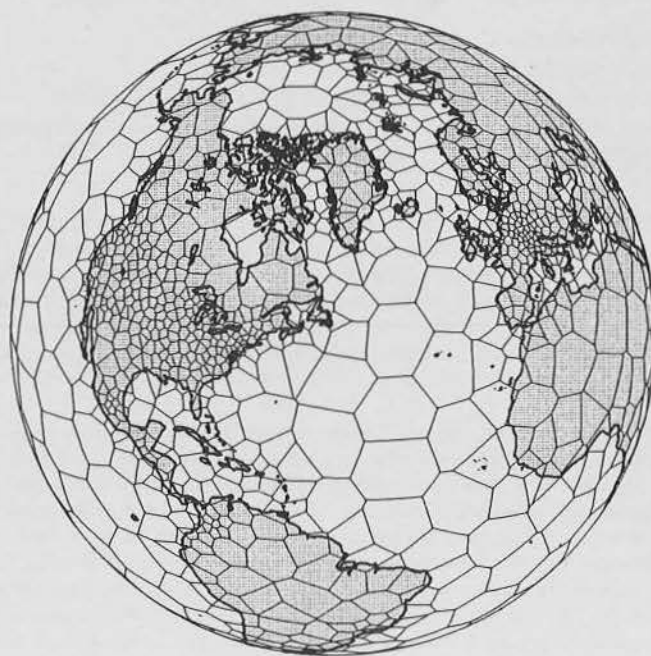

CARTOUCHE

The operational publication of the Canadian Cartographic Association
Revue de l'Association canadienne de cartographie



CARTOUCHE

Number 6. Summer, 1992

numéro 6. l'été, 1992.

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You are welcome (urged!) to submit items to be considered for publication. It is the current policy of the editor to provide dual language copy for editorial content and journal mechanics. All other articles appear in language of submission. While every effort is made to ensure accuracy of content, the editor (*like all cartographers!*) cannot be responsible for errors in compilation, or loss of any item submitted. Opinions expressed in the editorials and submitted articles and letters are not necessarily those of the Canadian Cartographic Association. For advertising policy, please contact the Manager, Roger Wheate.

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(voir page 20). N'hésitez pas à soumettre des articles (vous êtes même priés de le faire!) que vous désirez publier dans le bulletin. Présentement, selon la politique en vigueur, l'éditeur doit publier en français et en anglais, l'éditorial ainsi que la description du processus de publication du bulletin. Le reste des articles paraîtront dans la langue dans laquelle ils ont été écrits. Bien que beaucoup d'efforts sont déployés en vue d'éviter de tels problèmes, l'éditeur (*de même que les cartographes!*) ne seront pas tenus responsables des erreurs de compilation ou de la perte d'articles qui leur seront soumis. Les opinions exprimées dans le cadre des éditoriaux, des articles et des lettres publiées dans le bulletin ne reflètent pas nécessairement celles de l'A.C.C.. Pour ce qui est des tarifs publicitaires, veuillez contacter le responsable de la publicité, Roger Wheate.

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Cover: Tessellation Output from Hipparchus Tutorial and Application Developer Software. See page 11.



The Manager's File/ filière du gérant

by/par

Roger Wheate.

1: New members/membres nouveaux

Carole D'Aoust-Martin,	Toronto
John Teillet,	Winnipeg
David Salter,	Amherst
Serge Bertrand,	Sainte-Foy
Brian Taylor,	Downsview
Tom Chivers,	Downsview
Marie Lefebvre,	Trois-Rivieres
Marc Gaboury,	Montréal-Nord
Pierre-Alain Beauchesne,	Ottawa
Andree Gauthier,	Sainte-Foy
Francois Lange,	Chicoutimi
Guy Dumoulin,	Sainte-Foy
Marc Lemaire,	Sherbrooke
Jean Lauzier,	Montréal
Jean Cameau,	Saint-Nicolas Est
Denis Hebert,	Sainte-Foy
Andre Parent,	Lasalle
Marc Miller,	Sainte-Foy
Richard Mailhot.	Montréal
Louis Laberge,	Québec
René Lessard,	Sainte-Foy
Serge Duchesneau,	Saint-Redempteur
Gaston Perrault,	Outremont
Lucien Grenier,	Québec
Gary Grant,	Dartmouth
Judy Nemeth,	Montréal

STOP PRESS: A note on Cartouche #6.

At the time of the AGM in early June, *Cartouche* #6 had a full slate of content, although not all of it had reached the Editor in time to have it ready for the Montreal meetings. Because the issue would come out after the AGM the President's message had to be updated. However, due to the previous content, there would be little room for reporting on the AGM. More information on the AGM will be found in the *Cartouche* #7, due sometime in late September. (Summer holidays have crashed into the finalization of this issue.)

In the meantime, congratulations to our new executive members: vice president *Alun Hughes*, SIG chairs *Y. C. Lee* (Automation and GIS), *Iain C. Taylor* (History), and *Christine Earl* (Map Design and Use). Our thanks and appreciation go out to *J. Ronald Eyton*, *Philip Stooke*, and *Morrie Portnoff* for standing for office. Our condolences and bewilderment go out to *James Britton* who did not quite understand the question and apparently agreed to serve for a second term in office.

President's message/ mot du président

by/par

Peter Keller.

Greetings. Once again, our annual meeting has come and passed, and it is time to get back to the daily routines and summer activities. Our meeting in Montreal sure was fun. An enjoyable three days of presentations and discussions focusing on contemporary cartographic realities by government, industry and academia were complemented by excellent workshops, a banquet in a historic fort, a double-header baseball game between the Expos and Chicago, fireworks, and of course the usual fine dining and occasional late night one associates with a visit to this wonderful city. I was especially pleased with this year's large number of entries for the President's Prize Competition; keep it up. On behalf of the entire membership, once more a note of thanks to all who helped organize this year's event, and to all who helped make it happen. Start planning to join us next year in Winnipeg, and bring a baseball cap.

I was pleased to observe that map quality and the importance of proper cartographic communication were issues frequently discussed in presentations and during chats in the corridors. Perhaps this is indicative of an emerging trend away from the technology fascination of the 80's towards using technology to improve cartographic communication and the quality of map products. I also observed that there still exists a lot of opportunity to improve the relationships between industry, government, and educators. It became clear from some of the presentations that improved and broadened channels of communication are needed between the three groups to strengthen Canadian excellence in mapping. For example: as an educator, I observed that there still exists considerable confusion with respect to the role and importance of cartographic training versus education, and that the relative roles of colleges, professional schools, and universities are fuzzy. As a researcher, I also was a little disappointed to observe that relatively little if any importance was given to the need for innovative and non-mandated university based research to advance our science beyond immediate applied concerns.

As is customary during our annual meeting, a new executive was elected. Alas, this implied my transition from president to past-president, making this my last presidential message to you. Let me try and summarize some of the highlights of the last year. Thanks to an excellent proposal by Claudette LeBlanc and Garry McManus, we were able to secure ongoing financial support for our society from SSHRC. Thanks to the

OICC and David Douglas, our new associate membership category has gotten off to a tremendous start with well over 100 members. In order to strengthen our ties with other mapping oriented associations in Canada, and in order to tidy up Canadian cartographic representation at the international level, we have signed a memorandum of understanding with the CISM. Thanks to a lot of initial push from Roger Wheate, and subsequent efforts by Alun Hughes, we have a draft for a new *Careers in Cartography* booklet, hopefully to be published this fall. Thanks to a lot of work and effort by James Britton, *Cartouche* continues to grow and flourish. In case you wish to grumble about the occasional delay in receiving *Cartouche*, sit back for a moment and reflect on the amount of volunteer work involved in soliciting items for the newsletter, and in putting it all together. You should know that a year ago, in order to make James' life easier, we made it the responsibility of every executive member to contribute to every issue of *Cartouche*, and that chairs of interest groups are responsible for at least a page an issue. Let's hold them to this official duty; but don't forget to contribute yourself the odd time. Following enquiries about the honorary membership category in our society, we have drafted a policy on honorary membership and other means of handling recognition of distinction to cartography and the CCA. More about this in the next newsletter.

As you can see, we have not been unproductive. Let me finish this report and my term as president by thanking last year's executive for their support, and especially past president Claudette LeBlanc and manager Roger Wheate for keeping me on the right path. Also, bon voyage to our new president Majella Gauthier and this year's executive; safe charting for another year. Volunteer committee responsibilities invariably imply time away from family. A note of thanks therefore to my family, and the families of all the other executive members for their patience in tolerating our commitments to the cartographic community.

Bonjour. Encore une fois notre assemblée annuelle est arrivée et s'est passée et c'est le temps de revenir à la vie quotidienne et de commencer les activités de l'été.

Notre assemblée à Montréal était tellement amusante. Les trois jours agréables qui ont consisté en présentations et en discussions portant sur les réalités cartographiques contemporaines par le gouvernement, par l'industrie et par le monde scolaire étaient complimentés par des ateliers excellents, par un banquet à un fort historique, par deux jeux de base-ball entre les Expos et le Chicago, par le feu d'artifice et bien sur par la bonne cuisine et par quelques soirées qu'on associe avec un séjour à cette ville magnifique.

J'étais particulièrement content de nombreux courants dans la compétition du prix du président cette année continuez! De la part de tous nos membres, merci beaucoup à ceux qui ont aidé à organiser l'événement de cette année et à ceux qui ont aidé à le faire dérouler. Commencez à vous organiser pour nous rejoindre à Winnipeg l'année prochaine, et apportez une casquette de base-ball!

J'étais content de remarquer que la qualité de la carte et que l'importance de la communication cartographique convenable étaient les questions qu'on a souvent discuté dans les présentations et pendant les conversations dans les couloirs. Cela montre peut-être une tendance d'éloigner de la fascination de la technologie des années quatre-vingt à l'utilisation de la technologie pour améliorer la communication cartographique et la qualité des cartes. J'ai aussi remarqué qu'il existe encore tant d'occasions pour améliorer les rapports entre l'industrie, le gouvernement et les éducateurs. Cela est devenu évident de quelques des présentations qu'il faut améliorer et élargir les voies de communication entre ces trois groupes pour renforcer la supériorité canadienne dans la cartographie. Comme éducateur, j'ai observé, par exemple, qu'il existe encore de la confusion considérable en ce qui concerne le rôle et l'importance de la formation cartographique par opposition de l'éducation et que les rôles respectifs des collèges et des universités sont confus. Comme chercheur, j'étais aussi désappointé de remarquer qu'il y avait peu d'importance donné au besoin de la recherche innovative et sans le mandat donné basé à l'université pour avancer notre science au-dessus des intérêts appliqués immédiats.

Comme d'habitude, pendant notre assemblée annuelle on a élu un nouvel bureau. Alors cela a impliqué ma transition de président à ancien président et c'est mon dernier message comme président à vous. Laissez-moi essayer de souligner quelques des événements de année passée. Grâce à un plan excellent par Claudette LeBlanc et Garry McManus, on a pu obtenir du soutien financier en cours pour notre société du SSHRC. Grâce à l'OICC et à David Douglas, notre nouvelle catégorie des membres associés a bien commencé avec plus de 100 membres. Pour renforcer nos rapports avec autres associations au Canada associées à la cartographie et pour arranger la représentation cartographique canadienne à un niveau international, on a signé un memorandum de compréhension avec le CISM. Grâce à un coup de collier initial par Roger Wheate et à des efforts subséquents par Alan Hughes, on a un avant-projet pour une nouvelle brochure *Les carrières en cartographie*. On espère qu'elle aura publiée en automne. Grâce à tant de travail et d'effort par Jim Britton, *Cartouche* continue à brandir. Si vous voudriez grommeler contre le délais de réception de temps à

autre de *Cartouche*, pensez pendant quelques moments à tout le travail volontaire qu'il le faut pour solliciter les articles pour le bulletin et pour le mettre tous ensemble. Il faut vous faire savoir qu'il y a un an, pour rendre la vie de Jim plus facile, on a décidé de faire porter la responsabilité de contribuer quelque chose à chaque numéro de *Cartouche* à chaque membre du bureau. Les présidents des associations sont responsables pour au moins d'un page de chaque numéro aussi. Tenons-les continuer cette fonction officielle, mais n'oubliez pas de contribuer quelque chose vous même de temps en temps. Suivant les demandes de renseignements sur la catégorie des membres honoraires dans notre société, on a préparé les règles en ce qui concerne les membres honoraires et les autres moyens de traiter la reconnaissance de distinction à la cartographie et à l'ACC. On donnera plus de détails dans le prochain bulletin.

Comme vous pouvez voir, on a bien travaillé. Laissez-moi finir ce rapport et mon terme comme président en remerciant le bureau de l'année dernière pour son soutien, et particulièrement Claudette LeBlanc, l'ancien président, et Roger Wheate, le directeur, qui m'ont fait suivre le cap. Bon voyage à notre nouveau président Majella Gauthier et au reste du bureau de cette année. Les responsabilités des commissions volontaires impliquent, sans doute, qu'on doit s'absenter de la famille. Alors, je voudrais remercier ma famille et les familles de tous les autres membres du bureau pour leur patience en tolérant nos charges à la communauté cartographique.

Alaska Highway Commemorated

The Department of Energy, Mines and Resources is celebrating the 50th anniversary of the Alaska Highway with a commemorate map. Produced by the Surveys, Mapping and Remote Sensing Sector, the map shows the Canadian portion of the highway from Fort Nelson, British Columbia, to the Yukon-Alaska border north of Kluane Lake.

"The road was constructed in approximately 250 days, despite harsh conditions: temperatures down to -72C, plagues of blackflies and torrential rains. Some of the construction history of the Alaska Highway is detailed on the map cover," reports a column in the EMR newsletter, *Entre nous*.

Copies of the map may be purchased for \$9.30 by writing the Canada Map Office, 130 Bentley Avenue, Ottawa, Ontario, K1A 0E9; or by phoning the Canada Map Office at (416) 952-7000.

History of Cartography/ histoire de la cartographie

by/par
Jeff Murray

Our Map Collections are Burning

Our libraries and archives are burning out of control. Although the fires can take from 20 to 70 years to make a document unusable, it is quite possible that by the year 2000 the history of cartography, and all other areas of academic research, may face extinction. One United Nations study estimates that, if no one intervenes, these slow-burning fires will probably destroy more of our paper collections in the next ten years, than what have been destroyed in all the wars throughout history. To make matters worst, no library or archives in Canada — or the world for that matter — is isolated from the problem.

The fires have their origins in the onslaught of the industrial revolution. Up until the 1850s, most of the world's paper was made from rag fibre which made a very sturdy and durable product. But when the demand for rag fibre began to exceed the supply, a substitute was found in wood pulp. With the mechanization of the paper making industry in the mid-nineteenth century, wood pulp became very cost effective, and for the first time in history, paper became cheap and plentiful.

But every technological advance seems to have its downside, and so it was with the wood-pulp papers. To turn wood pulp into paper requires the introduction of caustic chemicals. If these are not properly removed from the pulp, which until recently was an expensive process, an acid residue is left behind. When this residue mixes with moisture in the air, the acid eats at the paper fibres, weakening them, causing the paper to become yellow and brittle. If the acid is not completely removed, the paper will eventually turn into dust in about 40-50 years. Alkaline papers, on the other hand, will last almost 10 times longer. In a paper delivered before a colloquium on library preservation, Hans Höller of McGill University estimated that between one-quarter and one-third of all library collections in Canada are already affected by paper acids to the extent that the structure of the paper is damaged and probably should not be handled by researchers. When such items are used, they run the risk of falling apart in the reader's hands. The number of items affected to this extent is thought to be increasing at the alarming rate of 4 to 5 percent per year.

Georgina Lewis at the Elizabeth Defoe Library, University of Manitoba, has confirmed these figures. She has

gone on record stating that, out of her library collection of approximately 1.5 million books, about 400,000 are in danger of being permanently lost.

Regrettably, solutions to the problem are expensive, and in this era of funding cuts, they are not always economically feasible for many of our libraries and archives. A number of institutions have initiated programs to microfilm original documents. Although micrographic media are generally unpopular with most researchers, they at least allow the retention of the information contained in the document.

Mass de-acidification is also possible and such facilities have been built in several institutions across Canada. However, the demand for the service usually exceeds the capacity. And for badly infective records, de-acidification is not necessarily a viable alternative. When the acid is removed from paper, the decomposition process will stop, but it can not be reversed and the paper fibres will remain discoloured and weak.

Both these remedies are currently being used by the National Archives and the National Library. Together they presently operate the largest microfilming and de-acidification facility that Canada has to offer — the National Archives alone has seven cameras microfilming government files and personal papers, as well as an Opti-Copy camera that reproduces maps onto 105 mm microfiche. But despite this impressive line-up of equipment, both institutions usually acquire in a year more paper-based documents than what they can pass through the preservation process.

In recognition of the magnitude of the problem facing our libraries and archives, the Canadian Group of the International Institute for Conservation last year established a Committee on Paper Permanence. The Committee will be lobbying both government and industry on the importance of using alkaline paper for paper-based collections.

Their efforts have already paid off to some extent. Last January Canada's Communications Minister, Perrin Beatty, announced the government's decision to print publications, which have long-term value, on alkaline paper. "This decision reflects a world-wide movement to protect printed heritage which is currently in danger of disappearing," said the Minister in a news release earlier this year. "This initiative demonstrates the government's commitment to safeguard our collective memory and will enable librarians and archivists to continue to meet the needs of future generations of Canadians."

In response to this change in federal policy, the Department of Energy, Mines and Resources Canada's major

map producer recently began using alkaline paper in the production of some of its topographic maps. Although this change will definitely help the curators of the future, it does not solve the problems that older paper records face.

Unless our libraries and archives receive a massive increase in the resources they require for preservation programs, it will be impossible for researchers to undertake any historical research in future. And without reference material, there will be no history of cartography for the next generation.

People and Places

The **National Archives of Canada** recently announced the opening of a new records centre in Saint-Augustin-de-Desmaures, a suburb of Québec City. The Centre will provide 7,800 square metres of climate-controlled storage for some 197,000 boxes of government documents and 49,500 computer tapes, microfilm reels and diskettes. The Centre is primarily intended for the 24 federal ministries that operate in Québec City and surrounding region. Through a special agreement, the new Records Centre has also accepted 180,000 documents and other printed materials, some dating more than 400 years old, from the Séminaire de Québec. Unfortunately, the Centre is already filled to capacity and now the National Archives is busy planning an expansion for another 50,000 boxes of federal records expected in 1992.

Facing a \$US 6.3 million debt, London's **Royal Commonwealth Society Library** closed last December. Founded in 1868, the library contains more than a half million maps, books, photographs, and other records on the British Empire. To date, there have been no decisions as to the disposal of the library materials.

At its 25th anniversary conference last summer, the **Association of Canadian Map Libraries and Archives** honoured two of its longstanding members, **Hugo L.P. Stibbe** of the National Archives of Canada, and **Yves Tessier** of Laval University. Both recipients were chosen unanimously by the Awards Committee for their outstanding contributions to map librarianship.

Last April, Canada's National Archivist, **Dr. Jean-Pierre Wallot**, was officially appointed an officer of the Order of Canada. Dr. Wallot received the award in recognition of his distinguished career as historian, university professor, and high-ranking public servant.

After 25 years as Map Curator at the University of Western Ontario, **Serge Sauer** has retired. In honour of his contribution to the university, the Department of Geography has renamed the map library *The Serge Sauer Map Library*. CCA member **Cheryl Woods**, who

has worked in the library for the past 12 years, is the university's new Map Curator. (See article, page 12.)

The **Archives of Ontario** recently announced the acquisition of the earliest birth, marriage, and death registrations from Ontario's Office of the Registrar General. The birth records cover the period from 1869 to 1896; the marriages from 1869 to 1911; and the deaths from 1869 to 1921. The records of later years are still retained by the Registrar General. Although these earliest vital statistics contain some information gaps, the registers will still be of significance for anyone interested in studying Ontario's historical demography. For further information, please write the Archives of Ontario, 77 Grenville Street, Toronto, Ontario, M7A 2R9; (416)327-1600.

In honour of its 150th anniversary, the **Geological Survey of Canada** recently released *No Stone Unturned: The First 150 Years of the Geological Survey of Canada* by Christy Vodden. The 52-page booklet is available in both English and French and may be obtained, free of charge, by writing the Geological Survey of Canada, 601 Booth Street, Ottawa, Ontario, K1A 0E8.

If you are travelling across Canada this summer you might like to visit one of the special exhibits commemorating the 150th anniversary of the **Geological Survey of Canada**. In Quebec City, the Musée du Séminaire de Québec in Quebec City has put together the 12-month exhibit *Sous la loupe du géologue, 150 ans d'histoire*; in Calgary, the Glenbow Museum will be featuring *150 Years of Science*; in Ottawa, the National Archives of Canada will be showing *Who knows Anything of its Geology: Photographs by the Geological Survey of Canada*; and in Vancouver, the Pacific National Exhibition will be showing *Earthly Riddles*. Beginning 1st October and running to the end of 1992, the National Archives of Canada will also be exhibiting "Geological Maps of Canada: Their History and Evolution." Compiled by the GSC, the exhibit will focus on advances made in geoscience knowledge as well as the dramatic changes that have occurred in geological mapping technology. The twelve 4 ft. x 6 ft. panels comprising the exhibit are available for circulation to other institutions throughout 1993. For further information, please contact Ms. Beverly Chen, Map Librarian, Geological Survey of Canada, 601 Booth Street, Ottawa, Ontario, K1A 0E8; (613)995-4177.

The International Society for the History of Cartography in collaboration with the Hermon Dunlap Smith Center for the History of Cartography at the Newberry Library, Chicago, recently posted their first call for papers for the **15th International Conference on the History of Cartography**. The conference will be held in Chicago, 21st - 25th June, 1993. A meeting of the Inter-

national Society of Curators of Early Maps (ISCEM) will immediately precede the conference, and the **11th Kenneth Nebenzahl Lectures in the History of Cartography** will immediately follow. Conference papers and poster presentations must relate to one or more of the following themes: Mapping the Americas; Commercial Mapmaking; Cartography and Mathematics; the Aesthetics of Cartography; Cartography and Statecraft; Cartography and Religion. Abstracts of proposed papers and poster presentations should be received by the conference secretary by the 1st September, 1992. For further information, please contact the Conference Secretary, c/o Hermon Dunlap Smith Center, The Newberry Library, 60 W. Walton Street, Chicago, Ill., U.S.A., 60610-3380.

Technical Notes

Optical Storage Technology Provides Access to Documents on Spain's Exploration of the New World

As part of Spain's 500th anniversary of the rediscovery of the New World by Christopher Columbus, more than 9 million maps, letters, art works, and state records documenting the Spanish exploration of the western hemisphere are part of a unique optical storage project. The collection includes original documents dating as early as the Columbus voyages and one of the oldest surviving maps of the Americas. The latter is thought to have been drawn by Amerigo Vespucci, after whom the Americas were named. With the assistance of Spain's Ministry of Culture, IBM Spain, and the Ramon Areces Foundation (a private organization), 15 scanners worked a double-shift to transfer more than 5 miles of documents onto 450 optical disks. The system sits on an IBM Application System/400 in the Archivo General de Indias, which was originally established by King Charles III in 1785. The Seville repository offers researchers a chance to view the documents on high-resolution monitors or to have copies made on laser printers.

With all the interest that the Columbus quincentennial celebrations are sure to generate in Spain's colonial records, the optical disks will help to save the original records from further degradation through excessive and improper handling. As well, the new technology has enabled the Archivo General to increase the number of users it serves. By providing a satellite link to the Huntington Library in San Marino, California, new world researchers now have equal access to the records without having to undertake arduous overseas travel.

Newsletters on Image Technology from the National Archives

In the spring of 1989, the National Archives of Canada launched two new newsletters on image technology:

Image — An Imaging Technology Newsletter and *Focus On*. The publications have as their target audience information managers, especially those responsible for acquiring goods and services in the image management and micrographic fields.

Image features news about technological developments and offers advice for micrographic coordinators on using micrographic and optical disks to manage records. It also provides reviews of the latest articles and books in the records management and micrographic fields.

Focus On is issued as a supplement to *Image*. It reports mainly on image management standards, such as those issued by the Canadian General Standards Board (CGSB), the Association of Information and Image Management Standards (AIIM), and the International Standards Organization (ISO). The last issue, for example, describes some of the latest standards issued by the ISO for microfilming technical drawings and newspapers. Issue number five outlined the CGSB criteria for establishing microfilm programs that are acceptable under the federal and provincial Evidence Acts.

As government departments and major corporations across the country move increasingly towards microforms and computer records as part of their information holdings, archivists will eventually have to face some of the issues raised by records managers in these two publications. *Image* and *Focus On* are issued quarterly and usually number 2 - 4 pages per issue. Through their short and concise style archivists can keep informed about the micrographic and image management fields without having to wade through a lot of technical jargon.

Both publications are available free of charge from the Government Records Branch, National Archives of Canada, 395 Wellington Street, Ottawa, Ontario, K1A 0N3; fax (819)953-5714.

On Men, Sex, and Space.....

Male Testosterone levels are lowest in the spring, presumably a natural strategy to reduce the number of winter births in humans. Psychologist Doreen Kimura of the University of Western Ontario reports that male sexual desire is inverse to spatial reasoning ability. Kimura states that men perform better in spatial reasoning in the spring when testosterone levels are lowest. Does this mean that male students will not do well on mapping or GIS assignments in autumn semester courses? Should Cartographers take holidays from September to October? What do *you* think?

Education/ Education

by/par
Marcia Faurer

This year, the University of Winnipeg is conducting a curriculum review with each department being charged with reviewing its own curriculum. As a member of the Geography's committee, I was to assess the "techniques" courses in the department. These include our statistics and spatial analysis courses as well as the cartography and GIS courses. I felt that the cartography course set-up was lacking and was unhappy about the decision (made before I arrived here) to cut the "Introductory Computer Mapping" course from a full to half course because there was not enough to teach in a full course! We have one introductory cartography course that deals with manual techniques and a few basics (including graphs). However, this course is not a prerequisite for the computer mapping! There is also an honors computer mapping half course and one GIS half course, and that is all. I thought that I was alone in my dissatisfaction about the lack of appreciation for this field, but found out that, in fact, this was not the case. I received written support for my presentation to the committee from both the President and Manager of the CCA which I distributed to the other committee members. They seemed surprised to find that I had some impressive support and at least their attitudes improved. I realize that certain accommodations have to be made due to budgets and facilities, but I felt that I had accomplished something by opening some eyes to the importance of Cartography in Geography. By the end of the meeting, I had convinced them that this was one of the few course areas that applied to students of all geographic interests and that there should be more cooperation among the faculty members so that they could use the courses and the facilities for their honors students' projects. Not only had their eyes opened, but the Department Chair now wants me to propose a new project-oriented cartography course that would work in conjunction with other courses. What is my point here? Actually, there are 2. First, this is an excellent example of how valuable this Association is in providing the type of support that I received (and for which I am very grateful). Secondly, this is a topic which obviously needs more discussion among the membership of the CCA. This issue is on the slate for discussion in Montréal and I will be including any discussion in future columns. If you have thoughts on the issue, I would be happy to hear of them. Cartographic Education needs our collective voice.

Map Design and Use/ Conception et utilisation des cartes

by/par

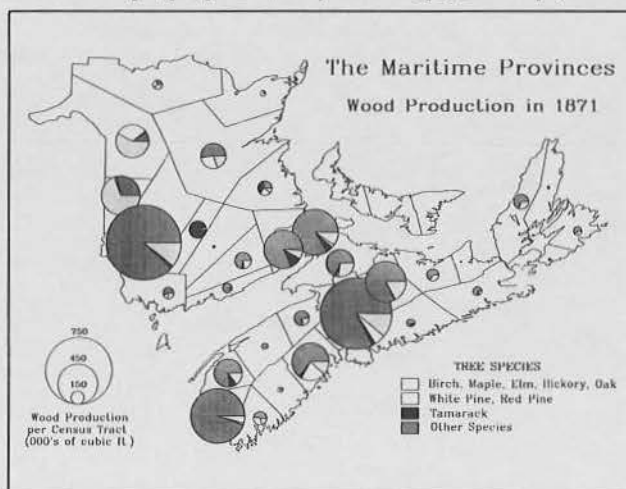
Janet E. Mersey

Atlas•MapMaker (Version 1.0) for Windows - Beyond Choropleth Mapping

Atlas•MapMaker is a menu-driven PC-compatible program designed for the production of presentation quality thematic maps. The program is a product of Strategic Mapping Inc. (4030 Moorpark Ave., Suite 250, San Jose CA 95117) who also market Atlas•Pro and Atlas•GIS. At US\$595 per copy, Atlas•MapMaker is their least expensive mapping product.

The system requirements for Atlas•MapMaker include a 286 or higher processor with 2 MB RAM, 40 MB hard disk space, and Windows 3.0 or higher. A variety of output devices are supported; I used a HP Paintjet printer for colour maps and a NEC Silentwriter Laser printer for black and white maps. Only a limited range of boundary file formats are accepted (.bna, .bnd, .dxf, .tif) and the package contains no digitizing capabilities. A catalogue of available boundary and attribute files (mostly for the USA) comes with the program.

The program has three big advantages: 1) it is very easy to use and can be learned quickly, 2) the range of data symbolization techniques available is impressive compared to other PC-based mapping programs and 3) the program is very flexible in terms of map design elements such as layout and map annotation. The thematic map types that can be created include choropleth maps, dot distribution maps, proportional symbol maps, bar maps, sec-



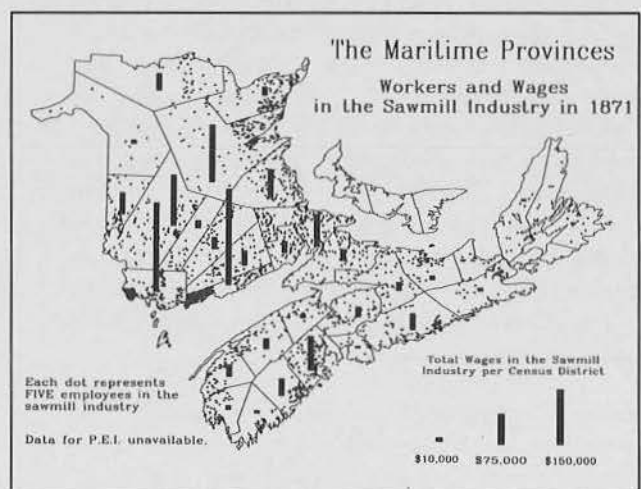
Sectored circle maps can be produced with a constant or data-dependent circle size. The nested legend was created using the toolbox to draw and edit objects.

tored circle maps, three dimensional "prism" maps, and basemaps with qualitative points, lines or area symbols. In addition, several techniques can be combined on the same map (about 35 layers are allowed). With a bit of creativity some very interesting multivariate maps can be designed.

Colours can be selected from a default palette or new colours can be created as percentages of red, green and blue. A variety of line styles, fill patterns, and text fonts are also available in any colour. Selected map areas can be exploded and insets can be produced. Tool icons are used to perform many functions such as zooming, selecting, sizing, and drawing symbols and text. Default legends tend to be less than optimal but a custom legend can usually be produced easily with the draw tools. Using the clipboard, symbols and text can be imported from or exported to other Windows-supported programs. The manual is nicely laid out and easy to follow, and telephone technical support is very helpful.

This program is not intended to be a GIS. Although a database manager is included for data entry and some statistical manipulation, the selection of features based on queries, spatial analysis, buffering, distance calculations, address matching and true polygon overlays are also not supported. Acceptable data file formats include SYLK, ASCII, Lotus and Excel.

Atlas•MapMaker's real strength lies in its capability to generate many traditional thematic map types often overlooked by other mapping programs. If you are tired of software programs that shamelessly employ choropleth maps to represent every type of data, Atlas•MapMaker is definitely worth checking out!



Bar maps can be created by making the height of the symbol, rather than the area, proportional to the data values. The dots are randomly placed within small census sub-districts not shown on the map.

MEMBER PROFILE: Gudmund Ingvarsson Reykjavik, Iceland.

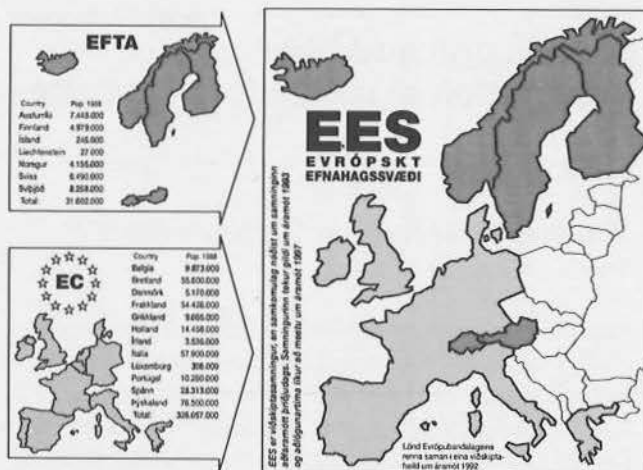
by/par
Roger Wheate

Gudmund "Gummi" Ingvarsson (pictured below) is the CCA's only member in Iceland. He is also the only person in this European island nation of about 250,000 people to hold a degree in Cartography, which he received from the University of Madison-Wisconsin in 1981, with CCA contemporaries Janet Mersey and Jacqueline Anderson. Since there is only one university in Iceland, it is common for students seeking higher training to go overseas.



Since returning to Iceland in 1981, he has taught the three courses in cartography at the University of Reykjavik, in the capital city where over half the nation's population resides. However, as this constituted only part-time employment, he gladly accepted a full-time position with *Morgunblaðið*, the country's leading daily newspaper, where he now generates the maps and graphics in a team of 3. Since 1988, this has been done largely using Aldus Freehand on Macintosh, as are supplemental maps, which he has produced for hiking guides. A sample map, showing the relationship between EFTA and the EC, appears at the top of the next column (at reduced size).

Iceland's topographic maps are available widely in bookstores and tourist facilities (in contrast to Canada's 'top secret' policy!). Although Gudmund is not involved with the national series and their production, some of the 'Landmaelingar Islands' employees responsible for map production were once his students. From scales of 1:1,000,000 up to special areas at



1:10,000, the series are a somewhat mixed bag: the earlier series by the Danish before World War II, and later series in conjunction with the U.S. DMA. They have just begun to produce their first map sheets independently.

Given the small size of the country and its population, I asked him over a coffee if he regretted leaving North America. He is not overly optimistic about Iceland's future, as he says ... "we are getting to the end of our resources". Iceland is heavily dependent on fishing, and has few forest resources, perhaps explaining why in contrast to the other Scandinavian countries, geographic information systems are virtually absent. He fondly recalls how in the U.S., almost every day in summer, he could go out without a shirt. Leaving the Scandinavian Centre, we both did up our jackets.

Back in the Reykjavik 'downtown', we visited the Post Office, where Gudmund presented me with a special issue triple stamp depicting a 1539 map of Iceland (below). I reciprocated with a CCA lapel pin.



Roger Wheate met Gudmund Ingvarsson while on vacation in June 1991. The CCA executive has rejected his proposal to have the Association fund his travel to meet other CCA members in exotic locations.

HIPPARCHUS TUTORIAL AND APPLICATION PROTOTYPER SOFTWARE

Just released by Geodysey Limited of Calgary, this publication introduces both the concepts and practical applications of Hipparchus. Hipparchus (*the Greek*) developed the rudimentary trigonometry and latitude/longitude based location recording and computation system: the first truly practical numerical geopositioning paradigm which was not restricted to a small area of "flat Earth". Hipparchus (*the product*) is a vector-algebra based software development tool used to organize and deal with digital geopositioning data. It provides unrestricted numerical representation of non-simply connected point, line and area sets, evaluation of their unions and intersections, and orbit and sensor view geometry computations. The modelling honors the unbounded, spheroidal nature of the data domain. The metrics of the model meets a sub-millimeter precision level of the geometry of an ellipsoid of rotation. A unique spherical domain partitioning scheme accelerates the computations and provides an index for seamless, global data base systems.

The theoretical base for this product was first introduced in an AUTO CARTO 8 paper by Calgary geodesist (and CCA member), Hrvoje Lukatela. The full product is a tightly optimized library of some 200 functions.

About The Tutorial

Consisting of some 210 pages and 29 illustrations, the Hipparchus Tutorial (ISBN 1-895723-01-9) takes you one step at a time through the concepts and applications of this remarkable technology. Written in lay language by Ron V. Gilmore, it is designed to be read by computer application architects and programmers. A knowledge of C programming is useful, but not required for a general understanding.

The Application Prototyper

As an additional bonus, ready-to-run PC software is provided that lets you explore the functionality of Hipparchus in stunning colour graphic displays. You can also create your own application prototypes, using the scripting capabilities provided. Functions include the creation and manipulation of geographical objects as well as their time-relationship with remote-sensing satellites. Displays are stereographic, orthographic and Mercator. Included is the 60-page Application Prototypers' Guide, which describes in detail the scripting commands you can use. To run the Application Prototyper, you need an Intel 286 or better micro-processor with 640K RAM, and an Intel 287-compatible Math co-processor.

How To Get Hipparchus

The Hipparchus Tutorial and Application Prototyper is available from Geodysey Limited at 300, 815 - 8th Avenue S. W., Calgary, Alberta T2P 3P2 or call 403-234-9848 or fax 403-266-7117. Price is \$59.95, shipping charges and G.S.T. extra. Corporate cheque, purchase order or personal Visa accepted. The complete Hipparchus Development Product is also available at \$549.00.

GEOSCOPE

More than 500 years ago, Christopher Columbus ventured towards the new world using the stars as his guide. Today, we explore our world from space using earth observation satellites. This year, to celebrate International Space Year (ISY), the Canadian Space Agency (CSA) is developing *Geoscope*, also called interactive Global Change Encyclopedia, a computerized database on the environmental phenomena observed by various satellites over the last decade. Numerous space agencies and international organizations have contributed data for inclusion in Geoscope. These include: the National Aeronautics Space Administration (NASA), the National Oceanic and Atmospheric Administration (NOAA), Spot Image, the United Environment Programme (UNEP), to name a few.

The Canada Centre for Remote Sensing (CCRS) has been given the job of producing the encyclopedia in collaboration with the Canadian private sector. Geoscope comes with software that allows the user — whether a scientist or a high-school student — to explore and analyze such global phenomena on planet Earth as vegetation, pollution, ocean temperatures, atmospheric currents, and endangered animal species. With Geoscope, users will be able to produce real computer-assisted lessons or scenarios supported by texts, images, photos and maps.

Geoscope integrates images from maps, socio-economic data, and 10 satellites with software to help you understand how natural forces and human beings interact. It enables the viewer to compare images over periods of time in order to assess the impact of environmental change.

To access Geoscope, users will need an IBM PC 286 (or higher) or compatible. Maximum use of the system requires a 287 coprocessor, a VGA (or super VGA) graphics adapter, a colour screen, a mouse and a CD-ROM reader. Geoscope will be available in November 1992. For more information on the project, please contact: Marie-Claude Durand, Canadian Space Agency at (514) 496-4212

Map Library Dedicated in Honour of Serge Sauer

by
Cheryl Woods

The Department of Geography recognized the accomplishments of a recently retired colleague by dedicating the Map Library in his honour. In a ceremony on 10 January, the library was officially named the *Serge A. Sauer Map Library*. Friends from throughout the University and the community gathered at the Map Library for the unveiling of its new nameplate. Sauer was also presented with an "Outstanding Service Award" from the Ontario Division of the Canadian Association of Geographers.

As Map Curator for twenty-five years, Sauer created and developed the collection at Western and bears primary responsibility for the Library's national and international reputation. From a small collection of teaching maps at the time of his appointment in 1966, it has developed into what the *World Directory of Map Collections* describes as "the major regional centre for cartographic material" and "the largest university map collection in Canada."

The Library is particularly well known for its role in reproducing relatively rare historic Canadian maps. As a founding member of the Association of Canadian

Map Libraries and Archives, Sauer initiated an historical facsimile project to preserve and popularize cartographic Canadiana. With 135 maps in the collection (100 produced at Western), it is the largest existing series of reproductions of Canadian maps.

Located in Room 1051 of the Social Science Centre, the Map Library maintains a comprehensive, well-balanced collection of general and highly specific maps and atlases for all areas of the world. Holdings consist of approximately 223,000 individual sheet maps and 2,500 atlases, in addition to relief maps, models, globes, slides and satellite images. All BA, MA, MSc, and PhD theses of the Department of Geography are held in the Map Library. Special collections include a complete set of Canadian topographical maps of all scales, topographic maps by the United States Geological Survey, an entire set of navigational charts for Canada, Canadian fire insurance plans for several urban centres, and the Great Lakes Cartographic Resources Centre. A unique resource is its "time series" collection of Canadian maps, a set of sequential editions of the standard map sheets published by federal cartographic agencies. These collections make Western's Serge A. Sauer Map Library the ideal cartological laboratory and instructional unit. It is used for a variety of purposes by the University community, business and government employees, researchers, genealogists, teachers, and the general public.



The dedication of the Serge A. Sauer Map Library, University of Western Ontario. Left to right are: Prof. Don Janelle, Chair, Department of Geography; Geography Professor Emeritus Edward Pleva; Dean of Social Science Emöke Szathmari; Serge A. Sauer, retired curator of the Map Library; and Cheryl Woods, the new curator.

WHAT IS A CHARTERED CARTOGRAPHER?

by/par

David Douglas

(President of the OICC)

Now that the Ontario Institute of Chartered Cartographers (OICC) membership has joined the CCA, "en masse", so to speak, I am often asked a number of questions. The first one is: "What is a *Chartered Cartographer*?"

I might answer that by beginning with an analogy. The obvious one is a "Chartered Accountant", in that it uses the similar terminology.

It is an accreditation issued to those deemed qualified by those already practicing in the field. In other words it is an accreditation issued by a self-regulating authority. Accountants must take appropriate oaths of proper practice and possess certain identifiable skills, as defined by the self regulating bodies.

The accreditation "Chartered Cartographer" applies to one accepted as such by other Chartered Cartographers and who agrees to comply to a code of professional ethics.

Is it a licence to practice?

The accreditation Chartered Accountant is not a *licence to practice*. This is evident in the yellow pages of the phone book which has separate categories for *accountants* and *accountants (chartered)*, but I suppose those with the chartered accreditation must do better in the competition, or command higher prices etc. Being chartered does not even imply that anyone not so chartered is not permitted to practice accounting. The government even demands of us complete non-experts that we do a considerable amount of accounting, as everyone knows around income tax time. So an accreditation is not necessarily a licence.

There is no *licence to practice* implied with the Chartered Cartographer accreditation either. There is a spectrum of accreditation types: from the highly restricted ones like a licence to practice medicine. People without the accreditation are in violation of the law if they do practice medicine. The other end of the spectrum might be a boy scout badge for lighting camp fires, ... if there is such a thing. I suppose the degree of restriction is related to the amount of damage one is likely to do, and that this becomes very important if there is vast economic opportunity in the practice.

But let me point out two things with respect to the highly regulated and controlled field of medicine. First, it is the doctors themselves and their association that define the standards and set up the institutions to ascertain the standards are being met. It is not the government, thus it is self-regulating. The second thing is that their control over the field is not absolute. Other groups can, and do, push into the area, sometimes to the chagrin of the medical profession, like the optometrists, chiropractors, osteopaths, etc. I am just making the point that even the highly regulated and restricted profession of medicine has limits on its power to licence.

What are the institutions that run the Chartered Cartographer?

There is only one. It is an Institute that has obtained *Letters Patent* from the Government of the Canadian Province of Ontario. It is the *Ontario Institute of Chartered Cartographers*.

The only one in Canada, you mean?

The only one we know of in the World. We know that British Columbia Cartographers and Quebec Cartographers at least looked into the possibility of obtaining similar "Letters Patent" but did not obtain them.

Why can't the CCA issue a Canada-wide accreditation?

It would have to become an incorporated Company to do so. Let me say also that the OICC already issues a Canada-wide accreditation. In fact it issues a World-wide accreditation. The fact that it is an Ontario Corporation does not restrict its "geography" at all.

Does that mean that the Ontario Institute of Chartered Cartographers is an incorporated Company?

Yes it is.

That must be expensive?

It would be for the CCA, or any other organization to do it now, but it was within the budget capability for the OICC when it did it in 1959.

What does it cost to maintain the charter?

For the type of incorporation "letters patent" by which the OICC issues charters, as a non-profit institute, it costs nothing to retain it. The only requirement is for the President to submit a report listing the elected Board of Directors to the Ontario Ministry of Consumer and Corporate Affairs annually.

Why must an accreditation body be an incorporated company?

In the extremely unlikely occurrence of a bad product produced by a Chartered Cartographer causing damage, it is possible to conjure a scenario of the Institute being held liable for an improper accreditation. In the case of an incorporated company the only thing against which a law-suit could be directed are the assets of the Corporation. The individual members would be immune to any action. A worst case fantasy would have the accrediting corporation writing off all its assets and disbanding. The chances of this ever happening is just about zero but it is enough to make it unwise for a learned society, for instance, to begin issuing an accreditation without being incorporated to do so.

How many Chartered Cartographers are there, or were there?

When interest was at a maximum there were nearly 500. Interest has been declining for a number of years so that now membership is about 120. When the OICC began in 1959 it was the only association for cartography in Canada, thus it operated as an accrediting body, learned society, publisher of a journal and a newsletter, and had annual conventions, but it did all of these things operating as an Ontario association. Many of these functions have been taken over by the CCA, resulting in many years of unproductive competition and dis-economies of scale. Many members left to join the CCA, thus giving up their "Charter".

Shouldn't the OICC simply disband and encourage its members to join the CCA?

It has been proposed and discussed, but that would mean losing the World's only incorporated accrediting body for cartography. This would be a shame, all the more so since in recent years a number of members of the CCA, and people from abroad, have been calling for some kind of accreditation methodology for cartography and GIS people. I say we have one. Let's try to expand its universal appeal.

How can that be done?

Well we can start by reducing or removing elements in text and on certificates etc., that make it appear to be a parochial Ontario accreditation. There is nothing in the fact of having "letters patent" from the Ontario Government that requires it to operate exclusively for residents of Ontario, and this applies equally to the composition of the Board of Directors, etc. A number of steps are underway to do exactly this. Secondly, steps can be taken to, not only reduce, but to completely eliminate functional competition with the CCA. There will be more proposals on this later.

CONFERENCE REPORTS

ASSOCIATION OF AMERICAN GEOGRAPHERS

San Diego, April 1992

Having attended the Association of American Geographers Conference (AAG 92) in San Diego, let me report to you on this event. This year, the AAG's Cartography Speciality Group put together eight sessions, focusing on cartography and culture, cartographic teaching methods, design in risk mapping, innovation in digital nautical charting, visualization of spatial data quality, and a student paper competition. Amongst the student papers, animation in cartographic design appeared to be the vogue subject.

Thirteen additional sessions were organized by the GIS Speciality Group and another eight by the Remote Sensing initiative. The GIS sessions had strong emphasis on spatial analysis, spatial data and applications. Two sessions organized by David Mark, one on "Interacting with Geographical Information", the other on "Representation of Geographic Information" were of particular interest to cartographers. One of the GIS sessions I especially enjoyed was one organized by the NCGIA on "Facilities for Teaching GIS". A member of the audience was overheard commenting after the session that the discussion had been like an alcoholics anonymous meeting. Panelist after panelist narrated the same trials and tribulations experienced when lobbying for, setting up, and running GIS teaching facilities. Alas, if you are out there doing it right now, and you feel miserable and lonely, give us a call.

Those of you who know me well enough no doubt question whether I did actually attend any of the sessions at the AAG, given the attraction of the America's Cup on San Diego's waterfront. Indeed, the sailing looked very impressive; but against my better judgment, I did manage to drop in on the odd paper. All considered, the conference was good value for those interested in a combination of cartography and sailing.

PICS/URISA CONFERENCE

Sidney, B.C., May 1992

The Pacific Institute of Cartographers (PICS) and the Urban and Regional Information Society of America, B.C. Chapter (URISA) jointly hosted a one day workshop on "Information for Land Use Conflict Resolution" in Dunsmuire Lodge, Sidney, Vancouver Island. The day commenced with a presentation on sustainability and information needs by Chuck Conaghan, chair of British Columbia's "Round Table on the Environment and Economy". This was followed by Greg Roberts from British Columbia's "Commission on

Resources and the Environment", talking about new directions for land use and the role of land information. Next was David Forrest from the DMR Group in Victoria elaborating on GIS and land information in regional planning. A presentation by David Loukidelis, president of the British Columbia Freedom for Information and Privacy Association gave an overview of B.C.'s new freedom to information act and its implications to land information. Bill Cafferata from Mac-Millian Bloedel outlined costs to his corporation and to society associated with land information collection and planning to respond to reactions to logging in the Carmanagh Valley. Prof. Hans Schreier from UBC brought us back to reality by outlining what can be done with few dollars if motivations are right, and if bureaucracy and politics surrounding land related information initiatives can be avoided. The speaker's sequence was completed by a presentation by Malcolm Gray from B.C.'s Survey and Resource Mapping Branch, outlining how satellite imagery and digital topography can be used to build provincial databases.

Presentations were followed by a lively and sometimes controversial six member panel discussion including Dave Gilbert (Director, Inventory Branch, Ministry of Forests, B.C.), Prof. Tom Poiker (Geography, SFU), Prof. Peter Keller (Geography, UVic), Raoul Wiart (Audit and Planning, Forest Services, B.C.), Ray Travers (Independent Forester, B.C.), and Pieter Becker (Chair, B.C.'s Coastal Inventory Tourism Committee). Discussion focused on what to do with information once collected, the role of knowledge and qualitative information in land use inventories, the use of remote sensed data to map land use versus land coverage, and how building a GIS inventory relates to purchasing and assembling a BBQ for a social evening on your patio.

Winnipeg's 5th Annual GIS Applications Colloquium

On May 1, the 5th annual GIS Applications Colloquium was held in Winnipeg at the University of Winnipeg. About 70 people attended this year and 9 papers were presented. Opening addresses were given by Dr. Marsha Hanen, President of the University of Winnipeg and by Dr. Bill Rannie, Chair of the Geography Department at the University of Winnipeg. In her welcoming remarks, Dr. Hanen noted the diversity of the speakers and of those in attendance, with government, business, and education represented. Dr. Rannie discussed the incorporation of GIS into the Geography Department in 1988 as a part of the Computer Mapping course, and its complementary role to our remote sensing certificate program.

The fact that this Colloquium has always focused on applications has meant that the registrants and presenters have represented a broad range of backgrounds and topics. This year they included:

- local MLA, Reg Alcock, who applies GIS technology to study the demography and issues of his and other ridings;
- University of Winnipeg student, Arnie Waddell, whose work involves conservation in the Pembina Valley;
- Grant Forsman from the Manitoba Crop Insurance Corporation which is working on developing a cooperative project that includes the city, crown utilities, and private industry to ultimately establish a Manitoba Land Related Information System;
- Dr. David Sauchyn from the University of Regina discussed his work in modeling soil loss from agricultural land in Saskatchewan;
- George Orning, Vice-President of the International Coalition for Land and Water Stewardship in the Red River Basin joined us from Minnesota and raised the important issues of data-base acquisition (particularly across the boarder) and the need for citizen involvement;
- Dr. Mary Benbow of the University of Manitoba presented her research on the dimethyl sulphide feedback loop in oceans its role in climatic change;
- the City of Winnipeg's land based information system was presented by Henry Dyck and Brian Lund of the Land Surveys and Real Estate Department;

We also had two demonstrations this year, one from Tronica Computers which showed Macintosh capabilities and MAP II, and one from the City of Winnipeg which illustrated the system discussed in the paper presentation.

Although it only took one day to present these 9 papers, it is always important to remember that they represent many more long, and often frustrating, hours of work. If it were not for these applications, there would be no reason to have GIS at all.

Next year, the Colloquium will be held in conjunction with the CCA Conference in Winnipeg! So we hope that you will be able to extend your visit for the conference by one day to attend the Colloquium (it would be a welcome change to have a few more cartographers present).

Conference reports are welcome from all members. What you did (or did not) get out of a conference is of value as a future reference to other members who are deciding how to spend hard-earned and fast dwindling funding that is available for conferences.
Editor

1992 PRESIDENTS PRIZE COMPETITION WINNERS

This year saw an exceptionally large number of entries for the president's prize competition. Congratulations to all of you who entered; it made for a true competition. It is perhaps unfortunate that winners have to be selected; a very difficult task this year. My thanks to the judging panel for succeeding in singling out what in many cases was one or two amongst close equals.

MONOCHROMATIC MAP/CARTE MONOCHROME (Introductory Course) presented this year in honour of Malcolm Brown.

"Territorial Demands of Native Nations of Quebec"
by Dave Néron, UQAC.

MONOCHROMATIC MAP/CARTE MONOCHROME

"Halifax Harbour"
by Ken Francis, MUN.

COLOUR MAP/CARTE EN COULEUR (Topographic)

"Vancouver, B.C."
by Marcel Morin, COGS.

COLOUR MAP/CARTE EN COULEUR (Thematic)

"The Mariana Trench"
by Mike Vansteenkiste, SSFC.

JOURNALISTIC MAP/CARTE JOURNALISTIQUE

"Zebra Mussels: Great Lake Invasion"
by Ted Vint, COGS.

INNOVATIVE COMPUTER MAP/UNE CARTE INFORMATISEE INNOVATRICE

"Digital Map Comparison Series"
by Brentos S. Carey, COGS.

BEST STUDENT PAPER PRESENTATION/LE MEILLEUR EXPOS FAIT PAR UN(E) ETUDIANT(E)

Charlotte Bell from McGill University for presenting "A Digital Elevation Model of Erosion: Depositional Patterns in the St. Lawrence River" and Sylvain Thériault from Université de Montréal for presenting "Etude de l'Efficacité des Cartes de Quartier de la STUCM en Terme d'Orientation Spatiale".

NORMAN NICHOLSON SCHOLARSHIP AWARD

Gary Mark Jurkowski, COGS



Calendar/Calendrier

NACIS XII

The North American Cartographic Information Society (NACIS) will hold its twelfth annual meeting at the Ramada Inn in St. Paul, Minnesota, October 14-17, 1992. The Society is a young, interdisciplinary organization whose goal is to promote communication, coordination, and cooperation among the producers, disseminators, curators, and users of cartographic information. The NACIS membership includes professionals from government, academic, and private organizations in Canada, the United States, Mexico, the Caribbean, and Central American Nations.

The program for this year's meeting will include such topics as cartographic activities in Latin America and Canada, spatial development in children, cartographic education, design, mapping software, geographic information systems navigation, and map library technology. There will be a mixture of contributed papers, discussions, exhibits, and field trips. In addition a full-day workshop on animated cartography will be offered (registration for this workshop is limited).

For information contact

Dr. Jeffery C. Patton,
Program Chair for NACIS XII,
Department of Geography,
University of North Carolina at Greensboro,
Greensboro, NC. 27412.
Tel. (919) 334-5388.

1992, Oct/oct 20-21

Geomatics Atlantic

Halifax, Nova Scotia
Sponsor: Maritime Geomatics Board
Info: Angela Buckles
Geomatics Atlantic Registrar
Maritime Geomatics Board
P.O. Box 2044
Halifax, NS. B3J 2Z1
(902) 424-8577 FAX (902) 424-8577

1992, Nov/nov 10-12

GIS/LIS '92

San Jose, California
Sponsors: AAG, ACSM, ASPRS, URISA, &
AM/FM International
Info: 5410 Grosvenor Lane, Suite. 100
Bethesda, MD. 20814-2122
(301) 493-0200 FAX (301) 493-8245

1993, Feb/fev 08-11

Ninth thematic Conference on Geologic Remote sensing

Pasadena, California
Info: Robert Rogers
ERIM
Box 134001
Ann Arbor, MI. 48113-4001
Tel: (313) 994-1200, Ext. 3382,
FAX: (313) 994-5123.

1993, Feb/fev 15-18

GIS '93

Vancouver, British Columbia
Info: Symposium Office, Suite 305
1040 Hamilton Street
Vancouver, BC. V6B 2R9
(604) 688-0188 FAX (604) 688-1573

1993, Feb/fev 16-18

ACSM/ASPRS 1993 Annual Convention

New Orleans, Louisiana
Info: 5410 Grosvenor Lane, Suite. 100
Bethesda, MD. 20814-2122
(301) 493-0200 FAX (301) 493-8245

1993, Mar/mar 23-25

The Candian Conference on GIS

Ottawa, Ontario
Sponsor: EMR Canada, CISM, &
Inter-Agency Committee on Geomatics
Info: 615 Booth Street
Ottawa, ON. K1A 0E9
FAX (613) 952-0916

1993, May/mai 03-09

16th International Cartographic Conference 16e Conférence Cartographique Internationale

Cologne/Köln, Germany
Sponsor: ICA
Info: 16th ICC Cologne 1993
AKM Congress Service
Clarastraße 57 P.O. Box CH-4005
Basel, Switzerland

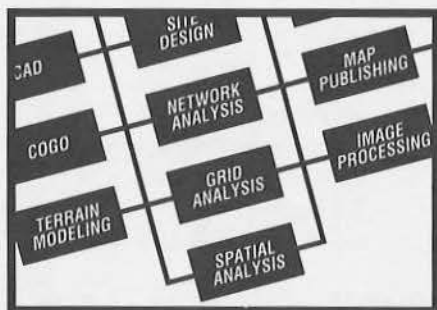
1993, June/juin 08-11

Canadian Institute of Surveying and Mapping Canadian Hydrographic Service Joint Conference

Toronto, Ontario
Info: P.O. Box 186
Station Q.
Toronto, ON. M4T 2M1
(416) 336-4812 FAX (416) 336-8916

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Corporate News

CORPORATE MEMBERS (1991/92)

Bell Canada,	Toronto
Chefford Canada Ltd.,	Ottawa
Defense Mapping Agency,	Washington, D.C.
J.M.Ellis,	Metcalfe, ON
ESRI Canada,	Toronto
GeoVision Corporation,	Ottawa
Idrisi Project,	Worcester, MA
Intera Tydac,	Nepean, ON
Intergraph Canada,	Calgary
Intergraph Corp.,	Huntsville, AL
Map Art,	Etobicoke, ON
Metric Mapping,	Calgary
National Atlas Info. Services,	Ottawa
Northern Online Micro Services,	Hay River, NWT
PAMAP,	Victoria
Projections Mapping Group,	Calgary
Stanley Associates Ltd.,	Calgary
John Wiley and Sons,	Toronto

ESRI® and VITec Announce ARC/INFO® Support for RasterFlex™ Accelerators

ARC/INFO now supports VITec's line of RasterFlex Raster Accelerators for Sun SPARCstations™. The availability of the 24-bit ARC/INFO on a graphics card specifically designed to meet the needs of users demanding high performance color imagery fills an important gap in the third party products arena for SPARCstations.

One of the primary attractions of UNIX/RISC workstations to GIS users is their superior price/performance rating, providing the necessary compute power to support integrated spatial data systems such as ARC/INFO. The RasterFLEX provides graphics display functions to match ARC/INFO and exploit the power of SPARC®. With this announcement, users can now use both vector graphics and 24-bit raster imagery in the same integrated system.

InRoads part of Intergraph Solution for Road Design

InRoads, a software package developed by Intergraph for engineering firms to design roads and highways, has been installed at Kanata Ontario civil engineering firm A. J. Robinson & Associates Inc. InRoads and In-Flow, a storm drainage design program, are part of an integrated system running on an InterPro 2020 workstation along with MicroStation 32. Two MS-DOS 486 personal computers running the PC version of MicroStation complete the three machine system. Design files will be shared by all three machines.

**THE CANADIAN
HYDROGRAPHIC SERVICE**

and

**THE CANADIAN INSTITUTE
OF SURVEYING AND MAPPING**

Invite you to the

**1993 SURVEYING AND
MAPPING CONFERENCE**

TORONTO, CANADA

**LE SERVICE HYDROGRAPHIQUE
DU CANADA**

et

**L'ASSOCIATION CANADIENNE
DES SCIENCES GEOMATIQUES**

vous invite à la

**CONFERENCE DES SCIENCES
GEOMATIQUES 1993**

JUNE 8-11 JUIN, 1993

The conference theme "Celebrating Our Heritage, Charting Our Future" will allow in-depth discussions on tomorrow's predictions, today's advances and yesterday's achievements, and will feature the culmination of the year-long authentic construction and in-conference demonstration of a 1792 vintage sounding launch.

National and international authors are currently being invited to present papers at plenary, concurrent and poster sessions.

Look for new opportunities at the exhibition of latest equipment and services by companies from surveying and related disciplines.

The classic Royal York Hotel in downtown Toronto will be your host. Enjoy the comfort of the hotel's modern facilities, just a short walk or ride from a wide variety of entertainment, restaurants, dinner theatre or a Blue Jays baseball game at the SkyDome.

Renew old friendships and make new contacts at a variety of social events. Luncheon and evening events are planned to ensure an unforgettable experience.

The annual general meetings of the Canadian Institute of Surveying and Mapping and the Canadian Hydrographic Association will be held during the conference.

Le thème de la conférence "Fêtons notre héritage, traçons l'avenir" assurera des discussions sur les prédictions de demain, les progressions d'aujourd'hui et les succès d'hier, incluant le résultat de la construction d'un bateau de levé authentique de l'époque 1792, de même qu'une démonstration hydrographique des années passées.

Des auteurs nationaux et internationaux seront demandés de présenter des exposés scientifiques et techniques à des sessions d'affichage, plénières, et concurrentes.

Des expositions de compagnies commerciales seront de la partie; ceux-ci identifieront leurs derniers services et nouvelles techniques offertes par rapport aux levés et sciences connexes.

L'hôtel "Royal York" localisé au centre ville de Toronto est l'hébergement officiel de la conférence. Profitez du confort et des facilités modernes de cet hôtel situé à quelques minutes de marche d'une variété de divertissements, restaurants, théâtres ou partie de balle au SkyDome avec les "Blue Jays".

Renouvelez d'anciennes amitiés et profitez de nouvelles relations par une variété d'engagements sociaux. Les déjeuners et les diners sont organisés afin d'assurer une visite mémorable.

La rencontre annuelle de l'Association canadienne des sciences géomatiques et l'Association canadienne d'hydrographie aura lieu lors de cette conférence.

**FOR MORE INFORMATION ABOUT ATTENDING,
PRESENTING PAPERS, EXHIBITING EQUIPMENT
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1993 Surveying and Mapping CONFERENCE des Sciences Géomatiques, 1993
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The Canadian Cartographic Association l'Association canadienne de cartographie

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Instructions for Cartouche contributors/Directives pour le collaborateur de Cartouche.

Content Deadlines are: January 31, April 30, July 30, October 31.

Les dates limites pour l'envoi d'articles ou de documents sont les suivantes: 31 janvier, 30 avril, 30 juillet, 31 octobre.

Cartouche is produced using Ventura Publisher 2.0., operating under MS-DOS 5.0.

Acceptable Formats for content are:

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ASCII text files in all PC or Mac diskette formats

Also acceptable: PC-DOS (Format 5.25/3.5") Wordperfect (4.0-5.0), Multimate, Wordstar (3.0-5.5).

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