



GSA news & information

VOLUME 4, NUMBER 9

G.S.A. ARCHIVES

SEPTEMBER 1982

Mid-term message from the President



Digby J. McLaren

There have been big changes in our Society during the last two years, and this year your Executive Committee and Council have had to choose and install a new Executive Director, to operate under a new regime in regard to publication, and to establish a *modus vivendi* with our new GSA Foundation. The Council held its mid-term meetings in May in Boulder, and I thought I should report to you on some of the matters we discussed and some of the decisions we reached.

The biggest change in the Society is undoubtedly the retirement of John Frye, who has been Executive Director for eight years. We have been extremely fortunate to have had John during these years of change. Few people realize the fundamental importance of the adjustments at headquarters that he has put into effect and the large savings in staff and expenditures he initiated. In May, John attended his last council meeting, and we wished him a happy "retirement," although, knowing John, it is sure to be a busy one.

Last December the Executive Committee interviewed candidates for Executive Director, and, with the unanimous approval of Council, we invited Mike Wahl to take on the task. Mike also attended the May meeting, and the transfer between John and Mike has now taken place smoothly and with mutual support and respect. We welcomed Mike and handed him yet more challenges for his new job. I hope that those of you who haven't yet met him will have an early opportunity to do so. You will see for yourselves why we chose him.

Another important change instituted in the Society recently involves publication policy. Our new editors are now in place and have severally taken charge of the *Bulletin*, *Geology*, books, and map and charts. Supported by a newly constituted

Committee on Publications, they immediately challenged Council to put its money where its mouth is. Earlier changes in format, manuscript handling, and printing have resulted in cost reduction and a shorter processing time. The number of manuscripts submitted, however, is increasing. There is, furthermore, a major backlog for the *Bulletin* which makes the editors' job very difficult. Council grasped the nettle and gave the editors of the *Bulletin* an additional six signatures (192 pages) for the remainder of this year and six next year to assist in reducing backlog. They also increased the ongoing publication size of both *Bulletin* and *Geology* by three signatures each, beginning next year.

This, of course, costs money. Council had to face the problem of the Society's role and decided, wisely, that our future depends on being recognized as the premier publishing agency for the earth sciences in North America. At a time of increasing specialization, we believe that there is a real need for leadership in fostering the best across the whole field of earth science, thus contributing to collaboration and synthesis. Directly dependent on these decisions, however, was the difficult question of dues. At its present level, the Society represents the best "money's-worth" available in publication of earth science in the world. Last year, when Council decided that members should receive both the *Bulletin* and *Geology*, thereby reducing greatly the unit price of each, they took a risk. In the event, membership numbers continued slow growth into this year, and although there were protests, the great majority of you appeared to approve of the change. Consequently, Council has taken another risk. Increase in publication size as outlined requires a fee increase larger than the unavoidable inflationary increase; however, further economies in headquarters reduce the amount required. Dues for members will rise by \$6.00 to \$54.00 next year; student members will have no increase; nonmember subscriptions to the journals will be increased. Remember, you will be getting more for your money, and with our new editorial system, we

(continued next page)

are confident that the standard of the journals will continue to rise. The full impact of our new editors and their innovative ideas will not be fully felt until next year. Watch for it.

This leads me on to a brief consideration of the Decade of North American Geology (DNAG). The GSA Foundation has been functioning for over a year now and has received pledges that equal more than half the total money required to support the Program. This is a remarkable achievement, and it illustrates the wisdom of the choice of Trustees and President of the Foundation. It also suggests that DNAG is an idea whose time has come. The Steering Committee for DNAG met before Council and reported to them subsequently. Liaison was firmly established between the Foundation and the Society by the appointment of Dwight Roberts, President of the Foundation, as an ex-officio member of the Steering Committee.

One further point I should like to comment on is Membership. Council has asked the Executive Committee and Headquarters to advise on how best to mount a major membership campaign. It is hoped that action in this regard may be taken at the October Council meeting in New Orleans. I feel very

strongly that with our new publication policy and the rapidly developing DNAG Project, in addition to our annual and section meetings, Penrose Conferences, research grant program, and other features, our Society offers more to those interested in geology as a whole than any other such group does. As a start, let me suggest that every one of you who reads this report go straight out and bring in one new member. Most of us are acquainted with someone who could easily be persuaded to join a Society that offers more than any other for the whole field of geology.

Finally, Council made the decision to revise accounting procedures to better illustrate how income from various sources is apportioned to Society costs, particularly in regard to income from the Penrose Endowment Fund. These and other matters will be reported to you in *News & Information* in a future issue. I merely wanted to give you the highlights of Council's decisions and ask for your continuing support of the Society. Don't forget, go out and get a new member. See you in New Orleans.

Digby J. McLaren, President

PENROSE CONFERENCE ANNOUNCEMENT

A Geological Society of America Penrose Conference on "Blueschists and Related Eclogites" will be held September 5-9, 1983, in Bellingham and Seattle, Washington. Conveners of this conference are Edwin H. Brown, Department of Geology, Western Washington University, Bellingham, WA 98225, Phone (206) 676-3582; and Bernard W. Evans, Phone (206) 543-1750, Robert B. Forbes, Phone (206) 543-4434, and Peter Misch, Phone (206) 543-1094, all at the Department of Geological Sciences AJ-20, University of Washington, Seattle, WA 98195.

The conference will review the current state of knowledge of orogenic belts that have undergone recrystallization under blueschist facies conditions. Specific topics that will be addressed include: high P/low T experimental phase relations; the contribution of field data to a petrogenetic grid for the blueschist and related facies; determination of P/T histories in blueschist terrains; evidence on the partial pressures of pore-fluid species attending blueschist and eclogite metamorphism; relationships between blueschist recrystallization and structures; tectonic models (including geophysical aspects) for high P/low T

metamorphism, subsequent decompression, emplacement and overprinting; geochronology of blueschist rocks and minerals and the time dimension.

Two one-day field trips (September 5 and 6) will be taken to the North Cascades of Washington to view the lithologies, structures and tectonic setting of the blueschist terrain of the Shuksan Formation. Field trip leaders are Misch and Brown.

Applications to attend the conference should be sent to Brown or Evans; the deadline is April 30, 1983. The registration fee (to be under \$400) includes lodging, transportation in the field, and most meals. Applicants should include a brief statement explaining their area of interest and experience with blueschist-type rocks and problems. Persons interested in giving an oral presentation should include a title. The conveners will attempt to schedule a mixture of discussion, overview, and presentation of new material, including time for discussion of future research directions. Participants are encouraged to bring material for poster display, thin sections of rocks, maps, and so forth.



See page 132 for annual meeting information.

GSA News & Information

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Prepared from contributions from the staff and membership by F. Michael Wahl, Executive Director; James R. Clark, Production and Advertising Sales Manager; June Thomas and Ann H. Fogel, Production Assistants.



CENTENNIAL NEWS

Western Atlantic Synthesis Volume Organized

An organizational meeting for the DNAG synthesis volume on the Western Atlantic region was held at Woods Hole, Massachusetts, on June 10 and 11, 1982. An outline with the names of the chapter organizers is given below. As with the other volumes, the chapter organizers may be

contacting additional individual contributors as the synthesis progresses. Final manuscripts and accompanying synthesis maps for this volume are to be in the hands of the editors, B. E. Tucholke and P. R. Vogt, by April 1983.

A. Introduction

1. Introduction and history of geological exploration — P. R. Vogt, B. E. Tucholke
2. Physiography-Bathymetry — B. E. Tucholke, P. R. Vogt, C. Smoot
3. Time scale — D. V. Kent

B. Present Accretion Axis

1. Detailed crestal studies — K. C. MacDonald
2. Crustal formation on Iceland and Azores — K. Saemundsson
3. Model of crustal formation on Iceland — G. Palmasson
4. Seismicity and fault plane solutions — P. Einarsson
5. Geochemistry and petrology (major elements, igneous and metamorphic petrology) — W. G. Melson
6. Geochemistry and petrology (minor elements, trace elements, isotopes, REE) — J. G. Schilling
7. The active transform domain — P. J. Fox
8. Regional variations along accretion axis — P. R. Vogt
9. Hydrothermal processes — J. M. Edmond

C. Regional Geology and Geophysics

1. Gravity — P. D. Rabinowitz
2. Geoid from space altimetry — P. R. Vogt
3. Space systems as marine geological sensors — R. J. Anderle
4. Age and structure of oceanic crust from magnetic anomalies — P. R. Vogt
5. Heat flow, age depth anomalies, and aging of oceanic lithosphere — J. G. Sclater, L. Wixom
6. Petrology and geochemistry of pre-1 m.y. crust — W. B. Bryan, F. A. Frey
7. Mid-plate stress, deformation, seismicity — M. L. Zoback
8. Seismic structure of the ocean crust — G. M. Purdy, J. I. Ewing
9. Structure and distribution of ocean sediments — B. E. Tucholke
10. Subduction of Atlantic lithosphere — G. Westbrook

D. Plate Tectonic Evolution

1. Plate kinematics in central Atlantic — K. D. Klitgord, H. Schouten, J. D. Phillips
2. Plate kinematics in northern Atlantic — S. P. Srivastava
3. "Absolute" plate motions — J. B. Minster, T. H. Jordan
4. Atlantic hotspot traces — W. J. Morgan
5. Paleobathymetry and paleogeography — F. W. McCoy, B. E. Tucholke

E. Surficial Sedimentation

1. Surficial sediments (late Pleistocene-Holocene): Composition, echo-character, and processes — J. E. Damuth, R. Jacobi, E. P. Laine
2. Turbidite sediments: Fans, abyssal plains — O. H. Pilkey
3. Current controlled sedimentation — I. N. McCave, B. E. Tucholke, C. D. Hollister
4. Pelagic/aeolian/meteoritic sediments — S. Honjo
5. Sediment mass movements — R. W. Embley

F. Biofacies

1. Neogene — C. W. Poag
2. Paleogene — I. Premoli-Silva, A. Boersma
3. Mesozoic — F. M. Gradstein
4. Paleobiogeography — W. A. Berggren, F. M. Gradstein

G. Paleooceanography

1. Paleogene/Neogene — B. E. Tucholke, G. S. Mountain
2. Cretaceous — M. A. Arthur
3. Jurassic — L. F. Jansa

H. Resources and Law of the Sea

1. Resources — W. P. Dillon
2. Law of the sea and man's uses of ocean geology — J. A. Knauss
3. Hazards, engineering properties, physical properties — A. J. Silva

I. Synthesis and Perspectives — P. R. Vogt, B. E. Tucholke

1982 Annual Meeting

New Orleans

A message from the General Chairman, 1982 Annual Meeting

Bienvenue à Nouvelle Orléans!

Welcome to New Orleans for the 1982 Annual Meeting. Our city is rich in culture and tradition, looking to the past in its preservation of southern hospitality and to the future with increasing numbers of modern hotels and office buildings, as well as the world-famous Superdome (site of most of the meeting's sessions).

New Orleans has a large geological population distributed among oil companies and universities. I have called on the experience and enthusiasm of many who worked on behalf of previous meetings to ensure the success of this one.

The Joint Technical Program Committee has presided over the assembling of 25 symposia whose subjects range the world from Antarctica to Egypt to the Arctic, and, closer to home, from the Atlantic coast to the Cordilleran orogen. The Centennial Frontier Symposium relates world geology to planetary geology, while the Geophysics-Structural Geology and Tectonics Divisions Symposium treats two of the most active hydrocarbon exploration plays: the eastern and western U.S. foreland thrust belts. Of course, we have programmed the normal complement of challenging and informative oral and poster sessions.

On the Sunday preceding the formal opening of the sessions, there will be an at-large symposium on Evolution and Scientific Creationism and a public forum in which observations of Jupiter and Saturn by NASA space probes will be discussed.

The 15 field trips will disclose aspects of stratigraphy, structure, hydrogeology, and environments of deposition of carbonate and siliciclastic rocks.

There will be a joyous welcoming party on Sunday night; a ride on a steamer on Old Man River on Tuesday night with Cajun and Dixieland music for dancing and listening, as well as drinks and snacks. The traditional annual dinner will be held on Wednesday night.

The varied and innovative Guest Program includes technical sessions for nontechnical people; a walking tour in the historic French Quarter; a streetcar ride past some of the city's most elegant homes; a browsing/shopping trip to antique stores; the highlight luncheon at a transplanted plantation home featuring Creole jambalaya and a performance by the New Orleans Ballet.

Not to be overlooked are the usual important adjuncts to the meeting: exhibits, science theater, short courses, employment interviews.

I have mentioned no names lest I slight even one dedicated person. I can vouch for the conscientious efforts of all committee members. Their names can be found elsewhere. Thank them for a job well done; blame me for any misjudgments or oversights.

Jules Braunstein
General Chairman



Short Courses

DELTAS—THEIR APPLICATION TO OIL, GAS, AND COAL EXPLORATION.

Sun., Oct. 17, Hyatt Regency, 9:00 a.m.–4:30 p.m. Sponsored by GSA. The purpose is to advise those searching for oil and gas in sediments of deltaic origin. This course is highly popular and has been presented for other geoscience associations and corporations. Early registration is recommended. Instructor: Ram Saxena, President of GeoConsultants International, Inc. Fee: \$40, includes course materials. Preregistration only. Register on the annual meeting registration form and send to GSA. (Annual meeting registration is not a prerequisite.) For further information: Ram Saxena, GeoConsultants International, Inc., P.O. Box 1418, Kenner, LA 70063, (504) 466-2323.

REMOTE SENSING—IMAGE INTERPRETATION FOR GEOSCIENTISTS.

Sun., Oct. 17, Hyatt Regency, 9:00 a.m.–5:00 p.m. Sponsored by GSA. The course provides equal time for lectures and for “hands-on” interpretation by participants of representative images. Lectures and interpretation projects cover the major aspects of remote sensing — Landsat, thermal infrared, and radar images, plus digital processing of image data. Instructor: F. F. Sabins, Sr. Research Associate, Chevron Oil Field Research Company. Fee: \$60, includes “Remote Sensing Laboratory Manual” and “Instructor’s Key for Remote Sensing Manual.” Preregistration only. Register on the annual meeting registration form and send to GSA. (Annual meeting registration is not a prerequisite.) For further information: F. F. Sabins, Chevron Oil Field Research Company, P.O. Box 446, LaHabra, CA 90631, (213) 694-7370.

CHARACTERIZATION OF METAMORPHISM THROUGH MINERAL ASSEMBLAGES AND MINERAL CHEMISTRY.

Fri., Oct. 15, 8:00 a.m.–5:00 p.m., Sat., Oct. 16, 8:00 a.m.–5:00 p.m., with an evening workshop, and Sun., Oct. 17, 8:00 a.m.–12:00 noon, at the Hyatt Regency. Sponsored by MSA. An introductory party will be held Thursday evening, Oct. 14, 6:00 p.m.–7:00 p.m. at the Hyatt Regency. The following topics will be covered: (a) strategies of algebraic and graphical analysis of mineral equilibria; (b) determination of equilibrium pressure, temperature, and fluid composition; (c) mineral inclusions and compositional zoning in minerals; (d) stable light-isotope composition of metamorphic rocks and minerals; (e) buffering phenomena; (f) applications of the reaction progress variable. Short course lectures will form the basis of Volume 10 of the MSA series, “Reviews in Mineralogy.” Authors/speakers are E. J. Essene (University of Michigan), J. M. Ferry (Arizona State University), D. M. Kerrick (Penn State), J. M. Rice (University of Oregon), D. Rumble (Geophysical Laboratory), F. S. Spear (MIT), J. B. Thompson, Jr. (Harvard), and R. J. Tracy (Yale). For further information: MSA Metamorphism Short Course, J. M. Ferry, Department of Geology, Arizona State

University, Tempe, AZ 85287, (602) 965-4093. Fee: \$86-150 depending on membership status.

INTRODUCTION TO DUCTILE DEFORMATION.

Sat., Oct. 16, and Sun., Oct. 17. Sponsored by Structural Geology & Tectonics Division. The course is designed for nonspecialists and will cover ductile deformation of quartz, feldspar, calcite, olivine, and pyroxene. Lectures will be given by several experts including the organizer, Dr. Jan Tullis. For more information: Dr. Jan Tullis, Department of Geological Sciences, Brown University, Providence, RI 02912, (401) 863-2240. Fee: \$150 includes lodging and lunches.

FORAMINIFERA

Sun., Oct. 17. Sponsored by the Paleontological Society. Topics included are: Biology and Paleobiology. Classification. Ecology of Modern Benthic/Planktic Forams. Cenozoic/Mesozoic/Paleozoic Benthic/Planktic Forams. Paleozoic Fusulinides. There is no fee. For further information: Martin Buzas, Department of Paleobiology, National Museum of Natural History, Washington, D.C. 20560.

Workshops

MASSIVE SULFIDES IN SUBMARINE VOLCANIC ROCKS

Sunday, October 17, Hyatt Regency, 8:30 a.m. to 4:30 p.m. Sponsored by SEG and organized by Hiroshi Ohmoto (Penn State) and members of the U.S.-Japan-Canada Cooperative Research Project. The workshop is designed for students but anyone is welcome to attend. There is no fee. For further information: Hiroshi Ohmoto, Department of Geological Sciences, Penn State, University Park, PA 16802, (814) 865-6711.

GEO-WRITING: QUICKLY. CLEARLY. CONCISELY.

Two one-day workshops on Saturday, October 16, 8:30 a.m. to 5:00 p.m., and Sunday, October 17, 8:30 a.m. to 5:00 p.m. Sponsored by AGI. The course includes how to break writer’s block, how to write for different situations and publications, and how to write easily and clearly. Instructor: AGI’s Wendell Cochran. Fee: \$70. For further information: Wendell Cochran, GEOTIMES, 5205 Leesburg Pike, Falls Church, VA 22041, (703) 379-2480.

MANUAL SEARCH/MATCH METHODS

For the *JCPDS Powder Diffraction File*, with emphasis on the *Minerals Subfile* as well as *New Developments* in the content of the file. Sunday, October 17, 2:00 p.m. to 6:00 p.m. Sponsored by International Centre for Diffraction Data (JCPDS). Preregistration is necessary and the attendance will be limited to 50. Fee: \$30. For further information: Julian Messick, JCPDS, 1601 Park Lane, Swarthmore, PA 19081, (215) 328-9400.

1982 Annual Meeting

GSA/VIKING AIRLINE RESERVATION SYSTEM

The Geological Society of America has designated Viking Travel, Ltd. of Boulder, Colorado, as the sole airline reservation agent for the 1982 Annual Meeting in New Orleans.

Viking will make arrangements for attendees, regardless of point-of-departure, and guarantees that you will receive the least expensive airfare available from your departure city.

You are encouraged to make your airline reservations through the GSA/Viking toll-free "hotline" number: **(800) 525-0368**.

PROCEDURES

1. Call Viking toll-free at (800) 525-0368, or from within Colorado at (303) 449-6983. Call Monday through Friday, 8:30 to 5:30 p.m. or Saturday, 10:00 a.m. to 2:00 p.m., mountain time.
2. Identify yourself as attending the GSA/New Orleans Annual Meeting and request a reservation from your departure city.
3. The Viking agent will immediately confirm your reservations, and quote you the applicable group-fare or deep-discount fare.
4. Payment options are:
 - a. Check payable to Viking Travel, Ltd.
 - b. Major Credit Card.
 - c. Invoice to your firm.
5. Delivery will be via first-class mail. You will receive your tickets at least two weeks prior to departure. Payment or credit card authorization is required before mailing.
6. Your reservation will be monitored to take advantage of any fare reductions that may occur between the time of booking the reservation and the ticketing date. In the event of a fare increase, your reservation will be ticketed at the previously confirmed lower fare.

That's all there is to it!

The GSA/VIKING AIRLINE RESERVATION SYSTEM was designed to assure you of confirmed, discounted reservations to the meeting in New Orleans. Because Viking has arranged special GSA fares on several major airlines, we encourage you to make your reservation through VIKING. Other agencies or airlines will not be able to offer the same attractive fares.

Call today to assure the best flight schedule for you!

Postmeeting

R&R

Thinking of rest and relaxation after the meeting?

The 1982 New Orleans Committee has trips that may fit your vacation travel schedule.

Trips are organized and sponsored by Viking Travel. All trips include:

1. Departure from New Orleans Friday morning, October 22, and return Sunday, October 24.
2. Extra nights should you wish to extend your trip.
3. Special travel discounts.

For brochures and reservations call the toll-free hot line (800) 525-0368. Colorado residents call 449-6983.

LAND OF THE CAJUNS DELUXE MOTORCOACH TOUR

A land of contrasts and beauty, Acadia County is the land of the Cajuns (the French Canadians that fled British rule and French aristocrats escaping the guillotine), of Cajun cuisine and crawfish boils, of *fai do do's* and Mardi Gras parades, of horse racing and hunting, fishing . . . and more! The deluxe three-day motorcoach tour departs from New Orleans hotels on Friday morning (Oct. 22) and proceeds for an in-depth and unforgettable visit to Cajun country . . . with return to the New Orleans Airport Sunday afternoon (Oct. 24). The program includes all transportation, hotel accommodations, 2 breakfasts, 3 lunches, 2 gourmet-style dinners, all baggage handling, comprehensive sightseeing with all admissions as well as all taxes and gratuities for services rendered . . . only **\$300 per person double occupancy; \$350 single occupancy.**

DAZZLING CANCUN

The Mexican Caribbean is both the oldest and newest resort area in Mexico. The Mexican kings came to Cancun 1,000 years ago to enjoy its white sand and crystal waters. Cancun offers every activity and pastime that even the most sophisticated traveler could desire. It's a casual, stroll-around-barefoot-in-the-sand kind of place with transparent blue waters. The three-day tour features the dazzling Aristos Cancun Hotel for two nights, round-trip air transportation from New Orleans, round-trip transportation from Cancun Airport to the hotel, all baggage handling at the airport and hotel, half-day Fiesta Maya Cruise, Mexican hotel taxes . . . everything for only **\$275 per person double occupancy; \$310 single occupancy.**

All prices are quoted *per person* and based on current tariffs as of May, 1982. Prices are subject to change.

VIKING TRAVEL 2079 30th Street Boulder, CO 80301



1982 ANNUAL MEETING --- TECHNICAL PROGRAM SCHEDULE

	SUNDAY OCT. 17	MONDAY OCT. 18	TUESDAY OCT. 19	WEDNESDAY OCT. 20	THURSDAY OCT. 21
<p>Symposia: 21 Radionuclide Migration (Geochem) 24 Amino Acids (Quat & Geomorph)</p>	<p>Symposia: 4 Geophys-Struct/Tec I 14 Economic 20 Appal Orogen</p> <p>Technical Sessions: Coal Geol Ed/GIS Geochem I Ig Pet I Mineral/Xtal I Paleo I Sediment I</p> <p>Poster Session I: Engineering Environ Geomorph Hydro Marine Quat Archaeol</p>	<p>(Sessions begin at 8:30 a.m.)</p> <p>Symposia: 5 History of Geology 7 Quat/Geomorph 8 Cushman 10 Geoscience Info 12 NAGT</p> <p>Technical Sessions: Geochem III Mineral/Xtal II Econ II Sed Pet II Tectonics I</p> <p>Poster Session III: Coal Geophysics Mathematical</p>	<p>Symposia: 9 Geochem 17 Ouachita Orogen 19 Cont-Ocean Trans I</p> <p>Technical Sessions: Arch/Hist Hydro I Ig Pet II Met Pet Structure II Econ IV</p> <p>Poster Session V: Micropaleo Paleo Sed Pet Stratigraphy</p>	<p>Symposia: 18 Gulf of Mexico</p> <p>Technical Sessions: Extraterr/Environ Micropaleo Geochem IV Ig Pet/Volcan Paleo II Precamb/Met Pet Quat/Geomorph/Gen Tectonics III</p> <p>Poster Session VII: Cont-Ocean Trans Sedimentology</p>	<p style="text-align: center;">SCIENCE THEATER</p>
<p>LUNCHEONS:</p> <p>Symposia: 21 Radionuclide Migration (Geochem) 22 Evolution-Creation (PS) 23 Strat & Nat Hazards (CGPP) 24 Amino Acids (Quat & Geomorph) 25 Magnetic Map</p>	<p>Assoc. Women Geoscientists, Geophysists, GIS, Hist. Geol.</p> <p>Symposia: 4 Geophys-Struct/Tect II</p> <p>Technical Sessions: Econ I Engineering Geochem II Marine/Micropaleo Paleo/Strat Sed Pet I Sed II</p> <p>Poster Session II: History Geol Ed Extraterr Precamb Gen Geol Geosci Info 4 p.m. GSA Presidential Address</p>	<p>Eng. Geol., Hydrogeology, MSA, NAGT, Planetary Geol., PS</p> <p>Symposia: 1 Arch 2 Coal 6 Planetary (Cent) 15 Ellsworth Mtns</p> <p>Technical Sessions: Economic III Geophysics/Math Marine I Sed III Structure I Tectonics II</p> <p>Poster Session IV: Exper Pet Mineral/Xtal Geochem Volcanology Ig Pet Met Pet</p>	<p>Coal Geol., OG&G, SEG</p> <p>Symposia: 3 Engineering 11 Mineralogical 13 Paleontological 16 Atlantic Margin 19 Cont-Ocean Trans II</p> <p>Technical Sessions: Hydro II Ig Pet III Marine II Quaternary</p> <p>Poster Session VI: Econ Struct Tectonics</p>	<p>Technical Sessions: Exper Pet Geochem V Geomorph Stratigraphy Marine III Paleo III Structure III Tectonics IV Volcan</p>	<p style="text-align: center;">EXHIBITS</p>
<p>6-9 p.m. Exhibits Opening Welcoming Party</p>	<p>6-9 p.m. Exhibits Alumni Parties</p>	<p>7:30-10:30 p.m. Riverboat Cruise</p>	<p>EXHIBITS (close 2 p.m.)</p>	<p>6-10 p.m. GSA Annual Dinner</p>	<p style="text-align: center;">SCIENCE THEATER</p>

Morning Sessions -- 8 a.m. to 12 noon

Afternoon Sessions -- 1:00 to 5:00 p.m.

Contents of Technical Program

SYMPOSIA

CUSHMAN FOUNDATION SYMPOSIUM: TERTIARY FORAMINIFERA OF THE GULF COAST.....	Oct 19
GIS SYMPOSIUM: GEOLOGIC HAZARDS DATA.....	Oct 19
GS SYMPOSIUM: GEOCHEMISTRY OF RADIONUCLIDE MIGRATION/RETARDATION.....	Oct 17
GS SYMPOSIUM: ORGANIC GEOCHEMICAL AND MINERAL DEPOSITS.....	Oct 20
GSA ARCHAEOLOGICAL GEOLOGY DIVISION SYMPOSIUM: ARCHAEOLOGICAL GEOLOGY OF EGYPT AND THE SUDAN.....	Oct 19
GSA COAL GEOLOGY DIVISION SYMPOSIUM: UPDATE ON GULF COAST LIGNITES.....	Oct 19
GSA COMMITTEE ON GEOLOGY AND PUBLIC POLICY SYMPOSIUM: STRATIGRAPHIC GEOLOGY AND NATURAL HAZARD EVALUATION.....	Oct 17
GSA ENGINEERING GEOLOGY DIVISION SYMPOSIUM: ENGINEERING GEOLOGIC LESSONS LEARNED FROM HISTORY.....	Oct 20
GSA GEOPHYSICS DIVISION AND STRUCTURAL GEOLOGY AND TECTONICS DIVISION SYMPOSIUM: STRUCTURE AND GEOPHYSICS OF FORELAND THRUST BELTS: PROJECTION OF APPALACHIAN AND CORDILLERAN OROGENS -- CORDILLERAN THRUST BELT (FULL DAY).....	Oct 18
GSA HISTORY OF GEOLOGY DIVISION SYMPOSIUM: THE DEVELOPMENT OF NORTH AMERICAN GEOLOGY: 1881 TO THE PRESENT.....	Oct 19
GSA PLANETARY GEOLOGY DIVISION: 1982 CENTENNIAL FRONTIER SYMPOSIUM: THE INFLUENCE OF PLANETARY GEOLOGY RESEARCH ON TERRESTRIAL GEOLOGY CONCEPTS.....	Oct 19
GSA QUATERNARY GEOLOGY AND GEOMORPHOLOGY DIVISION SYMPOSIUM: AMINO ACID GEOCHRONOLOGY: APPLICATIONS TO LATE CENOZOIC GEOLOGY (FULL DAY).....	Oct 17
GSA QUATERNARY GEOLOGY AND GEOMORPHOLOGY DIVISION SYMPOSIUM: QUATERNARY GEOLOGY AND CHRONOLOGY OF ARCTIC AREAS.....	Oct 19
MSA SYMPOSIUM: THE APPLICATIONS OF QUANTUM CHEMISTRY TO EARTH MATERIALS.....	Oct 20
NAGT SYMPOSIUM: RECENT ADVANCES IN TECTONICS -- IMPLICATIONS FOR INSTRUCTION.....	Oct 19
PS SYMPOSIUM: EVOLUTION AND CREATONISM: A GEOLOGICAL PERSPECTIVE.....	Oct 17
PS SYMPOSIUM: THE PALEONTOLOGY OF ORGANIC-RICH STRATA.....	Oct 20
SEG SYMPOSIUM: GOLD IN VOLCANIC ENVIRONMENTS.....	Oct 18
SYMPOSIUM: THE FIRST AEROMAGNETIC MAP OF THE UNITED STATES: INTERPRETATION AND NEW CONCEPTS.....	Oct 17
SYMPOSIUM: MAFIC AND ULTRAMAFIC ROCKS OF THE APPALACHIAN OROGEN.....	Oct 18
SYMPOSIUM: THE GEOLOGY OF THE ELLSWORTH MOUNTAINS, WEST ANTARCTICA.....	Oct 19
SYMPOSIUM: THE OUACHITA OROGEN.....	Oct 20
SYMPOSIUM: STRATIGRAPHY AND DEPOSITIONAL HISTORY OF THE UNITED STATES ATLANTIC MARGIN.....	Oct 20
SYMPOSIUM: TECTONIC EVOLUTION AND EARLY GEOLOGIC HISTORY OF THE GULF OF MEXICO AND ITS MARGINS.....	Oct 21
UNITED STATES GEODYNAMICS COMMITTEE SYMPOSIUM: NORTH AMERICAN CONTINENT--OCEAN TRANSECTS (FULL DAY).....	Oct 20

TECHNICAL SESSIONS (Oral Presentations)

ARCHAEOLOGICAL GEOLOGY & HISTORY OF GEOLOGY.....	Oct 20
COAL GEOLOGY.....	Oct 18
ECONOMIC GEOLOGY I: ECONOMIC GEOLOGY OF PRECIOUS METALS.....	Oct 18
ECONOMIC GEOLOGY II: PORPHYRY DEPOSITS -- COPPER, MOLYBDENUM, TIN.....	Oct 19
ECONOMIC GEOLOGY III: GENERAL.....	Oct 19
ECONOMIC GEOCHEMISTRY AND URANIUM DEPOSITS IV.....	Oct 20
ENGINEERING GEOLOGY.....	Oct 18
ENVIRONMENTAL GEOLOGY/PLANETARY GEOLOGY.....	Oct 21
EXPERIMENTAL PETROLOGY: MELTS, CRYSTALS, AND MODELS.....	Oct 21
GEOCHEMISTRY I.....	Oct 18
GEOCHEMISTRY II.....	Oct 18
GEOCHEMISTRY III.....	Oct 19
GEOCHEMISTRY IV.....	Oct 21
GEOCHEMISTRY V.....	Oct 21
GEOMORPHOLOGY.....	Oct 21
GEOPHYSICS & MATHEMATICAL GEOLOGY.....	Oct 19
GEOSCIENCE INFORMATION: GEOLOGY, EDUCATION SPECIAL TECHNICAL SESSION, "THE SCIENCE/CREATIONISM CONTROVERSY: EARTH SCIENCES PERSPECTIVES".....	Oct 18
HYDROGEOLOGY I.....	Oct 20
HYDROGEOLOGY II.....	Oct 20
IGNEOUS PETROLOGY I: MAFIC MAGMAS -- GENERATION AND CRYSTALLIZATION.....	Oct 18
IGNEOUS PETROLOGY II: MOSTLY GRANITIC ROCKS.....	Oct 20
IGNEOUS PETROLOGY III: MAGMATIC MELANGE... SUBDUCTION ZONE VOLCANISM, CARBONATITES.....	Oct 20
MARINE GEOLOGY/MICROPALAEONTOLOGY.....	Oct 18
MARINE GEOLOGY I: ATLANTIC & GULF OF MEXICO.....	Oct 19
MARINE GEOLOGY II: CONTINENTAL MARGINS & FAMS.....	Oct 20
MARINE III: PALEOCENOGRAPHY/OCEAN CIRCULATION.....	Oct 21
METAMORPHIC PETROLOGY: PROCESSES, PHASE EQUILIBRIA AND PETROGENETIC INDICATORS..	Oct 20
MICROPALAEONTOLOGY.....	Oct 21
MINERALOGY AND CRYSTALLOGRAPHY I: CRYSTAL CHEMISTRY AND THERMOCHEMISTRY OF SILICATES AND OTHER PHASES.....	Oct 18
MINERALOGY AND CRYSTALLOGRAPHY II: ALUMINOSILICATE GLASSES AND MELTS: STRUCTURE AND THERMOCHEMISTRY.....	Oct 19
PALEONTOLOGY I: PHYLOGENY AND EVOLUTION... MORPHOLOGY.....	Oct 18
PALEONTOLOGY III: PALEOECOLOGY.....	Oct 21
PRECAMBRIAN GEOLOGY/METAMORPHIC PETROLOGY.....	Oct 21
QUATERNARY GEOLOGY.....	Oct 20
QUATERNARY GEOLOGY/GEOMORPHOLOGY/GENERAL GEOLOGY... GEOLOGY/GEOMORPHOLOGY.....	Oct 21
SEDIMENTARY PETROLOGY I.....	Oct 18
SEDIMENTARY PETROLOGY II.....	Oct 19
SEDIMENTOLOGY I.....	Oct 18

SEDIMENTOLOGY II.....	Oct 18
SEDIMENTOLOGY III.....	Oct 19
STRATIGRAPHY AND PALEONTOLOGY: BIOTACIES AND EXTINCTIONS.....	Oct 18
STRATIGRAPHY.....	Oct 21
STRUCTURE I: BRITTLE FAULTS AND BRITTLE-DUCTILE TRANSITIONS.....	Oct 19
STRUCTURE II: METAMORPHIC DIFFERENTIATION, STRAIN HISTORY, AND SOLUTION CLEAVAGE.....	Oct 20
STRUCTURE III: MYLONITES, SHEAR ZONES, AND THRUST FAULTS.....	Oct 21
TECTONICS I: WESTERN U.S. AND PACIFIC CONTINENTAL MARGIN.....	Oct 19
TECTONICS II: APPALACHIANS AND CANADIAN SHIELD.....	Oct 19
TECTONICS III: GENERAL.....	Oct 21
TECTONICS IV: GENERAL.....	Oct 21
VOLCANOLOGY: EL CHICHON, MT. ST. HELENS, AND GENERAL VOLCANOLOGY.....	Oct 21

TECHNICAL SESSIONS (Poster Presentations)

POSTER SESSION I.....	Oct 18
Archaeological	
Engineering Geology	
Environmental Geology	
Geomorphology	
Hydrogeology	
Marine Geology	
Quaternary	
POSTER SESSION II.....	Oct 18
Extraterrestrial	
General Geology	
Geology Education	
Geoscience Information	
History of Geology	
Precambrian	
POSTER SESSION III.....	Oct 19
Coal Geology	
Geophysics	
Mathematical Geology	
POSTER SESSION IV.....	Oct 19
Experimental Petrology	
Geochemistry	
Igneous Petrology	
Metamorphic Petrology	
Mineralogy/Crystallography	
Volcanology	
POSTER SESSION V.....	Oct 20
Micropaleontology	
Paleontology	
Sedimentary Petrology	
Stratigraphy	
POSTER SESSION VI.....	Oct 20
Economic Geology	
Structure	
Tectonics	
POSTER SESSION VII.....	Oct 21
Continent-Ocean Transects	
Sedimentology	

PRELIMINARY ANNOUNCEMENT AND CALL FOR PAPERS

SOUTH-CENTRAL SECTION, GSA, 17th Annual Meeting College Station, Texas, March 3-4, 1983

THE SOUTH-CENTRAL SECTION of the Geological Society of America will hold its 17th Annual Meeting at Texas A&M University in College Station, Texas. The host will be the Geology Department and the College of Geosciences of the University. Affiliated sponsors will be the Texas Section of the National Association of Geology Teachers, Baylor University, Engineering Geologists of the Section with membership in the Division of Engineering Geology and/or the Association of Geologists.

TECHNICAL SESSIONS

Two days of technical sessions will be held on March 3 and 4, 1983, in the University Center at Texas A&M University. The sessions will consist of both volunteered papers and invited symposia.

VOLUNTEERED PAPERS

Technical sessions of voluntary papers will be arranged into appropriate sections after abstracts have been reviewed by the program committee. If you are planning to prepare a paper for the meeting, don't delay. We need your contribution to make this one of the most successful South-Central meetings.

INVITED SYMPOSIA

Any communication concerning symposia abstracts should be addressed to the **General Chairman**, who will forward it to the convenor. The following symposia are tentatively scheduled:

1. Pennsylvanian Biostratigraphy
2. Sediment Sources and Dispersal in the Gulf Coast Basin
3. Deposition of Chalk
4. Depositional Systems of the Woodbine Sandstones
5. Mechanical Interpretation in Structural Geology
6. Holocene Carbonate Deposition
7. Urban Fluvial Processes
8. Urban Engineering Geology in the South-Central Section
9. Geological Licensing Topics in High- and Low-Level Nuclear Waste
10. Future Employment of Geologists

ABSTRACTS ARE DUE OCTOBER 14, 1982

Send one original and five copies to

Andrew J. Hajash or Robert Popp, Program Co-Chairmen
Department of Geology
Texas A&M University
College Station, TX 77843

NEW, REVISED ABSTRACT FORMS can be obtained from either the above address or from: **Abstracts Coordinator, GSA, P.O. Box 9140, Boulder, CO 80301.**

The use of the new GSA abstract form completed according to instructions, is required.

All papers in ordinary technical sessions are to be a maximum of 15 minutes. An additional 5 minutes can be devoted to discussion.

Acceptance or rejection of an abstract will be based upon the abstract as submitted by the author. Authors will be notified of acceptance well in advance of the meeting.

STUDENT AWARDS

Student papers are encouraged, and awards will be made to students presenting the most outstanding papers. Student papers should be clearly identified as such and should be authored exclusively by students.

CAROUSEL PROJECTION EQUIPMENT

Equipment will be provided only for 2" x 2" (35mm) slides. Only one projector can be used by a speaker. Please bring your own loaded carousel trays if possible.

FIELD TRIPS

Trips are tentatively scheduled for the Central Texas Cretaceous, Central Mineral Region Crystalline Rocks, The Austin Chalk, Urban Fluvial Processes, and A Brazos River Point Bar.

SPECIAL EVENTS

A Welcoming Party will be held Wednesday evening (March 2), and the annual banquet will be held Thursday evening, March 3.

ACCOMMODATIONS

Headquarters will be the Ramada Inn in College Station. A list of other motels may be requested.

ANNOUNCEMENTS

Registration, housing, off-campus accommodations, and guest events announcements will appear in a later issue of *GSA News & Information* and as part of the *Abstracts with Programs* for 1983.

For additional information contact the General Chairman:

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

PRELIMINARY ANNOUNCEMENT AND CALL FOR PAPERS

SOUTHEASTERN SECTION, GSA, 32nd Annual Meeting Tallahassee, Florida, March 16-18, 1983

THE SOUTHEASTERN SECTION of the Geological Society of America and the Southeastern Section of the Paleontological Society will hold their annual meeting in Tallahassee, Florida, March 16-18, 1983. The meeting is sponsored by the Department of Geology, Florida State University, The Florida Bureau of Geology, the Southeastern Geological Society, and the Center for Professional Development and Public Service, Florida State University.

CALL FOR PAPERS

Papers are invited for presentation at technical sessions and symposia. Uninvited papers will be allowed 15 minutes for presentation and 5 minutes for discussion. Time limits will be strictly adhered to by session chairmen. Themes of symposia and technical sessions are listed below.

DEADLINE FOR ABSTRACTS IS OCTOBER 28, 1982

SYMPOSIA AND COORDINATORS

1. River Transport (Herb Windom, Skidaway Inst. of Oceanography, Box 13687, Savannah, GA 31406)
2. Volcanism (John Puffer, Geology Dept., Rutgers Univ., Newark, NJ 07102)
3. Chert (Sam Upchurch, Geology Dept., Univ. of South Florida, Tampa, FL 33620)
4. Environmental Geology (Walt Schmidt, Bureau of Geology, 903 W. Tennessee, Tallahassee, FL 32304)
5. Neogene Stratigraphy (Tom Scott, Bureau of Geology, 903 W. Tennessee, Tallahassee, FL 32304)
6. Validity of "Ancient Earth" Data (Robert Gastaldo, Geology Dept., Auburn Univ., Auburn, AL 36830)
7. Neotectonics in the Southeast (Dave Prowell, USGS, 6481 Peachtree Industrial Blvd., Suite B., Doraville, GA 30360)
8. Coastal Sedimentology (William F. Tanner, Dept. of Geology, Florida State Univ., Tallahassee, FL 32306)
9. Hydrostratigraphy (Paul Seaber, USGS, 325 John Knox Rd., Tallahassee, FL 32301)
10. Mesozoic-Cenozoic Microfossils of the Southeastern U.S./Caribbean (Sherwood W. Wise and Ernie Russell, Dept. of Geology, Florida State Univ., Tallahassee, FL 32306)
11. Paleontology of Clastic-Carbonate Transitions (Carl Stock, Dept. of Geology, Univ. of Alabama, University, AL 35486, and Patricia Kelley, Dept. of Geology, Univ. of Mississippi, University, MS 38677)

TECHNICAL SESSIONS

Appalachian Geology, Coastal Plain Geology, Economic Geology, Environmental Geology, Geochemistry, Geological Education, Geomorphology, Geophysics, Hydrogeology, Marine Geology, Mineralogy, Paleontology, Petrology, Sedimentation, and Stratigraphy.

FIELD TRIPS

Premeeting

1. Hydrogeology of the Dougherty Plain, Southwest Georgia (B. Beck, D. Arden)
2. Cenozoic Vertebrate and Invertebrate Paleontology of North Florida (D. Smith, D. Jones, B. MacFadden)
3. The Central Florida Phosphate District: Comparison of the Old and New (R. Hall)
4. Structure and Lithology of the Uchee Belt in Western Muscogee County, Georgia (T. Hanley)

Postmeeting

5. Dynamics and Evolution of Florida Bay (J. Meeder, D. Cottrell, H. Wanless)

6. Oligocene-Miocene Geology of North-Central Florida (R. Ceryak)
7. Zero and Low Energy Coasts (W. Tanner)

Tom Scott, Field Trip Chairman, Florida Bureau of Geology
903 W. Tennessee Street, Tallahassee, FL 32304, (904) 488-9380.

ABSTRACTS

Abstracts are limited to 250 words and must be submitted camera-ready on official abstract forms available from

Paul C. Ragland	OR	Abstracts Coordinator
Program Committee Co-Chairman		Geological Society of America
Department of Geology		P.O. Box 9140
Florida State University		Boulder, CO 80301
Tallahassee, FL 32306		(303) 447-8850
(904) 644-5792		

ABSTRACTS ARE DUE OCTOBER 28, 1982

Contributors to the symposia should submit their abstracts to the appropriate symposium coordinator. Technical session abstracts (one original and five copies) should be submitted to

Paul C. Ragland, Program Committee Co-Chairman
Department of Geology, Florida State University
Tallahassee, Florida 32306 (904) 644-5792

SHORT COURSE

Premeeting:

Introduction to Calcareous Nannofossils, by S. W. Wise.

SPOUSES' ACTIVITIES

A full schedule of activities is being organized.

CAROUSEL PROJECTION EQUIPMENT

Equipment will be provided for 2" x 2" slides and single projectors only. Please bring your own loaded carousel trays, if possible.

EXHIBITS

Representing education, research, and industry, exhibits will be displayed at the meeting site, Florida State University's new Conference Center.

DETAILED INFORMATION

Information concerning registration, accommodations, and activities will appear in a later issue of *GSA News & Information* and as part of the *Abstracts with Programs* for 1983.

Inquiries, additional information, requests, or suggestions should be directed to: James F. Tull, Local Committee Chairman, Department of Geology, Florida State University, Tallahassee, FL 32306, (904) 644-1448.

PRELIMINARY ANNOUNCEMENT AND CALL FOR PAPERS

NORTHEASTERN SECTION, GSA, Annual Meeting Concord Hotel, Kiamesha Lake, Monticello, New York March 23–25, 1983

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

CALL FOR PAPERS

Papers are invited for presentation at traditional technical and poster sessions and symposia. Fifteen minutes for presentation and 5 minutes for discussion is the prescribed format for the technical sessions. Papers of regional interest to geologists in the northeast, as well as those of general geologic interest, will be considered for the program. Technical and poster sessions will be arranged based on the abstracts received and accepted. Abstracts for a symposium should be submitted directly to the symposium convener. Abstracts not accepted for symposia will be considered for the general technical sessions.

SYMPOSIA

The following symposia titles have been organized or are in the final stages of organization. For further information, contact the convener(s) of individual symposia.

1. **Mafic-Ultramafic Plutonic Rocks of Orogenic Belts.** John M. Bender, Department of Geological Sciences, State University of New York at Albany, Albany, NY 12222. Nicholas M. Ratcliffe, USGS, Mail Stop 25, National Center, Reston, VA 22092.
2. **The Hudson Highlands, Geology of New York City, and Economic Geology of the Lower Hudson River Valley—In Honor of Kurt E. Lowe.** Simon Schaeffel, Department of Earth and Planetary Sciences, City College of New York, 137 Street and Convent Avenue, New York, NY 10031.
3. **The Late Devonian Catskill Delta.** Donald L. Woodrow, Department of Geoscience, Hobart and William Smith Colleges, Geneva, NY 14456. William Sevon, Bureau of Topography and Geological Survey, Pennsylvania Department of Environmental Resources, Harrisburg, PA 17120.
4. **Environmental Geology.** Donald R. Coates, Department of Geological Sciences, State University of New York at Binghamton, Binghamton, NY 13901.
5. **Pleistocene Time-Rock and Morphostratigraphy of Eastern New York.** Robert Dineen and Donald Cadwell, New York State Geological Survey, Rm. 3136, Cultural Education Center, Albany, NY 12230.
6. **Geo-Archeology Geological Environments of Prehistoric Human Occupation in Northeastern North America.** P. Jay Fleisher, Department of Earth Science, State University of New York, College at Oneonta, Oneonta, NY 13820. William A. Starna, Department of Anthropology, State University of New York, College at Oneonta, Oneonta, NY 13820.
7. **Northern Appalachian Geochronology: Recent Advances.** R. David Dallmeyer, Department of Geology, University of Georgia, Athens, GA 30602.
8. **History of Geology: Evolution of Geological Concepts in the Northeast.** William M. Jordan, Department of Earth Sciences, Millersville State College, Millersville, PA 17551.
9. **Glaciated Coasts.** Duncan M. FitzGerald, Department of Geology, Boston University, 725 Commonwealth Avenue, Boston, MA 02215.

Peter S. Rosen, Department of Earth Sciences, Northeastern University, Boston, MA 02115.

10. **Rifted Margins of the Appalachians through Time.** Warren Manspeizer, Geology Department, Rutgers State University at Newark, Newark, NJ 07201. Douglas W. Rankin, USGS, National Center, Reston, VA 22092.
11. **Advances in the Early Mesozoic Paleontology and Paleogeology of Eastern North America.** Paul E. Olsen, Bingham Laboratories, Department of Biology, Yale University, New Haven, CT 06520.
12. **Paleontology and Paleogeology of The Hamilton Group.** Robert Linsley, Department of Geology, Colgate University, Hamilton, NY 13346 and Carlton Brett, Department of Geology, University of Rochester, Rochester, NY 14627.
13. **Earthquake Activity and Potential in the Northeastern United States.** Paul Pomeroy, Rondout Associates, P.O. Box 224, Stone Ridge, NY 12484.
14. **Innovative Options in Geologic Education.** John Way, Bureau of Topography and Geological Survey, Department of Environmental Resources, Harrisburg, PA 17120.

For further and general information on the symposia, contact either of the symposia co-chairpersons:

John H. Johnsen or Karen Lukas
Department of Geology and Geography
Vassar College
Poughkeepsie, NY 12603

FIELD TRIPS

The following field trips have been planned:

1. **Mafic-Ultramafic Plutons in Orogenic Belts.** Nicholas Ratcliffe, USGS, Reston, VA 22092; and John Bender, Geology Department, State University of New York at Albany, Albany, NY 12222.
2. **Taconic Sequence of the Mid-Hudson Region.** Russell Wainnes, Geology Department, State University of New York College at New Paltz, New Paltz, NY 12561.

ABSTRACTS

Be sure to use the new, revised abstract form for 1983.

Abstracts are limited to 250 words and must be submitted camera-ready on an official 1983 abstract form available from

Elizabeth Downie OR Abstracts Coordinator
Dept. of Geological Sciences Geological Society of America
State University of New York P.O. Box 9140
College at New Paltz Boulder, CO 80301
New Paltz, NY 12561 (303) 447-8850
(914) 257-2166

ALL ABSTRACTS ARE DUE OCTOBER 15, 1982

(continued next page)

NORTHEASTERN SECTION, MARCH 23-25, 1983

(continued from page 139)

Send one original and five copies of abstracts to be considered for **technical sessions and poster sessions** to Elizabeth Downie, Dept. of Geological Sciences, State University of New York, College at New Paltz, New Paltz, NY 12561.

Send one original and five copies of abstracts for **symposia directly to the convener** (first name following the symposium topic or title in the Symposia section). Acceptance or rejection of abstracts will be based on review by the Technical Program Committee. Abstracts will be judged on the basis of scientific merit, informative content, readability, and relevance to geologic problems of the Northeastern U.S. There is no limit to the number of abstracts that may be submitted, but no more than two abstracts bearing an individual's name will be accepted for the program. Authors will be notified of acceptance well in advance of the meeting.

STUDENT PAPERS

Student papers are encouraged and awards will be made for outstanding student papers presented in the technical sessions. To be eligible and judged, abstracts must be authored exclusively by students and must be designated on the abstract form as a student paper.

PROJECTION EQUIPMENT

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

SPOUSE ACTIVITIES

A full range of spouse activities is being prepared in consultation with the staff of The Concord Hotel.

ENTERTAINMENT AND FACILITIES

Guests of The Concord will be able to attend a nightly entertainment show in The Concord's main nightclub. In addition, there will be a wide assortment of facilities available for use, including swimming pool, health club, sauna, indoor tennis, and game rooms.

WELCOMING PARTY

For guests of The Concord, there will be a free welcoming party on Wednesday evening. This includes a one-hour open bar and hors d'oeuvres prior to dinner.

GUEST PASSES

For those who choose not to stay at The Concord, tickets may be purchased for individual meals, the welcoming party, and the banquet.

EXHIBIT SPACE

Exhibit space will be available near the technical session area. Individual booths will be a standard size and double booths will be available. The cost of a booth for educational and nonprofit institutions will be reduced. For additional information, contact

Alvin Konigsberg
Department of Geological Sciences
State University of New York, College at New Paltz
New Paltz, NY 12561 (914) 257-2167

DETAILED INFORMATION

Information concerning registration, accommodations and other activities will appear in a later issue of *GSA News & Information* and as part of the *Abstracts with Programs* for 1983.

REDUCED REGISTRATION FEES

According to the policy adopted by the Northeastern GSA Management Board, reduced registration fees will be available to GSA members. To receive this discount, you must specify GSA membership on the registration form.

Additional information, requests, or suggestions should be directed to the General Chairman:

Martin S. Rutstein
Department of Geological Sciences
State University of New York, College at New Paltz
New Paltz, NY 12561 (914) 257-2166

Announcement

Soil geomorphology tour planned for December 1982

The Soil Science Society of America, Association of American Geographers, and Geological Society of America will co-sponsor a soil geomorphology tour in the Ventura area of southern California on December 3 and 4, 1982. The post-meeting tour will be in conjunction with the national meetings of the American Society of Agronomy, Crop Science Society of America, and the Soil Science Society of America in Anaheim, California, November 28 to December 3. The tour will leave from Anaheim Convention Center on December 2 at the conclusion of the regularly scheduled SSSA paper sessions and will travel to the headquarters hotel in Ventura. The tour will be finished late on Sat., December 4. Transportation to Los Angeles or Anaheim will be provided on Saturday and Sunday.

The tour will be limited to 40 persons. A registration fee of \$45 will include transportation, 2 lunches, and a guidebook. Registrants should mail the registration form (*Agronomy News*, March-April, 1982) with a check to ASA headquarters, 677 S. Segoe Rd., Madison, WI 53711. Upon notification that registration is accepted, each individual will be asked to make his or her own lodging arrangements at the headquarters hotel in Ventura.

The tour will be led by Don Johnson (U. of Illinois), Tom Rockwell (San Diego St. Univ.), and Glenn Dembroff (U. of Calif., Santa Barbara) and will focus on soil geomorphology and on rates of soil development on Pleistocene alluvium, and tectonic geomorphology in the Ventura basin, California.



THE GEOLOGICAL SOCIETY OF AMERICA

Annual research awards program 1983

The Geological Society of America will continue its annual research awards program in 1983. Eligibility is not restricted to GSA members. New application forms for 1983 and detailed requirements are available in the geology departments of most colleges and universities in the United States or upon request from the Executive Director, the Geological Society of America, P.O. Box 9140, Boulder, Colorado 80301. PLEASE USE ONLY THE 1983 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. If necessary, applications may be submitted in Spanish or French.

The Geological Society of America awarded \$90,000 for grants in 1982. The grants went to 145 students doing research for advanced degrees. The average amount granted was \$623. The highest grant was \$1,000, 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 NEW "APPRAISAL OF APPLICANT" FORMS, WHICH ACCOMPANY THE 1983 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 meets in April to evaluate applications and to award grants. In May 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 1983 FORMS AND POSTMARKED BY FEBRUARY 15, 1983.

(PLEASE POST)

Dues statements coming this month

1983 DUES INCLUDE *BULLETIN* AND *GEOLOGY*

On the facing page is a sample of the 1983 membership dues statement, now being prepared for mailing about mid-month. Please note that all dues-paying Fellows, Members, and Student Associates receive three monthly publications, *The Geological Society of America Bulletin*, *Geology*, and *GSA News & Information* as part of their membership package.

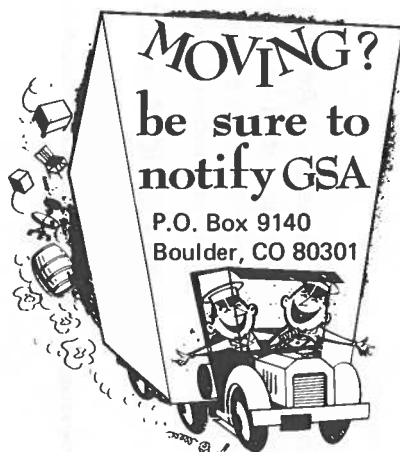
As indicated on the form, the annual dues for a Fellow or Member for 1983 will be \$54 for the entire package, including membership and 12 issues each of the *Bulletin*, *Geology*, and *GSA News & Information*. The required dues for Student Associates for the same package will still be \$28. Dues-exempt members who wish to receive the two journals in 1983 may do so for \$28 also (they already receive *GSA News & Information*).

The previous Council decision to require all members to receive the Society's two journals allows GSA to increase substantially its pressruns of both journals, thereby lowering the unit costs markedly. The plan provides an obvious bargain for the membership, and at the same time it provides for a significant increase in the distribution of the science contained in our journals.

Also, married couples who are both GSA members will be allowed a reduction in 1983 dues. Such couples will pay \$54 for the first member (\$28 for Student Associates) and \$22 for the second. They will receive a single subscription to the *Bulletin* and *Geology*, but both members will continue to receive *GSA News & Information*, ballots, and other miscellaneous mailings. Please identify your spouse and which one is requesting a reduction in the dues in the spaces provided on the back of your dues statement. We can activate the policy for married couples only upon specific instructions from you.

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

If you have any questions or do not receive your 1983 dues statement, please contact the Membership Department.



North American members should report address changes 6 weeks in advance; all others, 3 months in advance.

Member Number _____
Name _____
New Address _____

City _____
State _____ Zip _____
Country _____
Effective Date of Change _____

Former Address—Attach Mailing Label

COUNCIL ACTIONS, SPRING 1982

The following actions were taken by Council during its spring meeting in Boulder on May 27-28, 1982:

1. Approved the minutes of the November 1 and 4, 1981, Council meeting after minor corrections were made.
2. Voted to increase the 1983 dues for regular GSA members from \$48 to \$54, which includes subscriptions to the *Bulletin*, *Geology*, and *News & Information*.
3. Voted to make no change in the 1983 dues for GSA Student Associates which will remain \$28 and include subscriptions to the *Bulletin*, *Geology*, and *News & Information*; dues-exempt members shall continue to receive a complimentary subscription to *News & Information* and shall have the option of subscribing to the *Bulletin* and *Geology* as a package for \$28; Honorary Fellows shall continue to receive complimentary subscriptions to the *Bulletin*, *Geology*, and *News & Information* with their dues-exempt status; life members shall continue to receive subscriptions to the three publications and a copy of *Abstracts with Programs* for the annual meeting with their one-time dues payment.
4. Set the 1983 nonmember subscription rate for the *Bulletin* at \$75 and *Geology* at \$45; *Abstracts with Programs* for section meetings will remain at \$5 each and for the annual meeting at \$9.
5. Voted to: add twelve signatures to the *Bulletin*, six in 1982 and six in 1983, as a one-time only addition to help decrease the backlog at an approximate cost of \$108,000; add three signatures permanently to both the *Bulletin* and *Geology* beginning with 1983 at an approximate cost of \$27,000 each.
6. Noted the recommendation to increase page-charge income for the *Bulletin* and *Geology* from \$74,000 to \$100,000 a year without increasing the unit charge of \$100 per page and asked that it be implemented as soon as feasible.
7. Asked the Executive Director to prepare for the review of the Executive Committee in September and the Council in October a tabulation of expenses for all Council and committee meetings with the intent of reducing expenditures.
8. Approved the Executive Committee's suggestion that the current sequence of committee and Council meetings be examined with the thought of improving the timing of the meetings throughout the year; include as an agenda item for the September Executive Committee meeting the item *Restructuring the Budgeting Process*.
9. Approved the amended 1982 budget and discussed the 1983 estimated budget.
10. Included \$25,000 in the amended 1982 budget to initiate the second phase of the ENTERCOM, INC., project which involves conducting a telephone survey of a cross-section of the membership seeking opinions relative to the services, objectives, and image of the Society.
11. Included \$50,000 in the amended 1982 budget to proceed immediately with computerization of the Society's operations. Hardware will be leased, and the necessary software will be purchased or developed.
12. Selected a slate of nominees for officers and councilors for 1983 and a firm of certified public accountants to perform an audit for the year ending December 31, 1982, to be presented by ballot to the membership for election in October.
13. Designated three proxy holders for the October corporate meeting.
14. Selected Penrose and Day medalists and three Honorary Fellows for 1982; ratified the award winners selected by the Engineering Geology Division, History of Geology Division, and Quaternary Geology and Geomorphology Division.
15. Instructed GSA's three investment advisors to normally vote GSA's common stock proxies in its investment portfolio with management; should unusual circumstances arise, the treasurer should be consulted.
16. Ratified the actions of the Committee on Investments taken during its January 25, 1982, meeting in Boulder, Colorado, involving the various funds in the investment portfolio of the Society.
17. Received the report of the treasurer for audit.
18. As required by law, approved a check-signing resolution naming F. Michael Wahl as Executive Director; approved a stock and bond transfer resolution authorizing the president or treasurer to act for the Society.
19. Voted to contribute \$5,000 to the support of an AGI congressional fellow for the year 1983-84.
20. Received copies of the latest edition of the GSA Employee's Handbook which contains all policy changes made during the past five years.
21. Advanced 55 Members to Fellowship; ratified the election of 485 candidates to Membership; voted to change the procedures for nominating Members for advancement to Fellowship; referred back to the Committee on Membership for additional study the question of criteria for evaluating applicants for advancement to Fellowship and a redesigning of the evaluation form.
22. Voted to establish as a membership benefit a differential of at least \$25 between members of GSA and the associated societies and nonmembers for preregistration and on-site registration fees, beginning with the 1983 Annual Meeting.
23. Reviewed the recruitment flyer prepared by the staff outlining the benefits of belonging to GSA and directed that the flyer be turned over to ENTERCOM, INC., to be included in its overall plan.
24. Discussed the proposal submitted by Brian J. Skinner outlining an aggressive GSA membership drive and tabled the proposal until the October Council meeting because of timing.
25. Approved two Penrose Conference proposals; rescinded the motion passed by Council in May 1981 which added a \$5 surcharge to the registration fee of all Penrose Conference participants to cover GSA administrative and insurance costs; passed a motion to add a \$20 surcharge to the registration fee of all non-GSA member Penrose Conference participants to cover GSA administrative and insurance costs; reviewed a one-page flyer which outlined the role of the Penrose Conference coordinator, copies of which could be included in registration packets, at the option of each convener.
26. Confirmed the following local committee chairmen for the 1986 Annual Meeting in San Antonio:
James O. Jones General Chairman
Donald Edward McGannon, Jr. Co-Chairman
27. Accepted the following annual meeting invitations:
Phoenix, Arizona October 26-29, 1987
Denver, Colorado October 31-November 3, 1988

COUNCIL ACTIONS, SPRING 1982

28. Approved the New Orleans Annual Meeting budget, including the following supporting registration fees:

	Pre-Registration	On-site Registration	One-day Registration
Professional	\$65	\$75	\$35
Students	32	38	17
Guests	20	30	—

29. Set October 17 and 20, 1982, for the fall meetings of Council in New Orleans, Louisiana; set October 19, 1982, 8:00-8:30 a.m., for the corporate meeting and question/answer session, to be unopposed by technical sessions.

30. On recommendation of the Centennial Steering Committee, dropped the hyphen in the acronym DNAG (Decade of North American Geology); voted to allow a 20% discount on DNAG publications to GSA members.

31. On recommendation of the Executive Committee, GSA has made arrangements to rent to the GSA Foundation the entire first floor of GSA's rental property next door to the headquarters building. The space now occupied by the Foundation will be vacated within six months.

32. Discussed GSA's position relative to the 28th International Geological Congress and GSA's financial assistance to it.

33. Received the report of the GSA Audit Committee; discussed the 1981 audit statement from Arthur Andersen & Company; discussed the management letter from Arthur Andersen and accepted the recommendation that the Audit Committee and the treasurer review the progress made on implementing the major recommendations each year before the fall Council meeting and report to Council on that progress.

34. Beginning with 1983, the terms of the three-councilor Audit Committee will be for three years, with one councilor rotating off annually; to establish proper rotation, for 1983 the president shall appoint one councilor for each one-, two-, and three-year term.

35. Accepted reports from standing committees, sections, and divisions.

36. Ratified bylaw changes recommended by the South-

eastern and the South-Central Sections regarding a Student Support Committee and an International Service Recruitment Committee, respectively.

37. Discussed the questions of an Appalachian Section within GSA and of the Cordilleran/Rocky Mountain Section boundary in Arizona. No action required by Council at this time.

38. Discussed the question of human rights and scientific freedom; appointed a two-man committee to draft a GSA policy statement for Council consideration in October.

39. Approved 145 research grants totaling \$91,310; discussed future fund-raising plans for research grants within the GSA Foundation; approved listing in *GSA News & Information* the names, the institutions, and the project titles of the thirteen outstanding young recipients of research grants; thanked NSF conferee Robin Brett for his outstanding service of the past four years and requested his advice regarding a new NSF conferee for 1983.

40. Discussed the feasibility of establishing a one-day registration fee which would allow nonmembers to participate in GSA annual meeting field trips.

41. Discussed recommendations of the Committee on Publications in addition to those actions reported above and:

- approved the appointment of an interim books editor should the appointment of a permanent editor be prolonged;
- took no action on automated manuscript transmittal;
- requested the Executive Committee and Executive Director to consider the establishment of a reprint series;
- declined the proposed reciprocal agreement between GSA and the Geological Society of London regarding publication discounts for members;

• reaffirmed that all DNAG maps and charts would be outside the purview of the GSA maps and charts editor;

• accepted the recommendation that heavier stock be used for the *Bulletin* cover, and asked the Executive Director and *Bulletin* editors to explore the use of cover photographs.

42. Received progress reports from Centennial Steering Committee, DNAG, and the GSA Foundation.

43. Took other minor actions, records of which are on file at headquarters.

Report of the Committee on Publications

To the Council and Membership of the Geological Society of America:

The Committee on Publications did not meet in the period between the 1980 and 1981 Annual Meetings. A special Publications Study Committee under the chairmanship of Brian J. Skinner was created at the 1980 meeting, and its responsibilities included most of those normally assigned to the Committee on Publications. The undersigned was appointed to the Special Committee and called upon members of the regular Publications Committee for advice. The report of the Special Committee was accepted by Council and has

been published in *News & Information* [July 1981]. One of its recommendations was a restructured Publications Committee that included the various GSA editors as members. The newly structured committee met under the chairmanship of Robert D. Hatcher, Jr., at the 1981 Annual Meeting in Cincinnati.

Respectfully submitted,
E.R.W. Neale, 1981 Chairman

Annual Report for 1981 — The Geological Society of America

Annual Report for 1981—Report of the Treasurer

To the Council and Membership of the Geological Society of America:

This report is for the calendar year 1981. For the sixth successive year the Society ended up in the black, a noteworthy situation when we remember that the combined deficit for 1974 and 1975 was nearly a million dollars.

The two special programs, "Centennial" (DNAG) and GSA Foundation, moved along nicely. The Foundation reports to the membership separately, but the most significant forté is that it has already done well enough to pick up the entire 1981 cost of the "Centennial" program (\$136,546) as well as the budgeted expenses for 1982. The first payment of \$179,942.50 was received in July 1982 and returned for investment to the Reserve Fund.

The figures in this report are taken from the unqualified report by our independent auditors, Arthur Andersen & Co. Both the audit report itself, as well as a "Memorandum on Accounting Procedures, Internal Control and Related Matters" were reviewed by the Council Audit Committee (Dallas L. Peck, chairman; Hubert Gabrielse; and Robert D. Hatcher, Jr.) with personnel from Arthur Andersen. Improvements continue to be made in the accounting area, but we are very close to needing new and better data processing. This need is particularly severe in the area of membership records.

The annual financial statement includes the six sections, all of which are in healthy condition. As of December 31, 1981, total assets of the Society were \$11,281,093, up from \$10,852,874 the prior year. The total liabilities were \$1,050,121 for a net worth of \$10,230,972, an increase of \$255,011 over 1980.

Total operating expenses for 1981 were \$2,221,694 and total operating revenue was \$1,645,661, which included \$44,562 in contributions. The amount of contributions received was down from the previous year because the primary responsibility for solicitation was transferred to the GSA Foundation. Although the Society can still receive contributions, restricted or unrestricted, positive fund-raising initiative is now a Foundation function.

The operating deficiency was \$576,033 which was made up from income from investments. Total income from investments was \$845,225, an increase of \$155,854 from the previous year. Note that the amount of the operating deficiency will be reduced by the Foundation contribution to the "Centennial" program (\$136,546).

An additional gain is the fact that the Foundation has grown enough to bear its own administration costs and will no longer have an adverse effect on our cash flow.

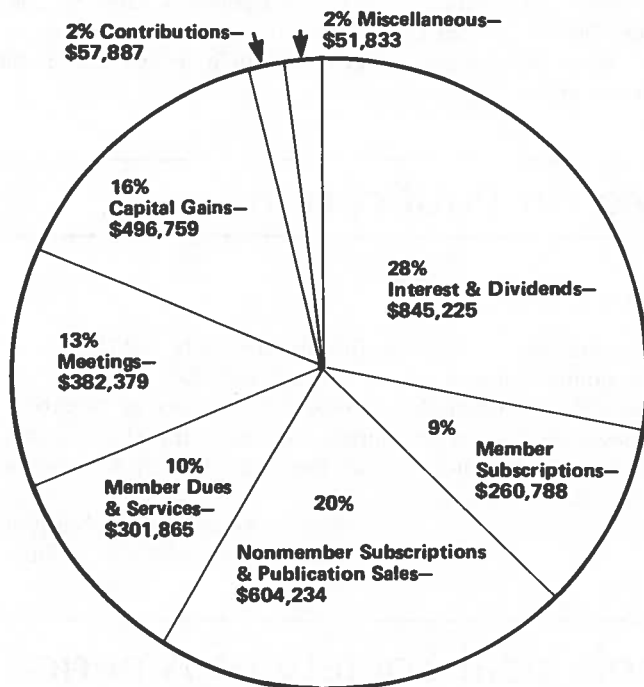
My tenure as Treasurer ends with the annual meeting in New Orleans after six years. It has been a period of ups and downs. We are fortunate to have a man of experience, wisdom, and loyalty, Robert L. Fuchs, as Treasurer nominee. Bob has served as Chairman of the Committee on Investments and as a Trustee of the GSA Foundation, and he is very familiar with our operation.

Following are diagrams showing the distribution of the Society's combined revenues and expenses for the calendar year 1981.

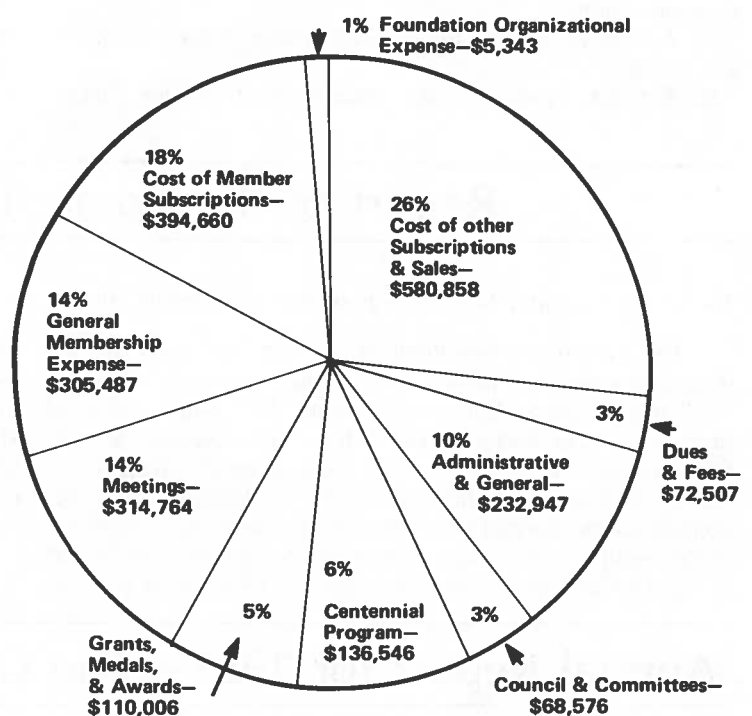
Respectfully submitted,
William B. Heroy, Jr., Treasurer

THE GEOLOGICAL SOCIETY OF AMERICA SOURCE AND APPLICATION OF FUNDS, 1981

REVENUE \$3,000,970



EXPENSE \$2,221,694



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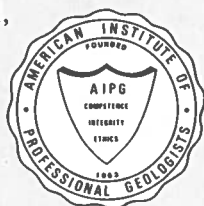
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A. R. Palmer, Centennial Science Coordinator, GSA, P.O. Box 9140, Boulder, CO 80301, (303) 447-8851

DEADLINES FOR EACH: JANUARY 1, 1983

INSIDE---

1982 Annual Meeting information	p. 132
Preliminary announcements and calls for papers	
South-Central Section	p. 137
Southeastern Section	p. 138
Northeastern Section	p. 139



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