



NEWSLETTER

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PRESIDENT'S COLUMN

GeoInfoVI update: The 6th international meeting is set and I hope to see lots and lots of GIS members there. The conference organizers have done a terrific job, and as you've seen from the Final Circular, the meeting is packed from start to finish with presentations and discussions of our most important issues.

Our GIS International Initiatives Committee (IIC) has done a terrific job organizing the internships for our International Fellows. This promises to be a highly significant program, both for our International Fellows and for all GIS members. Special kudos to the Committee, especially chair Claren Kidd and member Shaun Hardy for all their creativity and hard work. Claren has also arranged for us to have some special meeting materials-- we hope you enjoy them.

Toronto meeting: Organizing this meeting has been much harder than usual because of an unfortunate coincidence of circumstances: major changes in both GSA meeting staff and in the program organization; GSA computer glitches and failures; and, limitations of the Toronto convention centre. Vice President Charlotte Derksen has done a valiant job on the meeting under less than ideal circumstances. Various meeting information is presented elsewhere in this issue.

Committee chairs, officers, and representatives (you know who you are) are invited to the first Executive Board meeting, from 9 to noon, Sunday, Oct. 25. If you have agenda items

for this meeting, please send those to me. This is an open meeting, and all GIS members are welcome.

The Annual Business Meeting will be held 8:30 to 11:30, Wednesday, Oct. 28. This meeting is usually packed, with a tremendous amount of business to conduct (so we encourage the annual reports be published in the Newsletter rather than be read at that meeting).

Annual Reports are Due by September 18: Officers, Representatives, and Committee Chairs--Your annual reports are due! Please send those to me by September 18 with a copy to Mary Frances Lembo so they can be published in the October Newsletter. Enjoy the summer. Stay cool.

Connie J. Manson, GIS President

VICE-PRESIDENT'S COLUMN

The Annual Meeting in Toronto, Ontario should be set in meeting-type concrete by the time that you are reading this -- finally! This issue includes a preliminary version of the schedule, the abstracts of the symposium, discipline, and poster sessions, and the registration form for the field trip to Niagara Falls, as well as points along the way. For those of us in the western half of the continent, a chance to see "THE FALLS" is one not to be missed. BE SURE to fill in the registration form.

Basically, the GIS society program runs from Sunday afternoon's exciting, informative, not-to-be missed database forum (set up by Adonna Fleming and her hard-working group) through Wednesday afternoon's sessions, with the field trip following on Thursday. Both the GIS business meeting and the luncheon, chaired by Connie Manson, will be on Wednesday this year. The society's schedule is even fuller this year ever before -- packed with helpful sessions; we have left some time on Monday for visiting the exhibits: database vendors, publishers' booths, and the gems...

The symposium session, *Accreting the Continent's Collections*, is shaping up to be a great one, thanks to the hard work of the speakers-to-be. It promises to contain lots of valuable information both for us librarians and for the geoscientists.

The Professional Concerns session this year is being chaired by Claren Kidd. This will be a chance for us to hear from the GIS Fellows who are two of our special member librarians, as well as a chance for you to express the concerns of deepest interest to you."

If you haven't got your hotel reservation, do act quickly; the more affordable and choicer location hotels go very quickly. All the information I've been seeing implies a very full, crowded convention. **Get your conference registration form (available in the June issue of GSA Today) in before September 18th and save money. Remember to include the GIS lunch on your preregistration form; the lunch tickets are usually sold out before onsite registration begins.**

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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 \$40 per year and is included in the Society's annual membership dues. All correspondence regarding dues, membership status, and address changes should be directed to the GIS Secretary.

GIS members are encouraged to contribute materials for publication. Due to current vacancies, all materials—research articles, technical reports, information reports, officer and committee reports, publication notices, job announcements, and other news items—should be sent to the Newsletter editor until further notice.

Material for the October 1998 issue of the GIS Newsletter should be received no later than 18 September 1998. If possible, please send materials by e-mail or on IBM-compatible disc (Word97 or ASCII format).

GEOSCIENCE INFORMATION SOCIETY- MIDYEAR (6/30/98) REPORT

	<u>Income Budgeted</u>	<u>Income Actual</u>	<u>Expenses Budgeted</u>	<u>Expenses Actual</u>
DUES				
Institutional	2,500	1,650		
Personal	6,500	5,440		
Sustaining		400		
Retired	200	195		
Student	90	60		
Named Sponsorship	140	120		
Pooled Sponsorship	200	265		
Subtotal	<u>\$9,630</u>	<u>\$8,130</u>		
PUBLICATIONS				
Publications Manager			700	698
Directory of Geoscience Libraries	2,625	2,020		
Index		15		
Mailing Labels	350	200		
Membership Directory			1,000	1,426
Newsletter: Printing & Mailing			3,600	3,356
Newsletter: Subscriptions	600	570		
Newsletter: Back Issues		80		
Proceedings, v.28 (1997)	500	225	2,000	4,482
Proceedings, v.27 (1996)	1,800	730		
Proceedings, v.26 (1995)	250	45		
Proceedings, v.25 (1994)	40	10		
Proceedings, v.20-24 (1989-1993)		70		
GEOINFO V Proceedings	675			
Reprints				
Royalties		2		
Subtotal	<u>\$6,840</u>	<u>\$3,967</u>	<u>\$7,300</u>	<u>\$9,962</u>
AGI Society Dues			700	143
GAP Contribution				214
EBSCO Sample Issue				193
WEB Domain Registration				100
International Fellows Donations		5,000		
GIFTS (Unrestricted)	150	250		
BANK Charges			25	61
INTEREST	650	330		
Subtotal	<u>\$800</u>	<u>\$5,580</u>	<u>\$725</u>	<u>\$711</u>

EXECUTIVE BOARD

President:		
Postage, mailing, phone	250	
Proceedings	500	
Vice-President	350	
Past President	50	6
Secretary	525	189
Treasurer	150	40
Teleconferences	500	147
Subtotal	<u>\$2,325</u>	<u>\$382</u>

MEETINGS

1998 Meeting	700	
1998 Meeting: Exhibits	2,000	864
1998 Meeting: Field Trip		
1998 Meeting: Contributions		
1997 Meeting	3,500	3,022
1997 Meeting: Exhibits	200	
Subtotal	<u>\$6,400</u>	<u>\$3,886</u>

REPRESENTATIVES/APPOINTEES

AGI Member Council Rep	50	
AGI Gov't Affairs Program Rep		
CUAC (two reps at \$200 each)	400	
Publicity Manager	100	
Auditor	50	
Miscellaneous		
Forum on International Geosciences		242
Online Journal Publishing in the Earth Sciences		157
Publications Manager (see PUBLICATIONS section)		
Subtotal	<u>\$600</u>	<u>\$399</u>

COMMITTEES

Ad Hoc Committee on the Future of the Union List of Field Trip Guidebooks	50	
Archives	50	33
Best Guidebook		36
Best Paper	50	
Best Reference Work	50	36
Collection Development		
Digital Data		
Educational Initiatives	50	
GeoRef Users	50	
GIS Website Advisory Board	50	

Guidebook Standards			50	
International Initiatives			50	
Ad Hoc Subcommittee for GeolInfo VI			100	
Membership			250	
Membership Brochure			400	
Nominating			200	169
Preservation			200	
Subtotal			<u>\$1,600</u>	<u>\$274</u>
GRAND TOTAL	17,270	17,677	18,950	15,614

Opening checking balances	Midyear checking balances
First Union Bank \$14,330.55	First Union Bank \$9,035.50
Bank of America \$23,443.65	Bank of America \$20,878.32

Opening savings balances	Midyear savings balances
Ansari Savings \$ 635.60	Ansari Savings \$641.93
Ansari CD \$2,965.00	Ansari CD \$ 3,041.51
Bristol Fund \$ 788.51	Bristol Fund \$ 796.37
	First Union CD \$10,000.00

Grand total, checking & savings \$44,393.63

**ALA ANNUAL CONFERENCE
WASHINGTON, DC JUNE 25-JULY 1, 1998
MAP AND GEOGRAPHY ROUND TABLE (MAGERT)
PROCEEDINGS (EXECUTIVE COUNCIL MEETING)**

Chair-Elect David Allen proposed that a small map collections discussion group be started: a forum for small public and academic libraries to exchange ideas and information. It also would work with other MAGERT committees to develop programs. Organization of this group will occur at ALA Midwinter Meeting in Philadelphia (January 1999) and be advertised on related listservs (MAGERT homepage, Maps-L and Govdoc-L).

Publications Committee. Next issue of MAGERT newsletter *base line* will be Sept/Oct and will be devoted to national mapping organizations, e.g. in France, China, Russia. Jan. 1999 issue will be on women in cartography. First issue of 2000 also will have international theme: map librarianship at the millennium and geographic societies around the world.

A future edition of *Guide to U.S. Map Resources* was discussed as to print vs. electronic. Idea for next Occasional Paper was presented: mapping ocean floors. David Cobb and Donna Koepp encouraged participation in the next edition of *Meridian*, the MAGERT journal. MAGERT website discussed.

Cataloging and Classification Committee. Had successful program at this conference, entitled "Issues in Map Cataloging: Form/Genre & Digital Materials." March 1999 issue of *base line* will be on map cataloging.

Education Committee. Article will be sent to ERIC on how to add map librarianship to library science courses, for use by educators who do not want to make an entire separate map librarianship course. Part of MAGERT website dealing with education was discussed.

Geotech Committee. Forum and discussion on GIS was held at this conference: what is role of library? what is role of lab? Also there was a discussion group on national spatial data. There is a Census 2000 task force with LITA and GODORT (two other ALA units) to plan a program to be held in 2001.

Program Committee (New Orleans, June 1999). Three MAGERT programs: Geotech sponsors one on partnering alliances (universities, government, corporate libraries); one on reference services in public libraries (panel of speakers); one on Mississippi River/ New Orleans flood and hazard (local GIS people, U.S. Core of Engineers).

Thomas R. Zogg tzogg@d.umn.edu

GIS FELLOWS

Arlene A. Marzo and Mwiya Clement Siyumbwa

The International Initiatives Committee (Fellowship Subgroup) is proud to announce that 2 persons have been selected as the GIS Fellows. Our Fellows are Ma. Arlene A. Marzo from the National Institute of Geological Sciences (NIGS) Library, College of Science, The University of Philippines, Manila and Mwiya Clement Siyumbwa of the Botswana Geological Survey, Lobatse.

Ma. Arlene A. Marzo. Ms Marzo was born in the Philippines and earned both a BS in Clothing Technology (1978) and an MLS (1995) from the University of Philippines. She has been employed at University's College Library since 1991.

The NIGS library, as a part of the College Library, has 5,000 volumes, 440 serial titles, vertical file materials, theses, dissertations, maps, slides, microforms, and CD-ROMS. The staff is composed of a librarian, 3 paraprofessionals and one student assistant. Three computers are available for: 1) Internet and e-mail, 2) in-house database searching and playing CD-ROMS, and the third machine for technical processing.

The library is open to all university personnel and students. Outside users can use the facilities for a per visit fee. Seventeen University faculties are affiliated with NIGS and BS through Ph.D. degrees in geology are offered.

Arlene's responsibilities read very much like most academic librarians. She does bibliographic instruction, collection development, assists users with the Library's computers, administers and supervises the operation of the library, prepares a budget, etc. She is proficient user of *GeoRef* and e-mail.

After earning the MLS, Arlene realized that she needed more information about specialized geoscience libraries and that was one of the reasons she cited for applying for the Fellowship and why it was awarded to her. The people who work closely with Arlene wrote very positively about her competence, commitment, willingness to find answers for patrons, and methods to make the library a better place to learn.

Mwiya Clement Siyumbwa. Mr. Siyumbwa was born in Zambia and is citizen of Zambia. He is a permanent resident of Botswana where his current position is that of "Technical Records Officer" with the Botswana Geological Survey.

From the University of Zambia, he earned a BS in geography (1984) and a BLS in Library Studies, English (1985). Clement earned a Diploma in Geology and Mining via Grampton correspondence in 1992.

The Botswana Geological Survey's Library collection is composed of about 2,000 titles. The Survey maintains 23 journal subscriptions and receives publications from international geological surveys via an active exchange program. Prospecting licenses reports, internal reports, and consultants reports are the most heavily used Library materials. These items plus a collection of aerial photographs will soon be housed in one facility to be called the National Geological Information Centre.

Users include the Survey staff, the University of Botswana students and faculty, personnel of mining and exploration companies, and anyone else who cares to use it. As the national referral library in the earth sciences, membership is

open to everyone. Computer and photocopy equipment are available.

Clement does collection development, technical processing, SDI, database searching, and editing and compiling of Survey reports. He is a member of the Botswana Library Association and co-editor of their newsletter. He is a sponsored member of GIS.

Recommendations for Mr. Siyumbwa praised his resourcefulness, initiative, analytical skills, and relations with co-workers and library users. From the Fellowship experience he wants to enhance his database searching capabilities, learn about other library automation systems, electronic products, and Web based information resources. Once back in Botswana and the library, he wants to share what he learned with management and co-workers.

Fellowship goals and itinerary: Our goal is to share ideas and experiences and to learn from each other.

We expect these personal and professional experiences to be enlightening and of benefit to all of us. While in North America, the Committee wants the Fellows to have experiences in geological libraries (governmental, corporate, academic) and life in several US and Canadian communities.

Between the two large meetings, ("Science Editing and Information Management . . . across disciplines . . . across boundaries . . . through time", Sept 10-14, 1998, and the GIS Annual Meeting in Toronto, Ontario, Oct 25-28, 1998) the Fellows will be guests at several Washington, DC area sites. They will be at AGI with Sharon Tahirkheli to learn about the development of the *GeoRef* database and its use and they will visit the USGS in Reston. Then they will travel to Penn State University for a week with Linda Musser and Lisa Wishard. After that Arlene will go to Austin, TX and be hosted by Julie Hallmark. She will participate in the University of Texas' (UT) library science classes, spend time in the UT Geology Library (Dennis Trombatore), the Bureau of Economic Geology, and hopefully other libraries.

Clement will go to Denver, CO to learn about activities at the University of Colorado (Suzanne Larsen), Colorado School of Mines (Joanne Lerud and Lisa Dunn), USGS, and hopefully other libraries. In mid October, both will fly to Ottawa for a week at the Geological Survey of Canada (Pauline Kamel) and possibly other activities. A train trip to Toronto will take the Fellows to the GIS annual meeting, which will conclude their Fellowship.

While at the GIS Annual Meeting, they will participate in the Professional Issues Forum and within 6 months of their departure from North America, a written report is expected from each of the Fellow.

Selection Process: The Fellowship guidelines and application were created by Shaun Hardy who modeled ours from organizations located in the District of Columbia. After the Subcommittee made a few changes, the guidelines and application were sent to libraries identified from IFLA information supplied by Dorothy McGarry, to African libraries identified by Dena Hanson, to libraries identified by Shaun, and other sources. The guidelines and application were put on GeoNet-L and e-mailed or faxed to libraries and geological organizations we thought might have viable candidates. Thirty-nine applications from 26 nations, mostly in Africa and Asia, were received by our deadline of May 1, 1998. Applications of thirty viable candidates were distributed via the mail to North American Subcommittee members. From that pool, 19 candidates were eliminated.

The remaining eleven applications were distributed to all Committee members who evaluated them against the guidelines. The pool was narrowed to six, ranked finalists. Two alternate candidates were identified and notified of their status.

Funding: Funding of \$10,000 has been generously given by two companies, Newmont Mining Company and Homestake Mining Company. Glenn Cook secured the funds from Newmont Mining Company, his former employer. The donation from Homestake Mining is the result of the solicitation letters created and names of mining and oil companies suggested by Julie Hallmark, Dena Hanson, and Beverly Chen (and her staff).

Thanks to all those who took the time to apply. Congratulations to our finalists and especially our Fellows who have been identified and are now preparing to come to North America. Please welcome them, when you meet them in Washington, Toronto or places in between.

Submitted by

Claren Kidd, Chair, International Initiatives Committee

Members of this very active, hardworking Subcommittee are Beverly Chen, Zeldia Colodner, Glenn Cook, Julie Hallmark, Barbara Haner, Dena Hanson, Shaun Hardy, Independencia Iselidh, Dorothy McGarry, and Patricia Yocum.

NEW GIS OFFICERS

The GIS Nominating Committee is pleased to announce the new GIS Officers. **Lois Heiser** has been elected Vice-President, President Elect, and **Shaun Hardy** has been elected Secretary.

We are grateful to Suzanne Larsen and Carolyn Laffoon for running for office, and to all who participated in the Society by voting in the election.

Barbara DeFelice, Chair, Nominating Committee

Lois Pausch

Miriam Sheaves

Janice Sorensen

PRESERVATION COMMITTEE LETTER

The Preservation Committee co-chairs were asked to write a letter to Marcus Milling, Executive Director of the American Geological Institute, in response to claims of CDs as a good archival storage medium for digital data. The following is a copy of that letter:

Dear Mr. Milling,

The Geoscience Information Society recently received a report from the AGI Workshop on Online Journal Pricing held in January of this year. At that meeting it was reported that various society representatives extolled the virtues of CD-ROM as an archival storage medium. This is an unrealistic expectation that we would like to dispel.

The National Media Laboratory has performed extensive tests on CD-ROMs and concluded that, under normal storage conditions, the usable life of a CD is 5-10 years. CD-ROM industry representatives advise that the maximum

life span of approximately 50 years is achieved only when the CD is unused and stored in ideal conditions. Even if the CD is ideally stored and rarely used, the machine and software to read the CD-ROM must also be preserved in working condition.

No existing technologies for digital storage reliably exceed 10 years. The best solution at this time is to recognize the limited life span of current digital media and to plan for periodic data refreshment and migration.

Recent articles by Jeff Rothenberg, Stephen Manes, and Paul Conway summarize these and other findings relating to the archival storage of digital information. We have included copies with this letter. It is our hope that this information can be shared with the attendees from the meeting and that it will prove useful in their long-range planning for their respective digital archives.

Respectfully,

Linda Musser and Lisa Wishard
Geoscience Information Society
Preservation Committee co-chairs

GEOINFO VI FIELD TRIPS – REGISTER NOW!

Going to Washington for GeoInfo VI in September? Be sure to sign up for the two conference field trips planned especially for geoscience librarians and information specialists. Space is limited, so don't delay. Trip descriptions and registration procedures follow.

Monday, September 14

U.S. Geological Survey and Library of Congress

An exciting day trip to both the USGS headquarters and the Library of Congress. Highlights include the following:

- USGS National Center:- National Mapping Program and map printing plant;
- Hazards Information Center (exhibits and real-time data);
- USGS Library briefing with Edward Liszewski, chief librarian;
- Earth Science Information Center;
- Lunch at the Survey cafeteria (on your own);
- Library of Congress: - architectural tour of Jefferson Building (Great Hall, Main Reading Room);
- Science, Technology, and Business Division (4.5 million technical reports and standards; demonstration of Cold Regions Databases)
- Geography and Map Division (4 million maps and atlases; computer technology for digitizing maps);
- "American Treasures" exhibition;

TO REGISTER: check the appropriate box under "Monday Field Trips" on the GeoInfo conference registration form http://earth.agu.org/editorinfo98/aese_reg.txt
Transportation fee is \$25.00.

Tuesday, September 15

National Museum of Natural History (Smithsonian Institution)

A free, post-conference excursion "behind the scenes" at the National Museum of Natural History. Planned itinerary includes:

- Guided tour of Hall of Geology, Gems, and Minerals;
- Meeting with a Smithsonian volcanologist (volcano database project);
- Buffet lunch at "The Commons" (\$8.95-\$11.75 per person);
- Tours/demonstrations at Museum of Natural History library;
- Paleobotany and vertebrate paleontology collections;
- Visits with Smithsonian curators.

TO REGISTER: send e-mail to edinfo98@kosmos.agu.org specifying "Tuesday Smithsonian tour". (This excursion is not listed on the mail-in registration form.) Free, but you must sign up in advance.

See you in Washington!

Shaun Hardy
Carnegie Institution of Washington
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EARTH SCIENCE WEEK

The countdown to the first Earth Science Week has begun. Mark your calendars now for the October 11-17 celebration. Earth Science Week is one of the American Geological Institute's most ambitious 50th anniversary initiatives, and it offers the geoscience community new opportunities to demonstrate the importance of the earth sciences. Geoscience organizations have responded enthusiastically to the idea and AGI member societies and state geological surveys are planning Earth Science Week activities and events. "The goal for Earth Science Week," says AGI President Susan Landon, "is to have every geoscientist in the country do something in their community to promote the earth sciences." AGI's role in sponsoring an annual Earth Science Week is to provide a clearinghouse for ideas, activities, and special events and to provide support materials that make it easy for geoscientists to participate. Information about Earth Science Week is available from the American Geological Institute and on the World Wide Web at <http://www.earthsciweek.org>.

The governors of 14 states, Alabama, Arizona, Colorado, Florida, Illinois, Kansas, Kentucky, Maine, Nevada, North Carolina, North Dakota, Ohio, Oregon, and Vermont have already issued Earth Science Week proclamations and resolutions and more are expected to follow. In addition, Senator Ron Wyden of Oregon read the resolution into the Congressional Record on July 15, 1998. A common thread in the proclamations is recognition that the role of geology and the earth sciences are fundamental to society and to our quality of life. An understanding of geology and the earth sciences can help citizens make wise decisions for land

management and use, is crucial to addressing environmental and ecological issues, and provides the basis for preparing for and mitigating natural hazards.

Earth Science Week has enormous potential for increasing public awareness and understanding of the importance of the earth sciences in our lives. The celebration, which will be held annually during the second full week of October, will give geoscientists and organizations a focal point for:

- Giving students new opportunities to discover the earth sciences;
- Highlighting the contributions that the earth sciences make to society;
- Publicizing the message that earth science is all around us;
- Encouraging stewardship of the Earth; and
- Developing a mechanism sharing knowledge and enthusiasm about the Earth and how it works

In addition to an Earth Science Week information kit, AGI is producing a variety of educational materials this year. A colorful 18" x 24" poster on Geoscience Careers is available, and a 40-minute Careers video will be released this month. The Earth Science Week Ideas and Activities booklet and a poster on Soils featuring a student activity will be available in August. In addition, three modules of middle-school curriculum student and teacher activities will be available this fall, as will the general interest booklet, Sustaining Our Soils and Society. The booklet is part of AGI's Environmental Awareness series.

"Reaching our objectives for Earth Science Week requires strategic planning, good ideas, and a lot of work," Landon said. "Leading a field trip, visiting a classroom, talking to a community group, writing an article, hosting an open house, and working with a Scout or other youth group, and planning an earth science event or exhibit at a library, nature center, or museum are just a few of the possibilities for celebrating Earth Science Week," she added.

To request an Earth Science Week information packet, contact Julie Jackson at AGI headquarters [703/379-2480; jjackson@agiweb.org] or register on the World Wide Web at www.earthsciweek.org.

American Geological Institute is a not-for-profit federation of 32 professional organizations in the Earth Sciences representing more than 100,000 geologists, geophysicists, and other earth and environmental scientists.

AGI MEMBER SOCIETY COUNCIL: MAY 18, 1998, SALT LAKE CITY

The meeting opened with the welcoming of the recent affiliation of the North American Stratigraphic Nomenclature as the 32nd member of the AGI Member Society Council.

Treasurer William Thomas and Controller Patrick Burks began the meeting with a very positive note reporting that for the fifth consecutive year AGI is in the black. It was the third year that revenues had exceeded \$5 million. They anticipate that AGI will continue in the black for 1998.

Ed Roy, chair of the nominating committee and Past President of AGI proposed a list of officers for the upcoming year. I am especially pleased to announce that our own Joanne Lerud has been proposed and accepted as AGI Secretary. Other nominations are:

President-Elect Russell G. Slayback
Member at Large Lawrence P. Wilding

The nominating committee also proposed and the Council accepted the following recommendations and awards:

William B. Heroy Jr. Award for Distinguished Service to AGI: John G. Mulvihill

AGI Award for Outstanding Contribution to Public Understanding of Geology: M. Dane Picard

Recommendations for the National Science Awards were:

William T. Pecora Award: Farouk El Baz

National Medal of Science: Stephen J. Gould

Vannevar Bush Award: Luna B. Leopold

Special Reports:

▪ AGI 50th Anniversary

This year is an important year for AGI as it is celebrating its 50th Anniversary. As one of its key initiatives, AGI is sponsoring the first annual Earth Science Week, October 11-17. In the future this will always coincide with the second full week in October. Julie Jackson encouraged all earth scientists to participate as it offers a unique opportunity to focus on local and national opportunities in the earth sciences. It had been endorsed by 8 states at the time and has now increased to 15. AGI is encouraging member societies and individuals to participate and has developed posters, information packets, activities and an Earth Science Information Week kit. This can be obtained from Julie Jackson at AGI and more information is available at the web site www.earthsciweek.org. Sam Adams reported on a meeting which is being planned in Washington DC at the National Research Council for November 14, 1998 to coincide with the initiation of the AGI.

▪ Earth Science Education and Publications

AGI highlighted the first edition of the *Glossary of Hydrology* at SLC and plans to publish two booklets in its Environmental Awareness series this fall: *Soils and Society* and *Metals Mining and the Environment*. Three of the nine instructional elements in the *Earth Science Sourcebook* for grades 5-6 will also be released this fall and become available for teachers. They are *Investigating Soil*, *Investigating Oceans*, and *Investigating Materials and Minerals*. Marilyn Suiter also reported that pilot testing of the high school curriculum materials *Earth System Science in the Community (EarthComm): Understanding Our Environment*, will also begin in the fall.

President Susan Landon reported on the Geoscience Education Multidisciplinary Initiative (GEMINI). The Gemini objective is to develop multidisciplinary web-based geoscience training modules. The prototype is a successful Internet-based geophysics course, which was taught at the Colorado School of Mines with the support of the Society of Exploration Geophysicists.

Victor van Buren reported on the successful conference hosted by AGI on Online Journal Publishing the previous November. Although members listened it actually raised few questions and it appeared that although libraries are very concerned about this issue regarding access, acquiring,

archiving and today recording the ever shifting IP addresses it raised little discussion amongst those present.

More than two-thirds of the member societies are participating in the project to produce a Directory of Geoscientists. When members of the participating societies receive forms to complete they will have the option of not being listed. Harris Publishing, a directory publisher will be producing the book. Slightly more than one third of the member societies have reserved space in the AGI Member Society Publications and Services Catalog. AGI plans to mail the catalog to approximately 70,000 geoscientists and geoscience organizations in late August.

▪ Data Preservation And Access

Marcus Milling reported that as part of AGI's program to establish a National Geoscience Data Repository (NGDRS), a web based catalog is now available at the AGI web site, www.agi.org. The survey of companies participating in the NGDRS indicates that they have over 5 million boxes of rock core and well cuttings in their data holdings and most local and state depositories are nearly filled. AGI is still looking for a suitable storage facility and are looking at Stapleton Airport.

▪ Government Affairs

David Applegate announced that AGI has sponsored a new Congressional Science Fellowship for the geosciences this year. Beginning in September, David Wunsch, a hydrogeologist with the Kentucky Geological Survey will spend his one-year Congressional Fellow appointment in Washington DC working as a staff member in the office of a member of Congress or a congressional committee. This will increase the profile of the geosciences in this very important public affairs arena.

▪ Ethics

David Stephenson reported that the ad hoc committee on Ethics in the geosciences is working to develop guidelines for a code of Ethics.

The next Council Meeting will be held at the annual meeting of the Geological Society of America Meeting on October 26, 1998 in Toronto.

Submitted by Barbara E. Haner

"Science Editing and Information Management across disciplines . . . across boundaries . . . through time",
Washington D.C., September 10 - 14, 1998
WWW: earth.agu.org/EDITORINFO98

This bulletin is published periodically to keep subscribers and other interested parties apprised of enhancements to, and announcements about the COS version of *GeoRef* at <http://georef.cos.com>

Community of Science, Inc. (COS) has been pleased to offer *GeoRef* for one full year. During that time, we have incorporated many of your suggestions and dramatically improved the search capabilities available to users. Our subscriber base continues to grow; in the second quarter of 1998 we were pleased to welcome the United States Geological Survey, the Egyptian Geological Survey and Mining Authority, the University of Iowa, and the University of California, San Diego including Scripps Institution of Oceanography, among others.

GeoFunding

To further increase the benefits of a *GeoRef* subscription, COS is proud to release *GeoFunding*, a valuable set of earth and geoscience funding opportunities updated weekly in the COS Funding Opportunities database. *GeoFunding* will provide the two most recent weeks of geoscience funding announcements from COS Funding Opportunities <http://fundingopps.cos.com>, the world's leading online resource for identifying funding information related to research, collaborative activities, travel, fellowships, and post-doctoral positions. *GeoFunding* will be updated each Monday and is free to *GeoRef* subscribers. A link is now available from the *GeoRef* main page. It is our hope that this information will be particularly useful for individuals and organizations looking to secure funding for ongoing geoscience research activities.

Update Summaries

As of August 1, COS will send an e-mail to its subscribers summarizing the most recent *GeoRef* data updates supplied by the American Geological Institute (AGI). Twice a month AGI provides COS with an update file to supplement the *GeoRef* database. This update file includes records from the 1970's, '80's, '90's, and pre-1970. Upon receipt of each of these data sets, COS will specify the number of records added in each of those time blocks. This will serve not only to alert customers of database updates, but also to familiarize users with the content and scope of this growing resource.

Upcoming Meetings

Community of Science has secured a spot at the 1998 Geological Society of America (GSA) meeting in Toronto, Canada. As with last year's conference, COS will be exhibiting and demonstrating the COS version of *GeoRef*. We look forward to seeing all of you in Toronto.

We also look forward to seeing those of you who plan to attend the Sixth International Conference on Geoscience Information (GeoInfo VI) this September in Washington, D.C., where COS will present hands-on demonstrations of *GeoRef* all day on Thursday, September 10.

As always, we welcome your comments, questions, and suggestions. Please don't hesitate to contact COS at any time.
Charles Wise

Director, Institutional Sales

phone: 410-563-5382

e-mail: cw3@cos.com

GeoScience Books is pleased to announce that Catalog 98C - Summer Quarterly is now posted on the website at: <http://www.geosciencebooks.com>

The catalog contains 625 out-of-print publications in Geology and related sciences.

Michael Dennis Cohan, Bookseller, GeoScience Books
319 Mineral Ave., Libby, MT 59923-1953

mdc@geosciencebooks.com

(406) 293-2982 FAX: (406) 293-2983

NATIONAL PARKS SERVICE GEOLOGY RELATED NEWSLETTERS

There are two active geological resource groups within the National Park Service (NPS) that put together newsletters: the Cave Specialists and the Paleontologists.

The Cave and Karst group has a newsletter called *Inside Earth*. The Spring issue can be found at:

<http://www.nature.nps.gov/grd/geology/inside/index.htm>

and the summer issue is at:

<http://www.nature.nps.gov/grd/geology/inside2/index.htm>

The paleontologists have a newsletter called *Park Paleontology* and you can access this at:

http://www.nature.nps.gov/grd/geology/pp_4_1_98/paleonews.htm

If you can not access either of these and you would like to receive a copy please let me know and I can send you a hard copy.

Thanks.

Bob Higgins

National Parks Service

Bob_Higgins@nps.gov

LITERATURE REVIEW by Miriam Sheaves

An article in *Library Acquisition: Practice & Theory* discusses the usefulness of ISI's Journal Impact Factors in making serial selection and deselection decisions. Klaus G. Altmann and G.E. Gorman report that the impact factors vary considerably from year to year. Their findings suggest that it would not be worthwhile to rely on a single year's Journal Citation Report to make informed selection/deselection decisions.

The article entitled "The Usefulness of Impact Factors in Serial Selection: a Rank and Mean Analysis Using Ecology Journals" (22 (2):147-160, 1998) reported data from their study of 56 titles.

Pamela Simpson and Robert Seeds talk about the need for close cooperation among selectors, reference librarians, and catalogers in order to successfully integrate electronic journals into the library's collection and catalog. Their article in *Library Resources & Technical Services*, 42 (2):126-132, April 1998, "Electronic Journals in the Online Catalog: Selection and Bibliographic Control" describes the carefully worked out procedures for ordering and cataloging electronic journals at Penn State University.

There is an interesting discussion of differing publishers' and scholars' viewpoints regarding publishing articles which have already appeared on the Web in the *Chronicle of Higher*

Education, July 17, 1998 (v.XLIV, no.45, pp.A27-A29) by Lisa Guernsey and Vincent Kiernan. See the Information Technology section, "Journals differ on Whether to Publish Articles That Have Appeared on the Web".

A paper in *College & Research Libraries*, 59 (3):250-259, May 1998, reviews the trends in human and machine assistance to the user, and explores implications and policy options for the profession. Ronald J. Heckart notes the trend toward gradual disappearance of human help in patron interactions with the increasing sophistication in types of Machine help. ("Machine Help and Human Help in the Emerging Digital Library").

Another article focusing on the library user, "From the Other Side of the Reference Desk: A Focus Group Study", reports the results of a study at Johns Hopkins. They used focus groups to gather information from undergraduate, graduate, and faculty users on how users were dealing with the rapidly changing technological environment and how helpful the reference staff was in meeting their needs. Virginia Massey-Burzio reported that all user groups expressed that they were afraid to ask questions of librarians, and that the most common method for learning about the library was through friends and experimenting. The focus group method was useful in eliciting the actual needs and preferences of patrons as opposed to what librarians think is needed. (*Journal of Academic Librarianship*, 24 (3): 208-215, May 1998).

The March 1998 issue of *Information Technology & Libraries*, 17 (1), is a special issue devoted to Library Consortia. Six papers discuss different models, benefits, and trends.

MEMBER NEWS: CHANGES TO THE GIS MEMBERSHIP DIRECTORY

- **Ruth Bristol's** contact information: 13801 York Rd., S-106, Cockeysville MD 21030
- **Jean Eaglesfield's** new home address: 6502 N. Agnes, Gladstone MO 64119-1520
- **Mark Finnegan's** new home address: 1367 S. 101 E. Ave., Tulsa OK 74128-4627
home phone 918-838-8795
- **Gerald Friedman's** contact information: Northeastern Science Foundation, Inc.,
P.O. Box 746, 15 Third St., Troy NY 12181-0746,
Phone 518-273-3247, fax 518-273-3249,
e-mail gmfriedman@juno.com
- **Susan Goodman's** new area code: 732
- **Karen Holder's** revised title: Librarian;
phone number: 08 9334 6444;
fax number: 61 8 9334 6480
- **Carolyn Lafoon's** new area code: 765
- **April Love's** new area code: 949
- **Daniel Seldon's** business number: 812-856-4563
- **Richard Spohn's** new (temporary) e-mail:
spohnra@email.uc.edu

CONFERENCE/SEMINAR ANNOUNCEMENTS

PRELIMINARY PROGRAM: 6th ACM SYMPOSIUM ON GEOGRAPHIC INFORMATION SYSTEMS WASHINGTON, D.C., USA November 6-7, 1998

Scope of the symposium: This 6th symposium aims at bringing together all people carrying out research in novel systems based on spatial data and knowledge, within the framework of the 7th International Conference on Information and Knowledge Management (CIKM). The emphasis will be essentially targeted to the development of generic principles and systems in computing based on those applications. Cross-fertilizations and synergies between several applications can help to develop new computing knowledge.

Location: Holiday Inn Bethesda (renamed to "Crowne Plaza" soon), 8120 Wisconsin Avenue, Bethesda, Maryland 20814 USA,

Phone: (301) 652-2000; Fax: (301) 652-3806

<http://www.insa-lyon.fr/Laboratoires/LISI/ACMGIS/>

Preliminary Program

Friday November 6, 1998

9.00-9.30 Opening Ceremony

9.30-10.30 Keynote Speaker 1: To be Announced

10.30-10.45 Break

10.45-12.15 Plenary Session S1: "New trends in GIS"

- "Overlapping Linear Quadrees: a Spatio-temporal Access Method", T. Tzouramanis, M. Vassilakopoulos, Y. Manolopoulos, Aristotle University of Thessaloniki, Greece
- "An Integrated Information System on the Web for Catchment", K. Taylor, M. Cameron, J. Haines, CSIRO, Canberra, Australia
- "Geologic Hypermaps are more than Clickable Maps", A. Voisard, Free University of Berlin, Germany

12.15-13.45 Lunch

13.45-15.15 Parallel Sessions S2 and S3

Session S2: "Integration and Generalization"

- "Road Collapse in Magnum", A.N. Wilshut, R. van Zwol, N. Brasa, J. Flokstra, University of Twente, The Netherlands
- "Matching and Aligning Features in Overlaid Coverages", J. M. Ware, C. B. Jones University of Glamorgan, Wales, UK
- "Designing a Library to Support Model-oriented Generalization", G. Dettori, E. Puppo, IMA-CNR, Genua, Italy

Session S3: "Web and GIS"

- "Integrating Levels of Detail in a Web-based 3D GIS", V. Coors, S. Flick, Fraunhofer-Institute, Darmstadt, Germany
- "Interactive Map Applets for Illustration Purposes". A. Sorokine, Regional Science Institute, Sapporo, Japan, and I. Merzliakova, Russian Academy of Sciences, Moscow, Russia

- Visualizing Real-time GPS Data Internet's VRML Worlds", I. Rakkollainen, S. Pulkkinen, A. Heinonnen, Tampere University of Technology, Finland.

15.15-15.45 Break

15.45-17.15 Parallel Sessions S4 and S5

Session S4: "Spatial Modeling"

- "Bridging Vector and Raster Representation in GIS", S. Winter, Technical University of Vienna, Austria
- "A Software Tool and Techniques for Converting Map Data into an Object-Oriented Representation", M. Neal and M. Neal, University of Wales, UK
- "Direction as a Spatial Object", S. Shekhar, X. Liu, University of Minnesota, USA
- "Refining an Object-Oriented GIS Design Model: Topologies and Field Data", F. Balaguer, S. Gordillo, University of La Plata, Buenos-Aires, Argentina

Session S5: "Web and GIS"

- "Development of Metadatabases for Geospatial Data in the WWW", S. Gobel, K. Lutze, Fraunhofer-Institute, Darmstadt, Germany
- "GeoMed for Urban Planning - First Experiences". B. Schmidt, C. Rinner, F. Gordon, GMD, Sankt Augustin, Germany
- "A 3D User Interface for Data-Mining and Visualisation of Web-Based Data-sets" I.M. Brown, University of Glamorgan, Wales, UK

Saturday November 7, 1998

9.00-10.00 Keynote Speaker 2: To be Announced

10.00-10.30 Break

10.30-12.00 Plenary Session S6 "Constraint-based Spatial Modeling"

- "Spatio-Temporal Data Handling with Constraints", S. Grumbach, P. Rigaux, L. Segoufin, INRIA-CNAM, Paris, France
- "A Constraint-Based Spatial Extension to SQL". G. Uper, S. Ramaswamy, K. Shim, Bell Laboratories, J. SU, University of California, Santa Barbara, USA
- "Constraint-Based Algorithms for Computing Clique Intersection Joins", N. Mamoulis, D. Papadias, Hong Kong University of Science and Technology, China

12.00-13.30 Lunch

13.30-15.00 Parallel Sessions S7 and S8

Session S7: "Spatio-temporal Reasoning"

- "Requirements, Definitions and Notations for Spatio-temporal Applications Environments", P. Pfoser, N. Tryfona, Aalborg University, Denmark
- "Spatio-Temporal Data Types: An Approach to Modeling and Querying Moving Objects in Databases", M. Erwig, R.H. Gutting, M. Schneider, M. Vazirgiannis, University of Hagen, Germany
- "A Voronoi-Based Cellular Automata Model for GIS", W. Shi, Y.C. Pang, Hong Kong Polytechnic University, China

Session S8: Poster Session

15.00-15.30 Break

15.30-17.30 Plenary Session S9 "Terrain Modeling"

- "Greedy Cuts: An Advancing Front Terrain Triangulation Algorithm", C.T. Silva, IBM Watson Research Center, J.S.B. Mitchell, State University of New York, USA

- "Compressing TINs", L. De Floriani, P. Magillo, University of Genua, E. Puppo, IMA-CNR, Genua, Italy
- "Parallel Distributed Processing for Terrain Visibility Analysis", P.J. Rallings, J.A. Ware, D. B. Kidner, University of Glamorgan, Wales, UK

17.30-17.40 Closing Ceremony

Organization

Program Chair: Robert Laurini, Claude Bernard University of Lyon, France

Program Committee Members:

Patrick Bergougnoux, Paul Sabatier University, Toulouse, France

Azedine Boulmakoul, Hassan II University, Morocco

Patrice Boursier, University of La Rochelle, France

Eliseo Clementini, University of Aquila, Italy

Leila De Floriani, University of Genua, Italy

Geoffray Edwards, Laval University, Quebec, Canada

Silvia Gordillo, La Plata University, Buenos Aires, Argentina

Andreas Henrich, University of Siegen, Germany

Erlang Jungert, FOA, Linkoping, Sweden

Werner Kuhn, University of Münster, Germany

Jacqueline Le Moigne, NASA, Greenbelt, USA

Ki-Joune Li, Pusan National University, South Korea

Yannis Manolopoulos, Aristotle University, Thessaloniki, Greece

Claudia Bauzer Medeiros, University of Campinas, Brazil

Richard Muntz, University of California, Los Angeles, USA

Beng Chin Ooi, National University, Singapore

Dimitris Papadias, Hong Kong UST, China

Lutz Plümer, University of Bonn, Germany

Siva Ravada, Oracle Corporation, Virginia USA

Jorg-Rudiger Sack, Carleton University, Canada

Hanan Samet, University of Maryland, USA

Tapani Sarjakoski, Finnish Geodetic Institute, Finland

Shashi. Shekhar, University of Minnesota, USA

Timos Sellis, National Technical University of Athens, Greece

Sylvie Servigne, INSA, Lyon, France

Kerry Taylor, CSIRO, Canberra, Australia

Vladimir Tikunov, Moscow State University, Russia

Nectaria Tryfona, Aalborg University, Denmark

Andrej Vckovski, Zurich, Switzerland

Agnes Voisard, Freie Universitaet, Berlin, Germany

J. Mark Ware, The University of Glamorgan, UK

Michael F Worboys, Keele University, UK

If you have any questions contact appropriate person: on registrations: (Dr. Park: ekpark@cstp.umkc.edu); on technical programs, (Program Chair: Dr. Robert Laurini at robert.laurini@if.insa-lyon.fr); on other conference and GIS98 related matters (General Chair: Dr. Kia Makki at kia@cs.unlv.edu).

Please visit our WWW site for up-to-date CIKM98 program information and related activities:
<http://www.cs.umbc.edu/cikm>

JOB ANNOUNCEMENT

Announcement of Professional Vacancy: Brauer Librarian

The University of North Carolina at Chapel Hill seeks an accomplished and creative librarian to head Brauer Library, a departmental library serving faculty and students in Mathematics, Physics and Astronomy, Statistics, Computer Science and Operations Research. The Brauer Librarian is responsible for overall management of the library, including collection development and management, liaison with departmental faculty and the central library, facilities and equipment planning, and reference and research assistance.

For more information, see:
<http://sunsite.unc.edu/mplib/brauer.html>

Required: A graduate degree from an ALA accredited program; minimum of three years relevant professional experience, preferably in an academic research library; strong communication, organizational, and management skills, including supervisory and budget management; ability to work effectively with diverse library users and staff; experience with print and electronic scientific information sources and with automated systems.

Preferred: Undergraduate degree or coursework in mathematical sciences, physics, or applied science, working knowledge of PC hardware and software, space planning experience, and reading knowledge of French, German, or Russian.

Salary and Benefits: Twelve-month academic librarian appointment with minimum salary of \$32,000. Standard State benefits of annual and sick leave, insurance coverage, and State or optional retirement plans.

Review of applications will begin on August 29, 1998. Applications will be accepted until the position is filled.

To apply: Send a letter of application, a resume and the names, addresses and telephone numbers of three references to:

Brauer Librarian Search Committee
c/o Mari E. Marsh, Personnel Librarian,
The University of North Carolina at Chapel Hill
CB #3900 206 Davis Library
Chapel Hill, NC 27514-8890.

GIS DATABASE FORUM

Mark your calendar and plan to attend the GIS Database Forum, Sunday October 25th from 2-5 p.m. at the Delta Chelsea Hotel in Toronto. The Forum is a great event to start off the GSA Conference. Mingle with your colleagues and discover the "latest" in terms of electronic resources for the geoscientist!

Presenters include:

- John Broome, Physical Scientist, Department of Natural Resources of Canada, will speak on the Canadian Geoscience Knowledge Network (CGKN), Canadian Geospatial Data Infrastructure (CGSI) and the Canadian Geoscience Publications Directory (CGPD).
- Jennifer Rumford, Chief Production Editor for the Proceedings of the Ocean Drilling Program (ODP) at Texas A&M, will demonstrate ODP's JANUS database

as well as the online journal "Palaeontologia Electronica", for which she is the technical editor.

- Dorothy Tao Acting Information Service Manager for the National Center for Earthquake Engineering Research (NCEER) will speak about NCEER's products and services in earthquake engineering, hazards mitigation, and disaster preparedness, including their Quakeline database.
- Christine Midwinter will demonstrate online products available from the Canadian Institute for Scientific and Technical Information (CISIT).

For additional information please contact
Adonna Fleming, (509) 335-7601,
afleming@wsu.edu.

GEOINFO VI

"Science Editing and Information Management across disciplines . . . across boundaries . . . through time"
Washington D.C., September 10 - 14, 1998.

Broad meeting topics include: electronic publishing, ethics, intellectual property, archiving and information retrieval, education and training.
e-mail edinfo98@kosmos.agu.org WWW
earth.agu.org/editorinfo98

Demonstrations of geoscience databases will take place on September 10, 1998 at AGU Headquarters. Have you constructed a dataset you would like to demonstrate? Would you like to see demonstrations of commercially developed geoscience databases?

"Science Editing and Information Management across disciplines . . . across boundaries . . . through time"

Be Part of It!



GIS '98 – Toronto
Geoscience Information Society
Annual Meeting Preliminary Schedule
****ALPHA version – August, 1998 ****

Sunday October 25

- 9:00-12:00 AM GIS Executive Board Meeting: Sheraton / Kenora Room
(*Presiding: Connie Manson*)
- 1:30-4:30 PM Digital Database Forum: MTCC / 803B
(*Presiding: Adonna Fleming*)

Monday October 26

- 10:15 AM Guidebook Committee Meeting: Sheraton / Gold Rush Room
- 10:15 AM GIS Membership Committee Meeting Sheraton /Executive Room
[Suggested time for other committee meetings as well]
- 1:30-5:30 PM GIS Poster Session: MTCC / Hall E
- 3:00-5:30 PM GIS Collection Development Issues Forum: Sheraton / Wentworth Room
(*Presiding: Steve Hiller*)
- 7:00-9:15 PM GIS Reception: Sheraton/Kenora Room
(*Presiding: Connie Manson*)

Tuesday, Oct. 26

- 8:00-10:00 AM Preservation Issues Forum:
(*Presiding: Linda Musser and Lisa Wishard*)
- 1:30-4:45 PM GIS Symposium - Accreting the Continent's Collections: MTCC / 716A
(*Presiding: Charlotte Derksen, with Barbara Haner*)
- 5:00-6:00 PM GIS Technical Session: MTCC / 716A
(*Presiding: Barbara DeFelice, with Patricia Sheahan*)

Wednesday Oct. 27

- 8:30-11:30 AM GIS Business Meeting: Sheraton / Dominion South Room
(*Presiding: Connie Manson*)
- 12:00-1:30 PM GIS Luncheon @ Awards: Sheraton / City Hall Room
(*Presiding: Connie Manson*)
- 2:00-3:30 PM GIS GeoRef Users' Group: Sheraton/Kenora Room
(*Presiding: Nancy Blair*)
- 3:30-5:00 PM GIS Professional Issues: Sheraton/Huron Room
(*Presiding: Claren Kidd*)
- 5:30-8:30 PM GIS Executive Board Meeting: location to be announced
(*Presiding: Charlotte Derksen*)

Thursday Oct. 28

- 8:30 AM-3:00 PM GIS Field Trip to Niagara Falls: (*Presiding: Connie Manson*)
Preregistration with Connie Manson or Charlotte Derksen required

****Confirmation of times and places still coming from GSA headquarters. Look for beta or preliminary version in next month's newsletter.****

DEVELOPMENTS IN THE PRESERVATION OF THE GEOSCIENCE LITERATURE

WISHARD, Lisa A. (Pennsylvania State University; email: lar14@psu.edu)

The usefulness of the geoscience literature can be measured in centuries rather than in decades. Unfortunately much of the bulk of the historic geoscience literature has been published on acidic paper with a result that materials are crumbling on library shelves. In addition, many volumes contain maps and illustrations—often produced in color and printed on folded sheets—that are either bound into the text or housed in pockets in the binding. The inclusion of these oversized, color, folded maps and illustrations have made it impractical for geoscience materials to be preserved by libraries. Instead much geoscience material has had to be preserved piece-by-piece. As a result the majority of the geoscience literature has been passed over in preservation efforts to date. Recent technological advances, however, offer some economical and viable solutions for preserving this literature. Several new technologies will be described and summarized, and samples of preserved documents will be presented. International initiatives underway to preserve the geoscience literature will also be described.

NASA'S GLOBAL CHANGE MASTER DIRECTORY (GCMD): A MULTIDISCIPLINARY APPROACH TO LOCATING EARTH SCIENCE DATA

NORTHCUTT, Robert T.

NASA's Global Change Master Directory (GCMD), is a free, online resource for obtaining information about available data sets in the Earth and environmental sciences. Locating Earth science data sets can be a more time-consuming task than locating journal articles. The GCMD simplifies the task of finding data, by coordinating information about data sets from around the world and providing search and retrieval tools for the user. The GCMD database contains over 5700 descriptions of data sets from meteorology, oceanography, geophysics and geology, hydrology, ecology, paleoclimatology, and human dimensions of global change. The mission of the GCMD is to provide users with the means to rapidly determine what data sets are available and how to obtain the data. The GCMD also provides online tools for data providers to easily register their data sets in the GCMD database.

The GCMD uses a multidisciplinary approach to locating data sets by providing several search and retrieval options including an extensive multidisciplinary hierarchical keyword taxonomy system, a free-text/geospatial search interface, and a Java-based graphical search interface. The GCMD is the central node of the Committee on Earth Observation Satellites (CEOS) International Directory Network (IDN) program and is a part of NASA's contribution to the U.S. Global Change Research Program (USGCRP). The GCMD is available to anyone with a web browser at <http://gcmd.nasa.gov>.

CAPTURING FEATURES OF TECTONIC SIGNIFICANCE IN THE GENERALIZED GEOLOGY OF THE WORLD GIS FRAMEWORK: A RESOURCE FOR FUTURE GEOLOGICAL RESEARCH

CHORLTON, Lesley B.

The Generalized Geology of the World subproject of the World Minerals Geoscience Database Project is devoted to prototyping a digital database and GIS model for global geology at the index level. The intent is to build a fully referenced, flexible database that will grow with the acquisition of new data on age, magmatism, major structural events, sedimentary assemblages, depositional environment, and mineralization in space and time. This database can be linked to geospatial features such as faults and bedrock domains, resulting ultimately in a spatial global inventory of 'what-where-and-when'. At present, high spatial accuracy for the global scale is hard to attain because of lack of resources and inconsistent georeferencing quality of spatial data sources. Nevertheless, spatially generalized globally-pertinent information with consistent geological topology is useful for education and research. In fact, the level of generalization for the spatial features must be high for displays to have visual impact as world wall maps, and minimal digital size is also needed so that displays covering substantial areas are manageable with today's desktop software. The generalization simplifies feature geometry, defines uniformly mixed spatial domains in orogenic belts, and allows multiple elements in the attribute database to be attached to each feature. The database and GIS, accommodating more information than would ever be displayed at one time, can be used to produce customized theme products derived by database query and dissolution of unnecessary linework, further accommodating the need for simplicity. The Generalized Geology of the World is currently being used to produce maps of mafic-ultramafic magmatic, felsic-intermediate magmatic, and predominant rock type subdivided by age as backdrops for mineral deposit distribution. Other uses, including geospatial sedimentary package inventories, are being entertained. The GIS must currently be maintained centrally for spatial and indexing integrity. Ways to allow different specialists to populate their own areas of the database and to coordinate changes in linework are under investigation.

DEVELOPING DIGITAL GEOLOGIC MAP DATA FROM ACCRETING OUT-OF-PRINT PUBLICATIONS; RESCUING GEOLOGIC TERRAINS FROM THE EFFECTS OF CARTOGRAPHIC GENERALIZATION AND ANALOG SUBDUCTION ZONES

COLLINS, D. R.

Driven by the economic value of their natural resources, most countries, states, or provinces have made large investments to develop an understanding of the geologic framework within their domain. Prior to the advent of computer-aided mapping and digital geologic map databases, the results of these efforts were commonly preserved through the publication of geologic maps. The analog processes involved in the production and printing of these maps were often of high quality. However, combined with a geologically brief passage of time, they have forced most of the information gained through geologists' fieldwork into the category of out-of-print publications. Archivists and current investigators commonly find a smaller scale published map to be the only extant element of

original field mapping efforts. The advent of computer applications in geology has created a demand for digital geologic map databases, driven by the same forces that produced investment in original field mapping. Unfortunately, increased generalization at smaller scales is an inevitable aspect of the cartographic drafting process. Scanning or other means for direct digital capture of geologic features from existing smaller-scale maps will perpetuate the errors introduced by cartographic generalization. These methods will not produce satisfactory digital geologic data for use with other data derived from larger scale base maps, even though scanned images of old maps provide efficient, cost-effective means for preserving past geologic research. This paper reports an alternative, satisfactory technique for development of digital geologic map databases through interpretation of information available in the published geologic maps. Designed and tested within the context of sedimentary stratigraphy typical of Kansas and the mid-continent, the technique is suitable for application in any region lacking digital geologic map databases where high quality, larger scale, topographic maps are available in combination with reputable, smaller scale, geologic maps. Where the required maps are available, this technique can easily be an order of magnitude less expensive than re-investment in the labor-intensive production of new field maps, while providing a comparable asset for further geologic inquiry.

GEOSCIENCE INFORMATION SOCIETY
GIS SYMPOSIUM - ACCRETING THE CONTINENT'S COLLECTIONS: MTCC / 716A - Tues. 1:30-4:45
(Presiding: Charlotte Derksen, with Barbara Haner)

GEOSCIENCE INFORMATION NEEDS OF THE RESEARCHER AND EDUCATOR

LAMB, Melissa A. (Stanford University, email: lamb@Pangea.stanford.edu <http://pangea.stanford.edu/~lamb/CV.html>)

Perhaps more than any other scientific discipline, the earth sciences require an extremely diverse array of material, including books, reports, journals, government documents, maps and other types of data from every country in the world. Although electronic formats provide valuable benefits, the most important factor remains the ability to obtain the widest range of material.

First, there is a need for geographic diversity. Geoscientists study problems and regions in every area of the globe. Many areas are remote, are within countries that are poorly accessible due to political reasons, or are regions that have been studied by few researchers. In these instances, the only available information may come from relatively obscure foreign sources. This material may be crucial not only for those studying the area directly, but also for scientists requiring analogs from around the world or looking for global correlations. Thus, it is important to have access to material published from all countries.

Second, the geosciences rely on information published in a variety of formats. Maps, well-logs, reflection seismic profiles, satellite images and panoramic photographs are some of the types of data that are crucial to both research and education in the earth sciences.

Although at times this type of information can be effectively studied and manipulated on a computer, it is also necessary to display and view it in its entirety on paper. This is the only way to observe key large-scale features and broad areal trends of detailed data.

Finally, knowing what is available and how to locate it is also imperative. For this reason, it is critical to have easy access to electronic search vehicles, such as GeoRef and Science Citation Index, as well as trained geoscience library staff who understand the diversity of earth science material and how to obtain it.

POLICY ISSUES AFFECT ACCESS TO SCIENTIFIC DATA

APPLEGATE, David (American Geological Institute: Director of Government Affairs, email: govt@agiweb.org <http://www.agiweb.org/agi/gaphome.html>)

As scientists, nothing is more fundamental than access to data, whether in support of one's own original research, to check the results of others, or to survey the current state of knowledge. In part because data access is so fundamental, we tend to take it for granted, all the more so today given the ease of access brought on by the information revolution. The digital age has created many benefits for scientists, but it has also resulted in many new forms of data piracy in the commercial sector. As a result, governments around the world have been working to broaden intellectual property protection for electronic databases. These new policies alter the delicate balance between access and protection that has allowed the current scientific system to flourish. Because of their spatial nature, geoscience datasets are particularly vulnerable.

Although the need for intellectual property protection is generally accepted, there is a long-standing debate over what form that protection should take. Is creativity a key requirement or is 'sweat of the brow' sufficient to earn protection? As digital technology transforms virtually all forms of information into electronic databases, this debate has taken on a new urgency for publishers, software vendors, and the music and film industries. To address their needs, the European Union has implemented a new database-specific intellectual property protection. The World Intellectual Property Organization meets this fall to consider a draft treaty, which failed to pass last year, that would closely follow the European model. The US House of Representatives passed legislation in May designed to fight database piracy but only after adding several amendments to address concerns raised by researchers, librarians, educators, and others affected by access limitations.

Equally challenging issues face more traditional forms of geoscience data. In part due to the explosion in digital data, physical collections now are seen as liabilities rather than assets by their caretakers in government, universities, and the private sector. Unless geoscientists communicate the value of these data to policymakers, future access is far from assured.

COPYRIGHT FOR GEOSCIENTISTS: WHAT YOU NEED TO KNOW

WESLEY, Rebecca (Stanford University: Head of Academic Computing for the Science and Engineering Resource Group, email: rwesley@sulmail.stanford.edu <http://www-leland.stanford.edu/~rlasher/rebecca.html>) and **Jim O'DONNELL** (CalTech - Head, Geology & Planetary Sciences Library, email: jimodo@gps.caltech.edu)

Every day we make assumptions and decisions based on our understanding of copyright law. Questions arise like: Can I put this article I wrote in a collection of photocopies for my students? Is it okay to scan this map and put the image on my website? How about downloading this image for inclusion in my homepage? Is it okay to copy this book? How about this article in Nature? Librarians, as protectors of copyright, have developed some expertise in answering questions like these for geoscientists. This paper presents useful copyright information -- not legal advice -- that will help in daily decision-making for the practicing geoscientist.

Among the topics discussed are: What is the concept of 'fair use' and how is it interpreted? What are the four factors to consider when deciding if use of a work is 'fair'? and What's the difference between owning a copyright and controlling it? In many cases the answers to these questions depend upon the scientist's institution or company, and who he or she is. A better understanding of copyright law will assist both geoscientist and librarian to make good faith decisions regarding intellectual property in print or electronic form.

NON-NORTH AMERICAN GEOSCIENCE LITERATURE IN North American GEOSCIENCE LIBRARIES: HAVE WE SAID GOODBYE TO THE YORKSHIRE GEOLOGICAL SOCIETY?

NOGA, Michael (MIT - Collection Manager (Science) and Mathematics Librarian (Science and Engineering), email: mnoga@MIT.EDU)

North American science libraries have contracted the scope of their collections over ten years. This trend affects geoscientists especially, because geoscience literature is produced by geological surveys, societies, and other institutions throughout the world. In this study, recent publications published by societies, geological surveys, and other institutions from outside the United States and Canada were identified. Then holdings of these publications were searched in American and Canadian library catalogs. The results show how much geoscience literature is still being produced outside North America.

Some national geological surveys have changed their pricing structure considerably. Some have embarked on substantial programs to distribute their research publications and data electronically. Others barely produce publications. These external factors affect the availability of non-North American literature to North American geoscientists. Factors relating to changes in American and Canadian libraries also affect availability. For example, libraries are de-emphasizing gift and exchange programs that bring in geoscience literature from places such as South America and Russia. Also, libraries may be spending less time keeping up with the irregular publication schedules of some foreign geoscience serials. Finally, there have been substantial serial budget cuts at major geoscience libraries. The long-term effect of these factors is reduced accessibility of geoscience publications for both geoscientists and document suppliers in the U.S. and Canada.

ACCRETING THE CONTINENT'S COLLECTIONS: THE CONSORTIA STRATEGY

LERUD, Joanne (Colorado School of Mines - Director of the Arthur Lakes Library, email: jlerud@mines.edu, http://magma.Mines.EDU/fs_home/jlerud/)

Academic research libraries once sought to support an array of specialties within and among academic disciplines as well as provide for basic undergraduate and graduate support. America's colleges and universities are now seeking relief from the increasing costs of providing access to the expanding volume of scholarly works. One strategy against this onslaught is the formation of consortia of libraries. The Alliance, formerly the Colorado Alliance of Research Libraries (CARL), banded together in 1978 for the following purposes:

1. To share information concerning acquisitions, services, and procedures;
2. To increase patron access to the collections of Colorado by a) joint acquisition of unusual or expensive library materials, b) the rapid interlibrary loan of jointly acquired materials, and c) the timely publication of guides, catalogs, and finding lists;
3. To sponsor research into common problems;
4. To encourage a high quality of library service to patrons;
5. To support the efficient utilization of available library funds.

Time and technology have changed the details of resource sharing but the principles are the same; today's version of joint acquisitions is often electronic databases. The Alliance's influence on the ways Colorado's libraries do business will be examined.

BUILDING THE NATIONAL GEOLOGIC MAP DATABASE: PROGRESS AND CHALLENGES

SOLLER, David (Geologist, U.S. Geological Survey, Geologic Division, Email: drsoller@usgs.gov, <http://ncgmp.usgs.gov/drs.html>)

The principal stated purpose of the Geologic Mapping Act of 1992 and 1997 is to build a national archive of geologic and related maps, to be known as the National Geologic Map Database. In 1995, planning began, and in 1996 a project was formed to develop the Database. Information about this project can be found at '<http://ncgmp.usgs.gov/ngmdbproject>'. The Database is designed as a distributed system, through cooperation between the USGS and the Association of American State Geologists. The first phase of the project is to develop a comprehensive catalog of all published paper and digital geoscience maps of areas within the United States. As of Spring, 1998, about 26% of all maps were cataloged and available for search at the Database Web site ('<http://ngmdb.usgs.gov>'). To support the use of these maps, we have prepared at that URL a Lexicon of Geologic Names. During the remainder of 1998, work will include: development of databases and Web pages for paleontology and geologic mapping in progress; enlargement of the map catalog with State geological survey entries; and continued work on development of various standards and data models to support work on the project's next phase -- on-line access to standard geologic map products.

As cited in the USGS Strategic Plan and the Geologic Division Strategic Science Team Report, the intention is to support development of a viable National Geologic Map Database. This is, of course, but one goal among many important management objectives, and limits on staffing and funding will necessitate difficult decisions. Recognition in these two reports of the value of the

Database, and its prioritization through the Geologic Mapping Act as an important Federal and State government responsibility favor evolution of the project into a well-supported information resource for the community.

THE DISSEMINATION OF INFORMATION AT THE KANSAS GEOLOGICAL SURVEY

SORENSEN, Janice (Kansas Geological Survey; Librarian, Email: sorensen@kgs.ukans.edu).

A primary function of the Kansas Geological Survey is the collection and dissemination of geologic information. The results of geologic research, either in the form of data sets, published reports, or maps are to be made available to the public, as mandated by state law. This information supports research conducted by Survey staff, the petroleum industry, environmental and water-related consultants, and the general public. Hard copy records, reports, and maps may be used on-site, purchased, or photocopied upon request. However, with the development of the Internet, the World Wide Web allows for global distribution of many of the Survey's information resources. Petroleum data such as core library holdings, production data, and plugged wells can be accessed electronically. Electric log header information for a portion of the Survey's collection and some well locations files are available as well. Hydrologic data, including water well drilling records, water-level measurements, and reports/maps from programs, such as the Dakota Aquifer Study, can also be accessed electronically. Electronic access is especially important because the greatest need for water-related data comes from western Kansas and the Survey is located in eastern Kansas. The Survey's on-line journal, open-file reports, educational materials, maps, bibliography, and catalogs can be found on the homepage. Future projects are to include electronic access to complete electric logs, drillers logs, measured sections, out-of-print publications, and stratigraphic nomenclature for Kansas. Networking of these data, and links to related sites, is a necessary component of this process. The addition of the staff directory for the Association of American State Geologists to the Survey's homepage permits connecting to other geological surveys with electronic resources. Making geologic information available to a rapidly growing society continues to be a critical issue. However, enhancing this process provides a service to the citizens of Kansas, and research interests as a whole.

GEOSCIENCE INFORMATION SOCIETY
GIS DISCIPLINE SESSION - MTCC / 716A - Tues. 5 PM to 6 PM
(Presiding: Barbara DeFelice, with Patricia Sheahan)

BUILDING A GEOSCIENCE LIBRARY FOR THE NEXT CENTURY OR, YOU CAN GO HOME AGAIN

NEWMAN, Linda P. (Univ. of Nevada-Reno; email: lnewman@unr.edu)

John Mackay made his fortune on the Comstock. His family returned some of that fortune to the state in the form of the Mackay School of Mines building, a classic 1908 structure designed by the leading architectural firm of New York City. Today, the Mackay School of Mines is a 'center of excellence' in a building on the Historic Register, with a library both physical and virtual to serve the next century.

This paper does not focus on the typical evolution of a departmental library, but on the development of a facility, which was considered for demolition, given the requirements of seismic retrofitting. The structure was rebuilt in a method nearly unique for an historic building, using a 'base isolation' method to ensure seismic stability and the interior was renovated to modern code requirements. The geologic re-engineering of the structure will be highlighted with slides taken above and below ground, often on hard-hat tours. But bricks and mortar do not a library make; the structure needed electronic enhancements to meet 21st century technological expectations. The University's first 100Mb Ethernet network was installed linking 30 terminals with either Pentium 133s or 166s that share five networked HP LaserJet 5N printers. Five terminals located in the Map Library have larger monitors to accommodate the GIS projects that will be executed on them and are also linked to a laser color printer. The HP NT server and CD ROM tower provide the backbone to provide remote access to the earth science resources of the DeLaMare Library. This virtual information center reaches beyond the continent to provide access to geoscience materials.

GEOSCIENTISTS' ACCESS AND RETRIEVAL OF JOURNAL ARTICLES IN AN ELECTRONIC WORLD

HALLMARK, Julie (University of Texas at Austin; email: hallmark@gsliis.utexas.edu)

Current trends in geoscience journal publishing, access, and retrieval affect the geologist's information-seeking behavior. Higher prices for journal subscriptions, cancellation of print titles by libraries, increasing availability of electronic journals and indexes, and new communication patterns facilitated by the Internet create a constantly-changing environment for our users.

This study examines the effects of these trends on some 130 geoscientists in academia, government, and industry by: (1) determining how they accessed and retrieved a recent (1996-) reference which they cited in a 1998 journal article and (2) eliciting their opinions concerning problems and issues in geoscience communication.

These data illustrate some interesting contrasts with similar research conducted earlier in this decade and provide a snapshot of current information-seeking behavior, which may aid in collection development decisions.

MINE MAP REPOSITORIES IN PENNSYLVANIA AND THE UNITED STATES

MUSSER, Linda R. (Pennsylvania State University; email: lrm4@psu.edu)

Since the 1800's Pennsylvania law has required mine operators to deposit a map of the mine with the local mine inspector. Drawn by mine operators and engineers using whatever materials were at hand - cloth, canvas, paper, etc. - these maps are unique in the level of information they contain. The materials upon which they are drawn, their age, size, and unique content combine to make mine maps a valuable resource for engineers, geologists and homeowners. Mine maps are housed in various locations throughout the state of Pennsylvania, in state and federal repositories, libraries and private collections. This paper highlights the value and condition of mine maps and describes state and national mine map repositories.

**GEOSCIENCE INFORMATION SOCIETY
ANNUAL FIELD TRIP**

Thursday, October 29, 8:00 am to 4:00 PM

The Geology of Niagara Falls and Vicinity

Join us for a tour of the World Famous Niagara Falls. We'll wind our way from Toronto, through the countryside, to the Falls, while a geologist gives commentary on the local geology. The cost is a mere \$30.00 (US), including lunch. Wear comfortable clothes and shoes and bring a jacket (it may be cool).

Name: MICHAEL NOGA

Address: MIT- SCIENCE LIBRARY, 145-134
77 MASS. AVE
CAMBRIDGE, MA 02134-4307

Phone: 617-253-1290 Fax: 617-253-6365

E-mail: MNOGA@MIT.EDU

Number of people: 1

Total payment enclosed: \$ 30

Lunch sandwich preference: Beef Turkey Veggie

Make checks payable to GIS and send payment and registration to:

Connie Manson
2525 Sleater Kinney Road N.E.
Olympia WA 98506



6th International Conference on Geoscience Information GeoInfo VI

[Note: In previous Newsletters, the dates of the conference were incorrect. The correct dates are September 10-14, 1998]

- Geoscience information specialists from around the world will meet **September 10 - 14, 1998**, in Washington D.C., for the 6th International Conference on Geoscience Information GeoInfo VI. The meeting entitled "Science Editing and Information Management across disciplines . . . across boundaries . . . through time" will include attendance and participation of international science publishers and editors.
- On September 10, 1998, keynote speakers, formal papers, panel discussions will bring into focus for better understanding the broad topics of electronic publishing, ethics, intellectual property, archiving and information retrieval, education and training.
- On September 10, 1998, large and small, bibliographical, graphical or digital geoscience databases will be demonstrated at AGU Headquarters. Workshops will also be offered. That night the welcoming party will officially mark the beginning of the four-day conference.

For More Information :

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