whose point of view is requested. Such organizations present factual data and viewpoints of scientists to help the legislators in making their decisions on subjects related to the society's expertise.

PERSONAL COMMUNICATION TO LEGISLATORS

Members of GSA may wish to express their opinions as individuals on legislation or budgets affecting the earth sciences, especially when an official statement on a subject has not been issued. Such individual participation is helpful to reinforce testimony given by others, or to show the range of viewpoints relating to it.

A 501(c)(3) organization should be most careful, however, in urging its members or the public to contact members of a legislative body. The resulting activity might be weighed in determining whether the total legislative activities are substantial. The society may point out legislation of possible interest to the members and provide a nonpartisan analysis citing arguments both pro and con. This information must be made available to all those expressing interest.

Letters from constituents in their respective election districts are important to congressmen and senators. You may write in response to an issue or to provide general background. Remember that legislators and staff are dealing with many diverse and technical issues, many of which demand immediate action. Therefore, the more specifics you can provide about an issue, the better your information will be received. Facts, figures, and statistics are welcome information. Letters from scientists who know the implications of issues from their own studies and those of others and who are familiar with the local situation can be especially valuable to a senator or congressman in considering how to vote on issues important to his or her constituents.

If you disagree on an issue, remember a letter of complaint carries more weight when accompanied by solutions or alternatives. Solutions provide the basis for dialogue. If you agree with the legislator's position, thank him or her for their support. Positive comments are always noticed.

Letters received early in the congressional session help alert elected officials to issues that concern the citizens they represent. The best time to write to members of congressional committees on a particular subject is when the topic is pending before that committee or when the bill is before the full Senate or House. Letters to the President and members of his cabinet are more effective when the administration is planning policy or drafting legislation or when an agency is in the

process of developing regulations to carry out a new law.

If you have met those who represent you in the legislature, it helps. When you are known, a telephone call or letter from you can carry more weight with the legislator in considering the information you wish to share. Because of this, you may wish to make it a point to visit the legislative representative from your area to discuss an issue of current interest to him/her or to you.

Information about your federal senators and representatives (their committee assignments, civic memberships, etc.) is given in the *Congressional Directory*. Another valuable source of continuing information about your legislative representatives is the newsletters issued from their offices to keep constituents informed of their activities. You can be placed on the mailing list by request to their offices.

Letters to legislators are most effective when they are courteous, brief, and to the point and directed to one issue in each letter. Handwritten letters are fine, but make sure to include your mailing address. Mention of your professional or occupational qualifications related to the subject matter will help. Enclose related material from other sources on the topic for added impact. Do not send a mimeographed form letter. It also is not advisable to send a carbon copy of a letter addressed to one representative to another. Each letter should be addressed individually. Even if you frequently disagree with your senator or congressman, share your viewpoint.

A quick and inexpensive way of communicating with representatives or senators is by Western Union Mailgram. The cost is $12.85 for the first 50 words or less and $3.95 for each additional group of 50 words, including the name and address. (There is a higher rate for messages from Alaska and Hawaii.) The message is hand-delivered by the next business day.

Communications, whether by mailgram, telephone, or letter, to a representative or senator from his or her home state or district, are especially significant to most legislators.

HOW TO PRESENT SCIENTIFIC TESTIMONY

Commonly, there is a short lead time on legislative and government agency hearings. Members of the scientific community, as well as all others, must tailor their operations to respond within the time that the legislators provide if their viewpoints are to be considered. With input from the scientific community, decisions by those in the public sector can be based on the latest factual information available.

If you have never testified on a scientific matter, you may wonder what it is like and how to be effective. The circumstances are very different from those at a scientific meeting, where discussion usually is oriented to the technical aspects of the subject. A typical hearing, in contrast, more nearly resembles an adversary advocacy situation, where people with particular interests try to make those interests known and to have their point of view accepted. The legislators, and eventually the legislature, will make the decisions.

Conclusions based on scientific investigations receive more attention than the route by which they are reached. The primary purpose of the hearing is to make it possible to word a bill so that it is technically sound and meets most of the issues involved.

When testifying, you can say whatever is factually relevant. The following suggestions are intended to be helpful so that what you have to say may have the greatest impact:

- *Introduce yourself at the beginning of your oral statement.* "I am Dr. John D. Smith from Mesaki University. I am pleased to have the opportunity to testify today on . . ."
- *Orient your testimony to the bill.* Specific suggestions for wording will be very helpful. Keep in mind that any law must be enforceable at reasonable cost by whatever officials are involved.
- *Be brief and direct.* Your prepared statement, whether short or long, can be left with the chairman. You will be more effective if you do not read your statement or even its summary, but rather summarize extemporaneously directly on the subject.
- *Don't use mathematics or jargon.* They will be unfamiliar to your audience. Emphasize results or conclusions of your work and their relevance to the bill. Omit the analysis in oral testimony; put it in the written material for the record. Legislators will understand your specialized language about as well as you understand theirs; hence, much is to be said in favor of straightforward English.
- *Keep the presentation simple.* Use slides and other special-equipment methods only when necessary. Whenever possible, use printed bar graphs and pie charts as part of your written presentation. Refer to them by page number.

- *Make clear the distinction between the facts and your value judgments.* For example, it may seem obvious to you that X dollars (or fatalities or whatever) are enormous or insignificant, but it will be more useful to give the numerical value of X expressed also as a percentage of some well-understood factor. You may know that a million gallons is not very much, but a lot of people need some perspective. You may, of course, give your own value judgment as to whether something is good or bad, as may anyone else.
- *Topics of particular interest are specific impacts on employment, the economic situation, taxes, and health.* Showing the relationship of a technical factor to these matters is particularly helpful. However, GSA, as a scientific membership society that is tax-exempt for public donations, should avoid positions that would benefit the individual members. Self-interest positions are not appropriate.
- *Plan to make your main points in no more than five minutes.* If few people come, you may be allotted ten minutes; more time is rare. Keep in mind the possibility that much of what you believe is essential will be covered by previous speakers. If you concur, acknowledge what they say and carry on from there with your own new points.
- *Ask who else will be testifying at the hearing with you.* Knowing the other panelists will help you anticipate the direction of the questions from the members.
- *Ask what the objectives of the hearing are.* This will enable you to focus your testimony accordingly. In most cases you will be able to make your written comments as comprehensive as you wish; however, oral statements are generally limited to five minutes (often this is enforced quite strictly). *Ask,* if these constraints are not specified.
- *Ask what members sit on the committee and who will be likely to attend the hearing.* Provide information pertinent to the members' home states if this is possible. It ensures their attendance at the hearing, and their attention during the hearing.
- *Choose the wording of your testimony carefully.* You could find yourself quoted in tomorrow's newspaper.
- *Expect a few questions.* You will be asked for your interpretation of the facts as they affect the bill under consideration. If you are questioned intensively, it will often be to clarify apparent or real conflicts in your own testimony, with other testimony on the subject, with viewpoints held by one or a group of the legislators, or with earlier briefing information from the committee staff. Be sure to stick to the facts available to you. Even if you've limited your testimony strictly to facts, you can expect to be asked your opinion somewhere in the question-and-answer period.
- *Don't be distressed or offended by apparently unrelated activity in the hearing room.* Congress is a very busy place where other events often intrude on hearings.

Form for Written Testimony

The statement should begin with a heading that gives the name of the committee or other group before whom the testimony is submitted, the date of the hearing, and the name and primary affiliation of the person submitting the statement. As an example:

Testimony Before the Subcommittee
on Environment of the
U.S. Senate Committee on Commerce
by Dr. John D. Smith, Chairman
Department of Geophysics
Mesaki University
Mesaki, Minnesota 55812
October 3, 1987

The statement should be typed, double-spaced, on one side of the paper. For congressional hearings, 50–75 copies are requested to be delivered, if possible, 3–4 days in advance. A copy is then made available to each committee member for review before the hearing. The other copies are for staff, the press, and interested individuals at the hearing. It is always wise to have 5–10 extra copies at the hearing, especially if advance copies have not been supplied.

Generally, the written statement can be as comprehensive as you wish. If additional information is required to make the points clearer, it can be supplied later for the written record.

October 1988

Acknowledgment

The Geological Society of America thanks the American Geophysical Union for the use of the AGU legislative guide, which was adapted to GSA use.

Guide to USA Legislative Information and Contacts

For additional copies of this guide, write to GSA headquarters, P.O. Box 9140, Boulder, CO 80301, or call (303) 447-2020.

Final Announcement

NORTHEASTERN SECTION, GSA, 24th Annual Meeting

New Brunswick, New Jersey
March 23–25, 1989

Rutgers University—New Brunswick, together with Rider College, Rutgers University—Newark, and Princeton University will host the Geological Society of America Northeastern Section meeting at the Hyatt Regency in New Brunswick. The Eastern Section of the Society of Economic Paleontologists and Mineralogists (ES—SEPM), The Northeastern Section of the Paleontological Society (NE—PS), and the Eastern Section of the National Association of Geology Teachers (ES—NAGT) will be meeting with the GSA Northeastern Section. The meeting will run from Thursday noon (March 23) through Saturday (March 25). Field trips will be on Sunday (March 26).

REGISTRATION

Registration is required for everyone participating in any event connected with the meeting.

Preregistration. You are urged to register early so that the local committee can plan more efficiently. Your registration form and payment must be postmarked no later than **February 23, 1989**. Complete the registration form and return it with a check or money order in U.S. currency, made payable to Northeastern Section GSA, to M. J. Hall, Dept. Geological and Marine Sciences, Rider College, Lawrenceville, NJ 08648-3099. Those planning to attend field trips must register separately for the field trip and pay the fee directly to the leader by *March 1, 1989*. Refunds on canceled preregistration will be made in full until March 1, 1989. After that date, no refund will be made except for cancellation of a field trip for insufficient enrollment.

On-Site Registration. On-site registration, and pick-up of meeting material by those who have preregistered, will be from 10 a.m. to 10 p.m. on Thursday, 7 a.m. to 5 p.m. on Friday, and 7 a.m. to noon on Saturday. Registration will be in the front lobby of the Hyatt Regency.

TRANSPORTATION

New Brunswick, New Jersey, is centrally located in the GSA Northeastern Section.

Ground Transportation. New Brunswick is situated on the Amtrak-NJ Transit rail system and can also be reached easily by bus or car via the New Jersey Turnpike, the Garden State Parkway, and Interstate 287.

Air Travel. From Newark Airport, take a taxi or limousine to Newark Train Station ($6) and take a New Jersey Transit train to New Brunswick ($5); or take the Salem Limousine directly to East Brunswick ($15) and a taxi to the Hyatt Regency ($5). From Philadelphia Airport, take the airport shuttle train to the Philadelphia 30th Street Station ($4), then the SEPTA Line to Trenton ($4), and then a New Jersey Transit train to New Brunswick ($5). It is a two-block walk from the train station to the Hyatt Hotel. Parking is available at the Hyatt for guests; others may use university parking lots three blocks away.

TECHNICAL PROGRAM

Technical sessions are scheduled as oral and poster sessions from Thursday, March 23, 1 p.m., through Saturday, March 25. Oral sessions will be held on the ground and second floors of the Hyatt Regency; posters will be in the basement Expo Hall. Poster booths (8′ × 8′) will consist of three 4′ × 8′ Homesote tack boards.

Poster Sessions

The option of using computer or video media for presentation of research results will be available as an alternative to poster graphic displays. For additional information regarding technical posters, contact Michael Carr, Dept. Geological Sciences, Rutgers University, New Brunswick, NJ 08903, (201) 932-3619.

SYMPOSIA

1. **Origin, Duration, and Extent of Early Mesozoic Igneous Activity.** John H. Puffer, Dept. Geological Sciences, Rutgers University, Newark, NJ 07102; Jonathan M. Husch, Dept. Geological and Marine Sciences, Rider College, Lawrenceville, NJ 08648.
2. **Structural and Stratigraphic Development of Eastern North America Early Mesozoic Rift Basins.** Warren Manspeizer, Dept. Geological Sciences, Rutgers University, Newark, NJ 07102; Paul E. Olsen, Dept. Geological Sciences, Columbia University, Palisades, NY 10964.
3. **The Acadian Orogen: Its Driving Force, Its Products, and Environment.** James W. Skehan, S.J. and David C. Roy, Dept. Geology and Geophysics, Boston College, Chestnut Hill, MA 02167.
4. **Geology and Geophysics of Appalachian Sutures.** Lynn Glover III, Dept. Geological Sciences, Virginia Polytechnic Institute and State University, Blacksburg, VA 24061; Robert E. Sheridan, Dept. Geological Sciences, Rutgers University, New Brunswick, NJ 08903.
5. **Long Island Sound: Postglacial Evolution and Sea-level Changes: A Symposium in Honor of Walter S. Newman.** Henry J. Bokuniewicz, Marine Sciences Research Center, Stony Brook, NY 11794; Paul T. Gayes, University of South Carolina, Coastal Carolina College, Conway, SC 29526; Ralph S. Lewis, Connecticut Geological Survey, University of Connecticut, Groton Point, CT 06340.
6. **Barrier Islands: Their Origin and Development in Light of the Coastal Compartment Model: A Symposium in Honor of John J. Fisher.** Susan D. Halsey, New Jersey Marine Sciences Consortium, Bldg. 22, Fort Hancock, NJ 07732; John C. Kraft, Dept. Geology, University of Delaware, Newark, DE 19711.
7. **Recent Investigations and Developments in Groundwater Quality and Quantity, Northeastern United States.** Wayne Hutchinson, Haig F. Kasabach, New Jersey Geological Survey, CN-029, Trenton, NJ 08625. Parts I and II will consist of oral presentations by invited speakers. Part III will consist of poster papers.
8. **Geologic Controls on Radon.** Alexander E. Gates, Dept. Geological Sciences, Rutgers University, Newark, NJ 07102; Linda Gundersen, U.S. Geological Survey, Reston, VA 22092.
9. **Neotectonics, Seismogenesis, and Earthquake Hazards in Northeastern North America.** Randall D. Forsythe, Dept. Geological Sciences, Rutgers University, New Bruns-

(continued on p. 343)

Preregistration Form

Northeastern Section GSA, 24th Annual Meeting

March 23–25, 1989, New Brunswick, New Jersey

IMPORTANT

1. Preregistration MUST BE POSTMARKED NO LATER THAN FEBRUARY 23, 1989.
2. FULL payment and form MUST accompany all preregistration requests. Unpaid purchase orders are NOT accepted as valid registration.
3. Cancellation deadline: *March 1, 1989.* No refunds or cancellations given after this date.
4. Register one professional or one student per form.
5. Fill in receipt section at bottom. This will be in your packet at registration desk.
6. Copy this preregistration form for your records.

PLEASE PRINT OR TYPE

Name _____ (Last) _____ (First) _____ (Initial)

Registered as (check one) ___ Professional ___ Student ___ Guest

Member Affiliation ___ GSA ___ NAGT ___ SEPM ___ PS GSA Student Associate: ___ yes ___ no

Name for badge _____

Affiliation _____

Professional address _____

_____ (City) _____ (State) _____ (ZIP)

Phone: business ( ) _____ residence ( ) _____

PREREGISTRATION (*Before FEBRUARY 23, 1989*)

Entire Meeting

Professional—GSA Member (or affiliate checked above)	$45.00 _____
Professional—Nonmember	$55.00 _____
Student—Member (see verification requirement below)	$15.00 _____
Student—Nonmember or Guest	$20.00 _____

One Day Only

Professional—Member	$20.00 _____
Professional—Nonmember	$30.00 _____
Student—Member	$10.00 _____
Student—Nonmember or Guest	$15.00 _____

REGISTRATION (*After FEBRUARY 23, 1989*)

Entire Meeting

Professional—GSA Member (or affiliate checked above)	$50.00 _____
Professional—Nonmember	$60.00 _____
Student—Member (see verification requirement below)	$20.00 _____
Student—Nonmember or Guest	$25.00 _____

One Day Only

Professional—Member	$30.00 _____
Professional—Nonmember	$35.00 _____
Student—Member	$15.00 _____
Student—Nonmember or Guest	$20.00 _____

SPECIAL EVENTS

Short Course: Microtextures, March 22, 23	
Professional	$50.00 _____
Student (see verification requirement below)	$20.00 _____
Association for Women Geoscientists Panel, March 23	$ 2.00 _____
ES—NAGT past-presidents and officers luncheon, March 24	$15.00 _____
ES—NAGT breakfast business meeting, March 25	$ 9.25 _____
GSA Northeastern Section Banquet (and business meeting), March 24	
Professional or Guest	$25.00 _____
Student	$15.00 _____
Abstracts with Programs—reserved (on-site pick-up)	$ 8.50 _____
Total fees	$_____

Enclose check or money order in U.S. funds payable to Northeastern Section GSA

Student verification _____ (Signature of dept. head or GSA Campus Representative)

Mail completed meeting preregistration form and full payment to M.J. Hall, Dept. Geological and Marine Sciences, Rider College, 2083 Lawrenceville Rd., Lawrenceville, NJ 08648-3009

RECEIPT: Please fill in; receipt will be in your package at registration desk.

Name _____ (Last) _____ (First) Affiliation _____

Paid $ _____ Date _____

Northeastern Section (*continued from p. 341*)

wick, NJ 08903; Leonardo Seeber, Lamont-Doherty Geological Observatory, Palisades, NY 10964.

10. **Paleosols.** Sponsored by ES—SEPM. David E. Fastovsky, Dept. Geology, University of Rhode Island, Kingston, RI 02881.
11. **Depositional Sequences on the Middle Atlantic Continental Margin.** Kenneth G. Miller, Dept. Geological Sciences, Rutgers University, New Brunswick, NJ 08903; C. Wylie Poag, U.S. Geological Survey, Woods Hole, MA 02543.
12. **Paleontological Event Horizons: Stratigraphic, Ecological, and Evolutionary Implications.** Sponsored by NE—PS. Carlton E. Brett, Dept. Geological Sciences, University of Rochester, Rochester, NY 14627; Gordon C. Baird, Dept. Geoscience, SUNY College of Fredonia, Fredonia, NY 14063.

Special Symposium–Poster Session

Classic Field Sites for Teaching Geology in the Northeast. Sponsored by ES—NAGT. Loretta Molitor, Dept. Physics/Geology, Towson State University, Towson, MD 21204.

PROJECTION EQUIPMENT

All slides must fit in a standard 35-mm carousel tray. Two projectors and two screens will be provided in each of the technical sessions. If possible, bring your own loaded tray(s) to the meeting. Extra trays and projection equipment will be available in the Speaker Ready Room. Please label trays with your name, session, left and/or right screen, and time of paper; give trays to the projectionist 20 minutes before the beginning of the session.

JOB RECRUITMENT SERVICE

Many job opportunities are available in both governmental agencies and the private sector for geologists and hydrogeologists with B.S., M.S., or Ph.D. degrees. Facilities will be made available for job seekers and recruiters to meet. Recruiters will receive space and time allocations for interviewing and a file of all applications before the meeting. Job seekers should send to the address below (1) an Application for Employment Matching Service (see below), (2) their resume (two-page limit), and (3) $10 to cover copying and distribution to prospective employers. Checks should be made payable to Northeastern Section GSA. For more information and employment forms, contact Claude T. Herzberg, Dept. Geological Sciences, Rutgers University, New Brunswick, NJ 08903, (201) 932-3154.

SHORT COURSE

Microtextures in Deformed Rocks

Wednesday, 1–5 p.m., March 22, and Thursday, 9 a.m.–noon, March 23; Room 249, Wright Laboratory, Busch Campus, Rutgers University, Piscataway, NJ 08854. Lecturer: Carol Simpson, Dept. Earth and Planetary Sciences, Johns Hopkins University, Baltimore, MD 21218.

The course provides a brief introduction to aspects of lattice dislocation theory relevant to the interpretation of deformation-induced microstructures. Participants will spend at least half of the course time using petrographic microscopes to identify and interpret natural deformation in quartz or feldspathic mylonites.

Course notes are included. Cancellation or refund deadline is March 1, 1989.

SMOKING, CAMERAS, AND SOUND-EQUIPMENT POLICY

Northeastern Section policy prohibits the use of cameras or sound-recording equipment at technical sessions and poster sessions. A no-smoking policy has been adopted by the Program Committee and will be followed in all meeting rooms and organized social events.

EXHIBITS

Exhibits of geological research equipment and educational material will be on display in the basement Expo Hall adjacent to the poster session, job recruitment service area, and refreshment area. Booths (8′ × 8′) are framed with pipe and drape and contain table and chairs; the cost is $200. A special rate of $120 is available for nonprofit and educational organizations. For additional information, contact John H. Puffer, Dept. Geological Sciences, Rutgers University, Newark, NJ 07102, (201) 648-5238 or 648-5100.

SCIENCE THEATER

A complete program of film and video titles and show times will be included in the registration packet.

SPECIAL EVENTS

Thursday, March 23

Association for Women Geoscientists Panel—"Two-career Relationships," 5–7 p.m.

Welcoming Party, Hyatt Regency, 8–11 p.m.

Friday, March 24

Alumnae-Alumni Reception, 6:30–7:30 p.m.

Annual Banquet and Business Meeting, 7:30–10 p.m.

STUDENT AWARDS

Awards will be made for outstanding student papers (oral category and poster category) presented at the technical sessions. To be eligible and judged, an abstract must be written exclusively by a student and must be designated on the abstract form as a student paper.

HOUSING

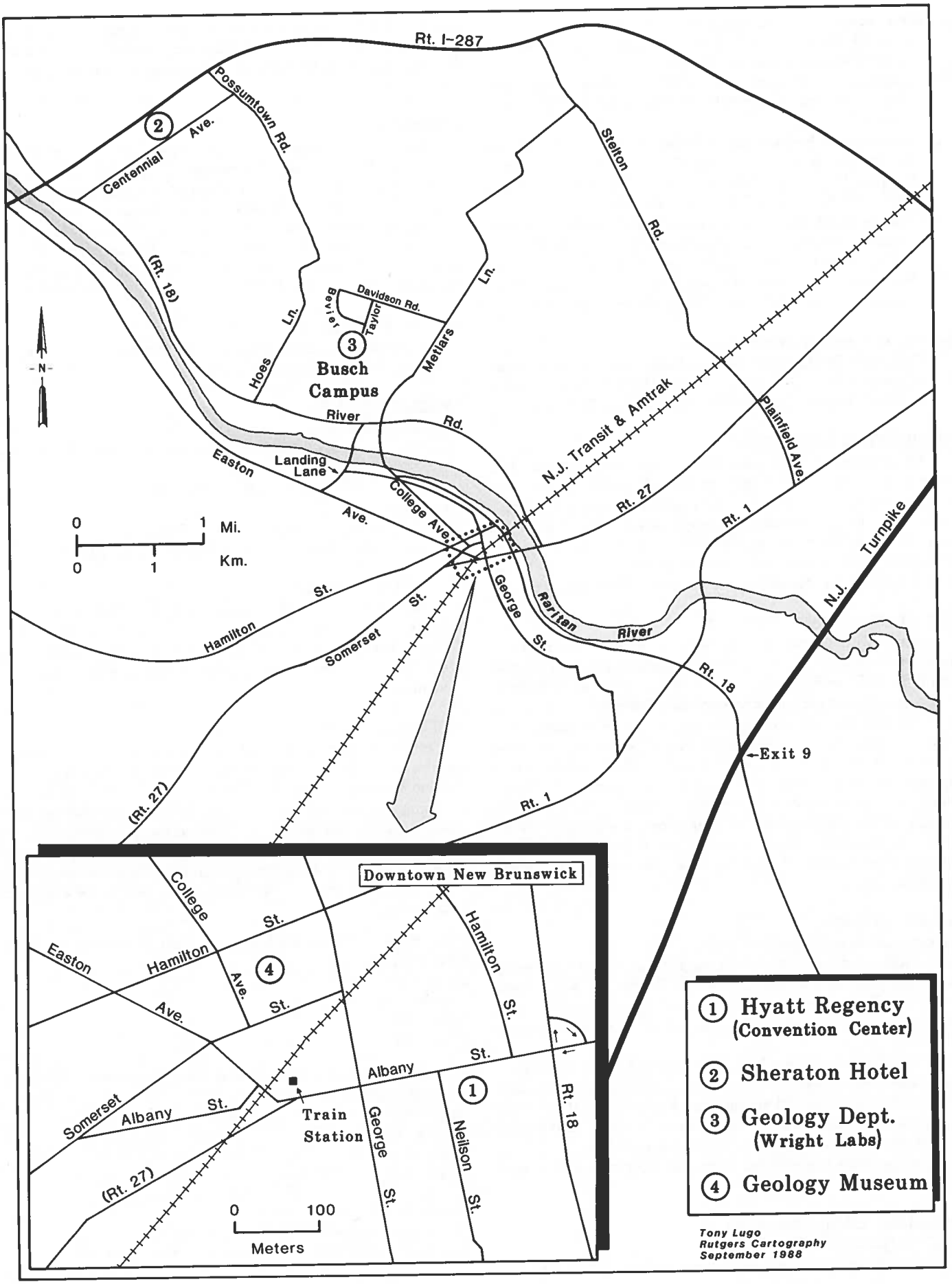
Block bookings at reduced rates have been made at the Hyatt and the Sheraton. The Hyatt is the site of the meeting and is within walking distance of the amenities of downtown New Brunswick, including bus and train stations. The Sheraton is about five miles away. A shuttle bus will be run between the two hotels. **Use the Housing Form to make your reservations directly with the hotels.** If you want us to help you find roommates to make up a triple or quad, send us the Roommate Form, and we will attempt to help you.

Hyatt Regency Hotel, 2 Albany St., New Brunswick, NJ 08901, (201) 873-1234
Single—$82
Double—$82
Triple—$87
Quad—$92

Sheraton Regal Inn, Kingsbridge Rd., Piscataway, NJ 08854, (201) 469-5700
Single—$55
Double—$55
Triple—$60
Quad—$65

New Jersey sales tax of 6% will be added to rates.
Rooms have two double beds or double and rollaway.
Rooms will be reserved for this meeting until February 23, 1989.

(*continued on p. 345*)


Rt. I-287
Possumtown Rd.
Centennial Ave.
(Rt. 18)
Hoes Ln.
Davidson Rd.
Taylor
Bevier
Busch Campus
Metlars Ln.
Stelton Rd.
River Rd.
Landing Lane
Easton Ave.
College Ave.
N.J. Transit & Amtrak
Plainfield Ave.
Rt. 27
Rt. 1
N.J. Turnpike
George St.
Raritan River
Hamilton St.
Somerset St.
Rt. 18
Exit 9
(Rt. 27)
N
0 1 Mi.
0 1 Km.
Downtown New Brunswick
College St.
Easton Ave.
Hamilton Ave.
Albany St.
Somerset St.
Train Station
George St.
Nelson St.
Rt. 18
(Rt. 27)
0 100
Meters
1 Hyatt Regency (Convention Center)
2 Sheraton Hotel
3 Geology Dept. (Wright Labs)
4 Geology Museum
Tony Lugo
Rutgers Cartography
September 1988

Northeastern Section (*continued from p. 343*)

FIELD TRIPS

Fees for all trips are $20 for GSA members, $30 for nonmembers, and $10 for students.

2. **Jurassic Igneous Rocks of the Northern Newark Basin.** John H. Puffer, Dept. Geological Sciences, Rutgers University, Newark, NJ 07102; Jonathan M. Husch, Dept. Geological and Marine Sciences, Rider College, Lawrenceville, NJ 08648, (609) 896-5330.
3. **A Geological Transect Through the Uraniferous Provinces of New Jersey and Their Associated Radon Hazards.** Karl Muessig, Hugh Houghton, Richard Volkert, New Jersey Geological Survey, CN-029, Trenton, NJ 08625, (609) 292-2576.
3. **New Jersey's Northern Coast: Recent Coastal Processes and Coastal Zone Management.** Stewart Farrell, Marine Science Program, Stockton State College, Pomona, NJ 08240, (609) 652-4356; Norbert Psuty, CCES, Rutgers University, New Brunswick, NJ 08903.

For information on and registration (including payment) for individual field trips, please contact the field trip leader.

Housing Form
Geological Society of America Northeastern Section, March 23–25, 1989

Arrival date _____ Departure date _____

Person requesting housing (type or print)

Last name _____ First _____

Name of institution or firm _____

Street address or P.O. box number _____

City _____ State _____ ZIP code _____

Phone ( ) _____ day ( ) _____ evening

SINGLE DOUBLE TRIPLE QUAD (circle one)

Remittance for one night must accompany this form.

Make checks payable to the Hyatt Regency *or* Sheraton Regal.

If remittance is by credit card:

Card number

VISA _____

MasterCard _____

American Express _____

Expiration date _____ Signature _____

MAIL THIS FORM TO THE HOTEL OF YOUR CHOICE (Hyatt or Sheraton)

Roommate Form

If you want assistance in finding roomates, return this form by *January 23, 1989*, to H. Hewins, Dept. Geological Sciences, Rutgers University, New Brunswick, NJ 80903

Hyatt or Sheraton? _____ Double/Triple/Quad? _____

Sex (M/F) ____ Nonsmoker/Smoker _____ Arrive _____ Depart _____

Name _____

Address _____

_____

_____

Phone ( ) _____ day ( ) _____ evening, weekend

FOUNDATION NEWS

by Robert L. Fuchs

The Century Ends

On December 31, GSA's first century, the Centennial year, and the Century Challenge will all end, a sort of triple witching hour. The month of December is the last opportunity for GSA members to honor this milestone in our Society's history by making a tax-deductible gift to the Century Challenge.

If you've put off joining the Century Challenge and adding your dollars to this growing pool of research funds, take time before the end of the year to send in the coupon on page 348 along with your gift.

A Potpourri of Tax Planning Ideas

December is always a time for some financial soul-searching. Even though 1988 tax rates are lower, tax planning at this time of the year can still save you dollars. The Tax Reform Act of 1986 caused major changes in the way we calculate our income taxes, and along the way eliminated or severely reduced many of the deductions against income that had become a way of life at tax time. Charitable contributions remain one of the few deductions that survived the legislators' pruning.

Direct gifts of cash are the most common form of contribution to the GSA Foundation. Century Challenge and GEOSTAR are the two principal funds, the purpose of both being the support of geologic research. The Foundation also manages several sector funds with special purposes, including Penrose Conferences, the Antoinette Lierman Medlin Scholarship, the Allan V. Cox Award, the Engineering Geology Division Award, DNAG, Publications, and Minority, to name a few.

Gifts of appreciated securities produce a double tax benefit. The amount of the deduction is equal to the value of the securities on the day of the transfer to the Foundation. The donor pays no capital gains tax as a result of the transaction. Whether you hold the certificates or they are in a broker account, transfer to the Foundation is a simple matter. You may call us for specific instructions in the way to do this.

Life insurance can be an excellent year-end gift. If you own a policy that is no longer needed for family financial security, a transfer of ownership will allow a 1988 deduction equal to the fair market value of the policy. If there continue to be future premiums, payment of these will create deductions in the years paid.

In the October and November Foundation News we discussed planned giving, a current gift of a future interest. By this technique one can receive an immediate tax deduction and an annual income for life. The principal tools of planned giving are the charitable remainder annuity trust and unitrust and the pooled income fund.

Tax strategy is important in developing a year-end plan. For some individuals, it may be advantageous to optimize taxable income in 1988. For others, maximum deductions this year and deferral of income until 1989 may be the best course of action. Personal strategy is a subject to be developed and refined with the guidance of one's tax advisor. We have a worksheet that may be helpful to you in initiating this process. Call the Foundation office for a copy.

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MEETINGS

(Asterisk indicates new or changed information)

1988

Geochemistry of Gulf Coast Oils and Gases, December 4–7, 1988, New Orleans, Louisiana. Information: Dietmar Schumacher, Pennzoil Co., P.O. Box 2967, Houston, TX 77252, (713) 546-4028, or Mahlon C. Kennicutt, Geochemical and Environmental Research Group, Texas A&M University, Ten South Graham Rd., College Station, TX 77840; (409) 690-0095.

American Geophysical Union Fall Meeting, December 5–9, 1988, San Francisco, California. Information: Ann E. Singer, American Geophysical Union, 2000 Florida Ave., N.W., Washington, DC 20009; (202) 462-6903.

ECORS Program: Deep Seismic Line across the Western Alps, joint meeting of French, Swiss, and Italian geological societies, December 12–13, 1988, Paris, France. Information: François Roure, Inst. Français du Pétrole, 1-4 ave. du Bois Préau, 92506 Rueil-Malmaison, France.

1989

Fourth International Conference on Mars, January 10–13, 1989, Tucson, Arizona. Information: Hugh H. Kieffer, U.S. Geological Survey, 2255 N. Gemini Drive, Flagstaff, AZ 86002; (602) 527-7015.

Australasian Tectonics, February 6–10, 1989, Kangaroo Island, Australia. Information: A. Grady, c/o Dept. of Earth Science, Flinders University, Bedford Park, SA 5042, Australia.

***Crustal Dynamics: Chaotic Behavior and Fractal Structures**, February 12–15, 1989, Monterey, California. Information: Donald L. Turcotte, Snee Hall, Cornell University, Ithaca, NY 14853; (607) 255-7282.

Geophysics of the Rocky Mountains, Front Range, and High Plains, February 13–14, 1989, Golden, Colorado. Information: Front Range AGU Service Center, P.O. Box 18-P, Denver, CO 80218; 1-800-525-6338 (303-831-6338 in Colorado).

Society of Mining Engineers Annual Meeting, February 27–March 2, 1989, Las Vegas, Nevada. Information: Society of Mining Engineers, Meetings Dept., P.O. Box 625002, Littleton, CO 80162-5002; (303) 973-9550; Telex 881988; Fax (303) 973-3845.

International Symposium on Natural Catastrophes and Their Impact, March 1989, Ankara, Turkey. Information: Tevfik Erkal, Türkiye Jeomorfologlar Dernëgi, P.K. 652 Kizilay, 06425 Ankara, Turkey.

Prospectors and Developers Association of Canada 57th Annual Convention, March 5–8, 1989, Toronto, Ontario, Canada. Information: Cary McLeod, PDAC, 74 Victoria St., Suite 1002, Toronto, Ontario M5C 2A5, Canada; (416) 362-1969.

Symposium on Energy and Mineral Potential of the Central America–Caribbean Region, March 5–9, 1989, San Jose, Costa Rica. Information: Mary Stewart, Circum-Pacific Council for Energy and Mineral Resources, 5100 Westheimer Road, Houston, TX 77056.

Symposium on the Afro-Arabian Rift System, March 6–8 1989, Karlsruhe, Federal Republic of Germany. Information: U Achauer, Geophysical Institute, Karlsruhe University, Herzstr. 16 7500 Karlsruhe 21, Federal Republic of Germany; phone 0049 721-6084545; Telex 7825740 GEOK D; Fax 0049/721/71173.

Workshop on Drilling the Oceanic Lower Crust and Upper Mantle, March 7–9, 1989, Woods Hole, Massachusetts. Information: Janet Johnson, Dept. Geology and Geophysics, Woods Hole Oceanographic Institution, Woods Hole, MA 02543; (508) 548-1400 ext. 2623.

Second Symposium on the Application of Geophysics to Engineering and Environmental Problems, March 13–16, 1989 Golden, Colorado. Information: Ron Bell, SEMEG, c/o BellWest Geoservices, P.O. Box 10845, Edgemont Branch, Golden CO 80401.

European Geophysical Society XIV General Assembly, March 13–17, 1989, Barcelona, Spain. Information: EGS Office, Max Planck-Str. 1, Postfach 49, D-3411 Katlenburg-Lindau, Federal Republic of Germany.

Engineering Geology and Geotechnical Engineering 25th Anniversary Symposium, March 20–23, 1989, Reno, Nevada Information: Engineering Symposium, Division of Continuing Education, University of Nevada, Reno, NV 89557-0024; (702) 784-4046

International Symposium on the Silurian System (Murchison Symposium), March 28–April 9, 1989, Keele, England. Information M. G. Bassett, Dept. of Geology, National Museum of Wales Cardiff CF1 3NP, Wales; phone 02222-397951.

(continued on p. 34

Meetings (*continued from p. 348*)

Economic Geology and Geotechnics of Active Tectonic Regions, April 3-7, 1989, London, England. Information: Conference Manager, Economic Geology and Geotechnics Conference, Dept. of Geological Sciences, University College, Gower St., London WC1E 6BT, England.

Shallow Gas and Leaky Reservoirs, April 10-11, 1989, Stavanger, Norway. Information: Norwegian Petroleum Society, P.O. Box 1897 - Vika, 0124 Oslo 1, Norway; phone 47-2-207025; Telex 77 322 nopet n.

National Fossil Exposition XI, April 14-16, 1989, Macomb, Illinois. Information: Karl A. Stuekerjuergen, Rte. 1, Box 28A, West Point, IA 52656; (319) 837-6690.

American Association of Petroleum Geologists Annual Meeting, April 23-26, 1989, San Antonio, Texas. Information: AAPG, P.O. Box 979, Tulsa, OK 74101; (918) 584-2555.

Third Annual Conference on Undergraduate Research, April 27-29, 1989, Trinity University, San Antonio, Texas. Information: Ann Knoebel, EUREKA, Trinity University, Holt Center, 106 Oakmont, San Antonio, TX 78212.

The Earth: Planet in Transition, University of Michigan Department of Geological Sciences Sesquicentennial Symposium, May 4-5, 1989, Ann Arbor, Michigan. Information: J.C.G. Walker, Dept. Geological Sciences, 1006 C. C. Little Building, University of Michigan, Ann Arbor, MI 48109-1063; (313) 764-2466; Telex 258 869 ICGW UR; GTE mail: JWALKER/KOSMOS/EDUNET.

American Geophysical Union Spring Meeting, May 8-12, 1989, Baltimore, Maryland. Information: AGU, Convention Director, 2000 Florida Ave., N.W., Washington, DC 20009; (202) 462-6903.

Pacific Sections of American Association of Petroleum Geologists, Society of Economic Paleontologists and Mineralogists, Society of Exploration Geophysicists, and Society of Professional Well Log Analysts Annual Meeting, May 10-12, 1989, Palm Springs, California. Information: 1989 AAPG/SEPM/SEG/SPWLA Pacific Sections, AAPG Convention Dept., P.O. Box 979, Tulsa, OK 74101-0979.

Geological Association of Canada-Mineralogical Association of Canada Joint Annual Meeting, May 14-17, 1989, Montreal, Quebec, Canada. Information: Colin Stearn, Rm. 238, 1450 University St., Montreal, Quebec H3A 2A7, Canada; (514) 398-4082.

10th Annual Highway Geology Symposium, May 17-19, 1989, Birmingham, Alabama. Information: Kathy Keller, Alabama Highway Department, Bureau of Materials and Tests, 1409 Coliseum Blvd., Montgomery, AL 36130; (205) 261-5788.

Engineering Geology in Tropical Terrains, June 26-29, 1989, Selangor Darul Ehsan, Malaysia. Information: Organising Secretary, Conference on Engineering Geology in Tropical Terrains, Dept. of Geology, Universiti Kebangsaan Malaysia, 43600 Bangi, Selangor Darul Ehsan, Malaysia.

28th International Geological Congress, July 9-19, 1989, Washington, D.C. Information: 28th International Geological Congress, P.O. Box 1001, Herndon, VA 22070-1001; (703) 648-6053; Telex 248418.

4th International Symposium on Water-Rock Interaction, August 3-8, 1989, Malvern, England. Information: W. M. Edmunds, Hydrogeology Research Group, British Geological Survey, Wallingford, Oxon OX10 8BB, England; phone (0) 491-38800, ext. 2293; Telex 849365 HYDROL G; Fax (0) 491-32256.

12th Caribbean Geological Conference, August 7-11, 1989, Christiansted, St. Croix, Virgin Islands. Information: Frederick Nagle, 12th Caribbean Geological Conference, c/o Dept. of Geological Sciences, P.O. Box 249176, University of Miami, Coral Gables, FL 33124.

Dunes '89: Geomorphology and Ecology of Desert and Coastal Sand Dunes, August 14-17, 1989, Swakopmund, Namibia. Information: Dunes '89, c/o J. D. Ward, P.O. Box 2168, Windhoek 9000, Namibia.

14th International Cartographic Conference, August 17-24, 1989, Budapest, Hungary. Information: Conference Secretary, Institute of Geodesy, Cartography and Remote Sensing, POB 546, H-1373 Budapest, Hungary.

Second International Research Symposium on Clastic Tidal Deposits, August 22-25, 1989, Calgary, Alberta. Information: Ray Rahmani, Canadian Hunter Exploration Ltd., 435-4th Ave., S.W., Calgary, Alberta T2P 3A8, Canada; (403) 260-1818.

9th International Clay Conference, August 28-September 2, 1989, Strasbourg, France. Information: Hélène Paquet, Inst. de Géologie, 1, rue Blessig, 67084 Strasbourg, France.

3rd International Conference on Palaeoceanography, September 10-16, 1989, Cambridge, England. Information: I. N. McCave or N. J. Shackleton, Dept. of Earth Sciences, University of Cambridge, Downing St., Cambridge CB2 3EQ, England; phone 223-333422/334876.

SIAM Conference on Mathematics of Geophysical Sciences, September 18-21, 1989, Houston, Texas. Information: SIAM Conference Coordinator, 1400 Architects Bldg., 117 S. 17th St., Philadelphia, PA 19103-5052; (215) 564-2929.

14th International Conference of Organic Geochemistry, September 18-22, 1989, Paris, France. Information: Yolande Rondot, Institut Français du Pétrole, BP 311, 92506 Rueil-Malmaison cedex, France; phone 33(1) 47.49.02.14; Telex A 203050 F.

20th Annual Geomorphology Symposium: Geomorphic Evolution of the Appalachians, September 29-October 1, 1989, Dickinson College, Carlisle, Pennsylvania. Information: W. D. Sevon, Pennsylvania Geological Survey, P.O. Box 2357, Harrisburg, PA 17120; (717) 787-6029.

XIII International Geochemical Exploration Symposium and II Brazilian Geochemical Congress, October 1-6, 1989, Rio de Janeiro, Brazil. Information: RIO '89 (XIII IGES-II CBGq), A/C CPRM-LAMIN, Av. Pasteur, 404 - Urca, CEP 22292 - Rio de Janeiro, RJ, Brazil; phone (55-21) 295-5297; Telex (55-21) 22685.

Seventh Thematic Conference on Remote Sensing for Exploration Geology, October 2-6, 1989, Calgary, Alberta, Canada. Information: Robert H. Rogers, ERIM, P.O. Box 8618, Ann Arbor, MI 48107-8618; (313) 994-1200, ext. 3382.

Structural and Tectonic Modelling and Its Application to Petroleum Geology, October 18-20, 1989, Stavanger, Norway. Information: Norwegian Petroleum Society, P.O. Box 1897 - Vika, 0124 Oslo 1, Norway; phone 47-2-207025; Telex 77 322 nopet n.

Supercomputing World conference and exposition, October 18-20, 1989, San Francisco, California. Information: Carol Y. Hurley, Meeting Brokers International, Inc., 5 Science Park, New Haven, CT 06511; (203) 786-5132.

World Gold '89, November 5-8, 1989, Reno, Nevada. Information: Meetings Dept., World Gold '89, Society of Mining Engineers, P.O. Box 625002, Littleton, CO 80162; (303) 973-9550; Telex 881988.

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Positions Open

CALIFORNIA STATE UNIVERSITY LONG BEACH

The Department of Geological Sciences invites applications for one tenure-track appointment at the rank of assistant professor beginning fall semester 1989. Ph.D. in an appropriate field required.

The person appointed will be responsible for instruction in one or more of the following subdisciplines: engineering geology, geohydrology, geophysics with an emphasis in seismic reflection/seismology, and stratigraphy/sedimentology with an emphasis in basin analysis. A primary research interest in one of the fore-going areas plus a strong commitment to teaching at both the graduate and undergraduate levels are required. The person appointed would also be expected to teach lower division lecture and laboratory sections in general geology. If the person selected specializes in stratigraphy/sedimentology, (s)he will be expected to teach summer field geology on a rotating basis with other faculty. Because a strong academic background and professional promise are the primary requirements for this position, the appointment could be made in any of the above listed subdisciplines. For consideration, candidates must submit a letter of application, future research plans, resume, transcripts of all degrees earned and at least three letters of reference. Salary is commensurate with academic rank and subject to collective bargaining negotiations. Position open until filled.

Application materials and requests for more information should be sent to Dr. S. C. Finney, Chair, Department of Geological Sciences, California State University, Long Beach, 1250 Bellflower Blvd., Long Beach, CA 90840.

HYDROGEOLOGIST UNIVERSITY OF NEBRASKA-LINCOLN

Conservation and Survey Division has reopened annual full-time tenure leading research position (rank open). Requires Ph.D. in Hydrogeology or Geology with specialization in hydrogeology. Must be familiar with geochemical processes and experienced in numerical modeling as applied to groundwater flow and solute transport. Will develop and implement an innovative research program in quantitative hydrogeology in Nebraska. Responsibilities include acquisition of funding to support research. Development and maintenance of working relationship with other departments of the University and with personnel in governmental agencies, private industry and individuals involved in water resources is expected. Opportunities to teach and advise graduate students are available. Send detailed resume, transcripts, and names, addresses and telephone numbers of four references by January 20, 1989 (or until suitable applicant is found thereafter) to: Jerry F. Ayers, Hydrogeologist Search Committee, Conservation and Survey Division, 113 Nebraska Hall, University of Nebraska-Lincoln, Lincoln, Nebraska 68588-0517. Affirmative Action/Equal Opportunity Employer.

GEOCHEMISTRY LABORATORY TECHNICIAN

Immediate opening available at the Department of Terrestrial Magnetism, Carnegie Institution of Washington, a privately-funded research institution focusing on studies in geochemistry, geophysics, and astronomy. Responsibilities include maintenance of a clean wet chemical laboratory for radiogenic isotope studies, support for and use of thermal ionization mass spectrometers, preparation and analysis of standards and samples for plasma atomic emission spectrometry (ICP) and supervision of new users of mass spectrometry and ICP facilities. Geological background (B.S. or M.S.) and geochemistry lab experience preferred. Familiarity with instrumentation and computers helpful. Salary is $21–26,000, commensurate with background. Send letter of application, resume, and names of two referees to: Geochemistry Laboratory Technician, Department of Terrestrial Magnetism, 5241 Broad Branch Road, N.W., Washington, DC 20015. Applications close February 1, 1989. Carnegie Institution of Washington is an Equal Opportunity Employer.

HYDROGEOLOGIST

Environmental engineering firm located in eastern Iowa has an opening for a hydrogeologist with 3 or more years of practical experience in solid and hazardous waste projects. The candidate should have a B.S. or M.S. degree in geology with hydrogeology courses and experience in site assessments, monitoring well system design, groundwater modeling, developing recommendations for groundwater cleanup and site remediation, soil sampling and analysis, project management, and report writing. Experience in conducting hydrogeologic studies for sanitary landfills is imperative. Experience with RCRA and CERCLA is desirable. Interested individuals should send their resume to: Howard R. Green Company, P.O. Box 9009, Cedar Rapids, Iowa 52409, Attn: E.J. (Rick) Yoerger, P.E., Phone: 319-395-7805.

TECTONICS

The Department of Geological Sciences, Rutgers University, invites applications for a tenure track position at a junior or senior level, beginning 1989. Primary interest of the candidate should be in regional studies in structural geology, tectonics, and/or paleomagnetics. Research interactions with stratigraphy and geophysics are desirable. Teaching duties will include undergraduate structural geology, field geology, and graduate level courses. Existing equipment in the department includes: spinner magnetometer, solid source mass spectrometer, microprobe, XRD and emission spectrometer.

Curriculum vitae, publications, and the names of 3 or more referees should be sent to Richard K. Olsson, Chairman, Department of Geological Sciences, Rutgers University, New Brunswick, NJ 08903. An affirmative-action/equal-opportunity employer.

PALEONTOLOGIST INDIANA UNIVERSITY–BLOOMINGTON

The Department of Geology invites applications for a tenure-track position in paleontology (teaching courses in micropaleontology and invertebrate paleontology) starting August 1989, pending availability of funds. Rank and salary commensurate with experience and qualifications. Applicants should be dedicated to teaching excellence, pursuit of rigorous research program, and supervision of graduate student research.

Applicants should send curriculum vitae and names/addresses of three professional referees to Donald E. Hattin, Chair of Search Committee, Department of Geology, Indiana University, Bloomington, IN 47405. Closing date: February 15, 1989. Indiana University is an affirmative-action/equal-opportunity employer.

The Montana Bureau of Mines and Geology, a research department of Montana Tech, is seeking an individual to serve as Chief of its Analytical Division effective February 2, 1989. The successful candidate should have a strong analytical background and a Ph.D. although non-Ph.D. applicants with extensive experience and prover research/fund raising records will be considered The laboratory, currently specializing in water rock, mineral and coal analyses, has two full-time staff members supplemented with part-time help and is equipped with 24-channel induction-coupled argon plasma unit, atomic absorption units, Dionex ion chromatograph with computing integrator, and x-ray fluorescence unit. The Chie oversees all aspects of the lab and interacts with

ɔpropriate state and federal agencies and institions. The Bureau seeks an individual who will aintain the lab's high ranking in the USGS ater quality assurance program and who can :pand lab capabilities into areas such as rare ırth elements, stable and/or radiogenic isopes, hazardous waste and/or organics. For operly qualified candidates, academic rank in tenurable position is possible. Opportunity also :ists to participate in both the instructional and search program at Montana Tech. Salary will ı commensurate with experience for this peranent, state-funded position. Please submit a tter of application, resume, and three letters of ference to Mr. Jerry Bartholomew, Bureau of ines and Geology, Montana Tech, Butte, MT 701, by December 31, 1988. An EEO/AAE.

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March 7 - 9, 1989 – Woods Hole, MA

ODP Leg 118 successfully drilled and recovered nearly a half lometer of gabbro in 17 days on the SW Indian Ridge. This shows ramatically that where exposed, or once layer 2 is penetrated, ɔeanic layer 3 can be drilled with ease.

The purpose of this workshop is to assemble a wide variety of vestigators from the ocean and earth science communities to reew our current state of understanding of the geology and geoysics of the oceanic lower crust and upper mantle and to stablish the major objectives for deep crustal drilling. The goal is identify the opportunities and strategies for this drilling, and eate a detailed program for the next decade. Members of the orkshop will be asked to participate in the development of mature illing proposals and become proponents for clearly identified illing targets.

Attendance will be open, though limited to 200. Advance regtration is required. Graduate students are encouraged to attend. mited travel funds for U.S participants are available through nding from JOI-USSAC, and some funds for foreign participants e available through the WHOI Geodynamics Program. Some ɔntributed talks will be accepted for the presentation portion of the eeting, and individual drilling proposals are invited as poster sesɔns. The meeting convenor is Dr. Henry J.B. Dick. Abstracts and uestions regarding participation, travel funds and accommodaɔns should be directed to:

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