1983 GSA Research Grants Awarded
By Faith Rogers

Working with a budget of $96,816, the GSA Committee on Research Grants this year recommended 147 proposals for support. Chairman Donn S. Gorsline (University of Southern California), members Clifford A. Hopson (University of California, Santa Barbara) and Robert F. Riecker (Los Alamos Scientific Laboratory), and National Science Foundation conferee James F. Hays met at GSA headquarters in Boulder, Colorado, April 14-15, 1983, to make the selections.

Sources of Funds
Money for the grants came from donations ($10,500 from oil companies), the Harold T. Stearns Fund ($3,663), the Arthur L. Day Fund ($600), contributions to the GSA Foundation ($2,053), and interest from the Penrose endowment ($80,000).

Applications Increase
The 147 proposals recommended for support were chosen from 510 proposals received, compared to 391 received for 1982. Of the 147, 76 were doctoral proposals and 71 were master's proposals. Of the applications, 29% were recommended for funding, compared to 37% in 1982. The average grant was $663, compared to $623 in 1982. Women geologists represented 20% of the total applicants, up from 110 in 1982 to 135 in 1983. Of the 510 proposals received, 163 were doctoral, up from 143 in 1982, but they constituted 31% of the 1983 proposals, compared to 37% in 1982.

The committee noted that master's applications had increased significantly, probably reflecting increased enrollments and greater emphasis on the master's degree because of heavy industrial hiring over the past three years.

Dollars Requested Far Exceed Available Budget
Grant requests this year totaled almost $490,000, five times the available $96,816. Twenty percent of the dollar requests were met, down from 21% in 1982. “A need for increased funds is obvious,” the committee report notes.

How the Committee Works
Proposals are sorted into approximately equal groups, and each set is reviewed and graded by two or three committee members. The NSF conferee reads all the proposals. Grading of proposals is discussed by the committee as a whole and a consensus grade is assigned. At the same time, the committee agrees on a suggested level of funding as a first estimate. After all proposals have been graded, the committee reviews the rankings, and a final funding level and grade are assigned. The committee then establishes the priority for funding and lists alternates for funds in the event that any nominees return grant money. (In 1982, 7 researchers returned their grants to GSA for various reasons: they received enough money from other sources; a project was cancelled; costs were lower than expected.)

Awards
Robert K. Fahnstock Award. Gary A. Smith, Oregon State University, is the 1983 nominee for the Fahnstock award, which goes to the best proposal in alluvial geomorphology and sediment transport. Smith will receive support for his proposal, “Analysis of Sedimentary and Volcanic Processes in a Non-marine Back-arc Basin: Deschutes Formation (Neogene) of Central Oregon.”

Harold T. Stearns Fellowship Award. The four nominees for this award, which is earmarked for research on aspects of the geology of the Pacific islands and the circum-Pacific region, are Bradley G. Erskine, University of California, Berkeley, for "Petrogenesis of the Santa Rosa Mountain Mylonite Zone, Southern (continued on page 102)
Research Grants Awarded
(continued from p. 101)
California, David M. Harwood, Ohio State University, for "Cretaceous and Paleogene Diatom Biostratigraphy and Marine Geology in the Pacific Sector of the Antarctic"; Peter L. K. Kruepeper, University of Arizona, for "Tectonic Geomorphology and Neotectonics of the Alpine Shear System, Northern South Island, New Zealand"; and Joshua E. Lieberman, University of Oregon, for "Pressure-Temperature-Composition Relations during Progressive Metamorphism: Kigluaik Mountains, Seward Peninsula, Alaska."

Gladys W. Cole Memorial Research Award. No applications were received for this award, established by W. Storrs Cole in 1980 to assist a GSA Fellow between 35 and 60 years old in investigation of the geomorphology of semi-arid and arid terrains in the United States and Mexico. This year $1,200 was available for the award.

Industry Grants. Donations from Conoco ($4,000), Marathon ($4,500), and Mobil ($2,000) provided funds for grants to the following nominees:

Brian F. Butler, University of Washington, for "The Relationship of the Bodie Mountain Fault to Epithermal Mineralization in the Sheridan District, Okanogan County, Washington"

Yen-Nien Cheng, University of Texas at Dallas, for "Biostratigraphic Investigations of Late Paleozoic-Mesoproterozoic (Late Mississippian) and Wocke-Sian (Early Permian) Radiolaria in the Southern Butte Mountains, White Pine County, Nevada"

Pansy DuBose, University of South Florida, for "Geochemical Determination of Sedimentation Rates in a Youthful Mesotidal Salt Marsh: Sapelo Island, Georgia"

Ted Leonard Eggleston, New Mexico Institute of Mining & Technology, for "The Taylor Creek Tin District: Petrology, Ore Deposits, and Regional Geology"

Carolyn H. Eyles, University of Toronto, for "Facies Models from Glaciomarine Environments and Their Application to Hydrocarbon Exploration"

David A. Fulton, University of Missouri, Columbia, for "Facies Relations and Thermal Maturity of a Portion of the Lower Atoka Formation, West-Central Arkansas"

R. Kevin Given, University of Michigan, for "Geochemical and Petrographic Examination of Dolomitization in the Permian Reef Complex of West Texas and New Mexico"

Catherine W. Gortner, Stanford University, for "Sedimentology, Structure, Tectonic Setting, and Hydrocarbon Potential of Radiolarian Earths on Barbados"

Norman MacLeod, University of Texas at Dallas, for "Macroevolutionary Studies of the Mesozoic Radiolarian Families Pantanellidae and Pariangulidae"

Paula S. Peterson, Mackay School of Mines, for "An Integrated Geological, Geochronological and Geochemical Investigation of the Chonta Caldera and Genetically Associated Precious-Metal Mineralization, Southern Peru"

David Scott Shafer, University of Tennessee, for "Late Quaternary Geologic, Paleoclimatic, and Paleoclimatic History of the Southern Appalachian Mountains"

Anthony Sprague, University of Texas at Dallas, for "A Submarine Fan Depositional Model for the Lower Member of the Atoka Formation (Pennsylvanian), Ouachita Mountains, Arkansas and Oklahoma"

David R. Turner, University of Utah, for "A Petrologic and Fluid Inclusion Study of the Zinc Skarns Associated with the Hanover Intrusion, New Mexico"

Robin Turner, University of California, Santa Cruz, for "Cenomanian-Turonian Dinoflagellates and Acritarchs from the Greenhorn Limestone of the Western Interior Basin"

Manuel Valenzuela, University of Texas at Dallas, for "Paleo-
(continued on p. 103)
geographic Studies in the Cambrian Terrane of NW Sonora, Mexico”

Steven J. Van Kauwenbergh, University of Akron, for “Diagenetic Study of the Carbonate Rocks of the Island of San Salvador, Bahamas”

Grant R. Woodwell, Yale University, for “Fluid Migration in an Overthrust Sequence of the Canadian Cordillera”

Outstanding Mention

The Research Grants Committee designated 17 other nominees as having proposals of high merit in conception and presentation:

Robert S. Anderson, University of Washington, for “A Study of Eolian Process and Form Using Examples from the Western U.S.”

Pamela C. Burnley, University of California, Davis, for “Metamorphic Petrology and Structure of the Funeral Mountains, Death Valley, California”

Sandra J. Carlson, University of Michigan, for “The Brachiopod Hinge Mechanism: Origin, Evolution, and Functional Morphology”

Joy Anne Miller Crisp, Princeton University, for “The Compositional Zonation and Nature of Emplacement of Ash Flow ‘E’ on Gran Canaria, Canary Islands”

Julie M. Dyer, University of Minnesota, for “Isotopic Examination of Mid-Tertiary to Recent Volcanism of Western Turkey: Evolution of a Magma Source in a Changing Tectonic Environment”

Christopher J. Fridrich, Stanford University, for “Geology and Petrology of the Grizzly Peak Caldera, Sawatch Range, Colorado”

Anita Grunder, Stanford University, for “The Calabozo Marine Volcanic System—The Origin of Compositional Zonation in Intermediate Magma: The Loma Seca Tuff; II. Structure of the Resurgent Calabozo Caldera”

Neil F. Hurley, University of Michigan, for “Geology of the Oscar Range Oolite Complex, Canning Basin, Western Australia”

Robert B. Jacobson, Johns Hopkins University, for “Geomorphic Timescales in an Appalachian Plateau Watershed, Buffalo Creek, West Virginia”

Peter Boushall Kelemen, University of Washington, for “The Big Jim Complex, Chiwaukum Mountains, North Central Cascades, Washington”

Thomas C. Moyer, Arizona State University, for “The Geochemical and Volcanologic Evolution of a Bimodal Volcanic Center in Arizona”

Andrew A. Nyblad, University of Wyoming, for “Magnetic and Thermal Investigation of the East African Rift Zone in Tanzania”

Hugh Edward O’Brien, University of Washington, for “Petrologic and Geochemical Investigation of the Bimodal Alkali-rich Volcanics of the Highwood Mountains, Montana, USA”

Kristin E. Orr, University of Washington, for “Structural Relationship between the Thompson Assemblage and the Highgrade Rocks of Kettle and Okanagan Domes, Northeastern Washington and Southern British Columbia”

Peter J. Vrolijk, University of California, Santa Cruz, for “Vein Systematics: Paleohydrology of the Kodiak Accretionary Complex”

Gary R. Wilkins, University of Tennessee, for “Quaternary Paleocology of Central Kentucky: Implications for Vegetation Succession and Deciduous Refugia”

Charles D. Winker, University of Arizona, for “Late Paleozoic Paleogeography and Depositional Systems of Northeastern Mexico”

Others Recommended for Grants


1984 Applications Available

Forms and detailed instructions for applying for 1984 GSA Research Grants are available on request from Executive Director, Geological Society of America, P.O. Box 9140, Boulder, CO 80301. Applications must be postmarked by February 15, 1984.

PEOPLE

Maxim K. Elias
Lincoln, Nebraska
May 6, 1982

Robert M. Groten
Swarthmore, Pennsylvania
December 26, 1982
**1984 GSA Section Meetings and Annual Meeting**

**Northeastern Section**  
Holiday Inn & Biltmore Hotel  
Providence, RI  
March 15-17, 1984

**Abstract Deadline: October 19, 1983**  
Submit completed abstracts to  
Prof. Peter Gromet  
Dept. of Geological Sciences  
Brown University  
Providence, RI 02912  
(401) 863-3338

**South-Central Section**  
University of Texas at Dallas  
Richardson, TX  
March 26-27, 1984

**Abstract Deadline: November 7, 1983**  
Submit completed abstracts to  
Dr. Richard Mitterer  
Geosciences Program  
Univ. of Texas at Dallas  
P.O. Box 688  
Richardson, TX 75080  
(214) 690-2401

**North-Central Section**  
Southeastern Section  
(joint meeting)  
Hyatt House  
Lexington, KY  
April 4-6, 1984

**Abstract Deadline: November 9, 1983**  
Submit completed abstracts to  
Dr. John Thrailkill  
Dept. of Geology  
University of Kentucky  
Lexington, KY 40506  
(606) 257-3758

**GSA Annual Meeting**  
November 5-8, 1984

**Abstract Deadline: June 11, 1984**  
Send completed abstracts to  
Abstracts Coordinator, GSA  
3300 Penrose Place  
P.O. Box 9140  
Boulder, CO 80301  
(303) 447-8850

**Rocky Mountain Section**  
Fort Lewis College  
Durango, CO  
May 11-12, 1984

**Abstract Deadline: December 19, 1983**  
Submit completed abstracts to  
Dr. Jack A. Ellingson  
Dept. of Geology  
Fort Lewis College  
Durango, CO 81301  
(303) 247-7934

**Cordilleran Section**  
Anchorage Convention Facility  
Anchorage, AK  
May 30-June 1, 1984

**Abstract Deadline: January 9, 1984**  
Submit completed abstracts to  
Dr. John N. Davies  
903 Koyukuk Avenue North  
University of Alaska  
Fairbanks, AK 99701  
(907) 474-7190

**NSF ANNOUNCES PRESIDENTIAL YOUNG INVESTIGATOR AWARDS PROGRAM**

A new program of research awards to the nation's most outstanding and promising young science and engineering faculty, initiated by the National Science Foundation (NSF) at the request of President Reagan, is expected to help universities meet a wide demand for highly qualified personnel for academic and industrial research and for teaching.

The Presidential Young Investigator Awards will provide cooperative research funds from $25,000 to $100,000 per year for up to five years to a maximum of 200 young science and engineering faculty each year. "Young" in this case means faculty who are no more than seven years beyond receiving the doctorate degree. The program is aimed at providing the incentive to remain on campus to those top-quality faculty members who would educate the students needed by industry. The program calls for cooperative funding by the industrial sector.

Minimum awards will consist of $25,000 of Foundation funds. To help forge strong links between the academic and industrial sectors, NSF will provide additional funds of up to $37,500 on a dollar-for-dollar matching basis for contributions from industrial sources. The institutions concerned will be responsible for providing full academic-year salary for each awardee and arranging for the industrial support.

NSF expects that in the first year up to 100 awards will be made in engineering fields, up to 60 in mathematical and physical sciences, up to 25 in the biological sciences and up to 15 in the astronomical, atmospheric, earth and ocean sciences.

U.S. institutions granting doctorates in fields supported by NSF may nominate outstanding faculty members who have received their doctorates after September 1, 1976, and who hold full-time, regular appointments in tenure track or tenure positions when nominated. Graduate and postdoctoral students who have accepted appointments to such positions may also be nominated.

Nominations are open to citizens or nationals of the United States and permanent residents of the U.S.

Individuals nominated may conduct research in any branch of the mathematical, physical, and biological sciences and engineering. NSF will emphasize those fields where there are substantial needs for faculty development.

For further information: Presidential Young Investigator Awards, National Science Foundation, Room 414, Washington, DC 20550; (202) 357-7536.

**SPECIMEN OF THE MONTH**

No wonder Helicoprion became extinct. Unlike more modern sharks, which shed teeth as they are replaced by new ones, Helicoprion retained all its older teeth and buried them in a complex spiral in its jaw. That many impacted teeth would drive anyone to extinction.

This unusual specimen of Permian age (more than 180 m.y. old) is from phosphate mines in the Phosphoria Formation, near Soda Springs, Idaho, and was a gift to GSA from the Department of Geology, Idaho State University, Pocatello, through H. Thomas Ore. You are cordially invited to view Helicoprion when you visit your Society's headquarters in Boulder, Colorado.

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GSA NEWS & INFORMATION, JULY 1983
CENTENNIAL NEWS

by Allison R. (Pete) Palmer

DNAG Participation Continues To Grow

Recently completed computerization of the DNAG files has permitted us to compile a summary of the affiliations of the contributors to the 10 volumes of The Geology of North America that have had organizational workshops through April of 1983. They represent 89 universities, 17 provincial and state geological surveys, 19 oil or mining companies or consulting firms, 18 countries, and 17 national agencies of the United States, Canada, Mexico, Central America, and South America. Still to be compiled are the data on individuals and their affiliations for the 9 volumes of The Geology of North America being produced by the Geological Survey of Canada and for the remaining 8 GSA-produced volumes that have not yet had organizational workshops. And there are the contributors to the Centennial Field Guides ... etc. Well over 500 individuals are now involved in this project.

Financial support has been received from 45 organizations and 750 individuals. If you are not yet a supporter or a contributor, now is the time to become a participant in the celebration of GSA's Centennial. Contributions should be made to the DNAG Fund of the GSA Foundation.

There's a Leprechaun in the Basement

By Lee Gladish

Go down into the basement of GSA, take a turn past the large storage room, turn again past the computer room, and then left at the loading dock and you will probably find a young man with sparkling dark eyes smiling at you from the other side of his jet-black beard and a big stack of mail. This is Shawn Collins, and he is the alpha to omega of GSA's internal mail system.

All of GSA's departments depend heavily on the mail, as evidenced by the sacks that arrive and depart each day and the clamor that arises if it is delayed. That's why Shawn's first duty each day, through Boulder's nice weather or its December, February, and May blizzards and/or high winds, is to head to the postal annex where P.O. Box 9140 is located. He throws the sacks and packages in the back of GSA's 1966 Ford panel truck and then heads back to the headquarters building, where he sorts the mail, with a background of classical music on his radio.

The speed of Shawn's reading as he quickly sorts the mail is partly due to his voracious appetite for reading—just about anything; fantasy, science fiction, and mysticism are favorites.

An envelope from Sweden, China, or one of the Spanish-speaking nations will give Shawn reason to pause. He speaks and reads Swedish well, understands Spanish, and knows some Chinese, all self-taught. He has traveled in Sweden, Switzerland, and England and hopes to get back to Europe and go to Asia and South America.

At mid-morning the mail has been sorted and distributed, some early outgoing mail has been collected, and Shawn turns to a different set of duties. Orders for publications must be delivered to the warehouse, a deposit must be made at the bank, and perhaps something ordered from a local supplier must be picked up.

Early afternoon finds Shawn back at his mail duties. Since morning the Administrative office has worked up an important mailing to Council members that absolutely must go out today; Shawn obliges. The Marketing Department has produced a bulk mailing to let some individuals who signed up at a Section meeting know the price of that brand-new Memoir; Shawn will take care of it. The Membership Department has a stack of dues in-voices that must go into the mail; no problem for Shawn. The Meetings Department shipped a package two weeks ago that didn't reach its destination; Shawn will put a tracer on it. The Production Department has checked the proofs for a book in process. Those proofs "absolutely positively" have to be in Ann Arbor, Michigan, by tomorrow; Shawn sees to it. The Publications Department has some manuscripts that must be mailed to reviewers, and galley proofs for a new book must go to authors in Germany, Australia, Thailand, and Lawrence, Kansas; Shawn knows how.

Shawn's job reaches several peaks during the year—just before the Annual and Secton Meetings, when dues statements are mailed, and before GSA Council and committee meetings.

"Other than those," Shawn says, "things run on a fairly smooth basis."

GSA's other mailings—fulfillment of subscriptions for Geology, GSA Bulletin, this newsletter, the Membership Directory, Abstracts with Programs volumes, and a few others—are handled by contract mailing firms.

Shawn worked with a banking firm before joining GSA in September 1982. His current highest off-the-job interest (after fixing a gourmet meal each evening) is teaching himself computing on his new Commodore VIC 20.
Publications Committee Assesses Success, Problems
By Faith Rogers

The backlog of manuscripts awaiting publication in the Bulletin is just about gone and efforts are being made to reduce the acceptance-to-publication time to 4-5 months. Meanwhile, submissions to Bulletin and Geology continue to increase, and books are being published at a steady rate, according to reports presented to the Publications Committee at its spring meeting held April 23, 1983, at GSA headquarters in Boulder.

Committee members include Chairman and GSA Councilor Robert D. Hatcher, Jr. (University of South Carolina), William A. Thomas (University of Alabama), Eldridge M. Moores (University of California, Davis), Campbell Craddock (University of Wisconsin), John C. Reed, Jr. (U.S. Geological Survey, Denver), John W. Rold (Colorado Geological Survey), Charles L. Pillmore (U.S. Geological Survey, Denver), and, not in attendance, Councilor Maria Luisa B. Crawford (Bryn Mawr College).

Bulletin Submissions Up
Bulletin Editors Bob Hatcher and Bill Thomas reported that the backlog they inherited when they began their stint in fall 1981 has been eliminated with the additional pages allocated for the journal in 1982 and 1983. Manuscript submissions have increased, however. In 1982, 228 papers were submitted to the Bulletin; 120 papers were accepted and 51 were rejected. As of April 30 this year, 83 manuscripts have been submitted (a 9 percent increase over a comparable period in 1982); 32 papers have been accepted and 17 rejected.

Time from acceptance to publication is now 10-12 months, Hatcher and Thomas told the committee. This period includes author review of copy editing, typesetting, author check of galley proofs, layout of articles, and printing. The Editors want to reduce this time to 4-5 months. They are asking authors, reviewers, and Bulletin Associate Editors to help cut the size of manuscripts by condensing text and by putting some tables and all appendices into GSA’s Data Repository.

Geology Activity Increases
Geology Editor Eldridge Moores reported that manuscript submissions continue to increase. In 1982, 279 papers were submitted to Geology; 157 papers were accepted and 84 were rejected. In the first 4 months of 1983, Geology has received 102 manuscripts (a 9.7 percent increase over a comparable period in 1982); 65 papers have been accepted and 30 have been rejected.
Moores has been insistent that authors condense papers, and their compliance, coupled with the increased number of pages allocated for Geology, has produced an average of 12 articles per issue so far in 1983, compared to an average of 8.4 in 1982.

Moores has recruited geologists in industry and applied fields for Geology's Editorial Board in an effort to attract a greater variety of articles. He also reported to the committee the results of the questionnaire about Geology published in the January 1983 issue. Answers to the questionnaire indicate that the journal is fulfilling its role as a means of rapid publication of short papers on new concepts and that its readers want to see more papers on applied geology, public policy, and current research—and some humor.

Books Editor Formulates Review Guidelines

Campbell Craddock, appointed GSA Books Editor in November 1982, reported a steady flow of manuscripts for Memoirs and Special Papers. As of April 30, GSA has published 2 Special Papers, 1 Memoir, and 1 Microform Publication in 1983. Six Memoirs and Special Papers are now in press, and another 6 are in progress. Craddock is working on guidelines for authors and reviewers to help determine whether a book manuscript is well organized, complete, and salable.

Few Maps on Tap

The number of maps submitted for GSA's Map and Chart Series remains small, Editor Jack Reed told the committee, perhaps because fewer maps are being produced by geologists. The one Map and Chart Series publication so far in 1983 is an 86-map atlas. Six more maps are in press or in preparation. Reed has developed a detailed guide for reviewers for the MC Series.

Data Repository Grows

The GSA Data Repository, which contains supplementary material—tables, appendices, and the like—for articles in the Bulletin and Geology, was established in 1974. Additions to the repository have increased in 1983, as the Bulletin and Geology Editors encourage authors to put backup data for their papers there, relieving some of the space crunch in the journals. Material in the repository is available on request, as stated in a footnote to an article with supplementary data. When a request comes in, the material is photocopied at GSA headquarters and sent to the requester. There is no charge for the service. The Publications Committee agreed that duplicates of everything in the repository should be stored away from headquarters as a backup safety measure. Implementing this recommendation requires Council approval.

Abstract Deadline

Noting that the lead time now required for submitting abstracts for GSA's annual meeting can preclude inclusion of important data, the Publications group agreed to recommend that the Program Review Committee (PRC) reduce that lead time. The recommendation includes an offer to help the PRC solve the problem of the early deadline for abstracts.

Next Meeting, Nominations

The Publications Committee will meet again at GSA's annual meeting, in Indianapolis in October. The committee will need two new members, to replace Chuck Pillmore and John Rold, whose terms end this year. If you want to nominate someone for the Publications Committee for 1984-1986, contact Brian J. Skinner, Dept. of Geology, Yale University, New Haven, CT 06520; phone (203) 436-1073, or GSA's Administration, P.O. Box 9140, Boulder, CO 80301, phone (303) 447-2020, before the end of July. (See the April 1983 issue of News & Information, p. 56-57 for details.)
NEW MEMBERS

The following 523 Members have been elected to Membership by Council action during the period from September 1, 1982, through February 28, 1983 (* indicates transfer from Student Associate to Member).

Dallas H. Abbott
Beth S. Abrams
Dawn R. Ackerman
Ronald H. Affolter
Hassan M. Ali*
Mark R. Alvis*
Mohammed S. Amen
Mark H. Anderson
John L. Appel*
Sheigo Aramaki
Steven M. Aronoff
Allan H. Atkinson
Brian F. Atwater
Harry S. Audell
Timothy D. Ault
Robert A. Ayuso

Miriam Baltuck*
Cali J. Barnes*
Melanie A. W. Barnes
Jeanie Barnett*
Theodore P. Barnhard
Stephen F. Barrett*
James W. Batchelor
Nancy J. Bauch
Raymond J. Beach
L. Sue Beard*
Thilo G. Bechstaedt
Raymond E. Beiersdorfer*
William M. Belkin
Bruce A. Benoit
D. Joan Benson
Pilimon L. Benyamin
Linda Lee Berg
S. Jane Bertschinger
Mary Lou Beyvier*
David A. Bickford
John S. Biedenharn*
Ralph L. Biel
Bruce P. Birge, Jr.
Richard G. Bizub
Malvin Bjoroy
Geoffrey A. Black
Robert E. Blackett
Jeff L. Bliss
Jim M. Bloomfield*
Gregory D. Bly
Paul A. Bodin
Gilbert Boillot
G. A. Bollinger
William R. Bolton*
Jeffrey L. Bowen*
Penelope Ann Bowen*
Stephen D. Boyd
Harold S. Boyne
G. Robert Breckenridge*
Thomas W. Brannon
Mary L. Bremer
Alan L. Bressler
Eugene Brickman
Stephen S. Briggs*
Sean D. Broadhead
William E. Brooks
David M. Brown
Roger B. Brown
Jeffrey A. Bruneau
William A. Bryant

Karim E. Budding*
John C. Bullock
Tim Burmeier
Adam W. Burnett
Arthur B. Busbey*
Steven E. Bushnell*
Noralyn J. Caduff
Katherine G. Caldwell
Donald E. Calhoun III*
Gary R. Cameron
Bruce S. Campbell
Andrew Cardamone
Don F. Carlos
Timothy R. Carr
Bruce Applegate Carter*
Paul L. Cepulis
Julie A. Chambers*
Arthur E. Champagne
James G. Clark
Vickie L. Clay*
David B. Codding*
Jennie E. Coe
Andrew S. Cohen*
David L. Cole
James D. Collier*
Cathy L. Connor*
Michael O. Cook*
Kevin P. Corbett
Mark N. Corbet
Susan H. Corderman
Rodolofo J. J. Corona-Esquivel
Barbara A. Cosens
Robert I. Coward*
Russell D. Crawley
Robert M. Creed
Thomas P. Cronin
Vincent S. Cronin*
Don R. Crowcroft*
Thomas J. Cullin
Lana A. Czerinowski*

William E. Daly
Christopher S. Dawson
Mark T. Davin
Michael T. Dealy
John D. Dean
Douglas M. Deason
Glenn R. Dembrow
Carlos A. Dengio*
Neal R. Desmarais*
Douglas B. Dickey*
Peter A. Dickson
Wesley W. Diehl
John A. Diemer*
Eric J. DiExposito*
Rebecca L. Dodge*
James M. Doeburg
David J. Doherty
David M. Dolberg
Eugene W. Domack
Leo A. Domahue
Bruce J. Douglas*
Marc M. Druckman*
Frank T. Dulog
Lance C. Duncan
Ned R. Dunkin, Jr.

Dennis G. Dunlap
Thomas Dunne
Gary J. D'Urso
Shirley P. Dutton
J. Russell Dyer*
Robert M. Easton*
Karen Maxey Edelson*
Janell D. Edman*
William G. Elton
Kyle D. Emerson
Susan C. Erikson
Valerie M. Ewing*
Nicholas Eyles
Mark H. Fahan
Paul H. Fairbanks
G. Thomas Farmer, Jr.
Christine M. Farrans*
Alan N. Federman*
Alton D. Ferrell
Martin A. Fife*
Anthony A. Finnerty
Clark S. Fletcher
John J. Flynn*
Sara S. Folan*
Jeffrey Y. Foley
Norman O. Frederiksen
Mark P. Frenzel
Terrence J. Frest*
Jenny C. Frywalt*

Gregory L. Gabel
John V. Gadd
Kathleen E. Galloway*
David L. Garner
Grant Garven*
Tiber Gazparrik*
R. Mark Gasser*
Dale A. Gaudreau*
John W. Geissman
Joseph P. George*
Mark P. Germinaro*
Lawrence M. Gilpin
Gary H. Girty
James R. Giusto
Lori B. Glassgold*
William D. Glover
Patrick J. Gooding
Robert G. Goodwin*
Steven P. Gordy
John P. Graham*
V.J.S. Grauch
Robert A. Grazer*
Peter H. Grenley
Stephen M. Greenlee*
Jay M. Gregg
Gerald J. Grimes
Marianne C. Guiffanti
Kevin P. Guilleau*
Gerald T. Lay, Jr.*
Leah J. Gundy
David A. Gust*
Richard C. Haack
Charles A. Haddox
Janet A. Hagerty*
James W. Halvorson
Janet Griswold Hammond*
Patricia M. Hanbury*
Brice Handley
Francis D. Hansen
Richard E. Hanson*
Lucy E. Harding*
James F. Hardwick, Jr.
Anita G. Harris
W. Burleigh Harris
Edward J. Hasenohr*
Donald M. Haskins
Ernest C. Hauser*
Wayne D. Hayden*
John M. Hayes
Martha A. Hayes
Lynn David Haynes
David R. Hazen
Donald F. Heinrichs
Fredrick W. Helms
Tucker F. Hentz
Herold Hernandez
Robert S. Hildebrand*
Paula A. Hoffman
Robin T. Holcomb
James M. Hollywood*
Wendel J. Hoppe
Kevin C. Horstman
Arthur W. Housmol
Perry C. Howard*
Judith M. Hoier
Donna M. Harbik
Scott S. Hughes*

Ken M. Ichikawa*
James C. Inasi
Kerry F. Inman*

David E. Jackson
Richard A. Jackson
Donald M. Jacobs
Jeremy J. Jay
William S. Jefferson*
Devon E. Jercinovic
Michael J. Jercinovic
Gregg A. Jolson
Kurt J. Johnson*
Samuel Y. Johnson, Jr.*
Peter C. Johnston
Crandall D. Jones
Raymond H. Jones
Shannon E. Jones
Thomas F. Jostad

Eric T. Karlstrom
Kim Anne Kastens*
Kerry L. Keen*
Alice Repsher Kelley
Michael G. Kelley
Richard A. Kerr
Katherine A. Kilduff*
Robert S. Kimmel
Jo Ann Kimzey
John W. King*
Dorothy D. Kintas
Kent C. Kirkby

Russel A. Klasie II
Igor L. Kleopov
Robert P. Koeppen
Melissa M. Kolb*
Walter J. Knope*
Deborah A. Kopieck
Michael H. Kortenhof
Kenneth A. Krahelec
Lawrence A. Kriese*
Charles S. Kuntz
Frederick W. Kunzinger, Jr.*
Lynne M. Kurkovic
Jeffrey P. Kutz*
Mark D. Kurz*

David D. Lambert*
Helen M. Lang*
Paul A. Larson
Gary L. Lass
John S. Latta IV
James R. Lauffer
Ken W. Laurie*
Charles G. Law*
David T. Lawton*
Timothy F. Lawton*
Mark Leach
George W. Lee, Jr.
Patrick J. Lehmann
Cecilia Lenk*
Stephen D. Lewis*
Michael F. Liebelt
Timothy G. Lignoul
Martin H. Link*
Paul W. Lipinski
Lorance D. Lisle*
Michael J. Liszewski
Richard F. Livaccari
Kathleen A. Locke*
Jeffrey S. Loen
Stephen T.洛fholm
William Looskoff*
Barbara J. Lowney*
Baerbel K. Lucchiata
Michael E. Lukk
Neil Lundberg*
Susan M. Lundquist-Thurston*
Alan J. Lutfeneger
John H. Lyle*

Ian D. MacGregor
James A. Madison
Peter Mogiore*
Richard Makdisi*
Lynn P. Malbrough
Lawrence M. Malincberg
Maryann M. Malincberg
Harrison E. Matson
Joel K. Matern
Joseph A. Mauch*
William J. Magee
Salvatore M. Mazzullo
Michael L. McCarty*
William C. McClelland*
William Douglas McCoy*
Daniel P. McCune
Timothy J. McCutcheon
Robert D. McDonal
NEW FELLOWS

The following candidates were elected to Fellowship by Council action at the May 1983 meeting.

Finley C. Bishop
Glenn R. Buckley
Donald A. Coates
Lindith Cordell
John Crawford Crelling
Jerome V. DeGraff
William Lloyd Effinger
Brooks B. Ellwood
Louis A. Fernandez
Albert J. Froelich
William L. Graf
George R. Hallberg
William J. Hinze
Rodney John Holcombe
David G. Howell

Peter J. Hudleston
Charles S. Hutchinson, Jr.
Peter E. Isaacson
Peter B. Jones
Diana C. Kamli
Erie G. Kaufman
Thomas B. Kellogg
Kerry Kelts
John Duncan Keppie
John S. Klasner
Andrew H. Knoll
Noel Krothe
Albert M. LaSala, Jr.
David A. Lienhart
Joseph S. Long, Jr.

Michael T. Lukert
Richard F. Mast
Judith Ann McKenzie
Gregory F. Moore
Clifford M. Nelson, Jr.
Rachel K. Paul
William H. Price
Erwin Seibel
Dale R. Sparling
Charles H. Thorman
Bruce H. Tiffney
Francis T.-Chuan Ting
Jean-Claude Vicente
David L. Weide
Robert G. Wiese, Jr.

Robert A. Stewart*
Joann M. Stock*
Thomas A. Stone*
Scott Mitchell Strathouse*
Robert G. Strauss
Tanya R. K. Strobhubschnucken* Paul K. Strother
David L. Sturrock
David Sussman*
Patricia A. Sutton*
Eric C. Swanson
Peter Szatmari
Larisa Szumakow*

Pradeep Talwani
Joseph J. Tanski
Bryan Topp*
Alberto J. Terrones L.
Robert E. Thomason*
James E. Thurber*
Stephan Pollock Thurston*
John R. Tillman
Carolyn A. Tucker*
Jan Tullis
Alvydas Tuminas*
Michael A. Tuohy
Terry R. Twymen*

Michael B. Underwood*
Nathaniel F. Usher*
Charles L. Vavra*
Richard F. Venter*
Alvaro Villamilzar
David H. Voorhees*

James Schmitt*
Mark E. Schmoll
Stephen R. Schutter*
Jeffrey N. Schuyler*
Anne M. Schwarz
Andrew R. Scott
David C. Scott
Frank P. Seabock
R. Thomas Segall
Elrod D. Sehneke
Wayne F. Seward
John W. Shuttleworth
Wayne F. Sigleo
Robert I. Simon
H. Catherine W. Skinner
Suzanne M. Smaglik*
Darlene C. Smalley
Richard C. Smalley
Arthur T. Smith
Cathlee Smith
Ellen D. Smith
Gerard T. Smith
Randall B. Smith*
David R. Smuin
Mindi B. Snoparsky*
George C. Solomon*
Bernd Sondors
Mohan R. Sood
Jean-Pierre Soulas
C. Scott Southworth
Jeffrey N. Spatz*
A. F. Spilhaus, Jr.
Carl I. Steelev
Deborah Debler Steele
Jack Steele
Gene M. Stevenson

(See next page for new Student Associates.)
NEW STUDENT ASSOCIATES

Listed are 702 Student Associates who became affiliated with the Society during the period from September 1, 1982, through February 28, 1983.

John E. Bretches
John J. Brice III
Richard C. Briceno
Jim Britt
Kenneth A. Broberg
A. Richard Brockman
Lynd D. Broede
Karl S. Bromley
Julia T. Brown
Mark C. Brown
Pamela T. Brown
Sara E. Brown
Terese L. Brown
Phillip C. Bryan
James V. Bunker
David A. Burke
John C. Burson
Cameo A. Burt
Richard M. Busch
James A. Bush

Nancy M. Caffall
James P. Calzia
Allan G. Campbell
Mark B. Campbell
Martin A. Cannon
Jeffrey B. Cantrell
William A. Capaul
Mary E. Caress
Kenneth H. Carleton
Kristine D. Carter
Joseph G. Casey
Edward C. Cazier III
Mark A. Chapman
Burns A. Cheadle
Joseph R. Chepega, Jr.
Robert M. Chernow
Douglas C. Chichester
Allan T. Chiulli
Lisl G. Christianson
Peter E. Church
Catherine A. Cipolla
Philip F. Clappin
Charles W. Clark
Lee F. Clark
William T. Clopine
Curt W. Close
Richard Lee Clouser
Bernard J. Coakley
Millard F. Coffin
Daniel L. Colella
Brian D. Collins
Susan M. Collins
William H. Collins III
Faith S. Connolly
Kathryn F. Connors
Diane L. Conrad
Sandra C. Cooper
Helen E. Corbett
Winton C. Cornel
Robert S. Cowden
Richard W. Cranford II
Greg T. Cronham
J. Warner Cribb
Randolph J. Cumbee
David O. Cummings
Laura E. Cummings
Bruce Read Cushing
Matthew Czernek
W. Brian Dade
Lynn E. Daley
Paul M. Davidson
Gregory D. Deal
Jeff W. DeFreest
Richard F. DeLong
Joseph N. DiBenedetto
Jennifer L. Dienger
Michael J. DiMarco
Michael C. DiX
Andrea Donellan
Brigid J. Donnelly
Marianne C. Doyle
Leslie Anne Droege
Tom E. Dube
Joseph D. Duminuco
Maddo D. Dunn
Lorie A. Dunne
Keith D. DuPont
Gregory F. Durocher
James F. Durrett
Mary D. Dywski
Ily-Ping Leon Dzou
Cynthia J. Ebing
David P. Edwards
Virginia I. Edwards
Ted L. Eggleston
Ron Elan
Richard Elazarian
Ali A. El Makhrouf
Rebecca Elwood
Joan S. Estle
Richard W. Evoy
Carolyn H. Eyles
Richard E. Faflik
Sadat Feizinia
Sharon A. Ferguson
Mark A. Ferlin
Lynn J. Feucht
Malcolm S. Field
Michael J. Flaherty
Daniel W. Folan
Michael F. Follo
Deborah H. Forester
Robert J. Forest
Jeff A. Forgash
Lance M. Forsythe
Cary L. Foulk
Joel S. Fradell
Leah S. Frey
Roseb D. Frost
Craig S. Fulthorpe
James S. Gainey
Michael J. Gallagher
Lynette A. Gandil
John G. Gipson
Paul T. Gayes
Edward E. Geary
Beth C. Geiger
James E. Geitgey
Michael M. Gemmell
John W. Gehart
Diane W. Gesell
Suhas L. Ghatge
Jacqueline A. Giorno
Billy E. Giles
Gregory S. Giles
Joanne Glessner
Richard R. Gnat
David B. Goings
Paul B. Gold
John A. Golden, Jr.
Howard M. Goodman
Jodi L. Gorden
Richard R. Gottschalk
Carol A. Gotway
Helene M. Grall
David C. Greene
Laurence R. Greene
John A. Grischi
Louis H. Grifman
William F. Grissler
Effie A. Grossnickle
Matthew Gubitosa
Patricia L. Gunsch
Ronald Guiler
Cynthia J. Gwinn

Daniel J. Hafley
Katrln Hahn
Jonathan T. Hagstrom
Dominique R. Hall
Peter C. Hall
Michael W. Hamburger
Nasir A. Hamidzadeh
Joan E. Hamre
Eric F. Hanson
James G. Harcourt
Hughy E. Hardy
James B. Harlan
Jean M. Harper
John R. Hartley
Larry D. Hartzell
Stanley C. Hatfield
Gisela Haupt
Leah A. Haworth
Benjamin R. Hayes
Jennifer A. Hayward
Anna-Marie Hazelwood
Rand L. Hedberg
Carl A. Heshke
Robert E. Heide
Catherine L. Helseth
Diane A. Henderson
Russell S. Henderson
Rhonda L. Henry
Stephan P. Hertig
Richard H. Heyman
Kristy F. Hoeksema
Frank L. Hillemeyer
Dorinda S. Hines
Linda A. Hohert
David A. Hodel
Drew D. Hoffman
Robert L. Hooper
David C. Hopp
Todd B. Houch
Betty Green Houston
Harold S. Hovecho
Susan D. Howes
Loren M. Hubert
Ian D. Huggins-Luff
Gregory R. Hulet
Erik A. Hund
Jacqueline E. Huntton
Jeffrey P. Hutton
Alisa K. Hylton
C. Kui-Bin Im
Juwelle A. Imad
Douglas P. Imperato
Hilary A. Inyang
John S. Isby
Gregory W. Ishphord

Daniel P. Jackson
Marian L. Jackson
Michael J. Jackson
R. Bradford Jackson
Susan R. Jackson
Christian E. Jahrling
Janelle L. Janssen
David H. Jastram
Lori A. Jeldlic
Gordon A. Jenner
Robert H. Jennings
John M. Jensen
Diane M. Johnson
Katherine Johnson
Lance A. Johnson
Michael J. Johnson
Robert E. Johnson
W. Howard Johnson
John Edward Johnston
Edward J. Jones
Mark L. Jones
Mary L. Jones
Scott W. Jones
Tracy Jones
William E. Jones
Thomas C. Juster

Ray N. Kahler
John M. Kammer
Barry C. Kane
Lisa Kaplan
Margaret F. Kasim
Tanaya S. Kasper
Randy L. Kauth
Keith L. Katzer
Dennis R. Kerr
David L. Kidder
Mary E. Kile
Michael L. Kincer
Charles S. King
William M. Kite
Michael P. Klitzner
Kristy F. Hoeksema
John P. Knightly
Deborah A. Kubis
Julie A. Kohout
Daniel J. Kontak
Andrew A. Kopana
Marwan M. Koudmani
Jane Kozinski
Michael A. Kozischek
Jennifer L. Kraft
Candace K. Krebs
Kim G. Kroeger
Erik J. Krostad
Robert W. Kubler
Valerie Ann Kulyk
Timothy M. Kusky
Kevin J. Kweton
Looking for a new job?

The GSA Employment Service offers an economical way to locate a new position in the field of geology. Potential employers utilize the service to find the qualified individuals they need.

You may register any time throughout the year, and your name will be provided to all participating employers seeking individuals with your qualifications. If possible, take advantage of GSA's Employment Interview Service conducted each fall in conjunction with the Society-wide Annual Meeting (this year in Indianapolis, Oct. 31-Nov. 3) where potential employers will be available for face-to-face interviews.

To register, complete the application form on the following page, make up a one-page typed resume, and mail with your check, money order, or MasterCard or VISA number to the address given below. A one-year listing for GSA Members and Student Associates in good standing is $20, for nonmembers, $40.

**Note to Applicants:** Completed application forms, a one-page resume, and your $20 or $40 payment must be received at GSA headquarters no later than August 22, 1983, in order for your record to be included on the computer printouts sent to the employers prior to the meeting. **Get maximum exposure by getting your forms in early, and don't forget to indicate whether you are attending the meeting for interviewing purposes!**

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Looking for a new geoscientist employee?

Your nation-wide search for geoscientists can be as simple as filling out the Employer's Request for Earth Science Applicants on the following page. You specify educational and professional experience required and specialty area or areas, and GSA's computerized file will take it from there. You will be provided with a printout that includes applicants' names, addresses, phone numbers, areas of specialty, type of employment desired, degree held, years of professional experience, and current employment status. For 1983 the cost of a printout of one or two specialty codes is $120. Each additional listing is $40. A printout of the entire applicant listing is $325.

GSA also conducts the Employment Interview Service each fall in conjunction with the Society-wide Annual Meeting (this year in Indianapolis, Oct. 31-Nov. 3). Interview space may be rented in half-day increments, and our staff will schedule all interviews with attending job applicants for each recruiter. Additional services available for employer participants include a message service, complete listing of applicants, copies of resumes at no additional charge, and posting of all vacancies.

**For additional information and submission of forms, contact**
Clara Hodgson, Membership Coordinator
Geological Society of America
P.O. Box 9140, Boulder, Colorado 80301
(303) 447-2020

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**SPECIAL NOTICE ABOUT 1984 ABSTRACT FORMS**

For 1984, there will be only one form. It may be used for any of the five 1984 section meetings and for the annual meeting as well. It is clearly marked in this manner.

These new 1984 abstract forms are available now. Each form includes detailed instructions for preparation.

Forms are being widely distributed to most university and college geology departments, to all major U.S. Geological Survey offices, to all state geologist offices, to many business and industrial offices, and to all those who submitted abstracts for 1983.

If you need forms and cannot find one locally, please complete the coupon below and mail it. They will be provided promptly.

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**1984 ABSTRACT FORM REQUEST**

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

*Please send _____ copies of the 1984 GSA abstract form. I understand that the same form may be used for all 1984 GSA meetings — the five Section Meetings and the Annual Meeting.*

Name

Organization

Address

City __________________________ State ___________ Zip ___________

___ Please check here if you have not been receiving mailings about GSA's publications sales but would like to be added to our mailing list.
APPLICATION FOR EMPLOYMENT MATCHING SERVICE

(Please type or print legibly with black ink)

NAME
(last name first)

Mailing Address

City ___________________________ State ______ Zip Code ______

Date Available __________ Telephone (area code) _______ Business ______ Home ______ Visa ______

EXPERIENCE

Must use specialty codes listed below. Choose as many as three that best describe your expertise in order of importance. MUST have at least one listed.

* 1. __________ 2. __________ 3. __________

PRESENT SPECIALTY

Choose one from codes listed below

YEARS EXPERIENCE IN THIS SPECIALTY

PRESENT EMPLOYER

May he/she be contacted? Yes ____ No ____

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

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

Administrative _______ Exploration/Production _______ Field _______ Research _______ Teaching _______

Total geological working experience _______

Foreign languages Spoken (fluency) _______ Written _______

ACADEMIC TRAINING

College or University __________________________ Degree (rec’d or expected) _______

Year _______ Major _______ Minor _______

Postgraduate work beyond highest degree in (field) __________________________ Number of years _______

SPECIALTY CODES

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

100. Economic Geology ___________ 223. stable isotopes ___________ 352. statistical geology ___________

101. coal geology ___________ 224. unstable isotopes ___________ 400. Mineralogy ___________

102. geothermal, etc. ___________ 225. Geomorphology ___________ 401. crystallography ___________

103. metallic deposits ___________ 250. Paleomagnetism ___________ 402. clay mineralogy ___________

104. nonmetallic deposits ___________ 300. Geophysics ___________ 410. Musum (curator) ___________

105. mining geology ___________ 301. exploration ___________ 412. Oceanography ___________

120. Engineering Geology ___________ 302. Paleomagnetism ___________ 421. marine geology ___________

121. rock mechanics ___________ 303. theoretical ___________ 422. coastal geology ___________


151. public education & communication ___________ 322. ground water ___________ 451. invertebrate ___________

200. General Geology ___________ 323. surface water ___________ 452. vertebrate ___________

220. Geochemistry ___________ 330. Library ___________ 453. micropaleontology ___________

221. organic ___________ 350. Mathematical Geology ___________ 454. paleobotany ___________

222. inorganic ___________ 351. computer science ___________ 455. paleoecology ___________

500. Petroleum Geology ___________ 650. Sedimentology ___________

501. exploration ___________ 700. Seismology ___________

502. subsurface stratigraphy ___________ 720. Stratigraphy ___________

520. Petrology ___________ 721. Cenozoic ___________

521. igneous ___________ 722. Mesozoic ___________

522. metamorphic ___________ 723. Paleozoic ___________

523. sedimentary ___________ 724. Precambrian ___________

550. Planetology ___________ 750. Structural Geology ___________

600. Regional Geology ___________ 751. tectonics ___________

620. Remote Sensing ___________ 752. tectonophysics ___________

621. photogeology ___________ 800. Volcanology ___________

622. photogrammetry ___________

630. Science Editing ___________

* Resume must be attached. Only one page typewritten on one side will be accepted for reproduction to employers. Include concise detail of work experience and college majors and minors on degrees.

* Fee: $20 if you are a Member or Student Associate of GSA in good standing (Member # ___________ ); $40 if you are not a member of GSA. Payment in U.S. funds (check or money order, or charge information, MasterCard or Visa) MUST ACCOMPANY FORM.

MAKE CHECK PAYABLE TO THE GEOLOGICAL SOCIETY OF AMERICA

☐ Check or Money Order _______ Card Expires _______ Mo Yr _______

☐ MasterCard _______ Visa _______

Card Number _______ _______ _______ _______ _______

Signature _______ (Required for credit card payment)

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

I will attend the 19____ GSA Annual Meeting in _______

*SIGNATURE (required)

* These items are absolutely necessary to process this application

This application will be active for 1 year ___________
EMPLOYER'S REQUEST FOR EARTH SCIENCE APPLICANTS

(Please type or print legibly with Black Ink)

Name _______________________________ Date _______________________________

Organization _______________________________

Mailing address _______________________________

R _ _ _ _ _ _ - 2

City ___________________ State ________ Zip code ________ Telephone number ________

AREA code ________ Number ________

SPECIALTY CODES (see list below)

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

1. ______ 2. _______ 3. __________ 4. ________ 5. __________ 6. ______

SPECIALTY CODES

100. Economic Geology 222. inorganic 350. Mathematical Geology 453. micropaleontology 621. photogeology
101. coal geology 223. stable isotopes 351. computer science 454. paleobotany 622. photogrammetry
102. geothermal, etc. 224. unstable isotopes 352. statistical geology 455. paleoecology 630. Science Editing
104. nonmetallic deposits 251. Pleistocene geology 401. crystallography 501. exploration 700. Seismology
105. mining geology 300. Geophysics 402. clay mineralogy 502. subsurface stratigraphy 720. Stratigraphy
150. Environmental Geology 303. theoretical 421. marine geology 522. metamorphic 723. Paleozoic
151. public education and communication 320. Hydrogeology 422. coastal geology 523. sedimentary 724. Precambrian
220. Geochemistry 323. surface water 451. invertebrate 600. Regional Geology 751. tectonics
222. inorganic 350. Mathematical Geology 453. micropaleontology 621. photogeology
100. Economic Geology 222. inorganic 350. Mathematical Geology 453. micropaleontology 621. photogeology
101. coal geology 223. stable isotopes 351. computer science 454. paleobotany 622. photogrammetry
102. geothermal, etc. 224. unstable isotopes 352. statistical geology 455. paleoecology 630. Science Editing
104. nonmetallic deposits 251. Pleistocene geology 401. crystallography 501. exploration 700. Seismology
105. mining geology 300. Geophysics 402. clay mineralogy 502. subsurface stratigraphy 720. Stratigraphy
150. Environmental Geology 303. theoretical 421. marine geology 522. metamorphic 723. Paleozoic
151. public education and communication 320. Hydrogeology 422. coastal geology 523. sedimentary 724. Precambrian
220. Geochemistry 323. surface water 451. invertebrate 600. Regional Geology 751. tectonics

Applicants seeking employment in:

□ Academic □ None □ None □ None
□ Government □ B.A. or B.S. □ 1-5 yrs □ 1-5 yrs
□ Industry □ M.A. or M.S. □ 6-plus □ 6-plus
□ Other □ Ph.D.

Minimum professional experience 

Experience desired (yrs)

□ Administrative □ None □ 1-5 □ 6-plus
□ Exploration/Production
□ Field
□ Research
□ Teaching

I am interested in interviewing applicants through the GSA Employment Service at the 19____ Annual Meeting in __________.

See attached sheet for current fee schedule.

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

Total fee enclosed . . . . $_________

or invoice requested . . . . $_________

Signature (required)

1/82
MEETINGS

GSA

Penrose Conferences
Blueschists and Related Eclogites
Bellingham, Washington, September 5-9, 1983
Conveners: Edwin H. Brown, Department of Geology, Western Washington University, Bellingham, WA 98225; Bernard W. Evans, Robert B. Forbes, and Peter Misch, Department of Geological Sciences, University of Washington, Seattle, WA 98195.

Cretaceous Climates
Florissant, Colorado, October 2-7, 1983
Conveners: Eric J. Barron, National Center for Atmospheric Research, P.O. Box 3000, Boulder, CO 80307; William W. Hay and Erle G. Kauffman, University of Colorado, Boulder, CO 80309.

The West African Connection
Riviera, France, January 1984
Conveners: John Rodgers, Department of Geology and Geophysics, Yale University, New Haven, CT 06520; Xavier T. Le Pichon, Paris University, 52 Rue Marilac, Trois-Rivières, France; Jean Sougy, Université de Paris, U.S. Geological Survey, St. Jerome Faculty of Science, Marseilles, CEDEX 13, France.

Processes and Products of Multistage Melting and Metamorphism in the Mantle
Apache Junction, Arizona, April 29-May 4, 1984
Conveners: Jane E. Pike, U.S. Geological Survey, 345 Middlefield Rd., MS 75, Menlo Park, CA 94025; Frederick A. Frey, Department of Earth & Planetary Sciences, MIT, Cambridge, MA 02139; Arthur L. Boettcher, Institute of Geophysics and Planetary Physics, University of California, Los Angeles, CA 90024; Frank M. Richter, Department of Geophysics, University of Chicago, Chicago, IL 60637.

Melanges of the Appalachian Orogen
Stephenville, Newfoundland, June 23-30, 1984
Conveners: Harold Williams, Department of Earth Sciences, Memorial University of Newfoundland, St. John's, Newfoundland A1B 3X5, Canada; Nicholas Rast, Department of Geology, University of Kentucky, Lexington, KY 40506; Brenna E. Lorenz, Department of Earth Sciences, Memorial University of Newfoundland, St. John's, Newfoundland A1B 3X5, Canada.

1983 International Conference on Permafrost
Fairbanks, Alaska.

International Symposium and Workshop on Borehole Geophysics for Mining and Geotechnical Applications

American Institute of Professional Geologists Annual Meeting
September 7-10, 1983, Jackson, Wyoming. Information: Gene R. George, Box 2775, Casper, WY 82601; (307) 265-9199.

American Mining Congress Annual Meeting

Association of Engineering Geologists Annual Meeting

Society of Mining Engineers Fall Meeting

Symposium on Neotectonics, Seismicity and Geologic Hazard in the Caribbean and Venezuela


Underwater Mining Institute
November 7-8, 1983, Madison, Wisconsin. Registration information: Gene Wookoo, Sea Grant Advisory Services, University of Wisconsin, 1800 University Ave., Madison, WI 53705; (608) 262-0905. Program information: J. R. Moore, Marine Science Institute, University of Texas, 200 East 261/2 St., Austin, TX 78705; (512) 471-4816.

North American Coal Petrographers
November 16-18, 1983, Merrillville, Indiana. Information: Dennis D. Kaegi, Inland Steel Research Laboratories, 3001 East Columbus Dr., Chicago, IN 46312; (219) 392-5800.

American Geophysical Union Fall Meeting

1984
Ocean Sciences Meeting

COMING IN AUGUST

Final Announcement for GSA and Associated Societies
1983 Annual Meeting, Indianapolis, October 31–November 3

Will include outline of technical program, preregistration and housing information and forms, field trip descriptions—and more!

Watch for the August issue of GSA News & Information and plan to join an estimated 5,000 geoscientists at GSA's 1983 Annual Meeting.
INSIDE

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Publications Committee Assesses Success, Problems ...................... p. 106