

IAMG

No. 50 February 1995

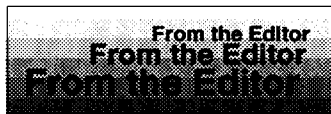
Newsletter

Official Newsletter of the International Association for Mathematical Geology

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New look, new format, new editor — so, what's happening? Well, **Jim Carr** got tired of cranking out the newsletter for the nth time and asked to be relieved by



someone. Let's give him a big hand for carrying this load for 5¹/₂ years and 11 issues. If you want to thank

him personally — his e-mail address is carr-@equinox.unr.edu — I'm sure he would appreciate a kind word after all his labor. He certainly deserves our thanks.

You may have noticed up there at the top that this is Newsletter No. 50. Another round number to celebrate? Right. But — you say — we celebrated the 25th IAMG anniversary a year and a half ago. Why isn't this no. 53? This newsletter is published twice a year! (We mathematical geologists know how to count and multiply, right?) Some of you oldtimers may remember how it all started way back then. **John Davis** at the Kansas Survey started the tradition, slowly, in 1973 and published whenever he felt like it or whenever he had some news accumulated. His newsletters didn't even have a date on them, they came in various formats and were usually quite informal. For a while the most interesting feature was the continuing saga of Rudolf G. V. Eigen, the legendary Austrian mathematician. Anybody got any new info on him?

Why am I digging up all this old dirt? Well, it's partly nostalgia, partly my lead-in to an old song that every newsletter editor seems to sing when he can't fill his 4 or 8 pages for the next newsletter. So here it is: ***This is your newsletter***. You, the readers, are making the news. So, let your fellow math geologists in on what's happening by sending me a note at h.poelchau@kfa-juelich.de, or calling me at (49)2461-615464, or faxing it to me at (49)2461-612484. The world is supposed to be an information super-highway — please make use of it!

Harald S. Poelchau

Profile

The Newsletter's new editor, **Harald S. Poelchau**, is currently employed at Forschungszentrum Jülich in Germany in the Institute of Chemistry and Dynamics of the Geosphere. (In case you don't know, Jülich is a small town between Cologne and Aachen). He has degrees in Geology from University of Colorado (Boulder) and in Earth Sciences from Scripps Institution of Oceanography (La Jolla, California). For most of his career Harald worked in research for Arco in Dallas and Plano. His research interests are sedimentary geology, computer applications, reservoirs and silico-flagellates. At present he simulates sedimentary basins and diagenetic processes.



It's History — How the News Letter Started 50 Issues Ago

The first issue of the IAMG News Letter was issued in October of 1973. Although it was the Association's intent from its founding to distribute a newsletter to the membership, organizational difficulties and tight finances during the formative years prevented this. However, following the Second General Assembly, member's dues included a subscription to Mathematical Geology and the Association became both more affluent and more structured in operation. The Western Treasurer's office moved to the Kansas Geological Survey, and the Survey agreed to underwrite

the office's printing and mailing costs.

From the beginning, there were two editorial peculiarities about the IAMG News Letter. First, as you note here, it was a "News Letter" rather than the more conventional "Newsletter." Second, there was not a trace of a date anywhere, only a sequential number. This was quite deliberate; without a date, no one could complain that the News Letter was late, and without volume numbers, no one could really claim that any issues were "missing!" Originally, it was intended to issue the News Letter four times a year, but this was never achieved; in fact, sometimes it was difficult to produce even one a year! Thirty-eight issues of the News Letter were published at Kansas, from 1973 to 1989.

continued p. 2

**International Association for Mathematical Geology
Council Members and Officers, 1992-1996**

President: Michael Ed. Hohn, West Virginia Geological and Economic Survey, P.O. Box 879, Morgantown, WV 26507-0879

Past President: Richard B. McCammon, U.S. Geological Survey, National Center 920, Reston, VA 22092

Vice President: Chang-Jo F. Chung, Geological Survey of Canada, Booth Street, Ottawa, Ontario K1A 0E8, Canada.

Secretary General: Ricardo A. Olea, Kansas Geological Survey, 1930 Constant Avenue, Campus West, Lawrence, KS 66047-2598, E-mail: olea@olea.kgs.ukans.edu

Eastern Treasurer: Václav Němec, K rybníčkům 17, 100 00 Praha 10 - Strašnice, Czech Republic

Western Treasurer: John O. Kork, U.S. Geological Survey, Mail Stop 937, Box 25046, Denver Federal Center, Denver, CO 80225-0046, E-mail: jkork@rgborafsa.er.usgs.gov

Council Members:

Vera Pawlowsky Departament de Matematica Aplicada III, E.T.S. d'Enginyers de Camins, Canals i Ports, Universitat Politecnica de Catalunya, Gran Capitan, s/n, 08034 Barcelona, Spain

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Eric C. Grunsky Geological Survey Branch, Ministry of Energy, Mines and Petroleum Resources, 1810 Blanshard St., Victoria, B.C., Canada, V8R 3H4

Zhou, Di South China Sea Institute of Oceanology, Chinese Academy of Sciences, 164 West Xingang Rd., Guangzhou 510301, Peoples Republic of China

Marco Alfaro CODELCO-CHILE, Division Chuquicamata, Plantification Mina CHUCHICAMATA, Chile

Special Councilor for the 30th IGC:

Zhao Pengda China University of Geosciences, Yuiiashan, Wuhan, Hubei Prov., 430074, Peoples Republic of China

Editors

Mathematical Geology: Daniel F. Merriam (Acting) Kansas Geological Survey, 1930 Constant Avenue, University of Kansas, Lawrence, KS 66047-2598, E-mail: dan_merriam@msmail.kgs.ukans.edu

Computers & Geosciences: D. F. Merriam & G. F. Bonham-Carter Geological Survey of Canada, 601 Booth St., Ottawa, Ontario K1A 0E8, Canada, Phone: (613) 996-3387, FAX: (613) 996-3726, E-mail: bonham-carter@gsc.emr.ca

Nonrenewable Resources: Richard B. McCammon U.S. Geological Survey, National Center 920, Reston, VA 22092, E-mail: mccammon@usgsresv

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President's Forum

A NEW INITIATIVE

We all love attending professional meetings, short courses, and workshops. But not all of us can afford to go.

Hearing the results of another scientist's research or sitting in a class refreshes my interest in a subject and gives me the tools to carry out a research plan. In addition, I consider the personal contacts created and nurtured through professional get-togethers to be excellent stimulants to work. Aside from our journals, the most important function that an organization like the IAMG can perform is to support meetings and courses.

There can be no arguing that many scientists find attendance a serious financial hardship. Yet, ironically, they might benefit the most from short courses and workshops, events that are beyond their financial means.

I believe that the IAMG can do something to partially alleviate this difficulty. I have asked for specific recommendations from the other members of the IAMG council, and now I am asking you. How can the IAMG use its financial and human resources to promote the exchange of scientific know-how between the better-off nations and the parts of the world where money for conference attendance is tight?

Some of the ideas we might consider are: financial support for workshops in developing nations; travel support for attendance at IAMG-sponsored conferences; and support for distinguished lecturers.

If you have a suggestion, write.

Michael Ed. Hohn

from p. 1

During that time, the Editor was, successively, Western Treasurer, Secretary-General, and President of the IAMG.

The contents of the News Letter usually consisted of a column contributed by some Association potentate, the theme often being a plea for members to pay their dues! There might be an article explaining the woes of one or the other of our publishers, to justify why members had not yet received their journals (see "10 years ago" -Ed.). There would be a list of forthcoming meetings in obscure parts of the world, and sometimes a list of interesting new books. We were fortunate in that only rarely was it necessary to print obituaries. In an attempt to capture the reader's attention, there were occasional puzzles or questions, with a prize for the first correct response. A Treasurer's summary recorded the growth in Association assets from year to year. And always, there were pleas, threats, and cajoles about annual dues!

Solicitations of items to include in the next issue of the News Letter appeared regularly. In spite of the creative offerings of a few contributors, who provided a long-running succession of whimsical notes on the life and times of the legendary R. G. V. Eigen and his competitors, François Propre and Mme Yvonne La Tente, the Editor was often forced to weave together an entire issue out of whole cloth! A News Letter without news is a difficult thing to produce, and this contributed more than any other factor to the "erratic" nature of its publication. By 1989, the Editor was ready to take his by-now dry pen with him into the "retirement" post of Past President and turn the News Letter over to others. The editorial mantle now has passed on again. To the new Editor, the old offers congratulations, sympathy, and a large collection of well-written pleas for contributed material; we hope you don't need 'em!

John C. Davis
Kansas Geological Survey

**CHINESE MATHEMATICAL GEOLOGISTS
ACTIVELY PREPARING FOR THE 30TH IGC**

The 30th International Geological Congress, to be convened in Beijing, China in Aug. 1996, has become the most important social event of the decade for Chinese geologists. In order to be well prepared for the sessions of mathematical geology in the 30th IGC, the Symposium on Frontier Problems and Future Trends of Mathematical Geology was held on Nov. 10-12, 1994 by the Specialized Committee for Mathematical Geology (SCMG) of the Chinese Society for Geologists. 43 leading Chinese mathematical geologists gathered in Wuhan, including IAMG council members **Zhao, Pengda** and **Zhou, Di**, the chairman of the SCMG **Liu, Cheng-zuo**, and major organizers for mathematical geology in various national ministries (e.g., Ministries of Geology and Mineral Resources, of Chemical and Petroleum Industry, of Metallurgical Industry, of Coal Industry, and of Nuclear Industry, National Non-ferrous Metal Corporation, etc.), Chinese Academy of Sciences, and universities. 54 papers were presented in the symposium, reviewing major researches and development by Chinese mathematical geologists. The trend of mathematical geology in the 21st Century was predicted. The preparation for the 30th IGC was discussed.

Mathematical geology as a research field of geology was introduced in China in the early 70s. A big boom in mathematical geology appeared in the late 70s, with the start of a national project of Statistical Assessment of Mineral Resources (SAMIR). Hundreds of geologists were involved in the project, which played an important role in the popularization of mathematical geology in the country. Since the mid 80s, SAMIR proceeded into the stage of medium to large-scale prediction of mineral resources, directly serving the needs of finding new deposits and enlarging known deposits. In addition to economical profit, these activities have stimulated methodological and theoretical research, e.g., in the theory of geological anomalies, in the method of composite information, etc. Several large computer software systems have been put into practice for resource prediction.

Parallel to SAMIR, other topics of mathematical geology have attracted much attention also. Geostatistics has been used in reserve estimation all over the country and become the officially required technique in the mines of the Ministry of Metallurgy. Other studies involve multivariate statistics, robust statistics, artificial intelligence and expert systems, computer simulation of geological processes, geological information systems, fractal dimension and chaos, etc.

Scientific exchange among Chinese mathematical geologists has been extensive. Sponsored by SCMG with some volunteer institutions, the National Symposium on Mathematical Geology is held once every four years. At least one workshop on a specific topic is held in between two successive national symposiums. Collections of papers in mathematical geology have been published under the titles of "Special Volume on Mathematical geology" and "Chinese Mathematical Geology". The former has had six

issues so far. Due to language and economic limitations, however, many Chinese mathematical geologists have neither reported their work to the outside world, nor had direct exchanges with foreign mathematical geologists. This might be the reason why the 30th IGC has been so much emphasized. It is the best, or even the only chance for many Chinese geologists to communicate with and to learn from the geologists of the outside world!

Participants in the Wuhan meeting submitted numerous papers for the 30th IGC. Nevertheless, the organizing committee of the 30th IGC has notified us that the total number of Chinese participants is limited, and rationed among various ministries. As a result, some authors might not have the chance to attend the 30th IGC. To remedy, SCMG will publish another issue of "Special Volume on Mathematical geology", its members will seek the possibility of publishing a paper collection in English before the 30th IGC, and they are willing to arrange side trips for foreign mathematical geologists to the Chinese institutions of their interest before, during, or after the 30th IGC. SCMG will select five representative papers to be published in a volume compiled by the Chinese Society for Geologists. In

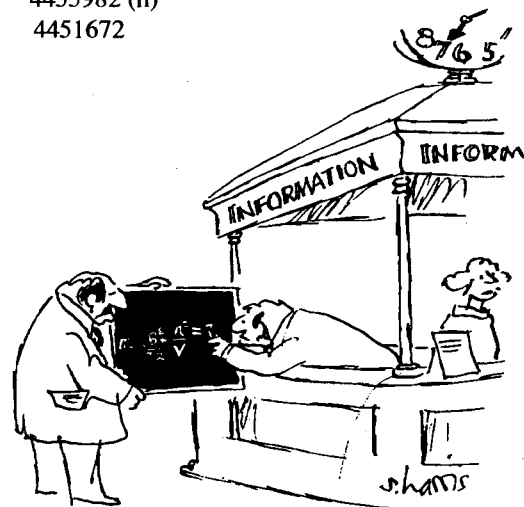
addition, SCMG wishes to have a special issue in the journal of Mathematical Geology after the 30th IGC,

if this proposal might be accepted by the journal's editorial board.

On behalf of the SCMG I wish to express our sincere welcome to the mathematical geologists all over the world. In addition to scientific exchanges, you will enjoy the beautiful and historical city of Beijing, and the warm friendship of Chinese people. We look forward to seeing you in Beijing in 1996.

Zhou, Di
South China Sea Institute of Oceanology
Chinese Academy of Sciences
164 West Xingang Road
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Tel. +86 20 4451335-511 (o)
4455982 (h)
Fax. 4451672

Letter from China



American Scientist



AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS Annual Meeting, Houston, **5-8 March 1995**. There will be sections on Computers in Basin Modeling, High-frequency Eustatic Cycles - Control of Depositional Processes, Modeling Pore Fluid/Rock Interactions and a poster session on 3-D Modeling of Siliciclastic and Carbonate reservoirs. AAPG, Box 979, Tulsa, OK 74101

EINSATZ VON DV-METHODEN IM UMWELTBEREICH (Application of Computer Methods for Environmental Problems), Deutsche Gesellschaft für Mathematische Geologie (GMG²), Bochum, Germany, **8-9 March 1995**. Dr. Werner Linnenberg, GeoConsult, Lyrenstr. 29, D-44866 Bochum, Germany

INTERNATIONAL SYMPOSIUM ON FRACTALS AND DYNAMIC SYSTEMS IN GEOSCIENCE, Frankfurt/Main, Germany, **5-7 April 1995**. J. H. Kruhl, Geol.-Paläontol. Institut der J.W.Goethe-Universität, Senkenberganlage 32, D-60054 Frankfurt/Main, Germany

International Conference on APPLICATION OF MATHEMATICAL METHODS IN SCIENCE AND TECHNOLOGY, Cracow, Poland, **20-21 June 1995**. Zdzislaw Galas, University of Mining and Metallurgy, Faculty of Mining, Al. Mickiewicza 30, 30-059 Cracow, Poland, Fax 4812 331014

APCOM25 (Applications of computers and operations research in the mineral industries). Brisbane, Australia, **10-14 July 1995**. Australasian Institute of Mining and Metallurgy, Box 122, Parkville, Victoria, Australia 3052

COMPUTERS IN STRATIGRAPHY, Geol. Soc. of London, one day meeting in Cambridge, U.K., probably **September 1995**. Dr. A. G. Smith, Dept. of Earth Sciences, Downing St., Cambridge CB2 3EQ, U.K., Fax: (+44) 223-333-439

MINING PŘÍBRAM Symposium: International Section on MATHEMATICAL METHODS IN GEOLOGY. Prague, Czech Republic, **8-9 October 1995**. Co-organized by the Regional Center of the IAMG. It will focus on problems of exploration and exploitation strategy with special regard for nonrenewable resources and environmental protection. Registration still open! Convener: Václav Němec, K rybníčkům 17, 100 00 Praha 10 - Strašnice, Czech Republic

INFORMATION PROCESSING AND MODELLING IN GEOLOGY, 10th Annual Meeting of the Aachen Sedimentology Group, RWTH Aachen, Germany, **11-13 October 1995**. Ulrich Mann, KFA ICG-4, D-52425 Jülich, Germany

IAMG'95, Osaka, Japan, **29 Oct.-2 Nov. 1995**. Prof. Niishi Nishiwaki, Faculty of Social Research, Nara University, 1500 Misasagicho, Nara City, 621, Japan, Fax +81-720-81-7548

RECENT DEVELOPMENTS IN QUANTITATIVE AND SEQUENCE STRATIGRAPHY, Committee for Quantitative Stratigraphy (IUGS-ICS) Short Course, Oslo, Norway, **November 1995**. Frits Agterberg, Geol. Survey Canada, 601 Booth St., Ottawa K1A 0E8, Canada, Tel. (+1) 613-996-2374, Fax: (+1) 613-996-3726, e-mail: agterberg@gsc.emr.ca

PREDICTIVE HIGH RESOLUTION SEQUENCE STRATIGRAPHY, Stavanger, Norway, **6-8 November 1995**. Norwegian Petroleum Society, P.O.Box 1897 Vika, N-0124 Oslo, Norway, tel. (+47) 22 43 0050, Fax: (+47) 22 55 4630

30th International Geological Congress and IAMG'96, Beijing, **4-14 August 1996**.

Fifth International GEOSTATISTICS CONGRESS, Wollongong, Australia, **22-27 September 1996**. Contact: Ernest Baafi, Department of Civil & Mining Engineering, University of Wollongong, NSW, Australia 2522, Fax: 61 42 21 3238, Tel: 61 42 21 3031

Report: IAMG Annual meetings

Chang-Jo F. Chung reported that the attendance to the eight workshops at IAMG'94 in Mont Tremblant (Canada) reached 60 participants, and 136 individuals registered for the technical sessions. The Geological Survey of Canada provided generous support to the event with personnel and general administrative overhead. Without this support it would not have been possible for the organizing committee to break even or perhaps to come ahead with a small surplus, as might be the case.

During the summer, President Hohn, Vice-President Chung and Past President McCammon, selected Osaka, Japan, as the next site for our annual meeting. The association should be able to organize IAMG'95 without having to rely on its assets. The organizers have their own financial resources and have promised to offer a first class conference.

President Hohn had also heard of the interest of a group of Italian geoscientists to organize IAMG'95, but the group remained silent by the time he wanted to make a final decision. After the selection of Osaka, he also received an offer by Eastern Treasurer Václav Němec to have IAMG'95 in Prague.

In 1996 the IAMG will go back to the old format with a meeting in conjunction with the XXX International Geological Congress to be held in Beijing, China, August 4-14.

1997 IAMG ANNUAL MEETING

Proposals are being accepted from organizations wishing to organize the 1997 IAMG ANNUAL CONFERENCE. Interested parties should request guidelines for proposals from Dr. Ricardo Olea, Secretary General of the IAMG, or Dr. Chang-Jo F. Chung, Vice President.

Proposals are due 30 June, 1995.

25 Years Ago

Newsletter #1 (BD) contained the following message from A. B. Vistelius, father of Russian mathematical geology and first president of IAMG:*

A Current Assessment

Two years have passed since the foundation of IAMG. What lessons have we learned since that time?

a. Mathematical geology as a title has been accepted by numerous geologists as a new branch of the geological sciences. The general probabilistic approach has been confirmed by reality.

b. It has been proved that computation is helpful in geological investigations, and it is impossible, in many cases, to get useful results in modern geology without computer applications. The relative importance of the computational approach in mathematical geology is not yet clear.

c. We are not able, in all cases, to obtain the solution of inverse problems in mathematical geology, but we understand that the solutions can be found by using stochastic models of geological processes as a basis. We must delve deeper and examine more closely our geological concepts in order to find mathematical patterns.

d. There have been cases of oversimplification in decision-making because of an inadequate statistical background on the part of the investigator. We must seek more informal contacts with appropriately specialised mathematicians.

We should attune ourselves to the lessons to be learned from science and industry.

A. B. Vistelius, London, 15 July 1970

**BD = before Davis (John Davis started a new Newsletter series in 1973 with the numbering system used now)*



IAMG Journal Report

Computers & Geosciences: For 1994 the publisher is exceeding the number of pages agreed in the contract and there is a backlog of papers to guarantee the publication of at least the first four issues for 1995. The rejection rate stayed within the historical rate of 25-30%. The circulation remains close to 1100 copies, despite a slight but steady drop in the subscription by libraries following a worldwide trend by libraries to cut the number of subscriptions. Computers & Geosciences, with a subscription rate of £605 and a small readership, is an increasingly favorite target for cuts. The subscription rate is the publisher's decision and repeated suggestions by IAMG to Pergamon Press to reduce the rate have been ignored.

After a transition period of a year, **Graeme Bonham-Carter** has started as the new Co-editor-in-Chief for Computers & Geosciences. Co-editor-in-Chief **Daniel F. Merriam**, its founder and sole editor for twenty years, will retire as editor at the end of 1995. Dan is to be congratulated and commended for a job well done. Despite the fact that IAMG gets only 7% of the publisher's net profit, royalties from the journal are the most important source of income for the association. Dan acknowledges generous support from the Kansas Geological Survey to absorb postage and the cost of telephone calls and faxing.

The new contact and address for C&G manuscript submission and information about manuscripts is:

Mrs Kathryn Mackinnon, Editorial Assistant, Computers & Geosciences, P.O.Box 26128, 72 Robertson Rd., Nepean, Ontario K2H 9R0, Canada, Phone and FAX: (613) 828-8500, E-mail: candg@journal.isis.org

Nonrenewable Resources: The journal continues to appear quarterly with about 50 papers per year. In contrast to our other two journals, the IAMG is co-owner of the publication, which means the association shares half of the annual gain or loss with Oxford Press. Unfortunately, so far the IAMG has been sharing losses only—US \$19,448 for 1994. The present subscription is 53 libraries and 130 individuals. Preserving the ratio libraries/individuals, the journal needs to quadruple the subscription to break even.

Mathematical Geology: **Robert Ehrlich**, the editor, has stepped down. The journal is six months behind in its publication schedule. Given the short notice and the importance of being in charge of our flagship journal, the IAMG council has delayed a decision on the succession and has nominated **Dan Merriam** as Acting Editor-in-Chief until the General Assembly in 1996 selects a replacement from a list of candidates to be proposed by a special committee that Dan will appoint. The council also has decided to offer the position of Acting Deputy Editor to **James R. Carr**, University of Nevada-Reno, USA, who had expressed interest to serve as editor.

How successful are our journals?

(A contribution by *Vera Pawlowsky*)

Recently, induced by some "innovative" evaluation criteria in the Spanish university system concerning the research production of academic staff, I started looking in the Journal Citation Reports (JCR) of the Science Citation Index (SCI) to see if the journals of our association appear or not. As I think that there might be other people interested in the subject, I'll briefly tell my experience.

I easily found *Mathematical Geology* but not **Computers & Geosciences**. I didn't find it in the "*List of full titles of citing/cited journals arranged alphabetically by abbreviation*", due to the fact that I was looking for "*Computer*" and not for "*Comput*". Now I know that the normalized abbreviation of "Computers & Geosciences" is "*Comput Geosci*". I also didn't find it in the "*Subject Category Listing*", under "Geology", where *Mathematical Geology* appears. I finally asked Graeme Bonham-Carter, the Editor-in-Chief of Computers & Geosciences, who found out from Pergamon Press that it is listed under "*Computer Applications & Cybernetics*". Now I know that the journal has been in the SCI for several years; that the impact factors for the past 5 years are:

1993	0.434
1992	0.354
1991	0.623
1990	0.464
1989	0.326

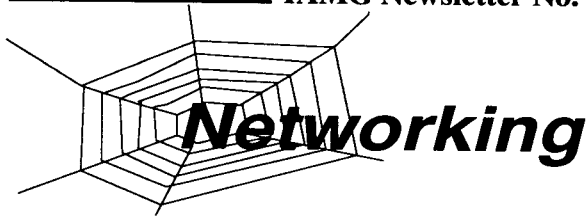
and also that the journal is abstracted and indexed in the following sources (according to Ulrichs):

AESIS	Geo Ref
Chem Abstracts	Ind Sci Rev
Comput Abstracts	Intl Civil Eng Abstracts
Comput Cont	Ocean Abstracts
Compumath	Off Tech
Cyb Abstracts	Petrol Abstracts
Deep Sea Res & Oceanogr Abstracts	Sci Abstracts
E&P Hlth	Sci Cit Ind
Gas Process & P	Soils & Fert
Geo Abstracts	Soft Abstracts Eng

10 Years Ago

Computers & Geosciences rising from the ashes

.....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 [John Cubitt, the editor] braced himself for the anticipated "author backlash".....



IAMG anonymous FTP site

To better serve the readership of *Computers & Geosciences*, Eric C. Grunsky, Book and Software Review Editor, started an anonymous FTP site for the journal in June of 1994. He has not only archived program source code from all the back issues of C&G on this site but code from *Mathematical Geology* as well. During the first seven months of operation there have been a total of 674 log-ins, including 148 requests for UNIX (tar) files and 274 for PC (zip) files.

The FTP site should reduce the amount of printed code, thus freeing space in the journals. The additional space should be used mainly to improve the documentation, with a marginal potential to accept more papers per volume.

There is a diskette service at a nominal charge for those who are not able to access the site, available from Spencer Ramshaw's Computer Solutions, 295 Water St., Unit 141, Guelph, Ont, N1G 2X5, Canada Tel: 519.823.1336, bbs: 519.823.9036, e-mail: rsr@amthyst.dweomer.org

The following source code files from *Computers & Geoscience* (1980, 1987-94) were available on this ftp site, "iamg.org" in January:

volume	number-article #
6	1-5
13	3-1, 5
14	1-1, 3; 5-5
15	1-5, 9; 3-5, 6, 11; 4-2, 3; 5-4, 9
16	1-5; 2-2; 3-8; 4-7; 5-6, 7
17	1-2; 2-4; 3-5, 6; 5-3; 7-5; 9-4; 10-6
18	1-5, 9; 2-2; 7-2, 4; 9-3
19	1-7; 3-1; 5-1; 9-8; 10-2, 4
20	1-1; 3-6; 5-6, 7, 10; 6-6; 7-2

The editors of *Computers & Geosciences* are distributing a questionnaire among IAMG members to help them to improve the operation of the site in particular and the content of the journal in general.

Internet Resources for the Geosciences

is the topic of a Special Issue of C&G, guest edited by Prof John C. Butler, which will appear in 1995. There are 11 papers which review a number of aspects of the Internet that will be of great interest to geologists.

WWW pages:

Stanford Exploration Project home page — for information about seismic imaging, inversion, and parallel computing:

 Jon Claerbout

Op: Jon Claerbout, jon@sep.stanford.edu

Calls for Nominations

Krumbein Medal 1994

Following an annual tradition started in 1976, the association is accepting nominations to award the Krumbein Medal for 1994. Award of the medal is the highest distinction that IAMG can bestow.

The medal intends to honor life achievements rather than accomplishments during the specific year of presentation of the award. Conditions to deserve the medal include: (1) original contributions to mathematical geology, (2) support of the association, and (3) service to the profession outside the association.

If you have a name in mind worthy of receiving the honor, please send your nomination along with a curriculum vitae of the nominee to the chairman of the 1994

Krumbein Medal Committee:

Ricardo A. Olea (see p.2 for address)
no later than Friday, May 19, 1995.

President's Prize 1994

The IAMG awards each year the President's Prize to an individual 35 years or younger who has made through publication an original and outstanding contribution to the application of mathematics to the geological sciences.

The President of the IAMG, Dr. Michael Ed. Hohn, is asking for nominations for the 1994 President's Prize.

A nomination of a candidate, to be received by May 15, 1995 must include:

- a letter of recommendation (a second letter from a different nominator may be helpful, but is not required), including argumentation in favour of the candidature and reference to publications

- a complete curriculum vitae, including the candidate's birthdate, which must be in 1959 or later for the 1994 Prize

Please send nominations to the chairman of the 1994 President's Prize Committee:

Dr. Ute Herzfeld
Institute of Arctic and Alpine Research
University of Colorado at Boulder
Campus Box 450
Boulder, Colorado 80309-0450
U.S.A.

Geostatistics home page — from the SAND (Statistical Analysis of Natural Resource Data) group at the Norwegian Computing Centre:

here . <P>

The group was established in 1984 to provide research and services for stochastic modelling and geostatistics within the petroleum industry.

Network News Groups:

There is a relatively new subscription list "Geo-Stat" which could be a forum of interest for all kinds of discussions on numerical techniques and mathematical geology. However, as far as I can tell there is hardly any traffic at all. Those of you interested can subscribe by e-mailing to listserv%ufrj.bitnet@listserv.net with the message: subscribe stat-geo

Is There a Way to Rescue Mathematical Geology in Russia?

Two pioneers of mathematical geology have gone: Prof. Dr. D. A. Rodionov has passed away in Moscow on October 2, 1994 at age 63. On November 16, 1994 Dr. R. Kogan, age 69, Rodionov's brother-in-arms and intimate friend, perished in a street accident in Moscow close to Rodionov's residence, where he had picked up his colleague's last manuscript which he wanted to publish. With these two scientists the community of mathematical geologists has lost two powerful representatives whose names are closely connected with this young science, in particular in Eastern Europe.

D. A. Rodionov gave a strong impulse to the development of the theory of classification of geological objects, which forms a counterpart to the theory of regionalized variables developed mostly in France, Canada and the US. The classification theory was erected under the assumption that the upper lithosphere investigated by geologists represents a complicated geological body that can be subdivided hierarchically into less complicated geological bodies down to a level of homogeneous bodies. Homogeneity is characterized by stationarity of a multivariate random function describing the features of such a body. The main problem was to distinguish between different types of geological bodies by classification (in particular looking for classes of favorable bodies in terms of exploration) and to determine spatial boundaries using multivariate statistical methods. Whereas D.A. Rodionov developed the theory, R. Kogan used it successfully for the application in geological practice. D.A. Rodionov worked most of his life in research labs of the Academy of Sciences but also in the VIEMS institute in Moscow where he returned finally in 1992. His work is published in seven monographs and more than 150 articles mostly written in Russian, but some translated into English and published in the west. R. Kogan worked during most of his career in the VIEMS institute applying mathematical methods to mineral resources exploration. In addition to their activities in Russia, both scientists became very active internationally, particularly in Eastern Europe, starting with the founding of the IAMG in Prague in 1968.

The loss of these two scientists hits Russia at a moment when support and promotion of science is declining due to economic conditions everywhere in this country. Formerly powerful research institutes are being closed or sized down to a level where active research work becomes practically impossible. As a result, scientists are leaving the Academy and the universities looking for better paying jobs in Russian business or abroad. This brain drain leaves a gap in Russian science which will take decades to fill again.

One way to stop this process is to involve Russian mathematical geologists in international research projects funded by western organizations. Those who are planning new research projects are called on to include Russians (but also other Eastern European scientists) in their investigations. For instance, the European Community and various governmental agencies have instituted special programs to support scientists in the former Eastern block. Therefore, every active scientist in the Western world has the chance to stop, or at least to diminish, the process of decay of mathematical geology in Russia.

Jan Harff

Mathematical Geology: Studies for Students: an initiative from the Education Committee

A principal aim of the IAMG Education Committee is to develop ways to show people how to do things properly in mathematical geology. We are going to try to do this by organizing a series of articles with examples, each covering a particular topic in mathematical geology. The series will be open-ended and wide-ranging, and people will be able to pick from it just the topics in which they are interested. Each article, by a highly respected author (in many cases not a mathematical geologist) will take them through the topic clearly and systematically, from a relatively basic level to one of some sophistication, giving examples, principal pitfalls, and showing where to get help.

We are most emphatically not setting out to have any sort of textbook written on mathematical geology, although we certainly expect that instructors and students in courses on mathematical geology, geostatistics, geological data analysis, etc. will want to use appropriate articles from the series for illustration and example.

Topics: There will be no bounds at all on topics. We seek articles on topics such as, *How are sediment grains transported?*, *Closed data sets*, *Displaying three-dimensional surfaces*, *Strain fields*, etc. - topics which can be handled relatively completely within articles, like book chapters, and which are both interesting to geologists and important to get right. Methods, analyzing one type of data, or developing one type of model, or specific case-studies, or the physical and chemical principles behind one type of geological process, are all o.k. The topic must be sufficiently restricted in scope to fit within the series format and that it can be well covered.

Authors: The only criteria will be competence, skill in presentation, and willingness to do the job. If you fit those criteria and you've always wanted to show how some particular type of work really should be done, then we want you!

Publication media: In order to reach the readers for whom they are written (the actual students and professionals who work on those particular topics), the articles should appear in non-IAMG journals except for articles on topics that are most appropriately covered in MG, C & G, or NR. We are negotiating with geological societies and journals to arrange that articles on sedimentology, for instance, appear in a mainstream journal on sedimentology, and so on. The articles will appear in each journal under the IAMG logo and will be referred to as part of our 'Studies for Students' series. They will be subject to the editorial control of the publishing journal (as well as to our own control). The IAMG will support the publication of these articles by underwriting such things as page-charges.

Now it's your turn! We need your help and feedback. Which topics should appear in the series? Which authors should write which articles? Which article do you, personally, want to write? It can work - with your help - and it can work well. If it does work well, then geology as a whole will really have something to be proud of!

John C. Tipper (Chair, Education Committee)
see address on page 2

The *WANTED* Corner

The following job request was forwarded by R. A. Olea:

Indian Institute of Technology
Kharagpur 721302
Department of Geology & Geophysics
Dr. (Ms) Indira Datta
Lecturer

January 13, 1994

Prof. Richardo A. Olea
Kansas Geological Survey, 1930 Constant Ave
Lawrence, Kansas 66047
USA

Respected Sir,

I have got my M.Sc. degree in Mathematics from IIT Kharagpur. I have completed my Ph.D degree in Geophysics on the "Study of Aeromagnetic and Radiometric Data of Samalpatti Region, Salem District-Tamil Nadu" under the supervision of Prof.S.Y.L.N.Rao, Professor, Department of Geology & Geophysics, IIT, Kharagpur.

I have worked as JRF on CSIR Project "Development of Data Processing Procedure of Computer Software for Geo-exploration", for one year. I have worked with (1) Geology - Data Processing and (2) Image Processing. Together with theoretical background in the various fields like Numerical Analysis, Mathematical Morphology, Topology. I learned FORTRAN, BASIC of different versions operating system are essential for manipulation at bit level in programming fabric patterns.

I have no desire to acquire any additional academic distinction (such as Ph.D). Rather I would like to work in any project that requires software support in the field of computer graphics pattern recognition, mathematical morphology, GIS, fractals and digital remote sensing.

I do not know what would cost to maintain myself, one who is addicted to a very normal simple life and whatever be quantum of financial assistance I get I will adjust within these parameters. At this phase, I am interested to have the opportunity to involve myself in the development of imagery analyses studies and I would welcome any mode of arrangement that you can make for me.

If you are interested to have further details regarding me, you can write to me directly.

Thanking you,

Yours sincerely,
signed
(INDIRA DATTA)

!!! CLEARANCE !!!

A limited supply of the following items are available:

- ☞ Program and Abstracts from the 1993 Silver Anniversary Meeting of the IAMG, Prague.
- ☞ Cumulative index to Mathematical Geology, volumes 1-20.

Each is available at no cost from:

Michael Hohn
West Virginia Geological
and Economic Survey
P.O. Box 879

Morgantown, WV 26507-0879
Tel (304) 594-2331; Fax 594-2575; e-mail:
hohn@geosrv.wvnet.edu

Freebies

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