I.A.M.G. NEWS LETTER* no. 33

FELIX CHAYES Named 9th Krumbein Medallist

The 1984 recipient of the W.C. Krumbein Medal was announced in Moscow at the 27th International Geological Congress by IAMG President E.H.T. Whitten. **Felix Chayes**, of the Geophysical Laboratory of the Carnegie Institution (USA), a respected leader in the field of mathematical geology for many years, has been chosen to receive the IAMG's highest award.

Dr. Chayes, who was a personal friend and colleague of Professor Krumbein, is known throughout the world for his contributions to the field of igneous petrology, ratio correlation, and to the monumental achievement of IGCP Project 163—the International Data Base for Igneous Petrology. He is author of two books, contributor to eight other texts and compendiums, and author/co-author of over 85 scientific articles and reviews.

Dr. Chayes received his undergraduate degree at New York University. Master's (1939) and Ph.D. (1941) degrees were awarded by Columbia University. His professional experience includes U.S. War Production Board service (military leave) with the U.S. Bureau of Mines, and with the Metallurgy Department, MIT, where he worked on the Manhattan Project. His present association with the Carnegie Institution began in 1947. He is a Fellow of MSA, GSA, and AGU, which organizations he has served variously as secretary, councillor, vice-president, and president. He is a Charter Member of the IAMG.

The William Christian Krumbein Medal, inaugurated by the IAMG in 1976, symbolizes the highest distinction that the Association can bestow. The nine recipients to date represent almost as many specialities, including sedimentology, stratigraphy, resource analysis, paleontology, mining engineering, geostatistics, and, most recently, statistical petrology, the major professional interest of our distinguished 9th IAMG Krumbein medallist, Felix Chayes.

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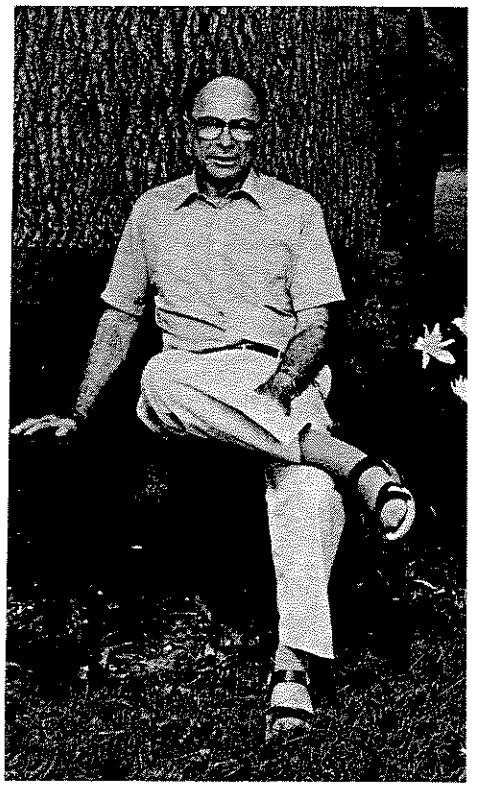
BEST PAPER AWARDS—Computers & Geosciences, Mathematical Geology

Because of the disrupted publication schedule of C&G, Best Paper awards for papers published in that journal for both 1983 and 1984 have been delayed.

Best Paper Award for a paper published in Mathematical Geology in 1983 goes to **Zhou Di, Theodore Chang**, and **John C. Davis** for "Dual Extraction of R-mode and Q-mode Factor Solutions," which appeared in Vol. 15, no. 5.



In addition to certificates of award, "best-paper authors" receive a year's subscription to the journal in which their article appeared.

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Oxford University Press to Publish New IAMG Monograph Series

Oxford University Press, Inc. has been selected as publisher of the IAMG monographs on mathematical geology. The new series, for major articles too long for publication in either Association journal, will present results of recent research in geomathematics, reviews of specific areas, and tutorial or educational works.

Editorial duties for the monograph series have been graciously assumed by **Richard McCammon** (who proposed the venture—that'll teach him!). Dick will share responsibilities with **C. John Mann**, new editor of Mathematical Geology, and John's predecessor, **Thomas A. Jones.**

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IAMG Logo to Remain Unchanged

The IAMG V General Assembly voted to retain the original logo of the Association that appeared on the certificate received by charter members during the first year of the Association's existence, and that has been used on all correspondence, communications, and publications, as well as the IAMG banner and the Krumbein Medal, since inception of the Association.

Rather than replacing the 80-column punched card that forms part of the seal of the IAMG with a representation of a desk-top computer [see News Letter No. 30, "Time for a Change?"], or designing a new logo bearing the symbolic formula

$$H_i : H_{i+j}$$

to exemplify the testing of geological hypotheses [see News Letter No. 31-32, "Response to Proposed New Logo"], the Association will continue to be identified by the logo designed by D. F. Merriam in 1968.

US Regional Group: Mathematical Geologists of the United States

Officers for the Mathematical Geologists of the United States (MGUS) for the period 1984-1986 are: President—**Don Meyers** (University of Arizona); Vice President—**Jen-Ho Fang** (University of Alabama); Treasurer—**Jack Schuenemeyer** (University of Delaware); Secretary—**Tom Jones** (EXXON, Houston). MGUS is the regional organization for all IAMG members residing in the U.S.

Topics currently under consideration by MGUS officers include decisions regarding a 3rd (1986) edition of the MGUS directory. Copies of the 2nd edition of that publication, Directory of North American Geoscientists engaged in Mathematics, Statistics and Computer Applications, are still available. This volume contains the names, addresses, affiliations, and photos of over 300 geoscientists with interests and expertise in mathematical geology. It is provided at no charge to those who respond to the MGUS questionnaire and whose names appear in the directory.

The MGUS directory may be ordered from the Kansas Geological Survey, 1930 Constant Avenue, Lawrence, KS USA 66046 for $10.00 US plus 85¢ postage and handling. Make checks payable to MGUS, and be sure to print your name and address clearly. [Don't forget to send in the form in the directory to be included in future issues.]

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IAMG Committee on Microcomputers

A Committee on Microcomputers is being established by the IAMG. In that regard, and as reported in the last News

Letter, we wish to identify and communicate with local "user's groups" or "computer clubs" in order to encourage participation in such activities. So far we have been disappointed by an underwhelming response to our request for information on local societies. Groups mentioned in the News Letter article included COGS (Computer Oriented Geologists Society), Denver, Colorado, USA; HAL-PC (Houston Area League Personal Computer Club, Petroleum and Geology Special Interest Group), Houston, Texas, USA; Houston Geological Society Computer Applications Committee; RMAG (Rocky Mountain Association of Geologists) Computer Committee, Denver; and the Wyoming Geological Association Standing Committee on Computer Geology, Casper, Wyoming, USA. We have received no word of other groups.

If you can provide information about local computer societies—names, addresses, locations, meeting dates—please write to IAMG President John Davis (c/o Kansas Geological Survey, 1930 Constant Avenue, Lawrence, KS 66046 USA). If you would like to serve on the Committee on Microcomputers, volunteer!

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1985 Membership Dues

IAMG membership has grown to nearly 800 worldwide. The size and quality of our two journals has also increased. Mathematical Geology is now issued 8 times a year, with the number of pages expanded from 700 to 900 pages. Computers & Geosciences will appear 6 times a year in 1985.

Dues for members receiving only Mathematical Geology remain unchanged for 1985; dues for members who subscribe to Computers & Geosciences must be raised to offset part of the increased cost of bimonthly publication. Membership rates for 1985 are:

* with Mathematical Geology and the News Letter **$US 27.00**
* with Computers & Geosciences and the News Letter **$US 38.00**
* with Mathematical Geology, Computers & Geosciences, and the News Letter **$US 62.00**

Dues notices for 1985 have already been mailed to IAMG members; please remit promptly, and remember that dues must be paid in US dollars. The Association can no longer absorb the "outlandish" banking charges on foreign currency!

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PRESIDENT'S PRIZE — 1983 Winner Announced, 1984 Selection Delayed, 1985 Nominees Sought

The President's Prize recognizes outstanding contributions to mathematical geology by young scientists (no older than 35 years of age at the time of nomination), at the beginning of their professional careers. The award is intended to encourage continued efforts in the area of geomathematics.

The 1983 President's Prize recipient is **Brian Jones**, Curator of Paleontological Collections, University of Alberta (Canada). Jones received his B.Sc. degree with honors from the University of Liverpool (UK) in 1971; his Ph.D. was awarded by the University of Ottawa (Canada) in 1974. In 1980 Jones was invited speaker at the First Chinese Brachiopod Symposium in Hangzhou. He has published extensively in the Journal of Paleontology and the Canadian Journal of Earth Sciences, as well as a number of other journals, including Mathematical Geology (May, R. W. and Brian Jones, 1982, Stochastic Analysis of Complex Lithological Successions, Vol. 14, no. 5).

The 1984 President's Prize winner has not yet been identified, despite heroic efforts by **D.M. Hawkins**, outgoing IAMG Vice President and chairman of that year's selection committee. In addition to the usual communication problems and delays caused by international mail, the work of the 1984 committee has been hampered by "uneven and in some cases totally inadequate documentation on the nominees." Doug points out that the following items as essential for the deliberations of our selection committees, particularly the President's Prize committee: basic biographical data, including date of birth; education; awards; publication list and details; career outline; and list of particular achievements. It is probably not necessary to go to the expense and effort of providing copies of all the nominee's publications.

Bearing in mind Doug's requisites, IAMG members are asked to submit nominations for the 1985 President's Prize directly to the selection committee chairman,

John M. Cubitt
Poroperm Laboratories Ltd.
Chester Street, Saltney
Chester CH4 8RD
ENGLAND

or forward them via the offices of IAMG President Davis (c/o Kansas Geological Survey) or Sec.-General R.B. McCammon (U.S. Geological Survey, National Center 920, Reston, VA 22092 USA).

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About People—An Update

Bjorn Malmgren moved his activities from the Department of Geology, University of Stockholm, to the Department of Paleontology, University of Uppsala (Sweden) in February 1984. If your letters have gone unanswered, try contacting Bjorn c/o Uppsala Universitet, Paleontologiska Institutionen, Box 558, S-751 22 UPPSALA.

The Association was saddened to learn of the deaths of two IAMG members during the past year. Word was received in late August that **Kenneth C. Daverin**, Associate Mineral Resources Engineer at the State Lands Commission office in Long Beach, died in an auto accident August 19, 1984, in Mill Creek, California (USA); and the October 1984 issue of the AAPG Explorer brought word of the death of **Yakov Vinkovetsky** of Exxon Production Research Company in Houston, Texas (USA).

The Kansas Geological Survey hosted two distinguished mathematical geologists in October. **Andrea Fabbri** of the Instituto di Geologia Marina (C.N.R.) in Bologna, Italy, described "Specialized computer architectures for the analysis of spatially distributed data in the earth sciences." **John C. Griffiths**, Professor Emeritus of Petrography from Pennsylvania State University (USA), discussed "Some aspects of resource assessment."

More recently at the Kansas Survey, **Zhou Di** has returned to China and a post at the South-China Sea Oceanography Institute in Guangzhou, Guangdong, after a four-year stay at Kansas which combined research and study, leading to a Ph.D. in Geology at The University of Kansas; **Colin Ferguson** will assume a new post at Louisiana State University in Baton Rouge (USA); and the Advanced Projects Section has joyfully welcomed back **Ricardo Olea**, after a two-years-plus leave of absence in his native Chile.

Pierre Leymarie, of the Institut National de Recherche en Informatique et en Automatique (INRIA), Valbonne (France), asks that colleagues take note of his new address: Pierre LEYMARIE, INRIA, Centre de Sophia Antipolis, Route des Lucioles, 06 560 VALBONNE (Telex: INRIASA 970050 F).

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Glossary of Mathematical Geology

The initial word list for the new multilingual Glossary of Mathematical Geology has been received from Chief Editor **Vassil Vuchev** (Bulgaria), who is also Editor for Russian- and Bulgarian-language entries. Editors for French (**Michel Mellinger**) and Italian (**Andrea Fabbri**) have now been recruited, leaving only a German-language Editor to be identified. Other editors are **Zhou Di** (Chinese), **John Davis** (English), and **Ricardo Olea** (Spanish). Vassil anticipates that the volume, to appear as a joint publication of the IAMG and the Geological Institute of the Bulgarian Academy of Sciences, will comprise 160 printed pages, priced below $10.00 US. Initial plans call for printing (by the Bulgarian Academy) of at least 2000 copies.

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Formal Presentation of 7th Krumbein Medal

Presentation of the 7th W.C. Krumbein medal to **Daniel Gerhardus Krige** was made by IAMG Councillor **R. J. Howarth** on March 26, 1984, at APCOM '84 in London—the first occasion since Professor Krige was named 1982 medallist that both he and an IAMG Council member were present at the same meeting.

Referring to Professor Krumbein's frequent identification as "the father of Mathematical Geology," Dr. Howarth remarked upon the appropriateness of the selection of Professor Krige as the seventh recipient of the medal named in Krumbein's honor, calling Krige "a man who can rightly be regarded as the father of mathematical mining geology." The significant accomplishments of Professor Krige include laying of the foundations for the geostatistical technique termed 'krigage' by its developer, **G. Matheron**; the first application of risk analysis to evaluation of new mine ventures; and design of the State formula for marginal gold mines, enacted in 1968.

In 1981 Dr. Krige was appointed to the newly created Chair of Mineral Economics at the University of Witwatersrand, and the University of Pretoria conferred upon him the honorary degree of D. Eng. In 1982 he received the Gold Medal of the South African Academy for Science and the Arts.

The Association is grateful to the Organizing Committe of APCOM '84 for inclusion of the Krumbein Medal presentation in their program.

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BES Seeks Recognition and Support of Earth Science Community

The Board on Earth Sciences (BES) of the U.S. National Research Council, now beginning its fourth year of operation, is charged with oversight of the solid-earth sciences, and attempts to assure their health and capacity to address national and societal needs. BES and its several committees, drawn from diverse branches of the field, review ongoing scientific and public activities in the earth sciences to identify promising research opportunities and to help establish scientific policy bearing on larger earth science programs in and on behalf of the United States. Among major accomplishments of BES to date is the 1983 National Research Council report which delineated new and exciting areas for scientific investigation (global seismic network plus portable digital seismic array; deep crustal reflection profiling; global positioning satellite; continental deep drilling; and physics and chemistry of geologic materials).

BES can only be effective in its attempt to enhance the vigor and capa-

bilities of the solid-earth sciences if it has the recognition and support of the earth science community. To this end, the advice and backing of the various professional societies, as well as individual scientists, is sought. Send your suggestions and topics for consideration by the Board on Earth Sciences to:

W. G. Ernst, Chairman
Board on Earth Sciences
National Research Council
2101 Constitution Avenue, N.W.
Washington, D.C. 20418

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UK Regional Group

The Geological Information Group (GIG) of the Geological Society of London is the IAMG regional organization in the United Kindgom. The Group provides a forum for topics such as computer applications in geology, including microcomputers; artificial intelligence and geology; statistics in geology; geological information sources for various regions of the world; the future of the geological map; databases and data banks in geology; sources of information for fossil fuels and economic minerals; and remote sensing of geological information.

The GIG Committee for Session 1984/85 comprises Chairman—**Graham G. Baxter** (Britoil); Secretary—**Stuart V. Duncan** (IEA Coal Research); Publications—**R.J. Howarth** (Imperial College), Secretary, and **Geoff Laurence** (Hunting Geology & Geophysics); Membership—**W.G. Henderson** (British Geol. Survey), Secretary, and **Roger Till** (BP Exploration). Interest Area Representatives are: Geological Bibliographies—**Ann Lum** (British Museum); Mathematical Geology—**Peter Hill** (Kingston Polytechnic); Geological Data Systems—**David Burwell** (BP Research Centre). Representative for the newest Interest Area, Microcomputers—recently added "after much debate...to offer a forum where users can share experiences and frustrations and generally pool their knowledge"—is **William T. Sowerbutts** (University of Manchester). Liaison for the 1986 3rd International Conference on Geoscience Information is **Mike F. Horder** (BP Minerals International).

For membership applications and information about this very active IAMG regional group, their calendar of events, and their excellent twice-yearly newsletter, contact GIG Secretary Stuart Duncan, IEA Coal Research, 14 Lower Grosvenor Place, London SW1W 0EX [Tel. 01-828 4661 ext. 207].

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MATHEMATICAL GEOLOGY Now Up to Strength

The transition of duties from former Chief Editor **Tom Jones** to **C. John Mann**, formerly Deputy Editor, has gone smoothly. Since his appointment as Editor-in-Chief of Mathematical Geology, John has reenlisted and recruited a full force of Associate Editors and Correspondents. Aided by Deputy Editor **Robert Ehrlich** of the University of South Carolina, Columbia (USA), John has been at work since May 1984. Tom Jones remains on board as Book Review Editor. **W.E. Bardsley** (University of Waikato, New Zealand) continues to serve as Associate Editor, and is joined by Associate Editors **Margaret Armstrong** (Centre Geostatistique et de Morphologie Mathematique, Fontainebleau, France) and **Niichi Nishiwaki** (Kyoto University, Japan). Eleven Editorial Correspondents have agreed to continue in that role: **Marco Alfaro** (Chile), **A.C. Cook** (Australia), **Josip Crnicki** (Yugoslavia), **A.G. Fabbri** (Italy), **D.M. Hawkins** (South Africa), **Li Yuwei** (China), **L.I. Malagrida** (Spain), **F.N. Sadooni** (Iraq), **A.K. Saha** (India), **Wolfgang Scherer** (Venezuela), and **Vassil Vuchev** (Bulgaria). New Correspondents are **S.R. Divi** (Saudia Arabia), **Leonardo Elizalde** (Ecuador), **Adriano Heckert Gripp** (Brazil), **Wilfried Imrich** (Austria), **M.A. Olorunniwo** (Nigeria), **Gerardo M.E. Perillo** (Argentina), and **A.B. Vistelius** (USSR).

Letters to the editor, announcements, and manuscripts (in triplicate) should be addressed to:

Professor C. John Mann
Department of Geology
University of Illinois
1301 West Green Street
Urbana, IL 61801 USA
[Tel. (217) 333-1166]

Financial Statement of the International Association for Mathematical Geology — Statement of Income and Expenses for Period from Jan. 1 to Dec. 31, 1983

Income:

Membership dues	$25,561.64
Interest on checking account	219.31
Interest on money market	1,699.21
Dividends on common stock	365.00
Dividends on GNMA	4,154.33
Royalty from publisher	3,929.65
IUGS allocation	1,300.00
Sale of mailing list	39.00
Total Income	$37,268.14

Expenses:

Journal subscriptions	$23,597.00
Convention booth rentals	1,663.53
Printing	265.20
Postage	585.53
Dues mailing costs	108.00
Advertising	1,715.26
Pres. Prize plaque	53.16
Travel (ASA spkr.)	250.00
Banking charges	55.45
Total expenses	$28,293.13
Excess of Income	$8,975.01

Balance Sheet
December 31, 1983

Assets:

GNMA	
9410 units @ .79138	$7,446.89
1207 units @ .79902	965.22
9.937 units @ 19.46	193.37
	$ 8,605.48
Reserve Fund	4,255.61
GSS Money Market	13,843.90
Exxon, 100 shares	3,737.50
IBM, 100 shares	12,200.00
Cash	1,022.85
	$43,665.34

Liabilities:

Membership equity[1] (deficit)	$43,665.34
	$43,665.34
Increase from December 31, 1982	$9,204.23

[1]Does not include Swiss Franc Account Swiss Francs[2] S.F. 6,029.58 $2,754.92

[2]This account did not change during 1983. Exchange rate 4/18/83 = .4569

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IAMG Membership Chairman **Pete Feldhausen** wants addresses. If your activities — national/international scientific meetings, conferences, etc.— bring you in contact with non-IAMGers who are professionally concerned with or interested in application of mathematics and statistics to the earth, biological, planetary, engineering, or computer sciences, let Pete know. Perhaps you have a "list of attendees" among your convention souvenirs; send it to:

Peter H. Feldhausen
1115 Residence Drive
Aiken, South Carolina 29801 USA

Pete's committee this year, with all due apologies to those whose names are unknown at "press time", includes **H. Siemes**, RWTH-Aachen Mineralogical Institute, Aachen, FRG; **Pamela Doctor**, Battelle Northwest, Richland, WA, USA; and **John Butler**, University of Houston, Houston, TX, USA.

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COMPUTERS & GEOSCIENCES Rising from Ashes

Did you receive a letter in 1984 that went something like, "I'm sorry to have to inform you that the problem with your Computers & Geosciences subscription is not unique," or "I'm sorry for the inconvenience caused by the delay in receipt of your journal. Pergamon experienced a great deal of difficulty retrieving the manuscripts for the first issues of Volume 10 from striking Irish typesetters..."?

Everything is under control now (hopefully!), and the many IAMG member/subscribers who inquired about their missing issues know the story, but in case you don't, here's the sad tale as related by C&G Co-Editor-in-Chief, **John Cubitt** (UK).

Pergamon Publishing Co., the British publisher of C&G, engaged in a "protracted, costly, and sometimes violent dispute" with their Irish typesetters. "During the first six months of the year [1984], considerable disruption of the journal occurred due to a deliberate reduction in productivity at the plant" (i.e., as of August, only one issue had appeared, and the page proofs of nos. 2 and 3 were being held hostage). Vol. 11, no. 1 was destroyed in an arson fire at the plant in Dublin, and while Pergamon solicited the cooperation of contributors, Cubitt braced himself for anticipated "author backlash."

Our limited space precludes relating more of the story, which goes on, and on, and . . . . Anyway, all journal typesetting has now been transferred to the U.S. and John and Co-Editor-in Chief **Dan Merriam** (USA) report that operations have returned to near normal, with only a few problems described as "New York office teething problems."

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IAMG V General Assembly

Over 40 scientists from 16 countries were present August 8, 1984, for the V General Assembly, held during the XXVII International Geological Congress in Moscow (USSR). President **E. H. Timothy Whitten** presided. Four officers, three Council members, and 15 regular members were in attendance.

IAMG Secretary-General **John Davis** described some of the "growing pains" of the Association, caused primarily by world economic conditions. Several meetings were cancelled in 1982, postal strikes and industrial disputes hampered the timeliness of Computers & Geosciences in 1983-84, and appearance of the IAMG News Letter has been erratic due to exorbitant postal rates. However, the fiscal health of the IAMG is reported to be excellent.

Copies of the most recent financial statement [see p. 4, col. 1] were distributed. Western Treasurer **R.B. McCammon** pointed out that most of the membership dues go toward journals subscriptions. Eastern Treasurer **Vassil Vuchev** reported no currency, but outlined plans of the recently formed IAMG Bulgarian regional organization to generate funds through assessment of annual dues. IAMG regional groups are active in Australia, Brasil, Bulgaria, Canada, China, Czechoslovakia, Hungary, United Kingdom, USA, and the USSR.

The Association is attempting to circumvent the problem of monetary restrictions in Eastern bloc countries which hamper distribution of IAMG publications. An East-West cooperative publishing venture will hopefully provide funds to offset subscription costs for Eastern bloc members.

The report of Vice President **D.M. Hawkins** expressed concern that the active affiliation of the Association with the International Statistical Institute seems to have diminished. He noted that the tie is important, both as a connection with professional antecedents and as a means of spreading the IAMG message. He also emphasized the importance of identifying qualified, interested statisticians to help referee papers in IAMG publications.

Y. Prokhorov, Vice Director of the Steklov Mathematical Institute of the Soviet Academy of Sciences, formally requested the cooperation of the IAMG in the first worldwide congress of the Bernoulli Society, to be held in Tashkent (USSR) in 1986.

Articles by authors from 31 different countries appeared in the pages of Mathematical Geology during the period September 1980 through June 1984,

according to the report of Editor-in-Chief **Tom Jones.** The large number of high-quality papers necessitated expansion of the journal; it now appears eight times annually. Four special issues of the journal appeared in 1980-84.

Computers & Geosciences Co-Editor **D.F. Merriam** outlined the vicissitudes of that journal for Editor-in-Chief **John Cubitt.** On the positive side, C&G has expanded to six issues per year. Because of labor disputes, all journal typesetting has been transferred to the U.S.

Special Councillor **I. S. Djafarov** discussed the paucity of Russian articles within Western literature. He called upon IAMG member **D. A. Rodionov** to delineate the most important problems being addressed by Soviet geomathematicians: (1) mathematical models of geological processes; (2) multidimensional statistical methods for dividing geological objects into homogeneous parts; (3) heuristic and mathematical logical methods for deciding geological problems on the basis of quality characteristics; (4) multidimensional statistical and Boolean algebra methods for the prediction of ore deposits, oil, and gas; (5) mathematical methods for the evaluation of ore deposits, oil, and gas; (6) computer systems for storing and processing geological data, and (7) computer systems for storing and processing technical and scientific information.

Rodionov formally announced the meeting in Alma-Ata (USSR) set for September 23-29, 1985. Hosted by the Kazakhstan Institute of Raw Minerals and the Soviet Academy of Sciences, the Alma-Ata meeting, focused on resource evaluation, will be under the aegis of IAMG and COGEODATA. **A. N. Bugaets** (USSR) will serve as IAMG special councillor for the meeting.

The Assembly voted against proposed changes in the IAMG logo; the Association will retain the original logo. The changes in IAMG Statutes designed to clarify the Association's tax-free status were approved unanimously.

IAMG member **Richard Sinding-Larsen** was introduced as Secretary-General Elect of the International Union of Geological Sciences. In order to strengthen IUGS bonds with its affiliates, he urged IAMG officers, Council, and members to elucidate needs and concerns.

The situation of the IAMG with regard to the 5-year interval between IGC XXVII and IGC XXVIII, to be held in Washington, DC (USA) in 1989 was debated. The wording of IAMG By-laws is ambiguous, owing to the assumption that the General Assembly, held by Statute in conjunction with the hitherto quadrennial IGC, occurs "every four years." The Council is empowered to suspend a By-law temporarily, subject to approval of the General Assembly. It was moved and seconded that this course of action be taken and that the problem be resolved by following the example set by IUGS; that is, convene the IAMG VI General Assembly 5 years hence, in 1989, during the 28th IGC in Washington, D.C.

The request of IAMG member **Vaclav Nemec** for IAMG sponsorship of 1985 and 1987 Pribram Mining Symposia in Czechoslovakia was approved.

The concluding item of agenda for the IAMG V General Assembly was announcement of election results for the upcoming term. [Names and addresses of new officers and Council members appear below.]

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IAMG Council Members & Officers for 1984-89 Term

Council Members

Isobel Clark
GEOSTOKOS LTD.
8a Lower Grosvenor Place
London SW1W 0EN
ENGLAND

John M. Cubitt
POROPERM LAB. LTD.
Chester Street
Saltney, Chester CH4 8RD
ENGLAND

Dan Gill
Geological Survey of Israel
30 Malchei Israel Street
Jerusalem 95501
ISRAEL

Alain Marechal
S.N.E.A. (P)
Centre Micoulau BP 65
64018 Pau Cedex
FRANCE

Richard Sinding-Larsen
Geologisk Institut
Univ. i Trondheim
Trondheim-NTH
NORWAY

Gordon D. Williams
Department of Geology
University of Alberta
Edmonton, Alberta T6G 2E3
CANADA

Harry M. Parker, Councillor for Special Projects, 28th IGC
FLUOR ENGINEERS INC.
10 Twin Dolphin Drive
Redwood City, CA 94065
USA

A. N. Bugaets, Special Councillor (2-yrs.) for Alma-Ata Symposium, 1985
Kazakh Research Institute of Mineral Resources
Ministry of Geology of the KazSSR
K. Marx str. 105, KazIMS
480091 Alma-Ata
USSR

Officers

John C. Davis, President
Kansas Geological Survey
1930 Constant Avenue
Lawrence, Kansas 66046 USA

E.H. Timothy Whitten, Past-President
Vice President for Academic Affairs
Michigan Technological University
Houghton, Michigan 49931 USA

Paul Switzer, Vice President
Department of Statistics
Stanford University
Stanford, California 94305 USA

Richard B. McCammon, Sec.-General
U.S. Geological Survey
National Center 920
Reston, Virginia 22092 USA

Vaclav Nemec, Eastern Treasurer
K Rybnickum 17
Praha 10 – Strasnice
CZECHOSLOVAKIA

Michael Ed. Hohn, Western Treasurer
West Virginia Geological and Economic Survey
P.O. Box 879
Morgantown, West Virginia 26507
USA

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"BIG PROGRAMS (on small machines)" Big Success

The 1984 Geochautuaqua, sponsored by the West Virginia Geological and Economic Survey, convened in Morgantown, WV, October 4, 1984. The two-day colloquium, held on the downtown campus of West Virginia University, attracted over 80 geoscientists, explorationists, and computer experts.

In addition to participants from throughout the USA, a large contingent was present from Canada. China, Italy, Sweden, and the Federal Republic of Germany were represented, as well.

Topics of the 13th Annual Geochautauqua (aimed at demonstrating how small computers can handle big problems—the large data sets and number-crunching typical of geology) included microcomputer applications in geostatistics, petroleum exploration, petroleum information management, quantitative stratigraphic correlation, image acquisition and shape analysis, resource mapping and assessment, and analysis of seismic data.

A banquet held at the WV University "Mountainlair" was enjoyed by partici-

pants and spouses following technical sessions on the first day of the meeting. The afternoon of the second day was devoted to program demonstrations on an IBM PC and other hardware provided by the authors.

Abstracts, papers, and handouts from the meeting are contained in loose-leaf format in the proceedings volume, BIG PROGRAMS (on small machines), 13th Annual Geochautauqua, 4-5 Oct. 1984, West Virginia Geological and Economic Survey, Morgantown, WV, USA.

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Publications of Interest

Dahlberg, E.C., Applied Hydrodynamics in Petroleum Exploration. Springer-Verlag, 1982, paperback, 161 p., $US 19.80.

Douglas, D.H. and A.R. Boyle, Computer Assisted Cartography and Geographic Information Processing—Hope and Realism. Canadian Cartographic Association, 1982 [reprintd 1984], paper, 97 p., $17.50 [c/o Dept. Geography, University of Ottawa, Ottawa, Ont. K1N 6N5, Canada].

Glaeser, P.S. (ed.), Data for Science and Technology (CODATA Conference Volume). North-Holland, 1983, 350 p., $US 49.00.

Goss, T.I., 1984 Guidebook to Statistical Analysis and Graphics Packages for Microcomputers. Goss, Gilroy & Assoc. Ltd., 1984, 160+ p., $25.00 [c/o Goss, Gilroy & Assoc. Ltd., 124 O'Connor St., Ottawa, Ont. K1P 5M9, Canada].

Krass, M.S., Mathematical Theory of Glaciomechanics (in Russian). Soviet Geophysical Committee, 1983, 142 p., no price available.

LeMaitre, R.W., Numerical Petrology—Statistical Interpretation of Geochemical Data. Elsevier Publ. Co., 1982, 282 p., $US 62.75.

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Pirson, S.J., Geologic Well Log Analysis. Gulf Publ., 1983, 475 p., $US 29.95.

Robinson, J.E., Computer Applications in Petroleum Geology. Hutchinson Ross, 1982, paperback, 164 p., $US 16.95.

U.S. Government Printing Office, New Books. USGPO, bimonthly [@600 titles per issue on new govt. books, mags., manuals, reports, and analyses], no charge [c/o Superintendent of Documents, USGPO, Washington, DC 20402 USA].

VanLandingham, S.L. (ed.), Economic Evaluation of Mineral Property. Hutchinson Ross, 1983, 400 p., $US 48.50.

Watson, G.S., Statistics on Spheres. John Wiley & Sons, 1983, 256 p., $US 21.50.

Wolff, D.D. and M.L. Parsons, Pattern Recognition Approach to Data Interpretation. Plenum, 1983, 225 p., $US 29.50.

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Sabbatical Leave in Spanish Laboratories

To promote interaction between the Spanish scientific community and those working outside Spain, the Spanish National Council for Research and Development (CAICYT) has launched a program to encourage scientists to spend sabbatical leave in Spanish laboratories.

The program will be in operation from September 1, 1985, to July 31, 1986. Maximum length of stay is one year. Visiting scientists will receive a salary based on qualifications and percentage of salary maintained by their home institution.

Scientists willing to participate in this program should contact the Spanish laboratory they wish to visit, or request aid from CAICYT to establish contact with a Spanish laboratory working in their area of interest. Contacts should result in a joint proposal that must be submitted to CAICYT before June 1, 1985. Full details on required data are available from the Spanish institutions or from CAICYT. Selected candidates will be notified not later than July 1, 1985.

All information concerning this advertisement should be requested from:

Dr. Marisa Pacios, CAICYT
Edificio Torre Rioja
calle Rosario Pino, 14-16
Madrid 20, SPAIN
[Tel. (34)-1-4501063]

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Test Data Sets for Geostatistical Teaching and Research

A data base containing 10 real data sets has been prepared for research and teaching in geostatistics. Data sets include:

File	1	Complete coal deposit containing 161 holes
File	2	Complete porphyry moly deposit containing 32 holes
File	3	Sulfide Cu-Ni deposit containing 77 composites
File	4	Oil shale deposit containing 32 composites
File	5	Set of structural data, elevation of a formation on a reef, 438 holes
File	6	Set of bathymetric data containing 230 values
File	7	Seven levels in a porphyry copper deposit containing 2036 composites
File	8	Complete massive sulfid Cu-Ni deposit containing 4 holes in 3 dimensions
File	9	Roll front uranium deposit 427 holes
File	10	Complete gold deposi containing 91 holes

These data sets are available on 9 track, 1600 BPI computer tapes at a cos of US$ 100.00 to cover handling charges There is no restriction on their use a long as the origin of data is clearly indicated. Direct orders or inquiries to:

Michel David
Mineral Engineering Department
Ecole Polytechnique
C.P. 6079, Station "A"
Montreal, Quebec H3C 3A7
CANADA

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Wichita State Seeks Quantitative Geomorphologist

The Wichita State University Department of Geology, Wichita, KS (USA) is looking for a faculty replacement at the assistant or associate professor level for a tenure-eligible position starting in August 1985 (pending approval of funds) to interact with a growing and viable geology program. The candidate should be a process-oriented geomorphologist with a good quantitative background and computer competence; be interested in field applications; willing to interface with ongoing research in the department; and teach at the undergraduate-graduate level. PhD necessary, but an ABD would be considered; rank and salary dependent on qualifications and experience. Wichita State is an Affirmative Action/Equal Opportunity Employer.

Applications, including a resume and three letters of reference, should be received by February 15, 1985. Send applications to:

D.F. Merriam, Chairman
Department of Geology
Wichita State University
Wichita, KS 67208
[Tel. (316) 689-3140]

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Excerpts from IAMG Annual Report to IUGS for 1984

The IAMG is dedicated to the development and application of quantitative methods in the Earth and planetary sciences, promoting international cooperation in the use of mathematics in research and technology. Traditional activities of the IAMG include publication of scholarly works, sponsorship of international scientific meetings, and recognition of the contributions of outstanding scientists.

The premiere award of the IAMG is the William Christian Krumbein Medal,

augurated in 1976. The Association nually bestows "Best-Paper" awards r outstanding articles in its two ternational journals, Mathematical eology and Computers & Geosciences. 1981 the President's Prize was estab-hed by the Association to encourage e use of geomathematics among young ientists.

IAMG sessions and exhibits have en organized in conjunction with the ternational Geological Congress, the ternational Statistical Institute, rnoulli Society, American Statistical sociation, International Congress on dimentology, Geological Society of nerica, Chilean Geological Congress, nerican Association of Petroleum ologists, Mining Pribram in Science d Technique, Geological Society of ndon, ARPEL Congress of Latin Amer-n Oil Companies, and the American ophysical Union, among others.

The annual Geochautauqua, founded 1972 and cosponsored by the IAMG, ame a true "travelling show" in 1980 h meetings held in the USA at the versities of Florida (1980), and Illinois 82), and at the Kansas Geological vey (1983). The 1981 Geochautauqua cosponsored by the Geological vey of Canada, in Ottawa. The West ginia Geological and Economic Survey A) hosted the 1984 conference. ochautauqua topics range widely; ent meetings have dealt with quanti-ve aspects of oceanography, clima-gy, mineral resource appraisal, coal logy, petroleum exploration, and geo-cal applications of microcomputers.

Growth in membership and higher ilties combined with excellent agement brought about an almost 25 ent increase in assets during 1983; Association continued its steady ard trend in 1984. Safeguarding the ociation's future solvency involves monitoring of money markets, inter-ates, and tax regulations.

In 1982 it was ascertained that the inuation of the tax-exempt status yed by the Association within the was contingent upon amendments to 3 Statutes I, V, and VII which would ly delineate the scientific, non-rnmental, nonpolitical, and non-t-making nature of the Associa-Approved by the IAMG Council in , these changes were ratified by the neral Assembly during the Interna-l Geological Congress in Moscow.

very effort has been made to keep bership fees as low as possible. r IAMG dues reflect not merely ionary pressures, but an extension rvices. Mathematical Geology has ded to 900 pages and now appears times annually. Computers & iences will appear bimonthly ning with Vol. 11. The Association lso announced a new Monograph .

The IAMG News Letter has been published on an irregular basis for the past few years because of the elimination of "printed matter" rates and postal regulations requiring that newsletters be enclosed in envelopes or wrappers. Alternative methods for reasonably rapid distribution are under investigation.

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IAMG Regional Organizations

The IAMG encourages and actively promotes the establishment of national or regional organizations. Several of these groups have developed vigorous programs of local scientific meetings and publications.

As early as 1970, IAMG regional groups were active in Hungary and Czechoslovakia. A group formed in Brasil in 1971 was formally recognized by the Brasilian Geological Society in 1974. An Australian group was formed first in 1974 at Wollongong, and in 1982 the Western Australia Geomathematical Society was founded.

The IAMG regional group in Canada is the Geomathematics and Computer Applications Division of the Canadian Society of Petroleum Geologists. The UK regional organization forms the Geological Information Group of the Geological Society of London. MGUS, the US group, was established in 1975.

The regional group of the Soviet Union comprises a section within the USSR National Committee of Geologists, which promotes international cooperation with all IUGS affiliates, scientific associations, and committees. The Specialized Committee on Mathematical Geology of the Geological Society of China was formed in 1981 in Changsha during the Second National Conference on Mathematical Geology, which attracted 300 participants from all areas of government, academia, and industry.

The newest IAMG regional organization is the Bulgarian group, formed in 1983 by approval of the Bulgarian National Committee of Geology and the Bulgarian Academy of Sciences.

Remember that the IAMG News Letter is a service to all members of the Association. Any regional organization may request a full page to report on its activities—just write to: IAMG News Letter Editor, c/o Kansas Geological Survey, 1930 Constant Ave., Lawrence, KS 66046 USA.

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14th Annual GEOCHAUTAUQUA Set for Wichita, October 3–5, 1985

The Annual Geochautauqua will be held at Wichita State University, Wichita, Kansas (USA) [illegible] 1985. The topic of the 1985 gathering, sponsored by the WSU Department of Geology, IAMG, and MGUS, is Computer Applications in Oil and Gas Exploration and Development.

For further information, contact D.F. Merriam, Dept. Geology, Wichita State Univ., Wichita, KS 67208 USA [Tel. (316) 689-3140].

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The (New) Prez Says

Serving on the Computer Applications Committee of the American Association of Petroleum Geologists, I meet a different crowd than I encounter in the usual haunts of my fellow IAMG aficionados. Here are the "industrial grade" mathematical geologists, whose activities, needs, and interests are quite different from those of most of us in academe and research.

On one hand, their problems seem quite simple—they seldom require the use of factor analysis or polar Fourier transforms. On the other, their projects are routinely of such a magnitude that most of us couldn't consider analyzing the volumes of data. These differences may lead to an unfortunate denigration of the work of one group by the other. I've heard geomathematical research in oil companies dismissed as "the trivial grinding out of maps," and I've also heard Mathematical Geology characterized as "a collection of academic exotica."

There is a growing gulf between innovators and practitioners of mathematical geology that slows down the transfer of new methodologies from the research area, and deters the flow of challenging problems from the "practical world." One of my objectives as IAMG President is the reversal of this unhealthy trend.

I hope to use my office to promote tutorials and conferences on areas of practical application. "Case studies," if published, can be invaluable, but such reports are difficult to pry out of corporate files; again, I hope to exercise some persuasion in this regard through both the IAMG and the AAPG.

Finally, I hope to promote joint industry/academic research. If research is well thought out and has an ultimately practical application, I've found industry to be much more sympathetic to requests for support than is popularly believed.

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Coming Events

March 17–22, 1985. Statistical Methods for Exploration and Mining. Melbourne, Australia. Contact: Australian Mineral Foundation, Private Bag 97, Glenside SA 5065, AUSTRALIA.

March 21, 1985. Geological Information Group* (Geol. Soc. London) meeting on Developments in Geomathematics. Geol. Soc. Apartments, Burlington House, Piccadilly, London, W1 (UK). Contact GIG Secretary Stuart V. Duncan, IEA Coal Research, 14 Grosvenor Place, London SW1W 0EX. *IAMG UK regional group.

March 24–27, 1985. American Association of Petroleum Geologists Annual Convention. New Orleans, Louisiana, USA. Contact: AAPG 1985 Convention, P.O. Box 979, Tulsa, OK 75101 USA.

April 1–5, 1985. Numerical Methods in Geomechanics. Nagoya, Japan. Contact: T. Kawamoto, Dept. of Civil & Geotechnical Engineering, Nagoya Univ., Chikusa, Nagoya 464, JAPAN.

April 14–18, 1985. Computer Graphics '85. Dallas, Texas, USA. Contact: National Computer Graphics Assn., Suite 601, 8401 Arlington Blvd., Fairfax, VA 22031 USA.

June 3–7, 1985. Intl. Symposium on the Stochastic Approach to Subsurface Flow. Fontainebleau, France. Contact: G. de Marsily, Greco–Hydrogeologie, Ecole des Mines de Paris, Centre d'Informatique Geologique, 35 rue Saint–Honore, 77305 Fontainebleau Cedex, FRANCE.

July 1–3, 1985. AMSE Intl. 85 Storrs Summer Conference on Modelling and Simulation. Storrs, Connecticut, USA. Contact: Assoc. for Advancement of Modelling and Simulation Techniques in Enterprises, 16 Ave. de Grange Blanche, 69160 Tassin–la–Demi Lune, FRANCE or N. Olgac, Dept. Mechanical Engineering, University of Connecticut, Storrs, CT 06268 USA.

July 10–12, 1985. First Conference of The Geological Society of Trinidad and Tobago. Port of Spain, Trinidad. Contact: Winston Ali, Trinmar Ltd., Point Fortin, Trinidad, WEST INDIES.

July 11–13, 1985. 16th Annual Meeting, Classification Society of North America. St. John's, Newfoundland. Contact: Wm. H. E. Day, Dept. Computer Science, Memorial Univ. of Newfoundland, St. John's, Newfoundland A1C 5S7, Canada.

Sept. 23–29, 1985. Intl. Symposium on Resource Evaluation. Alma–Ata, USSR. Contact: A.N. Bugaets, Kazakh Research Institute of Mineral Resources, K. Marx str. 105, KazIMS, 480091 Alma–Ata, USSR.

Oct. 3–5, 1985. 14th Annual Geochautauqua on Computer Applications in Oil and Gas Exploration and Development. Wichita, Kansas, USA. Contact: D.F. Merriam, Dept. Geology, Wichita State Univ., Wichita, KS 67208 USA.

Oct. 14–18, 1985. Mining Pribram Symposium Mathematical Methods in Geology. Pribram, Czechoslovakia. Convener: Vaclav Nemec, Hornicka Pribram ve Vede Technice, Post. schranka 41, Pribram 26102 CZECHOSLOVAKIA.

June 1–6, 1986. 3rd Intl. Conference on Geoscience Information. Adelaide, Australia. Contact: Australian Mineral Foundation, Private Bag 97, Glenside SA 5065 AUSTRALIA.

Sept. 21–25, 1986. 3rd Symposium on the Geology of Libya. Tripoli, Libya. Contact: Sec.–Gen., 3rd Symposium on the Geology of Libya, Dept. Earth Science, Faculty of Science, Univ. Al–Fateh, P.O. Box 13258, Tripoli, Libya, SPLAJ.

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