

I.A.M.G. NEWS LETTER



New Monograph Series for IAMG

The Council of the IAMG has approved a new Monograph Series, to contain major articles too long for publication in either Association journal. The new series will include the results of recent research in geomathematics, reviews of specific areas, and tutorial or educational works. The new series was proposed by R. B. "Dick" McCammon (USA), who has been named Monograph Editor.

Dick states that mathematical geology has matured to the point where many individuals have produced major works that could have been part of such a series. He envisions each monograph as a stand-alone publication of at least 100 pages, similar in format to SIAM's Monographs in Applied Mathematics. A number of commercial publishers have expressed interest in such a series. Dick's first task will be to arrange a contract with a suitable publisher. In this regard, he notes that "a successful series will not only add to the prestige of the IAMG, but also to the material well-being of the Association through royalties."

Monographs will be available to the membership at substantially reduced rates. Those interested in contributing should contact Dick McCammon in advance of submittal of materials. This new venture is a significant undertaking by the Association, and should be supported by every member!



Best Paper Award--COMPUTERS & GEOSCIENCES

Best Paper Award for a paper published in C&G in 1982 goes to Frederik P. Agterberg and L. D. Nel (Geological Survey of Canada, Ottawa) for their joint paper titled, "Algorithms for the ranking of stratigraphic events" (C&G, 1982, v. 8, pp. 69-90). In addition to certificates of award, each co-author will receive a year's subscription to C&G. This, by the way, is the third C&G award Frits has garnered!

Financial Statement of the International Association for Mathematical Geology Statement of Income and Expenses for Period from January 1, 1982 to December 31, 1982

Income:	
Membership dues	\$18,503.83
Interest on checking account	147.92
Interest on savings accounts	306.11
Interest on savings certificates	563.20
Interest on money market funds	1,996.95
Dividends on GNMA	900.08
Royalty from publisher	3,409.70
IUGS allocation	1,000.00
Foreign check payout	180.00
Membership distribution refund	183.50
Total Income	\$27,191.29

Expenses:	
Journal subscriptions	\$17,414.00
Convention booth rentals	436.15
Printing	290.16
Postage	1,018.92
Dues mailing costs	187.65
Advertising	273.40
Down-to-Earth Statistics book	650.00
Banking charges	56.85
Total expenses	\$20,327.13

Excess of Income \$6,864.16

Balance Sheet December 31, 1982

Assets:	
Cash	\$ 2,221.49
Savings & Money Market Funds ¹	22,239.80
GNMA	9,999.82
	\$34,461.11

Liabilities:	
Membership equity ¹ (deficit)	\$34,461.11
	\$34,461.11

Increase from December 31, 1982 \$6,864.16

¹Does not include Swiss Franc Account
Swiss Francs² S.F. 6,029.58 \$3,016.00
²This account did not change during 1982.
Exchange rate of 0.5002 of 2 May 1983.

ASA-PES/IAMG Session

The IAMG and the Physical & Engineering Science Section of the American Statistical Association will cosponsor a session at the 1984 Joint Statistical Meetings August 13-16, 1984, in Philadelphia, Pennsylvania. Abstracts and registration fee (\$50 ASA members/\$65 nonmembers) must be submitted to the ASA, 806 15th St. NW, Suite 640, Washington, D.C. 20005 USA by March 9. Obtain abstract forms from the ASA and indicate your contribution is for the PES/IAMG session. Contact Jack Schuenemeyer, Dept. Math. Sciences, Univ. Delaware, Newark, DE 19716, USA (telephone 302-451-2653) for details.

A.B. Vistelius Honored in Uppsala

Word has been received from Uppsala, Sweden, of a further honor conferred upon Professor A.B. Vistelius of the Laboratory of Mathematical Geology, Leningrad, USSR, first president of the International Association for Mathematical Geology and 1980 recipient of the IAMG's Krumbein Medal.

"In recognition of the outstanding contributions of Professor A.B. Vistelius to Mathematical Geology and the important role played by him in initiating research in the field, the Departmental Board of Paleontologiska Institutionen (Department of Historical Geology and Palaeontology) has decided to name the new computer applications laboratory:

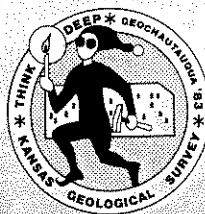
The A.B. Vistelius Laboratory for
Geomathematics."

-- Richard A. Reymont

Call for Papers

The joint meeting of the Canadian Society of Petroleum Geologists and the Canadian Society of Economic Geophysicists, to be held in Calgary on June 16-21, 1984, will include a half-day session on computer-related topics. Papers are solicited in four areas: Combining geological and geophysical data; correcting and maintaining data files; use of microcomputers in exploration; and case histories of the use of computers in exploration. Those wishing to contribute should submit titles and abstracts (not over 250 words) to Douglas Glass, Union Oil Co. of Canada Ltd., 335-8th Ave. S.W., P.O. Box 999, Calgary, Alberta, T2P 2K6, Canada.

1963 1983



IN RECOGNITION
OF 20 YEARS
SERVICE TO THE PROFESSION

DANIEL F. MERRIAM

IS HEREBY DESIGNATED
THE
GODFATHER
OF
MATHEMATICAL GEOLOGY

Whimsical Award

The plaque pictured above was recently presented by IAMG Secretary-General John Davis to Past-President Daniel Merriam in recognition of Dan's 20 years of service to mathematical geology. The award was presented at a banquet during the 12th Annual Geochautauqua, held in Lawrence, Kansas (USA) to commemorate the beginning of geomathematical research at the Kansas Geological Survey in 1963, under the leadership of Merriam. Davis cited Dan's numerous accomplishments over the past two decades, but most particularly his role as "arranger, promoter, and patron" of the fledgling science, without which the field of mathematical geology would be far less dynamic than it is today.

Nottingham's Computer Applications Ceases Publication

Editor M.J. McCullagh of the Department of Geography, Nottingham University, UK, announces that Computer Applications has ceased publication regarding article contributions. Subscriptions outstanding have been repaid. Computer Applications will continue on a monograph basis dealing with contributions on topics of general geographic interest, without advance subscription. Announcements will be made as and when necessary concerning the availability of these special monograph issues.

Coming Events

- Feb. 9-14, 1984.** Quantitative Petroleum Prediction. London, UK. Meeting of the Geological Society Petroleum Group. Jim Brooks, Exploration Division, Britoil, 150 St. Vincent Street, Glasgow G2 5LJ, UK.
- March 26-30, 1984.** APCOM '84 - Eighteenth International Symposium on Computer Applications in the Mineral Industries. London, UK. Secretary, Institution of Mining and Metallurgy, 44 Portland Place, London W1N 4BR UK.
- April 9-13, 1984.** International Colloquium on Computers in Earth Sciences for Natural Resources Characterization. Nancy, France. Colloque International 1984, Centre de Recherches Petrographiques et Geochimiques, 15, Rue Notre-Dame des Pauvres, B.P. 20, 54501 Vandoeuvre Les Nancy, Cedex, FRANCE.
- May 14-18, 1984.** Fourth Australia-New Zealand Conference on Geomechanics. Perth, Australia. The Conference Manager, 4th ANZ Geomechanics Conference, The Institution of Engineers, 11 National Circuit, Barton, ACT 2600, AUSTRALIA.
- May 21-22, 1984.** Microcomputer Applications in Petroleum Geology. Two sessions at Ann. Meeting, American Assoc. Petroleum Geologists, San Antonio, Texas, USA. Chuck Iglehart, Pennzoil Expl. & Prod. Co., P.O. Box 2967, Houston, TX 77001 USA.
- May 21-25, 1984.** LANDSAT 84, The Third Australian Remote Sensing Conference. Gold Coast. The Secretary, Landsat 84 Conference Committee, P.O. Box 234, North Quay, QLD 4000, AUSTRALIA.
- June 4-6, 1984.** Mathematical Modelling of Sediment Transport and Morphology Euromech Colloquium. The Netherlands. Prof. H.H. Fernholz, Hermann-Föttinger-Institut für Thermo- und Fluidodynamik, Technische Univ. Berlin, Strasse des 17 Juni 135, D-1000 Berlin 12, FRG.
- June 16-21, 1984.** Joint Canadian Society of Petroleum Geologists and Canadian Society of Economic Geophysicists Meeting. Half-day session and poster session on geological/geophysical computer related topics. Calgary, Canada. Douglas Glass, Union Oil Company of Canada Ltd., 335 - 8th Ave. S.W., P.O. Box 999, Calgary, Alta. T2P 2K6 CANADA.
- June 24-27, 1984.** Ninth International CODATA Conference. Jerusalem, Israel. The Secretariat, Ninth International CODATA Conference, 122 Hayarkon Street, P.O. Box 3054, 61030 Tel-Aviv, ISRAEL.
- June 24-30, 1984.** 14th International Conference on Mathematical Geophysics. Loen, Norway. Durk Doornbos, NTNF/NORSAR, P.O. Box 51, N-2007 Kjeller, NORWAY or Frank Richter, Univ. Chicago, Chicago, IL 60637, USA.
- Aug. 4-14, 1984.** 27th International Geological Congress. Moscow, USSR. Iskander Jafarov, Narimanov St. 33, Institute of Problems of Deep-Seated Oil and Gas Deposits, Ax SSR Academy of Science, 370143 Baku, USSR.
- Aug. 13-16, 1984.** Joint Geological-Statistical Meeting. Session at Ann. Meeting, American Statistical Association, Philadelphia, Pennsylvania, USA. Jack Schuenemeyer, Dept. Math. Sciences, Univ. Delaware, Newark, DE 19716 USA.
- Aug. 20-24, 1984.** International Symposium on Spatial Data Handling. Zurich, Switzerland. Duane F. Marble, Dept. Geography, State Univ. New York at Buffalo, Amherst, NY 14260 USA.
- Aug. 26-31, 1984.** Symposium on Environmental Applications of Chemo-metrics. Session at Ann. Meeting, American Chemical Society, Philadelphia, Pennsylvania, USA. J.J. Breen, Office of Toxic Substances (TS-798), U.S. Environmental Protection Agency, 401 M Street S.W., Washington, D.C. 20460 USA.
- Oct. 1-5, 1984.** Eighteenth International Symposium on Remote Sensing of Environment. Paris, France. Environmental Research Institute of Michigan, P.O. Box 8618, Ann Arbor, MI 48108 USA.
- Dec. 2-5, 1984.** Wallace E. Pratt Memorial Conference on Future Petroleum Provinces of the World. Worldwide conference on onshore and offshore potential, probable basin reserves, the philosophy of finding petroleum, new geological and geophysical concepts in a global context. Phoenix, Arizona, USA. AAPG, P.O. Box 979, Tulsa, OK 74101 USA.
- April 1-5, 1985.** Numerical Methods in Geomechanics. Nagoya, Japan. T. Kawamoto, Dept. of Civil & Geotechnical Engineering, Nagoya Univ., Chikusa, Nahoga 464, JAPAN.
- Oct. 14-18, 1985.** Mining Příbram Symposium Mathematical Methods in Geology. Příbram, Czechoslovakia. Convener: Vaclav Nemeč, Hornická Příbram ve Vede Technice, Post. schránka 41, Příbram 26102 CZECHOSLOVAKIA.



MGUS--Call for Nominations

Nominations are solicited for candidates for officers of the Mathematical Geologists of the United States (MGUS). [All IAMG members residing in the U.S. are members of MGUS.]

Current MGUS officers (James B. Campbell, President; Doug Lorenz, Vice President; Tom A. Jones, Secretary; John H. Schuenemeyer, Treasurer; Richard B. McCammon, Past President) assumed their duties in 1982; their terms will expire in 1984. New officers will be elected to serve from early 1984 to 1986.

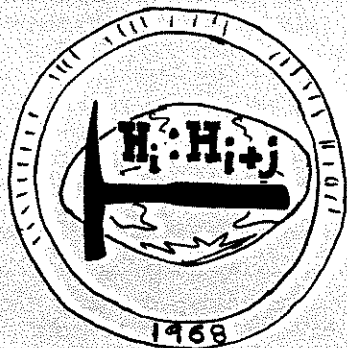
MGUS members are requested to submit nominations for new officers to James B. Campbell, Dept. of Geography, Virginia Polytechnic Institute, Blacksburg VA 24061 USA.

Response to Proposed New IAMG Logo

Rather than replacing the 80-column punched card that appears as part of the seal of the IAMG with a representation of a desk-top computer [see IAMG News Letter no. 30, "Time for a Change?"], Andrew B. Vistelius suggests that perhaps a totally different design would be more appropriate. He points out that testing of geological hypotheses is the main purpose of mathematical geology. As the computer is only a technical device aid to this end, Vistelius suggests that the seal incorporate the main purpose in symbolic form. He writes,

"H is the symbol for hypothesis, and $H_i:H_{i+j}$ is a symbolic statement that we check the H_{i+j} hypothesis against the H_i hypothesis."

Vistelius's design, roughed out below, would also simplify the logo by eliminating the dividers.



SORSA Spatially-Oriented Referencing Systems Association -- Invitation

A letter from Catherine Gourley, Membership Coordinator of SORSA, invites individual or organizational membership in this "small, non-profit, international association with the following primary aims:

1. to promote the application of spatial referencing systems in general and of segment-oriented referencing systems in particular;
2. to facilitate communication, disseminate experience and organize efficient cooperation among organizations and professionals in the field;
3. to promote the development of spatial referencing, retrieval and analysis;
4. to encourage the transfer of relevant standards and technology to developing countries."

Write to: SORSA, P.O. Box 3825, Stn. "C", Ottawa, K1Y 4M5, CANADA.

SORSA was established in 1974 and represents geographers, cartographers, and graphic information system users in 18 countries; worldwide general meetings and symposia are convened annually as well as locally organized special workshops.

Local Societies

The explosive proliferation of personal computers has led to creation of a large number of local "user's groups" or "computer clubs." Some of these are specifically for members of a certain profession, such as doctors or lawyers. Now, groups are appearing that cater to geologists, geophysicists, and petroleum engineers. The IAMG wishes to compile a list of such groups, with addresses of contacts, to encourage participation. To date, we have information on the following groups. Information on others will be greatly appreciated.

- 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 (Houston, Texas, USA)
- RMAG -- Rocky Mountain Association of Geologists, Computer Committee (Denver, Colorado, USA)
- Wyoming Geological Association -- Standing Committee on Computer Geology (Casper, Wyoming, USA).

President's Prize Nominees Sought

The IAMG President's Prize is awarded annually for outstanding contributions to geomathematics by a younger scientist. The recipient must be no older than 35 at the time of nomination. The prize is designed to acknowledge the work of those at the beginning of their professional careers, and to encourage young scientists to continue their efforts and to publish in the area of geomathematics. IAMG members are encouraged to submit nominations directly to the Selection Committee Chairman: -- Douglas M. Hawkins, Operations Research and Statistics Division, National Research Institute for Mathematical Sciences, CSIR, P.O. Box 395, Pretoria 0001, SOUTH AFRICA.

Microcomputer Catalog/Programs Available

From the AAPG Explorer comes news of a catalog of geologic programs for microcomputers and a set of "public domain" geology programs. The catalog, in book form, contains 130 entries and is offered by the Computer Oriented Geological Society, a recently formed group based in Denver, Colorado. Geology programs include a decline curve-estimated future production program; three Visicalc models for depth to sub-sea corrections, log analysis and well cash flow analysis; a subroutine to draw and label a township plat, a pocket calculator emulator, and a label printer. Programs are available on disk for use with Apple II computers; an IBM version is being developed. The catalog and program disk are available for \$5 each. Contact Daniel E. Shier, Secretary, COGS, 21538 W. 56th Rt. 6, Golden, CO 80401 USA.

1983 Krumbein Medallist Announced

The recipient of the 1983 William C. Krumbein Medal has been announced by IAMG President E.H.T. Whitten. Professor Georges Matheron, Ecole Nat. Super. des Mines, Fontainebleau, France, has been awarded the eighth Krumbein medal, the highest distinction of the International Association for Mathematical Geology. The medal will be presented at the opening session of APCOM '84 on March 26, 1984, in London. At the presentation ceremony, Professor Matheron will deliver the Sir Julius Wernher Memorial Lecture, "Geostatistics and the Definition of Uncertainty." [A biography of Prof. Matheron will appear in a future News Letter issue.]

1984 Membership Dues

The IAMG continues to grow in stature, and membership has now increased to about 760 worldwide. The quality of the two journals, Mathematical Geology and Computers & Geosciences, continues to improve. In 1984, Mathematical Geology will appear 8 times a year, rather than 6. The number of pages will be increased from 700 to 900 pages. To offset part of the increased cost of publication of the expanded journal, membership dues must be increased for those receiving Mathematical Geology. Dues for members receiving only Computers & Geosciences remain unchanged. The new rates are:

- * with Mathematical Geology and the News Letter \$US 27.00
- * with Computers & Geosciences and the News Letter \$US 33.00
- * with Mathematical Geology, Computers & Geosciences, and the News Letter \$US 57.00.

Members have been mailed their 1984 dues notice and a letter from President Whitten explaining the new dues rate. In the letter, President Whitten notes that dues must be remitted in US dollars. Banking charges on foreign currency checks are now so exorbitant that the Association can no longer absorb them.

MGUS Directory -- Hot Off the Press!

The 1983 edition of the Directory of North American Geoscientists engaged in Mathematics, Statistics and Computer Applications, published by the Mathematical Geologists of the United States (MGUS), is awaiting distribution. Designed to identify individuals and improve communications between those with interests and expertise in mathematical geology, the current volume contains the names, addresses, affiliations, and photos of over 300 geoscientists. The directory is provided free of charge to those who respond to the MGUS questionnaire and whose names are included in the volume. Others may obtain this useful directory (and send in the accompanying form so they may be included in future issues) from the Kansas Geological Survey, 1930 Constant Avenue, Lawrence, KS USA 66044-3896 for US \$10.00 plus 85¢ postage and handling. Make checks payable to MGUS and be sure to print your name and address clearly, or include a self-addressed label with your order.

Glossary of Mathematical Geology

The new multilingual Glossary of Mathematical Geology is being compiled by editor Vassil Vuchev (Bulgaria) from English and Russian word lists. When all terms have been collected, short definitions will be written for each, drawing on the AGI Glossary of Geology, the Russian two-volume Geological Dictionary, the Dictionary of Statistical Terms, and the Encyclopedia of Statistics. For some terms and usages, such as those from geostatistics, definitions will be drawn from the literature. The terms and definitions will be extensively reviewed before the final compilation.

Vuchev will serve both as chief editor and editor for Russian and Bulgarian, and will be assisted by a committee of editors responsible for specific languages. The following editors have been appointed: John Davis (English), Ricardo Olea (Spanish), and Zhou Di (Chinese). Editors are needed for the French, German, and Italian languages. Anyone interested in working on the project should write to Vassil Vuchev at the Bulgarian Academy of Sciences, Geological Institute "Str. Dimitrov," Sofia XIII, BULGARIA, or to John Davis, IAMG News Letter editor.

About People

Robert Brace has established a petroleum and geomathematical consulting service, ENERFACE CORP., at 10155 W. Kentucky, Lakewood, CO 80226 (USA).

Isobel Clark has been appointed managing director of GEOSTOKOS LTD. at their new offices at 8a Lower Grosvenor Place, London SW1W 0EN (UK).

Andrea Fabbri is now senior research scientist with the National Research Council of Italy. He leaves his post with the Geological Survey of Canada in Ottawa for the Instituto di Geologia Marina (C.N.R.) in Bologna, where he will also teach courses on mathematical geology and data processing in geology at the University of Bologna (ITALY).

Colin Ferguson has moved from the University of Nottingham, England, to the Advanced Projects Section of the Kansas Geological Survey (USA).

John Tipper leaves his post at University College, Galway, Ireland, for a new appointment as Lecturer for the Department of Geology of the Australian National University in Canberra (AUSTRALIA).



The IAMG News Letter is made possible by a grant from the Kansas Geological Survey.

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