GSA
NEWS & INFORMATION

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Diversity Characterizes 1987 Honorary Fellows

Three geoscientists in diverse fields and geographic localities have been selected GSA Honorary Fellows this year. Named at the GSA Council meeting in May 1987 and honored at the Annual Meeting in Phoenix are Maria Bianca Cita of Milan, Italy; Mervyn Silas Paterson of Canberra, Australia; and Leo Y. Picard of Jerusalem, Israel.

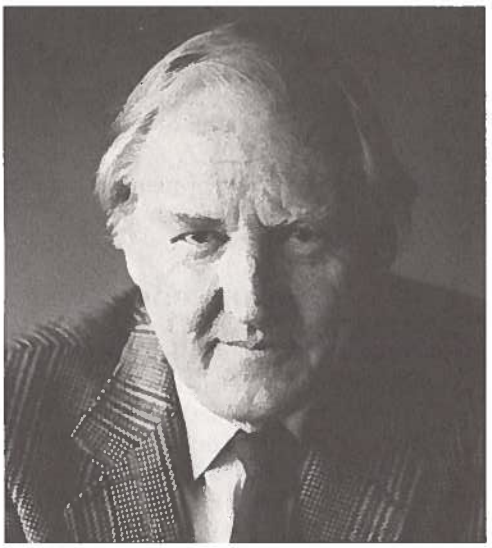
GSA Honorary Fellowships are awarded to internationally outstanding geologists who have distinguished themselves as geological investigators or who have rendered special service to the Society. Most Honorary Fellows live outside North America.

Maria Cita

After receiving her degree at the University of Milan, with highest honors, Cita went on to become one of the leading Italian geologists of the post–World War II era. She has been an eminent force in the development and application of studies of planktic foraminifera to stratigraphic problems, focusing on defining the fossil content of stratigraphic-type sections. She has served on various stratigraphic commissions.

In recent years, Cita's research emphasis has shifted more toward the field of marine geology, where she has been active in organizing and participating as chief scientist on numerous oceanic research expeditions. She was a member of the geologic team that discovered and recognized the profound significance of the deep-sea marine evaporites in the Messinian Mediterranean.

Maria Cita



Mervyn Paterson

In her capacity as professor at the University of Milan, Cita has inspired many students to develop an interest in the field of geology. The geological ranks of Italian universities and industries are filled with her former students and proteges. As a female scientist, she has been a forerunner in opening doors for a new generation of women geologists; she was one of the first two women to participate in a Deep Sea Drilling Project expedition, DSDP Leg 2 in 1968.

Cita has been an active member on the editorial boards of several international and Italian journals.

Mervyn Paterson

Paterson entered the University of Adelaide in 1941 at the age of 16, received an Interim B.Sc. at 18, and earned a Bachelor of Engineering at 20. He received his Ph.D. from the University of Cambridge in 1949. He is currently Reader in Crystal Physics at the Australian National University.

Paterson is known for his untiring search for the fundamental microscopic processes responsible for the deformational behavior of crystalline material. He foresaw the importance of dislocations, noting that the background in X-ray photographs may be used to estimate the densities of dislocations in deformed materials. His theory was used to interpret streaks on diffraction patterns from beaten gold foil, and it led to the idea that the contrast on electron micrographs was due to the phase change of the electron waves. He

(*continued on p. 238*)

Honorary Fellows (*continued from p. 237*)
was engaged in the design and construction of an accurate deformation apparatus capable of operating to high temperatures at high confining pressures, and his work on the fundamentals of plastic deformation in crystalline materials has led to unique achievements in high-temperature studies of minerals. Paterson's work also had an impact on transmission electron microscopy and was an important step in the development of TEM techniques.

Patterson's recent work has shed new light on the role that water plays in rock deformation, especially water-weakening effects.

Leo Picard

Picard received his Ph.D. from the University of Freiburg, Germany, in 1923, and a D.Sc. from the Imperial College, London, in 1930. Since 1934, he has been a professor at the Hebrew University of Jerusalem; he is currently senior emeritus professor and is considered the primary teacher of two generations of Israeli geologists. In 1950 he founded the Geological Survey of Israel, and he served as its first director.

A pioneer in groundwater geology and in water resource development in Israel and the Middle East, Picard developed methods of groundwater exploitation in limestone and basalt terrains. He also founded the Groundwater Research Center in Jerusalem.

Picard is the author of numerous papers on the tectonics, stratigraphy, and paleontology of Israel and surrounding regions.

Leo Picard

GSA is pleased to welcome these distinguished scientists to its roll of Honorary Fellows.

Conveners Announce Penrose Conference on Anorthosites

A GSA Penrose Conference, The Origin and Evolution of Anorthosites and Associated Rocks, will be held August 14–19, 1988, at the Diamond Guest Ranch, Chugwater, Wyoming. The conference will consist of three days of meetings interspersed with two one-day field trips to the Laramie Anorthosite Complex. Conveners are B. Ronald Frost, University of Wyoming; Donald H. Lindsley, State University of New York at Stony Brook; and E. Craig Simmons, Colorado School of Mines.

The purpose of this conference is to bring together petrologists and geochemists who are interested in the problems associated with anorthosite complexes and to explore the advances that have been made in the past 20 years on the petrology, geochemistry, and isotopic composition of these complexes. Among the problems to be discussed are the following:

1. What kind of parent melt gives rise to anorthosite complexes? Is it tholeiitic or alkalic melt from the mantle, or an ultrafeldspathic melt produced by high-pressure melting of amphibolites?

2. Is there more than one type of massif anorthosite complex? Do the hydrous and relatively oxidized anorthosites represent merely a different emplacement environment from the anhydrous and reduced complexes, or do they form through an entirely different process? What is the relation between massif anorthosites and anorthositic parts of layered mafic intrusions?

3. What is the relation between anorthosites and the ferrodioritic and mangaritic rocks that are commonly associated with them? Are the ferrodiorites and mangarites cogenetic melts that are not comagmatic, or are they the products of contaminated late-stage magmas from which the anorthosites have been extracted?

4. What is the origin of the Fe-Ti oxide ore bodies that are commonly found in anorthosite complexes? Are they produced from immiscible melts or are they merely massive cumulates?

Prospective participants should send a letter of application which outlines (1) their experience in the topic, (2) areas in which they might expect to contribute, and (3) their reason for wanting to attend the conference to B. Ronald Frost, Department of Geology and Geophysics, P.O. Box 3006, University of Wyoming, Laramie, WY 82071; phone (307) 766-4290. Deadline for applications is **March 1, 1988**. The registration fee, $460 for GSA members and $470 for nonmembers, will cover lodging, meals, field trips, and transportation to and from Stapleton Airport in Denver. Limited support may be available for a few graduate students who are actively involved in research related to anorthosite complexes. Those students who wish to be considered for financial support should indicate this on their applications.

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

CENTENNIAL NEWS

by Allison (Pete) Palmer

Field Guide Congratulations

The fifth Centennial Field Guide, for the North-Central Section, went to the printer in mid-September and will be available some time this month. Don Biggs did an able job of herding the final laggards into the fold and guiding this book to completion. Listed below are the 87 authors or co-authors who put forth the effort to immortalize some of the best geologic sites in the northern mid-continent. These bring the total number of contributors to the Centennial Field Guide series to an even 600!

R. R. Anderson
W. I. Anderson
W. I. Ausich
D. L. Biggs
T. W. Bjerstedt
N. K. Bleuer
K. B. Bork
B. A. Brown
B. J. Bunker
R. R. Burchett
E. H. Carlson
D. D. Carr
C. H. Carter
T. M. Dellapenna
R. F. Diffendal, Jr.
L. A. Dredge
R. M. Feldmann
L. R. Follmer
G. H. Fraunfelter
W. M. Furnish
R. J. Gentile
B. F. Glenister
H. H. Gray
J. C. Green
J. K. Greenberg
R. C. Gutschick
J. T. Hannibal
A. K. Hansel
W. A. Hasenmueller
H. B. Hay
A. W. Hebrank
P. H. Heckel
J. R. Hill
A. S. Horowitz
R. J. Jacobson
M. A. Jirsa
W. H. Johnson
J. Kalliokoski
S. M. Kelly
A. C. Kendall
E. B. Kisvarsanyi
J. Kluessendorf
D. R. Kolata
F. L. Koucky
D. R. Lawton
D. B. Loope
G. A. Ludvigson
J. S. Lynott
R. J. Malcuit
J. M. Masters
E. D. McKay III
R. M. McKay
D. G. Mikulic
B. B. Miller
J. D. Miller, Jr.
R. L. Milstein
G. B. Morey
W. J. Nelson
E. Nielsen
R. D. Norby
M. E. Ostrom
R. K. Pabian
J. Palmer
J. B. Patton
J. A. Person (Collins)
R. L. Powell
W. F. Read
R. C. Reed
S. P. Reidel
D. L. Reinertsen
C. B. Rexroad
D. R. Setterholm
R. H. Shaver
A. B. Shaw
D. L. Southwick
D. P. Stewart
J. A. Sunderman
J. B. Swinehart
J. P. Szabo
T. L. Thompson
S. M. Totten
C. B. Trask
M. R. Voorhies
W. J. Wayne
P. W. Weiblen
R. G. Weise, Jr.
B. J. Witzke

Book Progress

North America and Adjacent Oceans During the Last Deglaciation went to the printer in early October and should be printed and available before Christmas.

Bob Sheridan and John Grow, co-editors for volume I-2, *The Atlantic Continental Margin: U.S.*, the third volume of The Geology of North America to be completed, were at GSA in early October to check the galleys for last-minute corrections before the book was sent to the typesetter for final camera-ready pages. We are trying to have this book printed before the end of the year, but delays in receiving the final two chapters have made the timing tight. It will certainly have a 1987 publication date, however.

Other books keep inching toward completion, but as of this writing, just after Labor Day, it is not clear yet which book will be next. Several volumes of The Geology of North America are still at the mercy of one or two individuals.

The final two texts necessary to complete the South-Central Centennial Field Guide have been promised (again) no later than early October. If they are not further delayed, we may be able to complete the set of Centennial Field Guides this year.

DECADE OF NORTH AMERICAN GEOLOGY · DECADE OF NORTH AMERICAN GEOLOGY · DECADE OF NORTH AMERICAN GEOLOGY · DECADE OF NORTH AMERICAN GEOLOGY

Cole Memorial Research Award Applications for 1988

The Gladys W. Cole Memorial Research Award is for investigations of the geomorphology of semiarid and arid terrains in the United States and Mexico. It will be given each year to a GSA Fellow between 30 and 65 years old who has published one or more significant papers in geomorphology. Funds cannot be used for work already accomplished, but recipients of a previous award may reapply if additional support is needed to complete their work. The minimum amount of the award has been increased to $2500.

Application forms for the Cole Award may be obtained from the Research Grants Administrator, Geological Society of America, P.O. Box 9140, Boulder, CO 80301; phone (303) 447-2020. **Applications must be postmarked by February 15, 1988.**

Travel Grants Available for Joint Oceanographic Assembly 1988

The American Geophysical Union has received funds from the National Science Foundation to assist the travel of U.S. ocean scientists to attend the Joint Oceanographic Assembly in Acapulco, Mexico, August 23–31, 1988. Preference will be given to young scientists, but established researchers with interrupted research funding, administrators, and senior scientists may also be considered.

Application forms are available from AGU - MMP: JOA88, 2000 Florida Avenue, N.W., Washington, D.C. 20009. *Deadline for applications is March 1, 1988.*

FOUNDATION NEWS

1987—A Vintage Year for Contributions?

by Robert L. Fuchs

During the last two months of the year, it is common to review one's personal income tax picture and to look at various financial alternatives that will help to lessen tax liability. This year is certainly no exception; in fact, it is a year in which tax planning and charitable contributions take on a special importance. Like those particular vintage years in France when the rain and sunshine combine in just the right ratio to provide superb grapes that become choice wines, 1987 appears to be a year in which contributions will have unusual and special tax value to the individual.

The Tax Reform Act of 1986 is the reason for this vintage event. Many of the conventional deductions, such as those for interest, medical expenses, and sales taxes, have been sharply restricted or eliminated altogether. Charitable giving, however, came through the deliberations of Congress last year nearly unscathed. For taxpayers who itemize, deductions of cash and certain other kinds of property are still fully deductible against income, within certain limits.

While contributions are now one of the few remaining devices for lowering one's taxes, the transition effect of bringing the Tax Reform Act of 1986 into full force makes charitable deductions for many people worth more this year than in 1988 and beyond. If Congress and the government keep to the published tax rate schedules, the tax rate for most people will be lower next year and thereafter. Thus, gifts made this year are worth more to the individual because these gifts will save the taxpayer more under the higher tax rates for 1987.

Gifts of Cash

The most common form of charitable giving is cash. A check to the GSA Foundation is simple to prepare and send and can be easily documented for your personal tax records. A cash gift is the simplest form of gift for the Foundation to handle. Cash gifts are fully deductible against income, up to a maximum gift of 50% of adjusted gross income.

Gifts of Securities

Stocks and bonds (including mutual funds) make excellent gifts. The assets of many people are concentrated in stocks and bonds, and the transfer of a particular security to the Foundation is an efficient technique for realizing a charitable gift in 1987.

There are two aspects of securities gifts that deserve further discussion. The donation of a security that has appreciated in value above the donor's cost basis has a dual tax effect. The full market value of the security can be taken as an income tax deduction. Because the stock is not sold, the holder does not incur a capital gains tax liability at the time of the gift. There is a limitation of 30% of adjusted gross income on gifts of appreciated-value securities. On the other hand, if the stock has depreciated below the donor's cost basis, then the more prudent course of action is to sell the stock, realize the capital loss as an income deduction, and donate the cash to the Foundation for a further deduction.

Gifts of Assets

Other types of assets, such as real estate, antiques, automobiles, and art collections, may also be donated, setting up a tax deduction. These types of gifts are more complex and require professional assistance in establishing value and perfecting the conveyance.

Gift Leveraging

Corporations are important givers to charity, as GSA members know from corporate support of the Decade of North American Geology project. Individuals contributing to the Foundation may be able to obtain matching gifts from employers, or, in some instances

(*continued on p. 241*)

GSA Foundation
3300 Penrose Place, P.O. Box 9140
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Charitable contributions are worth more in 1987, and I would like to support the GSA Foundation.
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Foundation News (continued from p. 240)

of business ownership or control, directly make an additional corporate donation.

How To Taste the Vintage

Realizing the importance of charitable contributions in 1987, some of you will have decided that you can very well utilize additional tax deductions. The GSA Foundation is prepared to assist you in accomplishing this in any of the above ways. Please contact the Foundation office, (303) 447-2020, with your questions about giving in 1987, or complete the accompanying coupon and mail it to us. We have additional, more detailed information on this entire subject for you.

If you had put off your Century Challenge birthday gift, perhaps now is the time to get it done . . . or to consider moving up to become a Challenge Partner. Growth in many stock portfolios has been unequaled, and some of that appreciation can be converted to a tax deduction now, by donating the shares to the Foundation. Establishment of a charitable remainder trust is a little like having cake and eating it too—the donor gets a deduction for his contribution and creates a personal income stream for the future. These are but a few of the ways to partake of the unique tax benefits for 1987. Don't let the year slip by without laying aside your vintage deductions.

GSA Congressional Science Fellow for 1988 Named

James E. Evans has been named GSA's second Congressional Science Fellow, to work as a special legislative assistant on the staff of a committee or member of the U.S. Congress for one year.

During his term, from September 1987 to August 1988, Evans hopes to pursue his interests in international use of sea-bed geologic resources, air and water pollution, wildlife conservation, global climate change, and transport and disposal of toxic and nuclear wastes. "I believe that the role of the Congressional Science Fellow is to be an advisor and educator," he said in his application for the fellowship. "I think it will be important to summarize and present diverse ideas and opinions. The political process is based on the art of compromise. It is important to present reasonable alternatives to problems and to attach estimates of the social and financial costs of these alternatives to the maximum extent possible."

James Evans

Evans received his B.A. in geology, magna cum laude, at Carleton College in 1976, his master's in hydrogeology and ecology at the University of Minnesota in 1980, and his Ph.D. in geological sciences at the University of Washington in 1987. He has been a research and teaching assistant at the University of Minnesota and the University of Washington, a wildlife biologist for the Nature Conservancy, and a field assistant and technician for the U.S. Geological Survey. His research interests include fluvial sedimentology, sedimentary structures, basin evolution and tectonics, animal-sediment interactions, and paleoclimatic reconstructions. His extracurricular activities have ranged from heading the geology and natural history clubs at Carleton College to being a district precinct caucus delegate in Minneapolis. He has published and helped to prepare reports in marine geology, sedimentary geochemistry and geology, stratigraphy, and environmental studies including endangered species and geological hazards of the Alaskan continental shelf and Bering Sea.

After receiving his Ph.D. in August of this year, Evans accepted a position with the Department of Geology at Bowling Green University, Ohio. The department delayed his starting date to allow him to serve the one-year fellowship term in Washington, D.C. "Bowling Green is most generous to allow me this delay," Evans said. "Their willingness to do so shows a high regard for the Fellowship."

The Fellowship

GSA's Committee on Geology and Public Policy proposed the Congressional Science Fellowship to the GSA Council, which approved it in 1985. The fellowship is intended as a way to make practical contributions to more effective use of scientific knowledge in government, to obtain first-hand experience and to educate the earth science community about the public policy process, and to broaden the perspective of that community and the governmental community regarding the value of such mutually beneficial interactions. Requirements for the fellowship include exceptional competence in some area of the earth sciences, cognizance of a broad range of matters outside the fellow's particular area, and a strong interest in working on a range of public policy problems. The first GSA Congressional Science Fellow, Jennifer Hess, will complete her term in December 1987.

The fellowship, which provides a $25,000 stipend and a limited relocation and travel allowance, is funded by GSA and by a grant from the U.S. Geological Survey. Guided by the American Association for the Advancement of Science, the program places highly qualified, accomplished scientists with the offices of individual members of Congress and committees for a one-year assignment. Fellows perform in much the same way as regular staff members; they have the opportunity to be involved in varied legislative, oversight, and investigative activities. They offer their special knowledge, skills, and competence for the opportunity to acquire experience and the chance to contribute to the formulation of national policy. The GSA Congressional Science Fellow reports periodically to the GSA membership and to the USGS during the one-year period.

Selection Committee

On the selection committee for the fellowship this year were Chairman John S. Scott, Geological Survey of Canada; William F. Cannon, U.S. Geological Survey; C. Edward Buchwald, Carleton College; and Samuel S. Adams, Colorado School of Mines. The committee reviewed applications and interviewed three finalists before choosing Evans as the 1988 Congressional Science Fellow.

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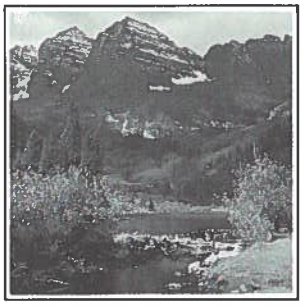

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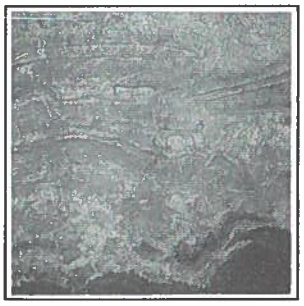

Centennial Field Guide Volume 6

VOLUMES 5 & 6

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Field guides with area maps to locations in CT, DE, DC, ME, MD, MA, NH, NJ, NY, PA, RI, VT, New Brunswick, Newfoundland, Nova Scotia, eastern Ontario, and Quebec. Indexed. Tan spine.

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THE GEOLOGICAL SOCIETY OF AMERICA

Call for Nominations for 1988 Penrose and Day Medals

Nominations for GSA's two most prestigious awards, the Penrose and Day Medals, are due at headquarters by *February 1, 1988*. Members and Fellows of the Society are encouraged to participate in this important process by nominating candidates for these high honors.

Penrose Medal

The Penrose Medal was established in 1927 by R.A.F. Penrose, Jr., to be awarded in recognition of eminent research in pure geology, for outstanding original contributions or achievements which mark a major advance in the science of geology. The award is made only at such time as the Council may decide. Nominees are selected by the Council, may or may not be members of the Society, and may be from any nation. Penrose's sole object in making the gift was to encourage original work in purely scientific geology.

Day Medal

The Day Medal was established in 1948 by Arthur L. Day to be awarded annually, or less frequently, at the discretion of the Council, for outstanding distinction in contributing to geologic knowledge through the application of physics and chemistry to the solution of geologic problems. Day's intent was to recognize outstanding achievement and inspire further effort, rather than reward a distinguished career.

How to Nominate

To ensure thorough consideration by the respective subcommittees, submit for each candidate a brief biographical sketch, such as used in *American Men and Women of Science*, a summary of the candidate's scientific contributions to geology, and a selected bibliography of no more than 20 titles. In choosing candidates, scientific achievements should be considered rather than contributions in administration and service.

The form for submitting the name of a candidate for either the Penrose or Day Medal is on p. 245 and 246.

Each nomination MUST BE SUPPORTED by the signatures of five GSA members.

The names of unsuccessful candidates proposed to the Council will remain for consideration by the respective subcommittees for three years.

Recipients of the Penrose and Day Medals to date are listed below.

R.A.F. PENROSE, JR., MEDALISTS

1927	Thomas Chrowder Chamberlin
1928	Jakob Johannes Sederholm
1929	*No award given*
1930	François Alfred Antoine Lacroix
1931	William Morris Davis
1932	Edward Oscar Ulrich
1933	Waldemar Lindgren
1934	Charles Schuchert
1935	Reginald Aldworth Daly
1936	Arthur Philemon Coleman
1937	*No award given*
1938	Andrew Cowper Lawson
1939	William Berryman Scott
1940	Nelson Horatio Darton
1941	Norman Levi Bowen
1942	Charles Kenneth Leith
1943	*No award given*
1944	Bailey Willis
1945	Felix Andries Vening-Meinesz
1946	T. Wayland Vaughan
1947	Arthur Louis Day
1948	Hans Cloos
1949	Wendell P. Woodring
1950	Morley Evans Wilson
1951	Pentti Eskola
1952	George Gaylord Simpson
1953	Esper S. Larsen, Jr.
1954	Arthur Francis Buddington
1955	Maurice Gignoux
1956	Arthur Holmes
1957	Bruno Sander
1958	James Gilluly
1959	Adolph Knopf
1960	Walter Herman Bucher
1961	Philip Henry Kuenen
1962	Alfred Sherwood Romer
1963	William Walden Rubey
1964	Donnel Foster Hewett
1965	Philip Burke King
1966	Harry H. Hess
1967	Herbert Harold Read
1968	J. Tuzo Wilson
1969	Francis Birch
1970	Ralph Alger Bagnold
1971	Marshall Kay
1972	Wilmot H. Bradley
1973	M. King Hubbert
1974	William Maurice Ewing
1975	Francis J. Pettijohn
1976	Preston Cloud
1977	Robert P. Sharp
1978	Robert M. Garrels
1979	J Harlen Bretz
1980	Hollis D. Hedberg
1981	John Rodgers
1982	Aaron C. Waters
1983	G. Arthur Cooper
1984	Donald E. White
1985	Rudolf Trümpy
1986	Laurence L. Sloss
1987	Marland P. Billings

ARTHUR L. DAY MEDALISTS

1948	George W. Morey
1949	William Maurice Ewing
1950	Francis Birch
1951	Martin J. Buerger
1952	Sterling Hendricks
1953	John F. Schairer
1954	M. King Hubbert
1955	Earl Ingerson
1956	Alfred O. C. Nier
1957	Hugo Benioff
1958	John Verhoogen
1959	Sir Edward C. Bullard
1960	Konrad B. Krauskopf
1961	Willard F. Libby
1962	Hatten Schuyler Yoder
1963	Keith Edward Bullen
1964	James Burleigh Thompson, Jr.
1965	Walter H. Munk
1966	Robert M. Garrels
1967	O. Frank Tuttle
1968	Frederick J. Vine
1969	Harold C. Urey
1970	Gerald J. Wasserburg
1971	Hans P. Eugster
1972	Frank Press
1973	David T. Griggs
1974	A. E. Ringwood
1975	Allan Cox
1976	Hans Ramberg
1977	Akiho Miyashiro
1978	Samuel Epstein
1979	Walter M. Elsasser
1980	Henry G. Thode
1981	Donald L. Turcotte
1982	Eugene M. Shoemaker
1983	Harmon Craig
1984	Wallace S. Broecker
1985	Freeman Gilbert
1986	E-an Zen
1987	Don L. Anderson

Call for Nominations for Honorary Fellows

Honorary Fellows of the Society are selected from geologists throughout the world who have distinguished themselves as geological investigators or who have rendered special service to the Society. The candidates are usually residents outside North America.

The following information is required for each candidate:

- Biographical data similar to that found in *American Men and Women of Science* and *Who's Who in America*
- 200-word-or-less summary of the candidate's contributions to geology
- Selected bibliography of no more than 20 titles

Deadline for receipt of nominations at headquarters: *February 1, 1988.*

The form for submitting the name of a candidate is on p. 245 and 246.

Current Honorary Fellows

Antonio Almela
Neil Armstrong
Jean A. Aubouin
Ralph A. Bagnold
V. V. Beloussov
Krzysztof Ludwik Birkenmajer
Roland Brinkmann
S. Warren Carey
Maria B. Cita
Michael Collins
William Compston
Douglas Saxon Coombs
Kingsley C. Dunham
Stanislaw Dzulynski
William S. Fyfe
Augusto Gansser
Martin F. Glaessner
David Headley Green
Dorothy Hill
Kenneth J. Hsü
Jiqing Huang
Emilie Jager
Harold Jeffreys
Teiichi Kobayashi
Dmitri S. Korzhinskii
Henno Martin
Michael W. McElhinny
Mervyn S. Paterson
Leo Y. Picard
Wallace S. Pitcher
Jean Piveteau
Desmond A. Pretorius
Hans Ramberg
John G. Ramsay
Alfred Rittmann
Alexander B. Ronov
Hitoshi Sakai
Mircea Sandulescu
Harrison Hagan Schmitt
Eugen Seibold
Ahti J. Simonen
Boris Sergeevich Sokolov
John Sutton
Bernard P. Tissot
Livio Trevisan
Rudolf Trümpy
Guangzhi Tu
Harry B. Whittington
Alwyn Williams
Quido Zaruba

THE GEOLOGICAL SOCIETY OF AMERICA

Nomination for Penrose Medal, Day Medal, or Honorary Fellowship

(please circle one)

DEADLINE: Please return this form to headquarters by February 1.

NAME OF CANDIDATE:

ADDRESS:

BIOGRAPHICAL INFORMATION: (suggested sources)
- American Men and Women of Science
- Who's Who in America
- GSA Service Record (obtainable from headquarters)
- Other

SUMMARY OF SCIENTIFIC CONTRIBUTIONS TO GEOLOGY:
(not more than 200 words)

SELECTED BIBLIOGRAPHY:
(no more than 20 titles)

A nomination for the Penrose Medal or Day Medal must be supported by the signatures of five GSA Fellows or Members. Signed supporting letters from five GSA Fellows or Members may be attached to this form in lieu of the signatures. A nomination for Honorary Fellowship requires only this form with name, address, and signature of the person making the nomination (no other signatures required) and supporting letters, if any.

1. (Name of person making the nomination) _____

Address: _____

Date: _____ Signature: _____

2. _____

3. _____

4. _____

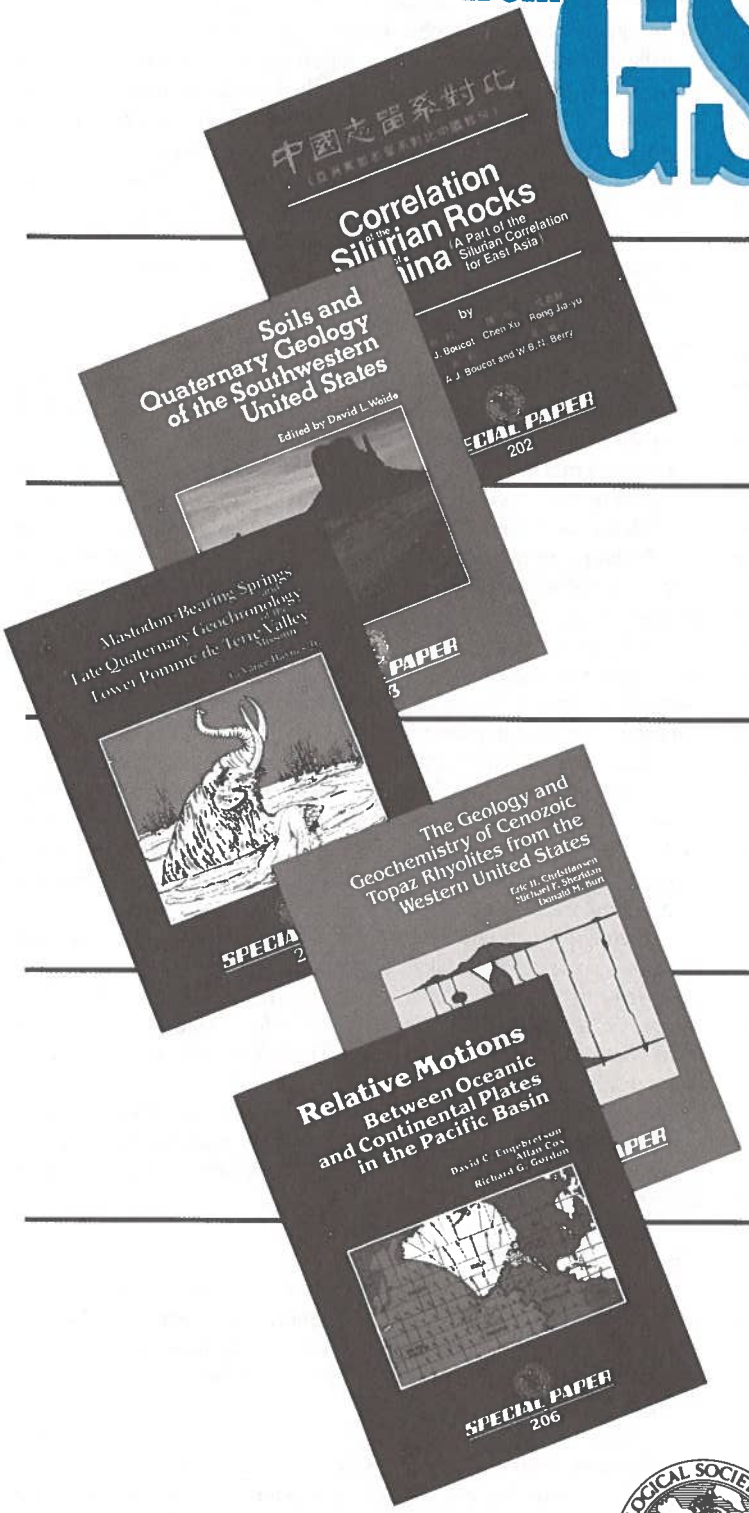
5. _____

6. _____

RETURN TO: Executive Director
The Geological Society of America
P.O. Box 9140
Boulder, CO 80301
(303) 447-2020

DEADLINE: Please return this form to headquarters by February 1.

SPECIAL PAPERS from GSA



Correlation of the Silurian Rocks of China
by Mu En-zhi, A.J. Boucot, Chen Xu, Rong Jia-yu
edited by A.J. Boucot and W.B.N. Berry, 1986
A comprehensive compilation of information relevant to the correlation of the Chinese Silurian rocks by means both of fossils and physical data available through 1980 is presented.
Special Paper 202, 88 pages plus pocket plate, illustrated, ISBN 0-08137-2202-0, CIP, paperback $16.50

Soils and Quaternary Geology of the Southwestern United States
edited by David L. Weide, 1985
Five papers explore the pedogenic process of carbonate and clay accumulation of their rates and depths of formation. Three papers are a series of regional studies.
Special Paper 203, 158 pages, illustrated, ISBN 0-8137-2203-9, CIP, paperback $20.00

Mastodon-Bearing Springs and Late Quaternary Geochronology of the Lower Pomme de Terre Valley, Missouri
by C. Vance Haynes, Jr., 1985
Fourteen field sessions in the area have provided a radiocarbon-dated chronostratigraphic sequence in 4 terrances reflecting 5 major episodes of aggradation and degradation. Spring deposits within the terraces contain bone beds associated with peat lenses containing pollen, plant, and beetle remains, all of which have provided paleoecological data.
Special Paper 204, 45 pages, illustrated, ISBN 0-8137-2204-7, CIP, paperback $10.00

The Geology and Geochemistry of Cenozoic Topaz Rhyolites from the Western United States
by Eric H. Christiansen, Michael F. Sheridan, Donald M. Burt, 1986
High-silica, topaz-bearing rhyolites of Cenozoic age are widely distributed across the western U.S. and Mexico. In the U.S., their ages span much of the Cenozoic Era. Emplacement followed or was contemporaneous with calc-alkaline and basaltic magmatism in the Basin and Range province, along the Rio Grande rift, and in Montana.
Special Paper 205, 88 pages, illustrated, ISBN 0-8137-2205-5, CIP, paperback $16.00

Relative Motions Between Oceanic and Continental Plates in the Pacific Basin
by David C. Engebretson, Allan Cox, and Richard G. Gordon, 1985
A model is presented for the displacement history between western North America, eastern Eurasia, and adjacent oceanic plates for the past 180 million years. The model uses a new determination for relative motion between the oceanic plates of the Pacific basin.
Special Paper 206, 64 pages, illustrated, ISBN 0-8137-2206-3, CIP, paperback $12.50

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THE GEOLOGICAL SOCIETY OF AMERICA

Report from Washington

by Jennifer Hess
GSA Congressional Science Fellow

In July I was fortunate to attend GSA's Penrose Conference on Geological Decisions for the 21st Century, in Steamboat Springs, Colorado. During the meeting a great deal of discussion focused on the need for earth scientists to become involved in the political decision-making process. The question that naturally follows is how best to accomplish this task. I thought it would be appropriate for me to share some of my observations on how an individual can become involved on the Hill.

In sharing information with Congress there are three important musts. You must understand the system, you must know the issue, and you must recognize the pitfalls.

The System

To understand the system, you need to know how Congress is organized. In each of the two chambers, the Senate and the House of Representatives, literally thousands of bills are introduced each year. To effectively handle the volume of legislation introduced, the bulk of the work is handled by committees, each with its own jurisdiction (although jurisdiction can overlap between or among committees). Each House or Senate member sits on four committees. To handle the volume of work, committees are divided into subcommittees. Subcommittee titles and jurisdiction can be restructured at the beginning of each Congress by majority vote of the committee.

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

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

In order to become involved, it is necessary to know which committee or committees have jurisdiction over the issue of interest, and who sits on the committee. This is not difficult to determine, and it considerably narrows your target audience. If a Senator or Representative from your home state sits on the committee, so much the better. Legislators like to be involved with their constituency. This is particularly true in the House, where members must be reelected every two years. Remember to use the district offices as well as the D.C. offices. It is also important to recognize that the staff is the backbone of the committee. Most of your interactions will be with staff. On the staff level, committees and subcommittees are divided by party. There is a separate staff for the majority and minority parties. The key staff members are the committee and subcommittee staff directors and the chief counsel for the majority and minority. In some committees, majority and minority staffs work closely with one another; in others, the work is done separately.

A division of labor also exists in the legislator's personal office. In general, the administrative assistant is the chief of staff. A legislative director may supervise the work of the legislative assistants. Each issue before Congress is assigned to one of the legislative assistants. Identify the person responsible for your issue of interest by calling the legislator's office. Legislative assistants can generally be reached by phone, although you might have to wait a few days for them to return your call. Again, if you are a constituent, your call will generally be taken promptly. Legislative correspondents are responsible for tracking the mail and responding to requests made to the office. The appointments secretary controls the legislator's calendar. Because the legislator's schedule is always hectic, 15-minute appointments are the rule, not the exception; so if you are fortunate enough to get an appointment with a legislator instead of a staff member, brevity is the key. The legislator's press liaison works with the media.

The Issue

Senators and Representatives get emotional letters from constituents every day. To really provide input, you must establish yourself as an expert. When contacting an office by mail, include your credentials, a 1–2 page fact sheet, and a summary of your position on the issue. You may write in response to an issue or to provide general background. Remember that legislators and staff are dealing with many diverse and technical issues, many of which demand immediate action. Therefore, the more specifics you can provide about an issue, the better your information will be received. Facts, figures, and statistics are welcome information that staff may not know are available or do not have the time to research. Also remember that a letter of complaint cannot stand on its own. Legislators and staff spend a lot of time crafting the best legislation they can. If you disagree, state why and then offer an alternative. I've seen meetings between Senators and interested parties fall apart when complaints are made but no alternatives are suggested. Solutions provide the basis for dialogue. If you agree with the legislator's position, thank him or her for that support. Positive comments are always noticed.

If you are fortunate to be able to meet with a legislator or staff member, you should speak in layperson's terms and state your case as briefly as possible. Always bring a short position paper (1–2 pages) or fact sheet to leave with the office. Media interest is of overriding importance in any office. Therefore, issues having media appeal sell more readily than those without.

Any major piece of legislation takes time to pass; 10 to 12 years' time is not uncommon. The only way to pass major legislation is to build a strong hearing record. Offer to work with staff in setting up hearings and in drafting legislation.

The Pitfalls

Scientists are generally viewed with less regard than any other group on the Hill. From my observations, they are perceived as people who don't understand the system, who have little ability to talk with people outside their profession, and who think that being correct is always enough.

To be involved on the Hill, we must learn that budgets, limited time frames, regulatory impacts, and public accountability are all factors that must be considered by Congress. Scientific facts are not the only criteria for public decision making. The approach is often different—legislators are working against the clock; scientists want more time. Legislators are more willing to take risks; scientists want to be surer of the outcome. So don't get technical, get political. Have the facts, but be prepared to suggest alternative solutions.

A Musical Call to Scientists

THE 1988 GSA CENTENNIAL ORCHESTRA

In Honor of the GSA Centennial Meeting

A concert for classical music-loving geologists and their spouses will be presented by the GSA Centennial Orchestra as a special event at the GSA Centennial Celebration in Denver on Tuesday evening, November 1, 1988

If you are actively playing an orchestral instrument and would like to play a musical part in the 1988 GSA Centennial Celebration, we invite you to join the GSA Centennial Orchestra for a musical gala spanning Bach to Bernstein.

Those interested in playing should
1. Be geoscientists and/or spouses (need not be members of GSA).
2. Be present for the full length of two rehearsals (Sunday afternoon, October 30 and Tuesday early evening, November 1, 1988).
3. Have strong intermediate to advanced playing ability.
4. Bring instrument and music stand (arrangement for provision of exceptionally large instruments—for example, timpani and basses—may be possible).

For more information and to join, contact one of the following persons

Holly Stein
U.S. Geological Survey
M.S. 905, Federal Center
Denver, CO 80225
(303) 236-5592
(303) 985-2797

or

Wally Pratt
same address
(303) 236-5598

or

John Aleinikoff
same address, except M.S. 963
(303) 236-7882

DO YOU HAVE AN OLD WHITE OR TAN CANVAS TENT *à la* 1870s MINING CAMP?

Do you know someone who might?

Needed urgently to be loaned to GSA
for a Special Centennial Project
We would gladly arrange for the transportation
to and from GSA headquarters.

Please call June Forstrom, (303) 447-2020,
at GSA headquarters if you have such a tent or
if you have information about a source.

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CENTENNIAL MEETING & EXHIBIT

OCTOBER 31–NOVEMBER 3, 1988
DENVER, COLORADO

CALL FOR 1988 FIELD TRIP PROPOSALS
DUE NOW

The final selection of field trips for the 1988 Centennial Celebration is underway. A preliminary announcement will be available this October. Many proposals already have been received. If you are thinking about leading a trip, now is the time to get in touch with the chairman.

1988 Field Trip Chairman
Gregory S. Holden
Dept. Geology and Geol. Eng.
Colorado School of Mines
Golden, CO 80401

(303) 273-3818 (direct)
273-3800 (dept.)

CALL FOR 1988 SYMPOSIA PROPOSALS
DUE JANUARY 1, 1988

Selection of symposia will be made in January 1988. For guidelines and information contact

1988 Technical Program Chairman
William W. Hay
University Museum
Campus Box 218
University of Colorado
Boulder, CO 80309

(303) 492-7370 (direct)

1988 Technical Program Co-Chairmen

Samuel S. Adams
Dept. Geology and Geol. Eng.
Colorado School of Mines
Golden, CO 80401

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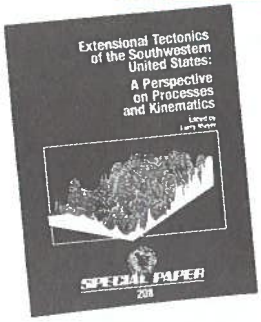
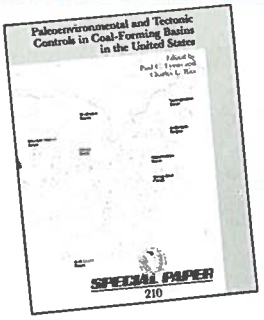
GSA RECENT RELEASES

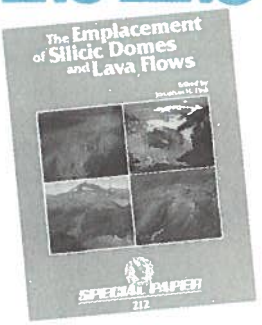


Extensional Tectonics of the Southwestern United States: A Perspective on Processes and Kinematics
edited by Larry Mayer, 1986.
The goal of this volume is to provide a better understanding of continental rifting processes in general and in the Basin and Range and Mojave Desert Provinces in particular.
Special Paper 208, 130 p., ISBN 0-8137-2208-X, CIP, paperback, $17.50.

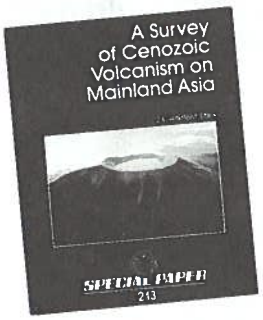
The Cretaceous-Tertiary Boundary in the San Juan and Raton Basins, New Mexico and Colorado
edited by James E. Fassett and J. Keith Rigby, Jr., 1987.
The 10 papers in this volume provide new information about the rocks adjacent to the Cretaceous-Tertiary boundary in the San Juan and Raton basins. The studies represented by the papers in this volume do not support an impact-associated mass extinction in either of these basins at the end of the Cretaceous Period, and it is noted that clearly much more work is needed to resolve questions about this boundary.
Special Paper 209, 204 p., with two 24″×20″ pocket plates, ISBN 0-8137-2209-8, CIP, paperback, $28.50.



Paleoenvironmental and Tectonic Controls in Coal-Forming Basins of the United States
edited by Paul C. Lyons and Charles L. Rice, 1987.
A wealth of recent coal data and references to important literature on the field of coal-basin modeling in the United States are contained in this volume.
Special Paper 210, 208 p., ISBN 0-8137-2210-1, CIP, paperback, $25.00.

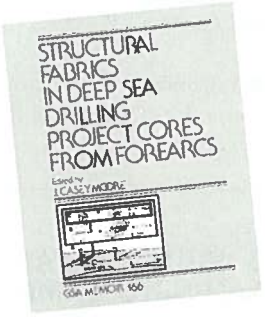


The Emplacement of Silicic Domes and Lava Flows
edited by Jonathan H. Fink, 1987.
A symposium held at the 1984 GSA meeting in Reno, Nevada provided the basis for this volume. The symposium emphasized the mechanical, rather than chemical aspects of dome emplacement, and this volume maintains that approach. Several different perspectives are considered and offer insight into many of the key questions that still remain unanswered about domes.
Special Paper 212, 153 p., ISBN 0-8137-2212-8, CIP, paperback, $18.75.



A Survey of Cenozoic Volcanism on Mainland Asia
by J.L. Whitford-Stark, 1987.
The volume presents a catalog of the products of the Cenozoic volcanism on mainland Asia, exclusive of the Koryak and Kamchatka Peninsulas. A synthesis of the available information illustrates that the dominant volcanic landforms are fissures and cinder cones.
Special Paper 213, 82 p., ISBN 8-8137-2213-6, CIP, paperback, $15.00.

Structural Fabrics in Deep Sea Drilling Project Cores from Forearcs
edited by J. Casey Moore, 1987.
DSDP cores from forearcs have a known tectonic setting and catch



deformational and diagenetic-metamorphic processes while they are occurring. Analysis of the fabrics from these cores has great potential for furthering our understanding of initial structural processes in accretionary wedges, and for providing new insight into the evolution of ancient subduction complexes. Critical information is brought to a broad geological audience in a uniform and condensed format through a structural study done of virtually all cores collected from forearcs during the DSDP and presented in this volume.
Memoir 166, 168 pg., with two 17″×26″ pocket plates, ISBN 0-8137-1166-5, CIP, hardbound, $18.00.

NOW AVAILABLE
Special Paper 207
The Motion of Allochthonous Terranes Across the Northern Pacific Basin
by M.G. Debiche, A. Cox, and D.C. Engebretson, 1987. $11.00

Special Paper 211
Community paleoecology as a geologic tool: The Chinese Ashgillian-Eifelian (latest Ordovician through early middle Devonian) as an example
by Wang Yu, A.J. Boucot, Rong Jia-Yu, and Yang Xue-chang, 1987. $18.50

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THE GEOLOGICAL SOCIETY OF AMERICA

GSA Research Grants Awarded for 1987–1988

by June Forstrom
Research Grants Administrator

GSA members and the Foundation helped increase the research grants budget by almost $30,000 this year. This increase, combined with a slight decrease in number of grant applications, allowed the Research Grants Committee to recommend funding for 34% of the applications, compared to the 27% funded in 1986.

The committee's 1987 budget of $176,200 consists of donations from oil companies ($4500), income from the Harold T. Stearns Fund ($3000) and the Arthur L. Day Fund ($700), contributions from GSA members through the Foundation ($15,766), interest from the Penrose Endowment ($150,000), and a gift from the Foundation ($2234).

Of the 587 proposals received (37 fewer than in 1986), 199 were recommended for support. These included 150 doctoral proposals and 49 master's proposals. The size of the average award increased slightly, from $871 in 1986 to $885 this year. Proposal requests totaled $611,675.

Awards

Robert K. Fahnestock Award. This grant is awarded to the applicant with the best proposal in sediment transport or related aspects of fluvial geomorphology. The 1987 nominee is Robert Andrle, State University of New York, Buffalo, for "Flow Structure and the Formation of Pools and Riffles in Low-Sinuosity Alluvial Channels."

Harold T. Stearns Fellowship Award. The two candidates for this award, for research on aspects of the geology of the Pacific Islands and the circum-Pacific region, are James Hibbard, Cornell University, for "Deformation Paths in An Accretionary Prism: Tertiary Shimanto Complex, Shikoku, Japan," and Andres Meglioli, Lehigh University, for "Glacial History of Tierra del Fuego."

Industrial Donations and Awards. Donations from Marathon Oil Foundation ($2500) and Mobil Oil Corporation ($2000) are funding grants to the following applicants:

Roger Barnaby, Virginia Polytechnic Institute and State University, for "Dolomitization and Diagenesis of the Cambrian Shady Dolomite"; Maya Elrick, Virginia Polytechnic Institute and State University, for "Carbonate Cycle Development in Lower Mississippian Shelf-to-Basin Deposits, Northern Rocky Mountains"; Kathryn Marie Flanagan, University of Wyoming, for "Late Cenozoic Evolution of Wyoming and Central Rocky Mountains"; Mark S. Hanson, Colorado School of Mines, for "Utilization of Genetic Sequence Analysis in Predicting Reservoir Facies Distributions and Geometries, Eagle Sandstone (Upper Cretaceous), Montana"; Carol Kindle Lee Roark, Cornell University, for "Seawater Strontium Chronostratigraphy of the Williston Basin"; Paul A. Schroeder, Yale University, for "A Study of Kinetic Controls on Illite/Smectite Composition During Burial Diagenesis."

Outstanding Mention. The Committee on Research Grants specially recognized 18 of the proposals as being of exceptionally high merit in conception and presentation:

Mark H. Anders, University of California, Berkeley, for "Episodic Late Cenozoic Faulting in the Overthrust Belt: Implication for the Origin of the Parabolic Distribution of Seismicity and Active Faulting, Idaho-Montana-Wyoming"; Robert Andrle, State University of New York, Buffalo, for "Flow Structure and the Formation of Pools and Riffles in Low-Sinuosity Alluvial Channels"; Philip C. Bennett, Syracuse University, for "The Effect of Organic Acids on the Solubility of Quartz"; Edward J. Brook, University of Montana, for "Grain Size Control and Chemical Speciation of Metals in Sediment of a Contaminated River System"; Gregory M. Dipple, Johns Hopkins University, for "An Assessment of Fluid-Rock Interaction and Deformation in Shear Zones at Point Lake, N.W.T., Canada"; Stephen W.F. Grant, Harvard University, for "Biomineralization in the Lower Cambrian: A Study of the Paleontology and Petrogenesis of Lower Cambrian Sedimentary Rocks from Southeastern and Northwestern Newfoundland and Southern Labrador"; Katherine Heimes, University of Michigan, for "Deformation Mechanisms and Tectonic History of the Central Metasedimentary Belt Boundary Mylonite Zone, Southern Ontario and Quebec"; James Hibbard, Cornell University, for "Deformation Paths in an Accretionary Prism: Tertiary Shimanto Complex, Shikoku, Japan"; Peter B. Humphrey, University of Hawaii, for "Quiet Zone Exploration via SWATHMAP Sidescan Sonar"; Scott R. Linneman, University of Wyoming, for "A Detailed Petrologic Study of Newberry Volcano, Oregon"; William C. McClelland, University of Arizona, for "Structural, Stratigraphic and Geochronologic Analysis of the Boundary Between the Alexander and Stikine Terranes: A Complex Suture Zone in Central Southeastern Alaska"; Andres Meglioli, Lehigh University, for "Glacial History of Tierra del Fuego"; Keith H. Meldahl, University of Arizona, for "Comparative Taphonomy, an Actualistic Approach to Environmental Interpretation Using Recent Molluscs"; Mark Thomas Murphy, Johns Hopkins University, for "The Eruptive Rheology of Intermediate- to Silicic-Composition Magma"; Jay S. Noller, University of Colorado, for "History of El Niño in Soil Chronosequences of the Peruvian Desert"; Karla M. Parsons, University of Rochester, for "Taphonomic Facies in Carbonate Environments: A Modern Analysis with Implications for the Ancient"; Praveen Srivastava, University of Rochester, for "Interpretation of Deep Structures with Balanced Cross Sections and Study of Deformation Mechanisms in the Thrust Zones, Kumaon Himalayas, India"; Dan Sykes, University of Alberta, for "Rheology, Thermochemistry and Structure of Crystal-Liquid Suspensions."

Other Successful Applicants. Other applicants recommended for funding are the following: John Acord, Robert J. Andres, Ahmet T. Arguden, Daniel R. Askren, Steven D. Balsley, Paul W. Bauer, Gray E. Bebout, Richard A. Beck, Erick A. Bestland, Lori A. Bettison, David E. Blake, Ann E. Blythe, Susan Q. Boundy-Sanders, Bruce L. Brasaemle, John A. Brooks, Kathleen M. Brown, Gregory A. Buckley, Bradford R. Burton, Phyllis A. Camilleri, Sharon D. Carr, Brian L. Carter, Karen E. Carter, Jeffrey A. Cary, William Cavazza, Burton Chadwick, Jeffrey R. Chiarenzelli, William S. Clendenen, Edward A. Cloutis, Roger D. Congdon, Richard M. Conrey, Janice H. Cooper, Jeanne L. Cooper, Brian L. Cousens, Samuel R. Davis, Paul L. Decker, David S. Diamond, Yildirim Dilek, Kenneth G. Dueker, Daniel P. Dugas, Cynthia J. Ebinger, Susan E. Ensenat, Gregg Erickson, Emmett Evanoff, Andrew L. Evans, James E. Faulds, Todd C. Feeley, Patrick F. Fields, Peter B. Flemings, Catherine A. Forster, Lydia K. Fox, Allen C. Gellis, Paul W. Genovese, Peter C. Gibson, Mary Beth Gray, George D. Guthrie, Catherine L. Hanks, Debra L. Hanneman, Stephen S. Harlan, Patricia M. Hartshorne, Scott W. Hassler, Karen G. Havholm, Ann L. Heatherington, Timothy H. Heaton, Peter H.

(*continued on p. 252*)

(continued from p. 251)
Hennings, Virginia S. Hill, Douglas L. Hillman, Linda A. Hinnov, Marc Hirschmann, Kaj A. Hoernle, Steven M. Holland, Norio Honjo, Kenneth C. Hood, Donald M. Hooper, Jr., John T. Hopeck, Michael R. Hudec, Adrian P. Hunt, Stephen D. Hurst, Clark E. Isachsen, Kirk R. Johnson, Mark J. Johnsson, Alice E. Jones, Cassandra C. Katz, Marcus M. Key, Jr., David L. Kirschner, Dirk Kirste, Lawrence G. Kodosky, Matthew J. Kohn, Scot W. Krueger, Mary M. Lahren, James R. Lang, Zakaria Lasemi, Dong-Jin Lee, Marjorie Levy, Anthony J. Limke, Monica Listokin, Ching-hua Lo, James A. MacEachern, Michael O. Maler, Charles W. Mandeville, Luis E. Marin, Anne M. Matherne, Brent A. May, Krista I. McGowan, Judith P. McHugh, S. T. McWhinnie, Emilee M. Mead, Daniel M. Miller, Jerry R. Miller, Kimberlee J. Miskell-Gerhardt, Isabel Montanez, Ingrid A. Myers, Wayne Narr, Jim E. O'Connor, Michael H. Ort, David A. Osleger, Erik J. Oswald, David L. Parkinson, Penny E. Patterson, Jan M. Peter, Lyle V. Phillips, Kathleen B. Pigg, David Pivnik, Andre Potochnik, Robert A. Ratliff, Steven K. Reid, Lee R. Riciputi, Robert C. Roback, Susan C. Roberts, Michael R. Rosen, Robert M. Ross, Charles M. Rubin, Anthony C. Runkel, Scott D. Samson, Craig Sanders, Richard B. Sanders, Michael Savarese, Lauret E. Savoy, Theodore A. Scambos, Elizabeth R. Schermer, Nancy Schmidt, Thomas L. Seal, David S. Shafer, Sally N. Shake, Purusotam Lal Shrestha, David S. Silverberg, Bradley S. Singer, Milka A. Skewes, Moira T. Smith, Howard A. Snyder, Seema S. Sonnad, Joann M. Stock, Glenn B. Stracher, Luther M. Strayer IV, Sherman J. Suter, Kathryn Tegtmeyer, Andrew J. Tomlinson, Rickard S. Toomey III, Heather E. Trim, Frederick C. Tuck, Kathy Tureck-Schwartz, Julianne M. Turko, Jeffrey C. Turner, Banks Upshaw, Mickey C. Van Fossen, Michael Weber, John R. Webster, Patricia A. Weisse, Delpfine E. Welch, Margaret R. Wellensiek, Michael L. Wells, James W. Westgate, Alisa J. Winkler, Sandra J. Wyld, Gene M. Yogodzinski, Brian S. Zimmerman.

37 Students Receive AGI Minority Participation Program Scholarships

The American Geological Institute has awarded 37 minority scholarships for the 1987–1988 academic year. Awards given to Black, Hispanic, and Native American students ranged from $500 to $1000 each and totaled $28,750. Contributions for the scholarships were pledged by geoscience societies (including GSA), more than a score of companies, and several individuals.

1987–1988 Recipients

Graduate Students: Janette Aquilar, University of Oklahoma; Edward A. Arias, University of New Orleans; George T. Basabilvazo, New Mexico State University; Victor G. Carrillo, Baylor University; Michael A. Cervantes, University of Texas, Austin; Jerry B. Coleman, Michigan State University; Earle C. Dixon, University of Nevada, Las Vegas; Diana F. Elder, Northern Arizona University; Frank R. Hall, University of Rhode Island; Pamela J. Harris, University of Virginia; Michael W. Howell, University of South Carolina; Alexis Lugo-Fernandez, Louisiana State University; Luis E. Marin, Northern Illinois University; Neo D. Martinez, University of California, Berkeley; Reinaldo Mercado, Michigan Technological University; Katherine A. Milla, Florida State University; Frank E. Muller-Karger, University of Maryland; Burlinda G. Radney, University of California, Berkeley; Paul E. Sanchez, Northern Arizona University; Lauret E. Savoy, Syracuse University; Jill E. Tagudin, University of California, Santa Cruz; Kenneth J. Vernon, University of Southwestern Louisiana and California State University, Long Beach.

Undergraduates: Carlos A. Alvarez, Miami Dade Community College; Randy D. Bauer, New Mexico State University; David A. Foiles, Adams State College; Lynee Foster, Florida Institute of Technology; Raymond J. Gomez, Jr., Johnson County Community College; Art D. Lombard, University of Michigan; Joseph E. Lopez, California State University, Long Beach; Yolanda H. Moore, Centenary College; Rosella Nials, Eastern New Mexico University; David A. Padgett, University of California, Davis; Ian M. Palao, Florida State University; Tonia E. Rucker, University of California, Berkeley.

First-Year Undergraduates: Anthony Lopez, Florida Institute of Technology; Lara C. Mosby, Cornell University; James Shepherd, Florida State University.

Purpose of Program

The AGI Minority Participation Program was formed in the early 1970s to establish objectives and goals to attract students from those minorities underrepresented in the geosciences. Awards are based upon academic achievement, financial need, and judged potential for future success in the geological profession (which includes geoscience education).

Eligibility and Application for 1988–1989 Scholarships

Those eligible are geoscience and geoscience education majors who are United States citizens and members of one of the following ethnic minority groups: American Black, Hispanic, and Native American (American Indian, Eskimo, Hawaiian, and Samoan). The applicant must have good academic records, meet financial need criteria, and be currently enrolled in an accredited institution as either an undergraduate or graduate student. The term "geoscience" is used broadly to include major study in the fields of geology, geophysics, geochemistry, hydrology, meteorology, oceanography, and planetary geology (as well as geoscience education with specific focus in such disciplines).

An official transcript, three letters of recommendation, and a fully completed AGI-MPP application form must be received no later than *February 1, 1988* (all application materials postmarked after January 31, 1988, will be invalid). It is the applicant's responsibility to follow up on those persons who have agreed to write letters of reference, to guarantee that all materials are received prior to the deadline. Note: Current holders of AGI-MPP scholarships must reapply in order to be considered for 1988–1989 awards. Scholarships are not automatically renewed.

Requests for application materials or nominations for scholarships should be addressed to

Andrew J. Verdon, Jr.
Director of Education
American Geological Institute
4220 King Street
Alexandria, VA 22302
(703) 379-2480.

Geological Society of America

CONGRESSIONAL SCIENCE FELLOWSHIP 1988–1989

The Geological Society of America invites applications for the 1988–1989 Congressional Science Fellowship. The Fellow selected will spend a year (September 1988–August 1989) in the office of an individual member of Congress or a congressional committee advising on a wide range of scientific issues as they pertain to public questions. Guided by the American Association for the Advancement of Science, the Fellow selects a congressional staff position in which he or she can work on major legislative issues.

CRITERIA

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

AWARD

The GSA Congressional Science Fellowship carries with it a $28,000 stipend and a limited relocation and travel allowance.

TO APPLY

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

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

Deadline for receipt of all application materials is March 15, 1988

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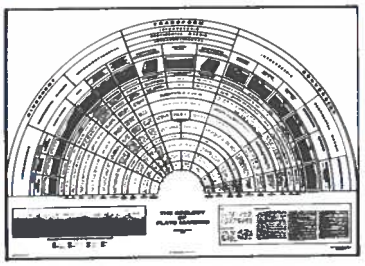

Geology of Plate Margins (MC-59)

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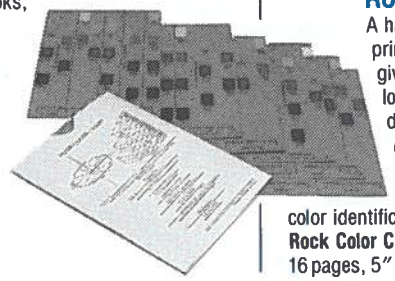

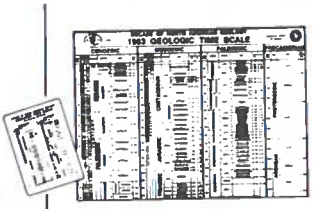

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CTS-2 Single, laminated sheet, 3 hole punch $1.25
CTS-3 Wallet size, pack of 25, solid vinyl $6.00
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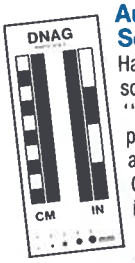

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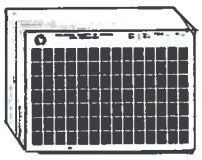

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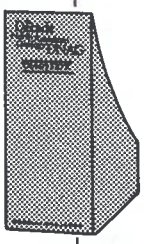

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THE GEOLOGICAL SOCIETY OF AMERICA

MEETINGS

(Asterisk indicates new or changed information)

1987

Workshop to Develop Scientific Drilling Initiatives in the Caribbean, November 17-21, 1987, Runaway Bay, Jamaica. Information: R. C. Speed, Dept. Geological Sciences, Northwestern University, Evanston, IL 60201; (312) 491-3238.

International Waste Management Conference, November 29-December 5, 1987, Hong Kong. Information: Gloria Greene, ASME Professional Development Dept., 345 East 47th St., New York, NY 10017; (212) 705-7398.

Nature and Composition of Surface Units on Mars Workshop, December 4-5, 1987, Napa, California. Information: Pamela Jones, LPI Projects Office, 3303 NASA Rd. 1, Houston, TX 77058; (713) 486-2150.

Society of Economic Paleontologists and Mineralogists Gulf Coast Section 8th Annual Research Conference, Paleontological Applications in Petroleum Exploration, December 6-9, 1987, Houston, Texas. Information: Charles L. McNulty, Dept. of Geology, University of Texas, UTA Box 19049, Arlington, TX 76019; (817) 273-2979.

American Geophysical Union Fall Meeting, December 7-11, 1987, San Francisco, California. Information: Ann E. Singer, American Geophysical Union, 2000 Florida Ave., N.W., Washington, DC 20009; (202) 462-6903.

***National Symposium on Mining, Hydrology, Sedimentology and Reclamation**, December 7-11, 1987, Springfield, Illinois. Information: Juanita Graves, University of Kentucky Office of Continuing Education/Engineering, 223 Transportation Research Bldg., Lexington, KY 40506-0043; (606) 257-3973.

First Arab Conference on Geological Education, December 12-14, 1987, Baghdad, Iraq. Information: Conference Secretariat, Arab Conference on Geological Education, Arab Geologist Association, P.O. Box 1247, Baghdad, Iraq; Telex 212197 JAMIT IK.

GSA 1987

Annual Meeting, October 26-29, 1987, Phoenix, Arizona

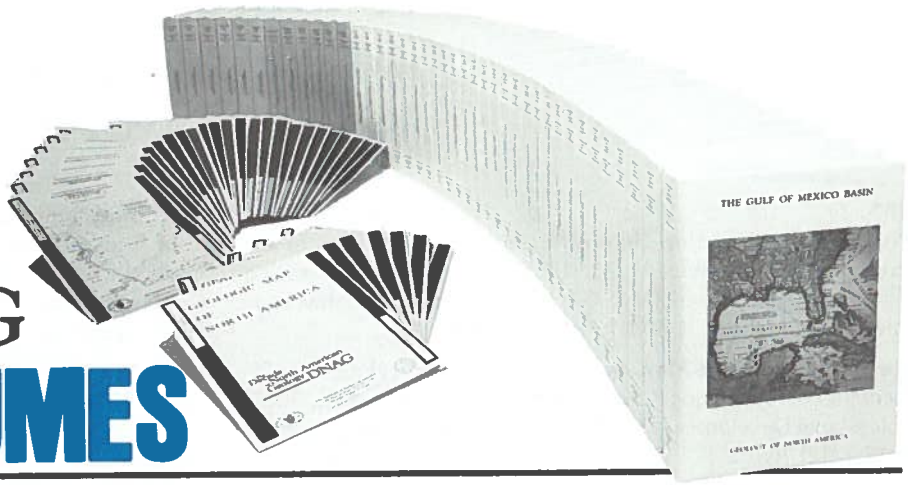
1988

Restoring the Earth, National conference on natural resource restoration and environmental planning, January 13-16, 1988, Berkeley, California. Information: Kathleen Ferguson, 1713 C Martin Luther King Jr. Way, Berkeley, CA 94709; (415) 843-2645.

Australian Association of Exploration Geophysicists- Society of Exploration Geophysicists International Geophysical Conference and Exhibition, February 14-21, 1988, Adelaide, Australia. Information: ASEG/SEG Adelaide '88 Conference, c/o Elliservice Convention Management, P.O. Box 753, Norwood 5067, SA, Australia; phone (08) 332-4068; Telex AA87129.

(*continued on p. 257*)

The Decade of North American Geology DNAG VOLUMES



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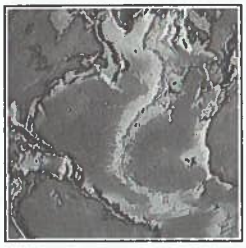

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edited by Ellen T. Drake and William M. Jordan, 1985

An unusually coherent, well-written volume. Prepared for DNAG by the History of Geology Division of GSA. Spotlights events, ideas, and people, and sheds light on the history of North American geology as a whole. With its many intellectual jewels on the evolution of scientific concepts, this book will provide many happy hours of entertainment and instruction for anyone interested in the history of science, especially that of the earth sciences. Thirty-four papers are organized into four categories: (1) The Evolution of Significant Ideas; (2) Contributions of Indivduals; (3) Contributions of Organized Groups; and (4) Application of Significant Ideas. Excellent as a course-book or for additional reading for classes related to the history of geology or general science. Light blue spine.

CSV001, 520 p., Indexed, ISBN 0-8137-5301-5, CIP, hardbound, $37.50.

Geomorphic Systems of North America

edited by W. L. Graf, 1987

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The Western North Atlantic Region

edited by P.R. Vogt and B.E. Tucholke, 1986

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COMING SOON...

Heritage of Engineering Geology

edited by W.L. Graf, 1987

The contribution to DNAG by the Engineering Geology Division of GSA.

MEETINGS (*continued from p. 255*)

American Association of Petroleum Geologists Southwest Section, February 21-23, 1988, El Paso, Texas. Information: Robin Hoffer, Dept. of Geology, University of Texas, El Paso, TX 79968; (915) 747-5501.

***Central Canada Geological Conference**, February 22-23, 1988, London, Ontario. Information: Brett Norris, Dept. Geology, University of Western Ontario, London, Ontario N6A 5B7, Canada; (519) 661-3187. (*Abstracts due December 1, 1987.*)

***Second International Symposium on Geotechnical Applications of Ground-Penetrating Radar**, March 6-10, 1988, Gainesville, Florida. Information: Gregg Schellengrager, U.S.D.A.-SCS, 701 SE First Ave. Gainesville, FL 32601; (904) 377-1092. (*Title summaries due November 30, 1987.*)

American Association of Petroleum Geologists Annual Meeting, March 20-23, 1988, Houston, Texas. Information: AAPG Convention Dept., P.O. Box 979, Tulsa, OK 74101; (918) 584-2555.

Anadarko Basin Symposium, April 5-6, 1988, Norman, Oklahoma. Information: Kenneth S. Johnson, Oklahoma Geological Survey, University of Oklahoma, Norman, OK 73019; (405) 325-3031.

American Association of Petroleum Geologists Pacific Section, April 17-19, 1988, Santa Barbara, California. Information: Jack Cunningham, Celeron Oil & Gas, 111 West Micheltorena, Santa Barbara, CA 93101-3018; (805) 966-0831.

V. M. Goldschmidt Conference for geochemistry, May 11-13, 1988, Baltimore, Maryland. Information: Goldschmidt Conference Coordinator, Pennsylvania State University, 410 Keller Bldg., University Park, PA 16802. (*Abstracts due December 18, 1987.*)

Sixth Thematic Conference on Remote Sensing for Exploration Geology, May 16-19, 1988, Houston, Texas. Information: Thematic Conference, Environmental Research Institute of Michigan, P.O. Box 8618, Ann Arbor, MI 48107; (313) 994-1200, ext. 3382; Telex 4940991 ERIMARB.

American Geophysical Union Spring Meeting, May 16-20, 1988, Baltimore, Maryland. Information: Ann E. Singer, American Geophysical Union, 2000 Florida Ave., N.W., Washington, DC 20009; (202) 462-6903.

Bicentennial Gold 88, May 16-20, 1988, Melbourne, Australia. Information: R. R. Keays, Dept. of Geology, University of Melbourne, Parkville, Victoria 3052, Australia; telephone (03) 345 1844; Telex AA35185.

Geological Association of Canada-Mineralogical Association of Canada-Canadian Society of Petroleum Geologists Joint Annual Meeting, May 22-25, 1988, St. John's, Newfoundland. Information: John Fleming, Newfoundland Dept. of Mines and Energy, P.O. Box 4750, St. John's, Newfoundland A1C 5T7, Canada; (709) 576-2768.

Case Histories in Geotechnical Engineering 2nd International Conference, June 1-5, 1988, St. Louis, Missouri. Information: Shamsher Prakash, Room 308, Dept. of Civil Engineering, University of Missouri, Rolla, MO 65401; (314) 341-4461.

WaterTech China '88, International exposition and congress of water technologies, June 3-8, 1988, Beijing, China. Information: Management Committee, WaterTech China '88, c/o MartLink Communications Group, GPO Box 13477, Hong Kong; phone 5-225705; Telex 72091 HX.

Second International Symposium on Rockbursts and Seismicity in Mines, June 8-10, 1988, Minneapolis, Minnesota. Information: Charles Fairhurst, Dept. Civil and Mineral Engineering, University of Minnesota, 500 Pillsbury Dr. S.E., Minneapolis, MN 55455-0220.

29th U.S. Symposium on Rock Mechanics, June 13-16, 1988, Minneapolis, Minnesota. Information: Jan Becker, Dept. Professional Development, University of Minnesota, 315 Pillsbury Dr. S.E., Minneapolis, MN 55455; (612) 626-1358.

Fourth Symposium on the Geology of the Bahamas, June 17-22, 1988, San Salvador Island, Bahamas. Information: Donald T. Gerace, CCFL Bahamian Field Station, 270 Southwest 34th St., Fort Lauderdale, FL 33315.

Shelf Sedimentation: Events and Rhythms (SEPM research conference), June 26-July 1, 1988, Santa Cruz, California. Information: M. Field or E. Clifton, USGS, 345 Middlefield Rd., Menlo Park, CA 94025; (415) 354-3088 or 3112.

Seismic Probing of the Continents and Their Margins International Symposium, July 6-8, 1988, Canberra, Australia. Information: Jim Leven, Bureau of Mineral Resources, P.O. Box 378, Canberra, ACT 2601, Australia; telephone (062) 499111; Telex AA62109.

International Working Meeting on Soil Micromorphology (meeting of Subcommission B of the International Society of Soil Science), July 10-15, 1988, San Antonio, Texas. Information: L. P. Wilding, Dept. of Soil and Crop Sciences, Texas A&M University, College Station, TX 77843-2474; (409) 845-3604.

First International Conference on Radiolaria, July 18-20, 1988, Marburg, Federal Republic of Germany. Information: Joyce R. Blueford, U.S. Geological Survey, MS 144, 345 Middlefield Rd., Menlo Park, CA 94025; (415) 329-4004, or R. Schmidt-Effing, InterradConference, Dept. of Geosciences, Philipps-Universität, Lahnberge, D-3550 Marburg, Federal Republic of Germany.

5th International Symposium on Fossil Cnidaria, including Archaeocyatha and spongiomorphs, July 25-29, 1987, Brisbane, Australia. Information: John Jell, Uniquest Ltd., University of Queensland, St. Lucia, QLD 4067, Australia; phone (07) 344 2733.

Permafrost 5th International Conference, August 2-5, 1988, Trondheim, Norway. Information: V International Conference on Permafrost, Norwegian Institute of Technology, Studies Administration, N-7034 Trondheim-NTH, Norway.

***Fifth International Symposium on the Ordovician System**, August 9-12, 1988, St. John's, Newfoundland. Information: Chris R. Barnes, ISOS, Dept. of Earth Sciences, Memorial University, St. John's, Newfoundland A1B 3X5, Canada; (709) 737-8143.

American Association of Petroleum Geologists Rocky Mountain Section, August 21-24, 1988, Bismarck, North Dakota. Information: Roger N. Borchert, Box 5006, Bismarck, ND 58501; (701) 223-3588.

***Society of Economic Paleontologists and Mineralogists Fifth Midyear Meeting**, August 21-24, 1988, Columbus, Ohio. Information: SEPM, P.O. Box 4756, Tulsa, OK 74159-0756; (918) 743-9765.

6th International Fission Track Dating Workshop, September 5-9, 1988, Besançon, France. Information: J.-L. Janier-Dubry, Lab. de Microanalyses Nucléaires, U.F.R. des Sciences et Techniques, 16 Route de Gray, 25030 Besançon cedex, France; telephone 81.53.81.22.

International Symposium on Geochemistry and Mineralization of Proterozoic Mobile Belts, September 6-10, 1988, Beijing,

(*continued on p. 259*)

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MacARTHUR CHAIR IN HYDROGEOLOGY/ENVIRONMENTAL SYSTEMS
Bucknell University

The Department of Geology invites applications for a tenure-track faculty position occupying the MacArthur Chair in Hydrogeology and Environmental Systems. We are particularly interested in identifying geoscientists with sufficient experience to warrant appointment at the Assistant or Associate Professor level and with concern for applying their specialty to broader questions of interactions within environmental systems. We seek an individual who will take advantage of the strong programs in science and engineering present at Bucknell in a strong liberal arts context, and who has an enthusiasm for teaching highly qualified undergraduates at both introductory and advanced levels. Our primary objective is to receive applications from persons with a Ph.D. and experience in hydrogeology, but we will also consider geomorphologists with research interests in low-temperature geochemistry of natural water systems who can teach a course in hydrogeology. This position will be filled beginning September 1988. Salary is competitive; funds are included for equipment and research; and there is a lower teaching load for the initial five years of the appointment. Applicants should send a detailed resume, the names of three individuals from whom letters of recommendation can be obtained, and a statement of research and teaching interests to: Dr. J. C. Allen, Chairman, Department of Geology, Bucknell University, Lewisburg, PA 17837. Review of applications will begin November 1, 1987. Bucknell University is an Affirmative Action/Equal Opportunity Employer.

THE DEPARTMENT OF GEOGRAPHY AND GEOLOGY AT MOUNT HOLYOKE COLLEGE invites applications for a full-time, tenure-track position at the Assistant Professor level in a three-person geology program, beginning September 1988. Applicants must have completed all requirements for the Ph.D. before the appointment can be finalized. Some teaching experience is preferred, and a sincere commitment to high-quality teaching of excellent undergraduate students (both geology majors and nonmajors) in a liberal-arts setting is an absolute must. Applicants must also be willing to interact (both in research and in teaching) with earth science faculty and graduate student colleagues in our local Five-College consortium. We solicit applications primarily from individuals with teaching/research competence in surficial geology (geomorphology, glacial geology, hydrogeology, or sedimentology), but would also like to consider applications from specialists in geophysics (especially seismology). Strong field orientation is important. If interested, please send resume, one-page statement of immediate teaching and research goals, and names of three references to: Martha M. Godchaux, Chair, Department of Geography & Geology, Mount Holyoke College, South Hadley, MA 01075 before January 1, 1988. Mount Holyoke College is an Affirmative Action/Equal Opportunity Employer.

STRUCTURAL GEOLOGIST
UNIVERSITY OF TENNESSEE-KNOXVILLE

The Department of Geological Sciences, University of Tennessee-Knoxville invites applications for a tenure track position in structural geology (Assistant or Associate Professor level) to be filled September 1, 1988. Applicants should have a Ph.D. degree completed by the time of employment, and interest in pursuing a strong research program in structure and tectonics. All members of the faculty teach both graduate and undergraduate courses in their discipline. Preference will be given to those with documented research capability. The University of Tennessee is located in a classic region for research into the structure of orogenic belts and evolution of continental crust. Excellent computing and analytical facilities are available at the University and nearby Oak Ridge National Laboratory. Application deadline: January 8, 1988. Send resume with summary of research interests, publications, experience, and names and addresses of three references to: DR. STEVEN G. DRIESE (CHAIRPERSON), STRUCTURAL GEOLOGY SEARCH COMMITTEE, DEPARTMENT OF GEOLOGICAL SCIENCES, UNIVERSITY OF TENNESSEE, KNOXVILLE, TN 37916. UTK is an EEO/Title IX/Section 504 employer.

THE DEPARTMENT OF GEOLOGY, WASHINGTON STATE UNIVERSITY invites applications for a fulltime, tenure-track position in carbonate petrology/sedimentology beginning August 15, 1988. The position will be filled at the assistant professor level. A strong commitment to research is expected, and the Ph.D. is required. The application deadline is January 1, 1988. Send resume, transcripts and three letters of recommendation to Dr. Gary Webster, Department of Geology, Washington State University, Pullman, WA 99164-2812. WSU is an EO/AA educator and employer. Protected group members are encouraged to apply and to identify their status.

CARBONATE GEOLOGIST/
GENETIC STRATIGRAPHER
KANSAS GEOLOGICAL SURVEY

Full-time position. University of Kansas staff. Ph.D. (geology); aggressive publications record; strong background in interpretation of modern and ancient carbonate sedimentary and diagenetic processes; previous research activities in subsurface stratigraphy using common types of subsurface information; experience in interpretation of Paleozoic and Mesozoic carbonate rocks. Prefer strong background in modern carbonate depositional environments; familiarity with mid-continent geology; familiarity or experience in quantitative modeling of sedimentary sequences; five to seven years work experience in academia or industry. Send letter, resume, college transcripts, three references to: Personnel Manager, Kansas Geological Survey, 1930 Constant Avenue, Campus West, University of Kansas, Lawrence, KS 66046-2598. (913) 864-3965. Complete announcement on request. Applications received on or before November 30, 1987, will be considered. Position available on or about August 1988. EO/AA Employer.

GEOPHYSICIST OR HYDROGEOLOGIST

The Department of Geology of The University of Alabama invites applications for a full-time, tenure-track position in one of the following areas, to begin August, 1988.

1. Solid-earth geophysics. Preference will be given to candidates with research interests in seismic interpretation, tectonics, or basin analysis who can complement existing programs in stratigraphy, structure, and tectonics.
2. Hydrogeology. Preference will be given to candidates with a research interest in groundwater hydrology who can complement existing programs in low-temperature geochemistry, environmental engineering, and hydrology.

The State Geological Survey, State Oil and Gas Board, Mineral Resources Institute, and Water Resources Division of the USGS, all located in Tuscaloosa, provide unique resources and opportunities for cooperative research programs.

Responsibilities include undergraduate and graduate courses, establishing a vigorous research program, and directing M.S. and Ph.D. research. A Ph.D. is required. Send a resume, copies of transcripts, a statement of teaching and research interests, and the names of at least 3 references by Jan. 15, 1988, to Dr. Joe Benson, Faculty Search Committee, Department of Geology, The University of Alabama, Tuscaloosa, Alabama 35487-1945. The position will be filled at the assistant or associate professor level. Rank will be determined using established departmental guidelines for promotion. U.A. is an affirmative-action, equal-opportunity employer.

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FAX (805) 257-0381

MEETINGS

(*continued from p. 257*)

China. Information: Proterozoic Geochemistry Symposium, c/o Prof. Sun Dazhong, Tianjin Inst. Geology and Mineral Resources, CAGS No. 4, 8th Rd., Dazhigu, Tianjin 300170, People's Republic of China.

International Symposium on Engineering Geology: Study, Preservation and Protection of Ancient Works, Monuments and Historical Sites, September 19-23, 1988, Athens, Greece. Information: Paul G. Marinos, Greek Committee of Engineering Geology, 1988 Symposium Secretariat, P.O. Box 19140, GR-117 10 Athens, Greece; Telex 45 4312 POLX.

***Fourth International Tectonostratigraphic Terrane Conference**, September 23-October 7, 1988, Nanjing University, Nanjing, People's Republic of China. Information: Tom Wiley, U.S. Geological Survey, MS 999, 345 Middlefield Road, Menlo Park, CA 94025; (415) 354-3067.

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

GSA 1988

Northeastern Section, March 9-12, Portland, Maine
South-Central Section, March 14-15, Lawrence, Kansas
***Cordilleran Section**, March 29-31, Las Vegas, Nevada

Note: Dates changed from those given in First Announcement in October *GSA News & Information*.

Southeastern Section, April 6-8, Columbia, South Carolina
North-Central Section, April 21-22, Akron, Ohio
Rocky Mountain Section, May 16-18, Sun Valley, Idaho
Annual Meeting, October 31-November 3, Denver, Colorado

Penrose Conferences

***Origin of Massif Anorthosites and Related Rocks**, August 14-19, 1988, Chugwater, Wyoming. Information: B. Ronald Frost, Dept. of Geology and Geophysics, University of Wyoming, Laramie, WY 82071; (307) 766-4290.

Volcanic Influences on Terrestrial Sedimentation, August 28-September 3, 1988, Crystal Mountain, Washington. Information: Gary A. Smith, Dept. of Geology, University of New Mexico, Albuquerque, NM 87131; (505) 277-4204.

Memorial Preprints

The following memorial preprints are now available, free of charge, by writing to GSA, P.O. Box 9140, Boulder, CO 80301.

Victor Thomas Allen, by Kenneth G. Brill, Jr.
Harold E. Enlows, by Keith F. Oles, Robert J. Lant, and John F. Harris
Clifford Alan Kaye, by Allen W. Hatheway and Tomas Feininger
Robert Minssen Kleinpell, by Ann Tipton Donnelly
Wilbur Goodrich Valentine, by John A. Shimer

In Memoriam

John T. Dillon
Fairbanks, Alaska
July 26, 1987

Henry Florey Fowler
Houston, Texas
July 14, 1987

Fred H. Klaer, Jr.
Columbus, Ohio

Harlan T. Sutherland
Austin, Texas

Loren D. Wicks
Kendall, Florida
February 21, 1987

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