

ALMA-ATA SYMPOSIUM Big Success

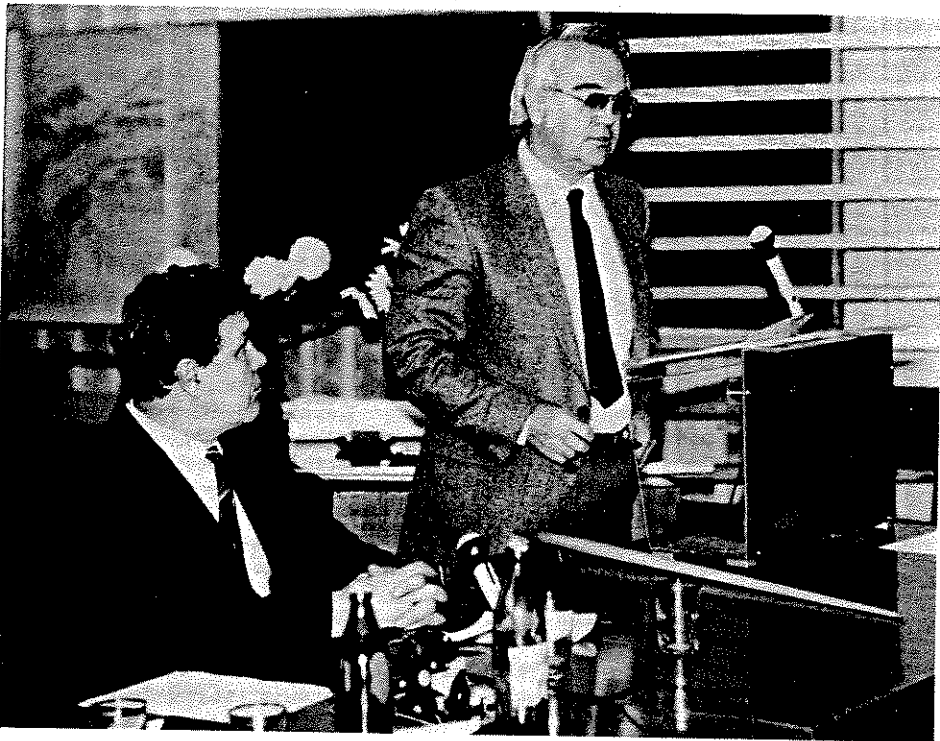
The IAMG sponsored a highly successful international symposium on "Major New Trends in Quantitative Methods for Predicting and Resource Evaluation of Mineral, Oil and Gas Deposits" in Alma-Ata, capitol of Kazakh SSR, on Sept. 23-29, 1985. The meeting was attended by over 100 scientists, mostly from USSR and other eastern bloc countries, who presented 70 papers. Presentations, simultaneously translated, were in English and Russian.

The symposium was cosponsored by COGEO DATA and hosted by the Kazakh Ministry of Geology and the USSR Academy of Science. Organizers included A.N. Bugaets, D.A. Rodionov, G.R. Bekzhanov, and A.I. Krivtsov. Three volumes of abstracts (in English and Russian) are available from the Kazakh Institute of Mineral Resources (Karl Marx str. 105, 480091 Alma-Ata, USSR). A Russian-language summary of the symposium, prepared by D.A. Rodionov, will appear soon in *Soviet Geology*; a translation will also be published in *Math Geol.* A Soviet editorial committee intends to select the best and most original papers, supervise their translation, and submit them for a special issue of *Math Geol.* In this way, the results of Soviet research on quantitative resource assessment will become widely available in the West.

The list of topics discussed is too extensive to recount here, but a few of special interest include: forecasting of oil and gas discoveries in Western Siberia (I.I. Nesterov), use of interval estimation for metallogenic analysis (R.I. Kogan), use of fuzzy set theory in resource estimation (A.N. Bugaets, Cheng Xuefu), and applications of D.A. Rodionov's "theory of classification of geological objects" to mineral deposit appraisal. Numerous case studies were presented, especially attempts to assess base metal deposits.

IAMG SESSIONS To Be Held at ISC, Canberra

The IAMG again is sponsoring sessions at the International Sedimentological Congress, this time in Canberra, AUSTRALIA, August 24-30, 1986. Our session, entitled "Mathematical Sedimentology," will be part of Theme F—Concepts, Techniques, History. A.C. Cook (Dept. Geology, Univ. Wollongong, P.O.B. 1144, Wollongong, NSW 2500, Australia) and D.F. Merriam are convenors. From 1 to 3 half-day sessions will be held, depending on number of papers accepted. Plans call for papers 20 min. in length, with 5-min. discussions. Papers must be submitted before Jan. 15, 1986.



IAMG President John Davis addresses the Alma-Ata gathering while Ivan Nesterov, Director of the West Siberian Research Institute, looks on.

МЕЖДУНАРОДНЫЙ СИМПОЗИУМ

«ОСНОВНЫЕ НАПРАВЛЕНИЯ РАЗРАБОТКИ КОЛИЧЕСТВЕННЫХ МЕТОДОВ ПРОПОЗИЦИОНАНИЯ НЕФТЯНЫХ И РУДНЫХ МЕСТОРОЖДЕНИЙ»

СИМПОЗИУМ МАМГ



«ААМА-АТА-85»
23-29 СЕНТЯБРЯ
1985

МЕЖДУНАРОДНАЯ АССОЦИАЦИЯ МАТЕМАТИЧЕСКОЙ ГЕОЛОГИИ
НАЦИОНАЛЬНЫЙ КОМИТЕТ ГЕОЛОГОВ СССР
МИНИСТЕРСТВО ГЕОЛОГИИ СССР
ИНСТИТУТ ГЕОЛОГИИ РУДНЫХ МЕСТОРОЖДЕНИЯ,
ПЕТРОГРАФИИ, МИНЕРАЛОГИИ И ГЕОХИМИИ АН СССР
КАЗАХСКИЙ НАУЧНО-ИССЛЕДОВАТЕЛЬСКИЙ ИНСТИТУТ
МИНЕРАЛЬНОГО СЫРЬЯ МИНИСТЕРСТВА ГЕОЛОГИИ
КАЗАХСКОЙ ССР

The Congress should be extremely interesting, and will provide the opportunity to see the many interesting features of the "Land Down Under" during field trips before and after the Congress, as well as on day tours during sessions. Registration before June 1 for IAS members is A\$160.00 and A\$190 after; for nonmembers, A\$190 before, A\$220 after. Student registration is A\$120 or 130.

An IAMG Council meeting may be held in conjunction with the Congress. Papers presented at the IAMG sessions will be published; authors are encouraged to bring their manuscripts to the Congress. Obtain additional information from: D.F. Merriam, Dept. of Geology, Wichita State Univ., Wichita, KS 67408 USA (Telephone: 316-689-3140).

STATISTICAL TREATMENT for estimation of Mineral and Energy Resources

A NATO Advanced Study Institute will address, among many topics, multivariate statistical analysis for resource evaluation, statistical estimation of petroleum deposits, crustal abundance models, image analysis in the Earth sciences, expert systems for exploration, and integrated computer systems for geoscience data. The Institute will

consist of tutorial lectures, discussions of recent developments, analyses of case histories, workshops, and contributed papers. Participation is limited to 80 scientists. The meeting will be held at Il Ciocco in Lucca, ITALY, from June 22 to July 4, 1986. Financial support is available. Organizers of the Institute are **Andre Fabbri** (Italy), **C.F. Chung** (Canada), and **R. Sinding-Larsen** (Norway). For additional information, contact C.F. Chung, Geological Survey of Canada, 601 Booth Street, Ottawa K1A 0E8 CANADA (Tel.: 613-996-3413. Telex: 053-3117 EMAR OTT.)

MEMBERSHIP DUES are Due!

This is the season for Holiday cheer, New Year's resolutions, and bills for annual dues! Soon you will receive your 1986 IAMG dues announcement in the mail. Please return it, along with your check payable in US dollars in the appropriate amount, to our Western Treasurer, **Michael Hohn**. One pleasant note: Thanks to Michael's razor-sharp negotiating skills, dues for 1986 remain unchanged! Only \$27.00 for dues with Math Geology, \$38.00 for dues with Computers & Geosciences, or \$63.00 for dues and both journals. Remember, send your 1986 dues promptly to:

M. E. Hohn, Western Treasurer
West Virginia Geol. and Econ. Survey
P.O. Box 879
Morgantown, WV 26507-0879 USA

PRESIDENT'S PRIZE for 1984

The 1984 President's Prize recipient is **Michel Rabinowicz**, Chief of Research, Spatial Geodesy Research Group, CNRS, Toulouse, FRANCE. Born in 1951, Michel received his diploma in mathematics and physics (1970), master's in pure mathematics (1972), and doctorate in pure mathematics (1974) from the University of Strasbourg. He also received diplomas in physics in 1972 and 1974, and completed his doctoral thesis in geophysics in the Faculty d'Orsay in 1980. Michel has an extensive list of publications and has been especially active in global modelling of mantle convection and modelling of igneous bodies. His major publications have appeared in the Journal of Geophysical Research and the Journal of Petrology. Michel will receive a book award and certificate from the Association.

The 1985 President's Prize recipient is now being chosen. Last-minute nominations should be sent at once to the chairman of the 1985 selection committee, **John M. Cubitt** (Poroperm-Geochem Ltd., Chester Street, Chester CH4 8RD. Tel: 0244-677626, Telex: 61297). Nominations should be accompanied by basic biographical data, including date of birth, education, awards, publication list

and details, career outline, and list of noteworthy achievements. Remember that the President's Prize recognizes outstanding contributions to mathematical geology by young scientists—the recipient can be no older than 35 years of age at the time of nomination.

1985 GEOCHAUTAUQUA Held in Wichita

The 14th Annual Geochautauqua, sponsored by the IAMG and MGUS, was hosted by the Geology Department of Wichita State University, Wichita, Kansas, USA, on October 3-5, 1985, with the theme "Computer Applications in Petroleum Exploration and Development." **Donald B. McIntyre** kicked off the proceedings at the icebreaker with a truly eclectic tour-de-force, modestly entitled "Accessing Geological Information," that took his listeners from Eratosthenes to astrophysical measurements of plate movement via "The Rime of the Ancient Mariner" and other high points of Western Civilization. This was a difficult act to follow, but over the next two days, speakers addressed a variety of topics ranging from biostratigraphy and kriging to wireline log processing and experiences in the practical application of computers to petroleum exploration. The affiliations of the participants were evenly balanced between academic institutions and industry, and made for useful discussions that encompassed both theoretical rigor and practical utility.

The 15th Geochautauqua will be held in Calgary, CANADA, in 1986, with the cosponsorship of the Canadian Society of Petroleum Geologists.



28th International Geological Congress

Washington, D.C. USA
July 9-19, 1989



IDEAS NEEDED for 28th International Geological Congress

The next International Geological Congress—and General Assembly of the

IAMG—will be held in July 1989 in Washington, DC. Although 1989 may seem impossibly far away, planning is now beginning for this next geologic extravaganza. The IAMG traditionally hosts a number of technical sessions and symposia at the Congress. In addition, we can hold workshops and short courses. All IAMG members are invited to propose suitable topics—it will also be helpful if you can suggest possible organizers or key participants. Topics mentioned to date include pattern recognition, fuzzy sets, constant-sum data, and data-dependent systems in Earth science model building.

Please send your ideas to our Special Councillor for the 28th IGC, **Harry M. Parker** (Fluor Engineers Inc., 10 Twin Dolphin Drive, Redwood, CA 94065 USA). Although there is not yet a fixed deadline for topics, the IGC organizers state that "suggestions received before January 15, 1986, will receive better consideration than those received after that date." Write now!

BOOKS New and Forthcoming

A.N. Bugayets, J. Hruska, and C. Schejbal, 1985.

Computer Methods of Regional Assessment and Prognostic Reserves of Ore Deposits in the USSR and East European Countries—A review. 60 pp. Published by the Czech Geological Bureau, GEOFOND, Kostelni 26, Praha 7, CZECHOSLOVAKIA. No price available.

John C. Davis, 1986.

Statistics and Data Analysis in Geology, 2nd edition. 646 pp. with a 5 1/4" diskette. Published by John Wiley & Sons, Inc., 605 Third Ave., New York, NY 10158 USA. Available Jan. 1986. Price \$38.95 US.

John H. Doveton, 1986.

Log Analysis of Subsurface Geology: Concepts & Computer Applications. 268 pp. Published by Wiley-Interscience, 605 Third Ave., New York, NY 10158 USA. Available Jan. 1986. Price \$37.95 US.

Rudolf Dutter, 1985.

Geostatistik: Eine Einfuehrung mit Anwendungen. 159 pp. Published by B.G. Teubner, Postfach 801069, Stuttgart 80, FED. REP. GERMANY. Paperback price approx. DM30.00.

F.M. Gradstein, F.P. Agterberg, J.C. Brower, and W.S. Schwarzacher, 1986.

Quantitative Stratigraphy. Published by D. Reidel Publ. Co. Available through Kluwer Academic Publishers, 190 Old Derby Street, Hingham, MA 02043 USA. Available Jan. 1986. Price \$77.00 US.

BOOKS...

J. Thomas Hanley and Daniel F. Merriam, 1986.

Microcomputer Applications in Geology. 274 pp. Published by Pergamon Press, Maxwell House, Fairfield Park, Elmsford, NY 10523 USA. Price \$35.00 US.

GEOBYTE

The American Association of Petroleum Geologists (AAPG), the largest geological society in the world, has begun a new serial publication—a magazine called Geobyte. Written in a popular format, Geobyte will focus on computer applications in exploration and development of petroleum and energy minerals. Emphasis will be placed on exploration data bases, land management systems, prospect inventories, risk analysis evaluations, decision making, geologic and geophysical modelling, reserve calculations, financial planning, mapping, computer training, and reviews of available hardware and software. Case studies with documentation and articles describing experiences with different techniques, organizations, and equipment will be prominently featured.

Geobyte will appear quarterly, and will contain approximately 500 pages per annual volume. Color is used extensively throughout the magazine. Over 50,000 complimentary copies of the first issue were distributed; if you did not receive one and would like to examine the new magazine, write Fred Wagner, Geobyte Editor, AAPG, P.O. Box 979, Tulsa, OK 74101 USA. A subscription to Geobyte is \$18.00 US (\$28.00 outside North America) and is available to anyone, whether or not they are a member of AAPG.

MEETINGS of Interest

CAME '86 — Computer Applications in Mineral Exploration, January 14-15, 1986, Toronto, Canada. Sessions on geostatistics, risk analysis, ore deposit modelling, and artificial intelligence. Write: Mr. Terence Bottrill, Bottrill Geological Services, 192 Weldon Ave., Oakville, Ontario L6K 2H8 CANADA

III CAC — Meeting of the Chemometrics Society, May 26-30, 1986, Lerici, Italy. Write: Dr. M. Forina, Istituto di Analisi e Tecnologia Farmaceutiche, Via Brigata Salerno (ponte) 16147 Genova, ITALY.

3rd International Conference on Geoscience Information, June 1-5, 1986, Adelaide, Australia. Write: Australian Mineral Foundation, Private Bag 97, Glenside SA 5065 AUSTRALIA.

Annual Convention — American Association of Petroleum Geologists, June 15-18, 1986, Atlanta, Georgia, USA. Sessions on computer graphics in petroleum geology, computer modelling of balanced cross sections, and computer applications. Write: AAPG, P.O. Box 979, Tulsa, OK 74101 USA.

NATO Advanced Study Institute on Statistical Treatment for estimation of mineral and energy resources, June 22 - July 4, 1986, Lucca, Italy. Write: Dr. C.F. Chung, Geological Survey of Canada, 601 Booth Street, Ottawa, Ontario K1A 0E8 CANADA.

2nd International Symposium on Spatial Data Handling, July 6-10, 1986, Seattle, Washington, USA. Write: Dr. Duane F. Marble, Seattle Symposium, Post Office Box 571, Williamsville, NY 14221 USA.

10th International CODATA Conference, July 14-17, 1986, Ottawa, Ontario, Canada. A major theme is numerical data processing and dissemination in the geosciences. Write: Mrs. Lois Baignee, Conference Services, National Research Council of Canada, Montreal Road, Ottawa, K1A 0R6 CANADA.

12th International Sedimentology Congress, August 24-30, 1986, Canberra, Australia. Write: 12th ISC, ACTS, GPO Box 1929, Canberra ACT 2601 AUSTRALIA.

Bernoulli Society World Congress, September 8-14, 1986, Tashkent, USSR. The IAMG will co-host a session on "Geology and Geophysics" with the Bernoulli Society, which is the applied section of the International Statistical Institute. Write: Prof. David Vere-Jones, Victoria University of Wellington, Institute of Statistics and Operations Research, Private Bag, Wellington, NEW ZEALAND.

AUTOCARTO LONDON, September 14-19, 1986, London, England. Sessions on data acquisition, data structures, and computer graphics. Write: Conference Services Ltd., 3-5 Bute Street, London SW7 3EY ENGLAND.

15th Annual Geochautauqua — Computers in the Petroleum Industry: Integrated Approaches, October 2-4, 1986, Calgary, Canada. Write: Dr. Michael Marchand, Geochautauqua '86, Canterra Energy Ltd., Box 1051, Calgary, Alberta T2P 2K7 CANADA.

APCOM 87 — Application of Computers in the Mineral Industries, October 19-23, 1987, Johannesburg, South Africa. Sessions on geostatistics, analysis of geophysical and geochemical data, graphic displays, risk analysis, simulation. Write: Conference Secretary (C.31), Mintek,

Private Bag X 3015, Randburg 2125 SOUTH AFRICA.

AN EDITORIAL About GEOBYTE

When rumors were first floated about a new AAPG journal on computers, IAMG officers reacted with some trepidation. After all, the AAPG dwarfs the IAMG in both size and financial resources, and our own journal Computers & Geosciences is chronically ailing. If the big society chose, it could easily run C&G to the wall, preempting the growing audience of industrial geologists involved with computer applications.

IAMG President John Davis and C&G Editor Dan Merriam expressed the Association's concern to AAPG officials, with the result that AAPG took definite steps that will maximize cooperation between the two societies and minimize the possibility of competition between their publications.

One-fourth of Geobyte's editorial board are members of the IAMG, including Chief Editor, Fred Wagner. Both Dan Merriam and John Davis are members. Part of their function as associate editors is to review manuscripts to see if they are written at a level appropriate for Geobyte, or whether they should be sent to more technically oriented journals, such as C&G, Math Geology, the Journal of Geophysical Research, and the like.

As a result, Geobyte is a professionally produced glossy magazine, with a strong commercial orientation. Over a third of each issue is devoted to full-page color advertisements for software, services, and computing equipment. The magazine gives an impression similar to Datamation or Byte—both immensely popular and highly successful, but both quite different creatures than Communications of the ACMI.

Geobyte fills an obvious need; it supplies information to a very large and growing segment of the geoscience population that is concerned with the use of computers, but not with the development of the technology. It can communicate practical suggestions, ideas, and experiences. It can discuss useful methodologies even if these have been known for ten, fifteen, or more years. For example, there are many exploration geologists with their first personal computer to whom trend surface analysis is a new and exciting tool. They could benefit from good current articles on the method and its applications. But C&G or Math Geology are not the appropriate places for such papers—Geobyte is, and hopefully it will meet this demand.

Perhaps Geobyte will supply all of the information needs of most of its readership, but some will be inspired to learn more, to search deeper. They will turn to C&G and Math Geology.

REPORT From the IAMG Geostatistics Committee

The Committee on Geostatistics set in motion by the IAMG 5th General Assembly and chaired by Ricardo Olea, has grown to include the following members: Margaret Armstrong, CGMM, France; Isobel Clark, Geostokos Ltd., England; Michel David, Ecole Polytechnique, Canada; Andre Journel, Stanford University, USA; and Eduardo Magri, Anglovaal Ltd., South Africa. A pending invitation seeks to add an Australian statistician as the final committee member.

A "first-things-first" attack was launched by the Committee on the ambiguity of the term "geostatistics," as sometimes it seems that almost everybody has a personal meaning for the word. The possibility of eliminating the confusion by introducing a new term was ruled out. The ambiguity in the use of "geostatistics" is restricted mostly to North America, where the term was used to describe a much wider field prior to the introduction of "regionalized variables." Misunderstanding of the term seems to be disappearing; and so much has been published under the name that replacing it would cause more harm than good. The Committee favors education over change to eliminate anarchy. Despite the semantics of the roots geo- and -statistics, and local practices in the use of the word "geostatistics," the Committee recommends restricting the term to refer only to the original developments of Professor Matheron of Fontainebleau, France, and other similar approaches within the realm of continuous multivariate spatial distributions.

Ricardo and his committee welcome comments on how the IAMG can serve

geostatistics. Suggested activities to date include a "world geostatistical atlas" and organization of meetings, perhaps regional workshops or seminars, on topics such as application of geostatistics to real problems presented by real practitioners. One Committee member, disenchanting with conferences devoted to academic arguments and the development of ever bigger, better kriging methods, urges, "Let's get the geologists back into this and talk about the end product."

The next major meeting of particular interest to those involved in the field of geostatistics is APCOM 87, the 20th International Symposium on Application of Computers and Mathematics in the Mineral Industries, to be held October 19-23, 1987, in Johannesburg, South Africa. The symposium is organized by the South African Institute of Mining and Metallurgy and the Council for Mineral Technology in association with the Geostatistical Branch of the Geological Society of South Africa and the Operations Research Society of South Africa. Papers are due June 1, 1986 and can cover theoretical developments, practical applications, and case studies as well as software and hardware systems. Suggested topics are exploration, ore evaluation, financial evaluation and planning, mine design and planning, mine operation and production, mineral processing, plant operation and information systems.

RESEARCH PAPERS in Geostatistics*

Each June, the Centre for Geostatistics, Paris School of Mines at Fontainebleau, France, organizes a two-

day seminar as part of the postgraduate program (Cycle de Formation Specialisee en Geostatistique). This gives geostatisticians from the main European research and consulting groups the opportunity to meet and present their recent work to colleagues and to the postgraduates.

The Proceedings of these seminars are published in the journal Sciences de la Terre—Series Informatique. The two volumes currently available are:

No. 18 - February 1984 (CFSG Seminar 2-3 June, 1983): Articles by G. Matheron, A. Thomsen, V. Pawlowsky, L. Sandjiviy and A. Galli, P. Chauvet, Ch. Lantuejoul, F. H. Muge, and P. Dowd. Price 165 FF.

No. 21 - November 1984 (CFSG Seminar 14-15 June, 1984): Articles by J. F. Bouchind'homme, P. Chaquin and P. Sayed, F. Deverly, G. Matheron, A. Remacre, L. Sandjiviy, and R. Webster and T. M. Burgess. Price 175 FF.

Copies of these two volumes may be obtained from: Sciences de la Terre, Fondation Scientifique de la Geologie et de ses Applications, Rue du Doyen Marcel Roubault, B.P. 40, 54501 VANDOEUVRE-les-NANCY, France.

*This information comes to us by way of BANG, the Bulletin of Australian News in Geomathematics, a bimonthly newsletter providing topical information on all aspects of geomathematics in Australia. Contributions, letters, and notifications of forthcoming events are welcomed. Contact the editors, M.A. Cameron, N.J. Fisher, and B.D. Johnson, P.O. Box 136, North Ryde, NSW 2113 AUSTRALIA.

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

IAMG
Kansas Geological Survey
1930 Constant Avenue
Lawrence, KS USA 66046-2598

