



newsletter

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FROM THE VICE PRESIDENT

JTPC was held in Boulder on July 14 and 15 (not a surprise). This is where your Vice-President earns her salary (hmmmm?). The meeting took place in the Clarion House (that's the surprise), not at GSA Headquarters. The meeting did not have the frantic activity that I have heard stories about. We all met in one room which made everyone available. About 40 people were present; they represented the associated and affiliated societies of GSA with next year's movers and shakers for St. Louis watching as well. In addition, some of the scheduling was computerized which was a big help.

A few of the changes:

- A big mega-session to celebrate the 100th birthday on Monday morning. Nothing else will be scheduled during that time.
- Theme sessions: open symposia on a particular topic.
- An area of poster sessions that will be using computer equipment.

More abstracts were submitted this year than last. GIS has 1 invited Symposium of 8 papers, 1 Technical Session of 10 papers, and a poster session where 2 posters will be exhibited. The GIS abstracts were reviewed by non-GIS reviewers. I was very pleased to see how well the abstracts were rated by those who were impartial. It was difficult to determine which abstracts to try and "horsetrade" or which abstracts to covet. Our membership and interested others are to be commended for quality abstracts.

After the usual horse-trading, changes of schedule, and cross-checking was accomplished—Lo and Behold! A schedule emerged. Locations have not yet been assigned.

Nutshell of technical presentations:

Poster Session, Monday, October 31, 1 - 5 pm

Color photocopying as a medium for preservation of the geology literature, by Linda Newman and Susan Klimley.

MINCAT—A mineral formula database program for use on IBM compatible personal computers, by William Simmons.

Symposium, Tuesday, November 1, 8 am - noon [Sponsored by GIS and IAMG.]

- 8:00- 8:30 PCs and computer workstations: tools for the geologist, by Donald McIntyre.
- 8:30- 9:00 GIS workstations, numeric databases and the consultant geologist: fact and fiction, by Stephen Krajewski.
- 9:00- 9:30 GeoRef can enhance research capability in the geologist workstation

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The GIS Newsletter is published bi-monthly in February, April, June, August, October, and December by the Geoscience Information Society. Subscription to the Newsletter is \$30 per year and is included in the Society's annual membership dues. All correspondence regarding dues, membership status, and address change should be directed to the GIS Secretary.

GIS members are encouraged to contribute materials for publication. Research articles and technical reports should be submitted to the Editorial Board for review and possible publication. Information reports, officer and committee reports, publication notices, job announcements, and other news items should be submitted to the News Gathering Editor.

Materials for the October, 1988 issue of the GIS Newsletter should be received by the editors no later than September 20, 1988. If possible, please send materials on disc (Wordstar or ASCII format).

AGENDA
Geoscience Information Society
Annual Meeting, October 30 - November 3, 1988

Sunday, October 30

1- 5 pm 1988 Executive Board meeting.

*Marie D. - Hyatt
Regency
arrive in afternoon*

Monday, October 31

1- 5 pm GIS poster session. (Presenters are required to be there from 2-4 pm.)

1- 3 pm Cost of Geoscience Literature Ad Hoc Committee meeting.

1:30 Klimley

2- 4 pm GeoRef Beginners Workshop.

5- 6 pm GIS Reception. (With **FOOD** and cash bar.)

6-10 pm GIS Annual Business Meeting.

Tuesday, November 1

8-12 am GIS Symposium: Individual Workstations--Information Supermarkers for Geoscientists.

12- 2 pm GIS Luncheon. (No formal speaker; lots of awards.)

2- 4 pm GeoRef Advanced Workshop.

4- 6 pm GeoRef Users Group meeting.

Wednesday, November 2

morning Informal tours of Libraries. (Schedules will be set up in the Business Meeting on October 31. Some possibilities are: Denver Public Library; Colorado Historical Society Library; the RMAG Library; the USGS Library; the Colorado School of Mines Library.)

Don't forget the exhibits!

1:30-4pm Technical Session.

Thursday, November 3

9-11 am Database Forum.

1- 5 pm GIS Executive Board meeting.

- environment, by William Hambleton and John Mulvihill.
- 9:30-10:00 The academic workstation, by John C. Butler.
- 10:00-10:30 Components of a petroleum explorationist's future workstation environment, by Paul Yarka.
- 10:30-11:00 Regional/global digital data for interdisciplinary use on workstations: a new opportunity for scientists and information managers, by David Hastings and others.
- 11:00-11:30 Integration—An essential ingredient in a geologic workstation, by John Cubitt and Geoffrey Mathews.
- 11:30-12:00 Using workstations to develop digital models of the earth's crust along a transect through the northern Appalachians, by John Unger and Lee Liberty.

Technical Section, Wednesday, November 1, 1:30-4:00 pm.

- 1:30- 1:45 Polar Earth Science Collection at Scott Polar Research Institute Library, by J. H. Triplehorn.
- 1:45- 2:00 Library and archives—Working together to benefit scientists, by J. H. Sorenson.
- 2:00- 2:15 Field trip guidebooks need not be gray literature, by R. G. Corbett.
- 2:15- 2:30 The use of government documents by geologists as cited in the geologic literature and from a circulation study in a geology branch library, by B. E. Haner.
- 2:30- 2:45 The quality of published geoscience information—Problems and perspectives from the geologist's viewpoint, by J. Bichteler.
- 2:45- 3:00 Searching the GeoRef (Geological Reference File) database on STN International, by D. F. Stepp.
- 3:00- 3:15 Application of a geographic information system for remediation of the Clark Fork River, Montana superfund sites, by A. B. Cox.
- 3:15-3:30 Artificial intelligence techniques for merging qualitative and quantitative geological databases, by E. Tabesh.

- 3:30- 3:45 Case history of an exploration project database—From mainframe to workstation, by B. N. Corwin.
- 3:45- 4:00 Chevron's production workstation, by J. R. Bloom.

Our Symposium seemed to attract some papers for the Technical Session. We are producing information of interest to all (not just the "in" crowd). The Symposium speakers will be invited to lunch. This is your opportunity for informal quizzing.

Be prepared to walk in Denver. The convention center, hotels, and meeting rooms are quite spread out.

ABSTRACTS

**Geoscience Information Society
Symposium, Tuesday, November 1, 8 am - noon**

PCs AND COMPUTER WORKSTATIONS: TOOLS FOR THE GEOLOGIST

McINTYRE, Donald B., Geology Dept., Pomona College, Claremont, CA 91711.

Personal computers made the 1980s a decade of dramatic change; but even more remarkable advances are imminent.

Today's PCs equal the mainframe computers of only a few years ago. Even an original IBM PC can now support a 16M memory. With a PC we use techniques such as cluster and factor analysis and kriging—formerly available only to few—and produce graphical images of many kinds. We communicate using local and international networks, getting text and numeric data from many sources. Programs are easily exchanged; e.g., the USGS has issued its statistical programs as Open File Report 87-411-A [1987]. Bibliographic references can be imported into a personal database system.

The idea of a "workstation" came with the IBM PC, but today it implies a minicomputer under a system like Unix, with very fast high-resolution graphics and access to a highly efficient network (*Datamation*, v. 13, Jan. 1987, p. 55-57; *Byte*, v. 12, Nov. 1987, p. 249-260). Geological literature contains references to "workstations" applied to geochemistry, geophysics, stratigraphy, exploration, paleontology, well-logging, remote sensing, environmental geology, cartography, etc., though some are based on microcomputers.

There is current interest in "low-end" workstations that bridge between the PC and workstation worlds; e.g., Sun, a pioneer in workstation development, has announced a 25MHz 80386-based workstation (InfoWorld, v. 10, Apr. 11, 1988, p. 1; PC Week, v. 5, Mar. 1, 1988, p. 1); Texas Instruments and Apple Computer have a Macintosh II-based workstation equipped with TI's Lisp chip for artificial intelligence (MIS Week, v. 9, Mar. 7, 1988, p. 1).

Science Citation Index is now on compact discs (Current Contents, v. 28, May 30, 1988, p. 3-13). Each disc can contain more than 250,000 pages of text and can be read by an IBM PC with a CD drive. Each discipline creates its own computer-readable bibliographic file. AGI produces GeoRef for our profession. This index must be maintained in a healthy state; we must see that students and professionals are familiar with it.

GIS WORKSTATIONS, NUMERICAL DATABASES AND THE CONSULTING GEOLOGIST: FACTS AND FICTIONS

KRAJEWSKI, Stephen A., Industrial Ergonomics Inc., 9525 West 77th Drive, Arvada, CO 80005 U.S.A.

In the 1960s and 70s, resource companies installed mainframe computers in hopes of improving worker productivity. While these computers could rapidly process large amounts of data and generate high-quality graphic output, they were rigid in their approaches to data processing operations, required highly-trained users, and were expensive to install and use. As a result, computer-assisted data analysis methods were not used on a daily basis for most technical project needs.

Today, computer workstations can still rapidly process large amounts of data, and quickly generate presentation-quality maps, cross sections and other types of data displays; however, they are now desk-top in size, user-friendly to operate, and inexpensive to install. More importantly, these new tools offer full, interactive control over all phases of the data analysis process, i.e., professionals can sit at their desk and quickly access diverse types of digital data, manage data according to individual needs, perform all types of modeling studies, and construct and customize sophisticated data displays. Because of these characteristics, microcomputer workstations have become common-place tools in the offices of professionals in both large and small resource companies.

This presentation will illustrate how consulting geologists can analyze exploration data on micro-computer workstations. Discussion topics will include hardware requirements and available software capabilities; sources of numerical data, data access methods, and data formats; examination of GIS operations, i.e., how to manage, retrieve, model, and display numerical data; and, review of commonly encountered pitfalls. Discussion topics will be illustrated via presentation of a "real-world" case history study.

GEOREF CAN ENHANCE RESEARCH CAPABILITY IN THE GEOLOGIST WORK-STATION ENVIRONMENT

HAMBLETON, William W., 1312 Raintree Place, Lawrence, KS 66044; MULVIHILL, John G., American Geological Institute, 4220 King Street, Alexandria, VA 22302

The GeoRef Information System, established at the American Geological Institute in 1965 for the promotion of research and the dissemination of knowledge in the earth sciences, now includes nearly 1.5 million bibliographic citations, including North American citations to the year 1785. The system provides online search capability through contract vendors. Although the entry time-delay for U.S. publications is about seven months, priority publications are nearly current.

A demonstration search, using Pro-search and Dialog on the term "fractal," yielded 85 domestic and foreign citations from 1980 to 1988 in geological, geophysical, astronomical, and engineering serials, conference proceedings, open-file reports, and research letters. The subjects ranged through stratigraphic hiatuses, sediment transport, reservoir analysis, petroleum migration, electrical conductivity, diagenesis, beach cusps, channel length-area relationships, earthquake frequencies, karst features, surface roughness of fractures, microfractures, tectonics, and others. At a connect time of .032 hours (\$2.98) and online printing of the ten most recent citations (\$4.00), the total search cost was \$6.98.

GeoRef is improving timeliness in citation production through indexer workstations, adoption of a new data-entry system, an online thesaurus, and purchase of a scanner. GeoRef plans a "previews" data base with weekly updates, and a 50% discount for academic users. GeoRef soon will go on STN of Chemical Abstracts for world-wide access capability.

THE ACADEMIC WORKSTATION

BUTLER, John C., Department of Geosciences,
University of Houston, Houston, TX 77004

In many areas of endeavor the academic environment often appears to lag behind its counterparts in industry and private practice. This seems to be the case with respect to the distribution of microcomputers-workstations. In part this is related to cost and in part to the independence [stubbornness?] of faculty [and students!] when it comes to adopting a particular brand or configuration of instruments. Each group has gone its own way, at its own speed; nonetheless, after about five years of evolution, six out of seven departments in our College are, in fact, using essentially the same set of devices.

The academic workstation should be just that. A place where individuals can work. As the varieties of work in an academic environment are diverse, the workstation must be rather broad in its capabilities. If attainment of computer literacy is a goal, as it should be, the workstation must also encourage the individual to do more work with the workstation than without it. In other words, the workstation should not just replace the typewriter, paper file system, catalog of specimens, etc. Rather, it should help to stimulate acquisition of new skills and extend previously mastered skills.

Is there really a difference between a workstation in an academic environment as opposed to any other environment? In practice, the answer should be no. However, the academic environment is one in which learning takes place. Many of the faculty and students will be exposed for the first time to the workstation environment. Encouragement of experimentation should be facilitated in the academic environment...with words, forms of data analysis, data reduction, interpretation and forms of presentation.

COMPONENTS OF A PETROLEUM EXPLORATIONIST'S FUTURE WORKSYSTEM ENVIRONMENT

YARKA, Paul J., Shell Oil Company, Pecten
International, P. O. Box 205, Houston, TX
77001

Explorationists employed by major oil companies are about to enter a new computer era that may impact exploration success with results that rival those of common-depth-point seismic technology and plate tectonics. Migration of explorationists

from systems that employ abundant use of paper, diverse suites of mainframe- and PC-based application programs and data bases, arrays of user interfaces and graphics capabilities, dominantly single-site non-digital and digital data bases, and varying amounts of manual drafting and CAD, has begun. Objective of this migration is the future worksystem environment, which will consist of seamlessly integrated, high-performance graphics workstations, advance communications technology, file-server- and mainframe-based data bases, and application programs with a common touch and feel. Furthermore, future worksystems will provide a comprehensive data compilation, analysis, and interpretation environment that accomodates daily interpretation activities and personal interpretation style.

For the first time, recent technological innovations, such as X-Windows, multitasking operating systems, real-time 3-D graphics, and spatial data bases, will enable routine geological and geophysical interpretation in a manner that accomodates user-determined and not programmer-determined interpretation methodologies. Future worksystems will foster interpretation integration, even though explorationists may become more specialized as geological and geophysical technology and understanding grow. Heightened worksystem processing performance will readily support computer-intensive activities, like basin modelling, process simulation, interactive imagery analysis, and 3-D rendering and imaging. Examples of how future worksystem environments will accomodate personal interpretation style and routine subsurface interpretation, promote interpretation integration, and support computer-intensive processing will be discussed.

REGIONAL/GLOBAL DIGITAL DATA FOR INTERDISCIPLINARY USE ON WORKSTATIONS: A NEW OPPORTUNITY FOR SCIENTISTS AND INFORMATION MANAGERS

HASTINGS, David A., KINEMAN, John J., ABSTON,
Carl C., and KINSFATHER, John O., NOAA
National Geophysical Data Center, 325
Broadway, Boulder, Colorado 80303

Information managers are entering a new era, helping to coordinate large collections of DIGITAL data needed by a variety of users. It is no longer appropriate for data to be squirreled away in dark corners without ready access by others. Gone are the days when geological data are used

merely by geologists, biological data by bioscientists, etc. The International Council of Scientific Unions' International Geosphere-Biosphere Program, the National Academy of Sciences' Earth Systems Science, and NOAA's Climate and Global Change programs, among others, encourage the cross-production and use of scientific and other data.

We are beginning to see more distributed data systems. Producers of data or their proxies manage data bases, allowing network access to others. Large or mature data sets may be published on high density media for inexpensive distribution to libraries, for sharing with others via communications networks. Such data can be inexpensively and rapidly accessed by individual workstations, via networks or via the workstations' own optical disk drives. Public and private data management facilities provide data, advice, and services. Global and local data can be handled in such ways, and integrated as appropriate.

For example, the National Geophysical Data Center, in conjunction with other organizations, is producing CD-ROM disks of data for geomagnetism, marine geosciences, and [in support of GSA's Decade of North American Geology] for North American geosciences [topography, gravity, magnetism, seismicity, and other data], and is proposing a digital atlas of global environmental data for multidisciplinary studies. These disks include software for easy access, display, and interface of the data with other applications. Such data can be used in a variety of applications, as well as to develop distributed data management systems.

We will soon be borrowing such data from our libraries/info centers.

INTEGRATION--AN ESSENTIAL INGREDIENT IN A GEOLOGIC WORKSTATION

CUBITT, John M., TERRASCIENCES-Geochem Ltd, Chester St., Chester, CH4 8RD; MATHEWS, Geoffrey, TERRASCIENCES, Inc., 134 Union Boulevard, Suite 630, Lakewood, Colorado 80228, USA

Integration and workstation are buzzwords that abound in the trade publications in commercial earth science industries. A review of the various interpretations of these words, including problems of single-user versus multi-user systems, networks, hardware compatibility, dedicated versus general-use systems and PC versus mainframes, lead us to the conclusion that an integrated workstation must

be software rather than hardware driven. Our contention is that true integration involves the transfer of data into and out of the software system in a rapid, efficient and easy to achieve manner. Integration can be recognised by the user as the seamless transfer of data and operations from, for example, seismic interpretation to mapping to log analysis, back to mapping, or to other geological analytical functions. Workstations that employ these functions have a central data base and controller that links all modules of the system to the data in an invisible form. The system should be flexible, use menu and command driven activities, employ user-friendly interactive color graphics, utilise the latest software technology, such as windows, and should be essentially independent of the computer with a range of installations from PC's to mainframes in single and multiuser environments. This philosophy is reflected in the software produces by TERRASCIENCES Inc.

USING WORKSTATIONS TO DEVELOP DIGITAL MODELS OF THE EARTH'S CRUST ALONG A TRANSECT THROUGH THE NORTHERN APPALACHIANS

UNGER, John D., and LIBERTY, Lee M., U.S. Geological Survey, 922 National Center, Reston, VA 22092

Color graphics workstations will be increasingly important in the preparation, analysis, and display of a digitized Global Geosciences Transect. The transect we are modelling extends 880 km from the stable continental craton in central Quebec, across the Appalachian orogen of Maine and the Gulf of Maine, and ends at the edge of the Atlantic Ocean basin. Our model of the crust along this transect is defined by a strip 100 km wide and 50 km deep. Five principal data sets are used to construct the model: 1) seismic reflection profiles, 2) seismic refraction data, 3) gravity models, 4) magnetic models, and 5) a geological bedrock map. These five sources of information are being analyzed by using 2-D and 3-D Geographic Information Systems (GIS) software and will be used concurrently to assemble a closest fit model of the transect area.

To date, most of our modelling has been done on isolated minicomputers connected to a few graphics terminals and workstations. However, to integrate our modelling and display capabilities, we are changing to a smaller, but more powerful system, consisting of interconnected 32-bit supermicro-

computers and graphics workstations. Because of their high resolution graphic displays and high-speed computing capabilities, workstations are particularly well-suited to the analysis and display of 2-D and 3-D GIS data. Workstations make powerful standalone systems but are most efficient when used as part of a networked system. A high-speed network can link file servers with large

data storage capacities, which can be used to store the data and software necessary for our analyses, and individual workstations. The network can be used to move data files rapidly from system to system, to access software not available locally, and to maximize the use of expensive resources such as color electrostatic plotters.

ANNOUNCEMENTS

USGS LIBRARY DATABASE ON CD-ROM!!!

A truly exciting development:

By Fall, 1988, OCLC plans to have the USGS Library Database available on CD-ROM. This will be issued as part of its Earth Science Series, which will also include Earth Sciences Data Directory, GeoIndex, and information sources selected from the OCLC Online Union Catalog.

For additional information, contact:

Mary E. Marshall
Electronic Publishing and Information Delivery
Division
OCLC
6565 Frantz Road
Dublin, Ohio 43107-0702
614-764-6000

NACIS ANNUAL MEETING 1988

The North American Cartographic Information Society (NACIS) will hold its 8th annual meeting October 12-15 in Denver. The program will include invited papers, contributed papers, posters, panel discussions, etc., on cartography, mapping, map librarianship, and many related topics. For program and registration information, contact:

Juan Jose Valdes, NACIS Program Chair
Cartographic Division
National Geographic Society
1600 M Street, N.W.
Washington, D.C. 20036
202/775-7873

WESTERN ASSOCIATION OF MAP LIBRARIES FALL MEETING

The 1988 Fall meeting of the Western Association of Map Library (WAML) will be held in the School of Earth Sciences, Stanford University, September 15-16, 1988.

The meeting agenda focuses on the old and the new in Map Librarianship. There will be talks by two Hoover Institution Curators as well as presentations of several ways in which new technologies are used by map librarians to improve our work, by librarians to further access map information, or by researchers. There will be an opportunity to try out software and equipment. Please bring software programs (IBM or Macintosh compatible) that you are happy with or have found very difficult to use for your colleagues to try out.

Mary Larsgaard will chair a panel of map cataloging experts. Please bring those frustrating cataloging questions. [The perfect answer is not, however, guaranteed.]

For additional information, contact:

Charlotte R. M. Derksen
Branner Earth Sciences Library
Stanford University
Stanford, CA 94305-2393
415/723-1093
E mail: CN.EAR@FORSYTHE.STANFORD.EDU

AGU FALL MEETING: CALL FOR PAPERS

The American Geophysical Union's fall meeting will be held in San Francisco, Dec. 5 - 9, 1988. Abstracts must be received by Sept. 7, 1988. Mail the original and 2 copies to:

Meetings Department
American Geophysical Union
2000 Florida Avenue, N.W.
Washington, D.C. 20009

For additional details, consult the June 28, 1988 issue of Eos.

USGS MONTHLY ACCESSIONS LISTS

The U.S. Geological Survey is reissuing its monthly list of new acquisitions in geological sciences and related fields. The list, which is arranged by subject, will be on deposit at the 10 regional public inquiries offices and at 4 universities.

It may also be purchased from:

U.S. Geological Survey
Books and Open-File Reports Section
Denver Federal Center
Box 25425
Denver, CO 80225

USGS REDUCES PRICES OF DIGITAL CARTOGRAPHIC DATA

Prices of digital cartographic data reproduced and distributed by the U.S. Geological Survey have been revised effective June 15, 1988.

The new prices were revised to conform with the current USGS costs of reproduction and distribution. The previous \$25 surcharge per reel has been eliminated, and there are lower prices for multiple-unit orders. For example, an order for 5 Digital Line Graphs (1:100,000 scale source) and 5 Digital Elevation Models (1:250,000 scale source) would have cost \$775; under the new price schedule the charge for this order is \$160.

For more information, contact the National Cartographic Information Center at (703) 860-6045.

ARTICLE ON PUBLICATION PRICES

"Assessment of prestige and price of professional publications," by Paul H. Ribbe was published in American Mineralogist, v. 73, no. 5 and 6, p. 449-469. Ribbe gave an address on this subject at the 1987 GSA meeting in Phoenix.

AGI MINORITY PARTICIPATION PROGRAM SCHOLARSHIPS

The American Geological Institute (AGI) has awarded 36 scholarships to minority graduate and undergraduate geoscience students for the 1988-89 academic year. The awards given to Black, Hispanic, and Native American students ranged from \$500 to \$2,000 each and totalled \$36,750. The awards are based upon academic achievement, financial need, and judged potential for future success in the geoscience profession.

Scholarship applications for the 1989-90 academic year must be submitted by February 1, 1989.

HAZARDOUS MATERIALS SEMINARS

While excavating an old site for a new structure, buried barrels of asbestos or PCBs are uncovered. What then? The Association of Engineering Firms Practicing in the Geosciences (ASFE) is sponsoring a series of 2-day seminars on contract liability when encountering such hazardous materials:

Sept. 30 - Oct. 1 Orlando
Oct. 28 - Oct. 29 St. Louis
Nov. 18 - Nov. 19 Newport Beach

For more information, contact ASFE, 8811 Colesville Road, Suite G106, Silver Spring, MD 20910; 301/565-2733.

[Editor's note: You say the name doesn't match the acronym? That's right. Until recently, this organization was called the Association of Soil and Foundation Engineers—which is where ASFE came from. They changed the name but kept the acronym. Golly. Who do they think they are—AIME?]

PUBLICATIONS

ORE DEPOSIT MODELS

Ore deposit models, edited by R. G. Roberts and Patricia A. Sheahan, is a collection of 12 papers primarily on metallic ore deposition. It was published May 1988 by Geoscience Canada, sells for \$20 [Canadian] plus \$3 shipping and handling, and is available from:

Geological Association of Canada
Dept. of Earth Sciences
Memorial University
St. Johns, Newfoundland
CANADA A1B 3X5

The GAC accepts Visa and Mastercard.

1988 GEOREF SERIALS LIST AND AND KWOC INDEX

The 1988 edition of the GeoRef Serials list and KWOC Index is now available. It includes more than 10,000 earth science serials as cited in the GeoRef database since 1967.

It's available in hard copy [\$95, 2,185 p., unbound, prepunched, 8 1/2 x 11"] or microfiche [\$35, 45 fiche, 24x reduction], from:

Customer Service Department
American Geological Institute
4220 King Street
Alexandria, VA 22302

PROCEEDINGS: 3rd ICGI

Proceedings of the 3rd International Conference on Geoscience Information are still available. The 2-volume set sells for \$A30.00, including surface mail, and is available from:

AMF Bookstore
63 Conyngham Street
Glenside, South Australia 5065
AUSTRALIA

Phone: [08] 379 0444; Fax: [08] 79 4634;
Telex: 87437

FOREIGN MAPS AVAILABLE FROM BILL STEWART

The Atlas del Peru will be available in mid-August, 1988. It includes both historic and new maps, and is about 300 pages. Pre-payment is required by July 1, 1988 [sic] to insure the price of \$550.

New maps of Morocco will be available September 10, including:

-- Restricted topographic materials: 80% coverage at scale 1:50,000 [excluding the S.E. border]; 100% coverage at scales 1:250,000, 1:1,000,000, and 1:2,500,000.

Please note that this may be a one-time offering.

Price: \$ 8.00 - \$ 8.50.

-- Thematic maps, various city plans: Rabat, Fez, Casablanca, Kenitra, Marrekech, Meknes, Oujda, Port-Lyautey, Safi, Sali, Tetouan.

Price: \$ 15.00 - \$ 18.00.

Order from: Bill Stewart
South American Maps
1220 Sherman Street
Ypsilanti, MI 48197

313/481-0857

THE ENCYCLOPEDIA OF HUMAN EVOLUTION AND PREHISTORY

The Encyclopedia of human evolution and prehistory, ed. by Ian Tattersal, Eric Delson, and John A. Van Couvering is now available [ISBN 0-8240-9375-5; c. 800 pages; \$ 75.00, hardcover]. It intends to be the "first comprehensive encyclopedia to deal with human and primate evolution in geological, paleontological, zoological, and archaeological contexts" [from publisher's announcement].

Review copies are available upon request.

Order from:
Garland Publishing, Inc.
136 Madison Avenue
New York, NY 10016
212/686-7492; telex 424588

BOOK REVIEW:

The techniques of modern structural geology; vol. 2, Folds and fractures, by J. G. Ramsay and M. I. Huber. Academic Press, 1987. ISBN 0125769024 (\$70, hardback); 0125769229 (\$34.50, paperback).

reviewed by

Dennis R. Trombatore
Geology Library
University of Texas at Austin

Like many long-awaited titles from Academic Press, this one lives up admirably to the expectations produced long ago by its original announcement. The first volume in this projected 3-volume set, Strain analysis, was also long awaited, finally appearing in 1983 to rave reviews. GSA's Division of Structural Geology and Tectonics bestowed its Best Paper Award on Strain analysis, and there is reason to believe Folds and fractures may be similarly honored.

While the oversize format of the volumes may be annoying, it nevertheless incorporates many features considered exemplary for teaching purposes such as large, page-bleed photos, and thus justifies the awkward layout. Overall production quality is high. Graphics in particular are exceptionally clear, but for the occasional sideways illustration that wouldn't fit otherwise. Indexing is good, but one of the boudinage references (p. 474), is to an intentionally blank page at the end of a chapter.

The structure of this volume follows that of the first, in that it is designed to meet the needs of introductory studies but includes substantial supplementary materials for advanced review and professional self-tutorial. Like the first volume, many of the interpreted photos include copyright permission, a convenience to teachers. This series of texts seems to break ground in structural geology teaching, perhaps following the lead set for many years in the soft-rock environment, where the need for texts that serve a wide range of users from beginners to professionals has produced an entire genre of society-sponsored volumes.

This is one of the few new publications that everyone who went to GSA in 1987 came back requesting, and since our 2 copies of Strain analysis are about done-in from constant wear and tear,

I ordered 2 copies of Folds and fractures sight unseen right away in spite of our current money troubles. By all appearances it was money well spent.

BOOK REVIEW:

Mining and mineral industries—An information sourcebook, by M. M. Stark. Oryx Press. \$35.

reviewed by

Patricia Sheehan
Konsult Int. Inc.

I appreciated the opportunity of reviewing this particular book. It is well presented and affordable. The documentation of the references is explicit and exact. The book is a welcome addition to a mining-oriented library.

The introduction to the book and the concise introductions to each section are helpful. The indices (author, subject, title) are thorough. I was particularly grateful for the addition of a listing of addresses for publishers or sources of many of the publications.

This type of book is very necessary. It is a time-consuming operation and can never fulfill all of the many facets of information needs, but this listing has been prepared by Stark, who has supported and identified with both academia and the mining research industries. I found the bias to coal and general mining helpful [as I do not have those interests and would find it extremely difficult to locate and identify information sources.]

In the Core Library Collection I would have listed the Glossary of Geology as well as expanded the core journal selection and placed more emphasis on relevant journals in that section. I made notations as I went through the listings and was able to find most of the items that I find helpful as an information specialist. I am presuming that the listings were made up to the end of 1986 and it is always a problem keeping current in this industry. There were many additions during 1987 which could have been added to the various categories.

JOURNAL CANCELLATIONS

Cancelled by: University of Iowa Geology Library,
July 1988 [to recover \$6450]

Abstracts of Chinese geological literature
Acta geologica sinica = Ti-chih hsueh pao
Acta minerologica sinica = K'uang wu hseuh pao
Acta palaeontological sinica = Ku sheng wu hsueh pao
Acta petrolei sinica = Shih yu hsueh pao
Advances in geophysical data processing
Advances in geophysics, Supplement
Advances in petroleum geochemistry
Asia-Pacific/Africa-Middle East petroleum directory
Canadian minerals yearbook
Canadian mines handbook
Canadian oil industry directory
Catena supplement
Clay Minerals Society, Annual meetin abstracts
Courier Forschungsinstitut Senckenberg
CRC handbook of chemistry and physics
Current trends in geology
Developments in applied earth sciences
Developments in geochemistry
Developments in geophysical exploration methods
Developments in geotechnical engineering
Developments in Precambrian geology
Developments in solid earth geophysics
Developments in volcanology
Egyptian Journal of geology
Environmental monograph
Ettore majorena international science series: Physical sciences
Etudes Quaternaires, Memoire.
European petroleum directory
Financial Times mining international yearbook
Foraminifera
Four Corners Geological Society, Field conference
Geoexploration
Geographical Abstracts, A: Landforms and the Quaternary
Geographical Abstracts, E: Sedimentology
Geological Abstracts: Economic geology
Geological Abstracts: Palaeontology and stratigraphy
Geologische-Palaeontologische Mitteilungen Innsbruck
Geophysical prospecting for petroleum = Shih yu wu tan
Geophysics and tectonics abstracts
Geoscience texts

Geotektonische Forschungen
Geothermal Resources Council, Transactions
Great Britain, British Geological Survey, Memoirs
Great Britain, Institute of Geological Sciences, United Kingdom mineral statistics.
History of geophysics
India Geological Survey, Records
Indian Academy of Sciences, Proceedings: Earth and Planetary Sciences
Indiana Geological Survey, Bulletin
International journal of radiation applications and instrumentation, Part e: Nuclear geophysics
International petroleum encyclopedia
Journal of geochemical exploration
Lehrbuch der hydrogeologic
Mededelingen van de Werkgroep voor Tertiaire en Kwartaire Geologie
Mineralogicheskii zhurnal
Mining geology = Kozan chishitsu
Monographs of marine mollusca
National geographic magazine
NATA Advanced Study Institutes series, Series C: Mathematical and Physical Sciences
Neues Jahrbuch fuer Mineralogie, Abhandlungen
Neues Jahrbuch fuer Mineralogie, Monatshefte
New Mexico geology
New Mexico, Bureau of Mines and Mineral Resources, Memoirs
Non-ferrous metal data
Oil and gas journal [microfilm]
Open earth
Ore geology reviews
Oregon geology
Oxford monographs on geology and geophysics
Palaeogeography, palaeoclimatology, palaeoecology
PaleoBios
Paleontological Society of India, Special publication
Petroleum geology
Physics and evolution of the earth's interior
Quartaerpalaeontologie
Quaternary studies in Poland
Relief, Boden und Palaeoklima
Remote sensing of earth resources and environment
Reviews in economic geology
Rocky Mountain petroleum directory
Russia [1923- U.S.S.R.] Ministerstvo vysshego i srednogo spetsial'nogo obrazovaniia, Izvestiia vysshikh uchebnykh zavedenii, Geologiya i razvedka
Seabed minerals series

Senckenbergiana maritima
Society of Mining Engineers of AIME. Transactions
South Carolina geology
SPWLA Logging Symposium. Proceedings
Stereo-atlas of ostracod shells
Studies in speleology
Surveys in geophysics
Terre cognita

Texas. Bureau of Economic Geology. Report of
investigations
Society of Mining Engineers of AIME. Transactions
UMR journal
Utah Geological and Mineral Survey. Special
studies
Western mining directory
Zitteliana

THE HIGH PLAINS DRIFTER

The High Plains Drifter was drifting across the mountains in Montana and discovered the town of Anaconda, named after the Anaconda Copper Company of recent fame (now part of ARCO). Many towns have a Carnegie Library but Anaconda has a Hearst Free Library. The Library was a gift from Phoebe Apperson Hearst, wife of George Hearst, one of the great mining men of that period and of course related to THE HEARST FAMILY. The Library was completed in 1898. The architect was Frank S. Van Trees of San Francisco and the Library is in beautiful condition today. The William Randolph Hearst Foundation has assisted in the upkeep of the Library with grant money.

The design of this Library is very simple, with high arched windows and lovely woodwork. The upstairs still has the Men's and Women's Reading Rooms. At one time those rooms were properly separated of course. Prints selected by Mrs. Hearst and a marble bust of Senator Hearst on the fireplace are original to the Library.

If you are visiting Montana put this on the same list as Yellowstone. In fact, the High Plains Drifter was so impressed that the usual corny jokes evaporated.

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