Cartouche

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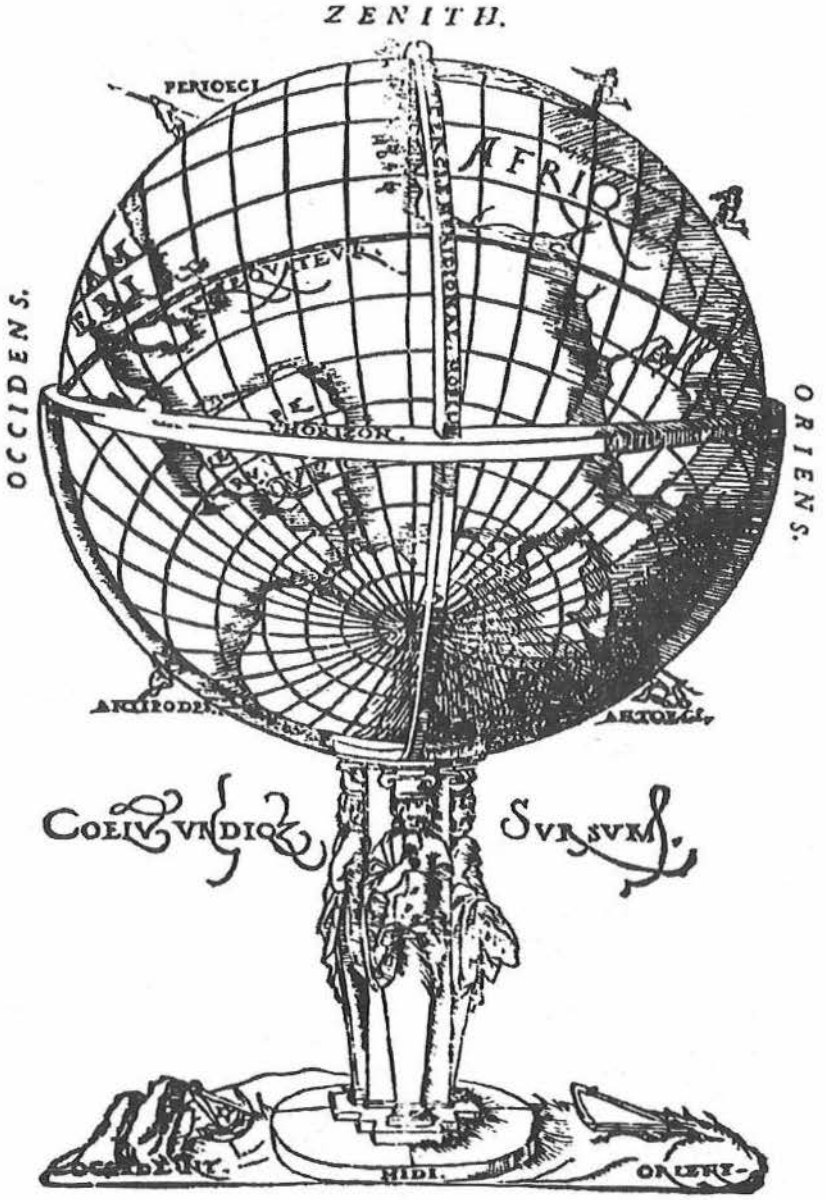

Sixteenth century globe (Cosmographia Petri Apiani, 1551)
Seizième globe de siècle (Cosmographia Petri Apiani, 1551)

Note early deadline (April 15) for annual meeting in Ottawa, registration form enclosed.
Notez la date limite tôt (15 avril) pour la réunion annuelle à Ottawa, fiche dans cette issue.

Cartouche is published quarterly by the Canadian Cartographic Association. Members are welcome to submit articles for publication. Articles and notices submitted for publication are subject to editorial approval. Please address your submissions to the editor. It is the policy of the editor to provide dual language copy for editorial content and journal mechanics. All other articles will appear in the language of submission. While every effort is made to ensure accuracy of content, the editor cannot be responsible for errors in compilation, or loss of any item submitted. Opinions expressed in the editorials, submitted articles and letters are not necessarily those of the Canadian Cartographic Association. The Canadian Cartographic Association gratefully acknowledges the financial support given by the Social Sciences and Humanities Research Council of Canada.

Cartouche est publié triméstriellement par l'Association canadienne de cartographie. N'hésitez pas à soumettre des articles que vous désirez publier dans le bulletin. Les articles et annonces soumis pour parution sont sujets à l'approbation de la rédaction. Veuillez les adresser à l'éditeur. Selon la politique en vigueur, l'éditeur publié, en français et en anglais, l'éditorial ainsi que la description du processus de publication du bulletin. Les autres articles paraîtront dans la langue dans laquelle ils ont été écrits. Bien que beaucoup d'efforts soient déployés en vue d'eviter de tels problèmes, l'éditeur n'est pas tenu responsable des erreurs de compilation on de la perte d'articles que 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'Association canadienne de cartographie. L'Association canadienne de cartographie remercie vivement le Conseil de recherches en sciences humaines du Canada pour son apport financier.

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Deadline for the next issue is:
May 1, 1999

La date limite pour la prochaine publication est:
1 mai 1999

Rorschack's Map / Carte énigmatique

Congratulations to Peter Van Demark, winner of last issue's blot, **the Mississippi River**. The state of Tennessee borders the east side of the river while Arkansas and Missouri are to the west. Peter receives a copy of *The Elvis Atlas*. The continually shifting channel means constant updates to maps and navigational charts. When an oxbow is cut off, parts of states can end up isolated on the other side of the river.

Félicitations à Peter Van Demark, gagnant de la tache de la dernière issue, le fleuve du Mississippi. L'état du Tennessee encadre le côté est du fleuve tandis que l'Arkansas et le Missouri sont à l'ouest. Peter reçoit une copie de l'atlas d'Elvis. Le canal continuellement de décalage signifie les mises à jour constantes aux cartes et aux diagrammes de navigation. Quand un oxbow est découpé, les parties d'états peuvent terminer vers le haut d'isolement de l'autre côté du fleuve.

Wanted, Newsletter Editor / Voulu, éditeur de bulletin

At the last Executive meeting, I informed the Executive of my decision to resign as editor of the newsletter. An increase in my workload and other commitments make it impossible for me to continue as editor. The next issue (#34) will be my last production. The Executive is now actively searching for my replacement, due to start with #35 immediately following the ICA in August. If you are interested in becoming the next editor of *Cartouche*, please contact myself or one of the members of the executive.

Lors de la dernière réunion exécutive, j'ai informé le directeur de ma décision pour démissionner comme éditeur du bulletin. Une augmentation de ma charge de travail et d'autres engagements le rendent impossible pour que je continue comme éditeur. La prochaine issue (# 34) sera ma dernière production. Le directeur recherche maintenant activement mon remplacement, dû au début avec #35 juste après l'ACI en août. Si vous êtes intéressé à devenir le prochain éditeur de *Cartouche*, contactez-vous s'il vous plaît ou un des membres du directeur.

Inside this issue / *Sommaire....*

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GIS and Map Output

Roger Wheate
University of Northern British Columbia

La Nina has brought mucho snow as promised, enabling me to ski the 10 km (6 miles) through the forest to work each day, and have plenty of time to write down my thoughts for this issue. Unfortunately with the effects of age, I have usually forgotten my thoughts by the time I get to my office.

Over the last few months, many members of the cartographic community have been busy putting together the program for the ICA conference in Ottawa in August. The paper and poster sessions have primarily been organised by members of the CCA and ACMLA: for details, check out the web site at: *www.geog.uvic.ca/ica1999/* Although the registration fee is a bit higher than usual CCA and ACMLA annual meetings, you will be able to attend a whole week of activity covering every aspect of cartography. Don't forget the early deadline: $325 before April 15, $800 after April 15; **this is not a misprint!** Canadian societies arranged a special deal, but you must commit by April 15. Students can get a much reduced price or free entry by volunteering (teachers, please let your students know this).

It is encouraging to see so much interest in a conference on cartography, when so much attention these days has shifted to GIS, cartography's formerly adolescent child, that has finally grown up. Yet for most GIS users, map output is a critical component, at which many are less than knowledgable. A piece of map output showed up in the lab, with a scale of 1:507,633. Now come on, could it not have been just a wee bit bigger and been 1:500,000, but then again, perhaps this is exactly the equivalent of 1" to 8 miles? Maybe the maker redeemed him/herself in the scale statement below: "1 inch equals 199856 centimetres" . . . yowser, it is hard to be more wrong than this (and isn't 1" about 2.54 cm?) The GIS'er could benefit from a little basic cartographic training.

It was this kind of map-gobbledegook that made me exercise my prerogative and add the new category in the President's Prize "Best map output from GIS," open to all CCA members, not just students. It was also to honour our departed presidents Malcolm Brown and Marcia Faurer, who were both animated by 'bad maps' and would have groaned louder than I at the previous scale statement. Although we may add student maps in this category, I am hoping production mappers or teachers out there will show the students a thing or two. Perhaps if there is enough interest, we can generate a trophy to be prized, a GIS "Oscar" with two spheres symbolising cartography and GIS, Malcolm and Marcia (the 'M & M'!).

The explosion in GIS has created much extra work for those in education, along with increased interest in graphic images and soul-searching among cartographic societies. Is cartography a 'mere subset' of GIS according to one CCA Past-president or is it the other way round? What role does the quality of output have in your perception of the GIS industry? Should cartographers (and the CCA) reunite with the geomatics industry as a whole to form an umbrella GIS group, as outlined in a recent proposal (see Cartouche 31). My personal feelings are . . . well this will be in the next issue.

I always enjoy the letters section of magazines and newspapers, but sadly members rarely send any viewpoints to the Cartouche editor. If you have any thoughts, please don't hesitate to send a note directly to him, or if you just have some thoughts, I might work into my next column, send to me with permission to quote or otherwise: it is your newsletter. Don't forget that April 15 deadline for the annual meeting early registration.

Video Review: "Data for Decision"

by Roger Wheate, UNBC

Data for Decision was produced in 1967 by the National Film Board (NFB) to document the Canada Geographic Information System, the world's first GIS. It has only recently 'returned from the vault' in video, to mark its 30th anniversary. It was successful back then in persuading the Canadian government of the wisdom of investing in new technology, despite cutbacks (remember the 'Avro Arrow'?). In the words of team leader, Roger Tomlinson: It was the days of Kennedy and putting men on the moon: there was extreme excitement in government and science; 'if you can dream it, you can do it'.

The film shows a technology years ahead of its time, and developments in GIS that only became commonplace two decades later. When the video was first shown in 1996, it received a standing ovation, and it was warmly applauded in my GIS class (it takes a lot to get a class to give a standing ovation!); I could not imagine now any introductory course in GIS not using this video, especially in Canada, the 'birthplace of GIS'. It's like the Arrow but with a happy ending: 2 thumbs up for 'data for decision'.

Data for decision is a 22 minute video and can be ordered in Canada for $25 + Shipping and handling and taxes = $36.26 from: Tomlinson Associates Ltd., 17 Kippewa Drive, Ottawa, Ontario K1S 3G3 Please make cheques payable to: "Tomlinson Associates Ltd. Consulting Geographers" (sorry no credit cards) Customers in the USA and overseas, or anyone wanting to use credit card, please contact ESRI.

SIG et carte rendements

Roger Wheate
University of Northern British Columbia

La Niña nous a amené, comme prévu, une bonne quantité de neige, me permettant ainsi de skier tous les jours, mes 10 kilomètres à travers la forêt pour me rendre au travail et du coup, me donnant le temps nécessaire pour rédiger mes réflexions pour ce numéro de Cartouche.

Depuis plusieurs mois, plusieurs membres de la communauté cartographique sont à pied d'oeuvre pour préparer les conférences de l'ACI qui se tiendront au mois d'août prochain, à Ottawa. Les conférences et sessions d'affichage ont été essentiellement organisées par des membres de l'ACC et de l'ACCA : pour plus d'information veuillez consulter le site Internet : **www.geog.uvic.ca/ica1999/** Bien que les frais d'inscription sont légèrement supérieurs à ceux pratiqués normalement lors de nos rencontres annuelles, soyez assuré que la semaine de l'événement sera riche en activités qui couvriront l'ensemble du monde cartographique. N'oubliez pas de vous inscrire au plus tôt car après le 15 avril, les frais d'inscription passerons de 325$ à 800$ (vous avez bien lu!!!). Les associations canadiennes profiterons d'arrangement spéciaux si elles ont pris des arrangements avant le 15 avril. Les étudiants pourrons se prévaloir d'un tarif réduit ou gratuit selon leur implication bénévole (nous demandons aux professeurs de le faire savoir aux étudiants).

C'est encourageant de voir le grand intérêt suscité par ces conférences en cartographie alors qu'aujourd'hui, les yeux sont plutôt braqués vers les SIG, la cartographie est passée d'un monde d'adolescence à celui des adultes. Actuellement, pour les utilisateurs de SIG, les résultats cartographiques constituent une composante critique que plus d'un semble ignorer. Vu dans un laboratoire, une sortie cartographique au 1:507 633. C'est incroyable que l'on produise encore des cartes avec des échelles aussi batardes alors, qu'il aurait été plus simple, plus pratique d'ajuster l'échelle du document pour qu'il soit au 1:500 000 (équivalent de 1"=8 milles). Il est possible que le concepteur ait défini lui-même le rapport échelle suivant : 1"=199856 cm ... on ne peut être plus dans l'erreur que cela considérant que 1"= 2,54 cm, n'est-ce pas? Les géomaticiens profiteraient beaucoup à suivre de bons cours d'initiation à la cartographie ou à consulter de bons cartographes.

C'est ce genre d'ineptie qui m'a poussé à créer une nouvelle catégorie de Prix du Président : "La meilleure carte issue d'un SIG". Cette catégorie est ouverte à tous les membres de l'Association (étudiants, professionnels ou autres). C'est également en hommage à nos regrettés Présidents Malcolm Brown et Marcia Faurer qui, étaient eux aussi, contrariés par ces cartes de mauvaises qualités et qui auraient grogné encore plus fort que moi en voyant cette échelle batarde. Bien que les cartes des étudiants font partie de cette catégorie, j'espère que les entreprises productrice de cartes et les enseignants pourront nous faire profiter de leur savoir-faire. Si l'intérêt devient manifeste, nous créerons un trophé, une sorte "d'Oscar" des SIG, constitué de 2 spères symbolisant la cartographie et les SIG, Malcom et Marcia (les M & M).

L'explosion des SIG a généré un supplément de travail pour ceux qui oeuvre en éducation, parallèlement avec l'augmentation de l'intérêt dans les représentations graphiques et les prises de conscience par la communauté cartographique. La cartographie est-elle dépassée par les SIG comme le mentionnait notre Président sortant ou est-ce l'inverse? Quelle doit être notre perception de la qualité du traitement cartographique produite par l'industrie? Devrait-on fusionner les cartographes (et l'ACC) à l'industrie de la géomatique comme un tout sous la forme d'un regroupement parapluie de SIG, tel que décrit dans une récente proposition (voir Carouche #31)? Mon impression c'est que .... je vous réserve la suite pour le prochain numéro de Cartouche.

J'ai toujours apprécié la section du courrier dans les journaux et les magazines, malheureusement, comme les membres de l'Associatin nous font rarement parvenir leur point de vue, ce lieu d'échange n'existe pas dans Cartouche. Il n'est jamais trop tard pour bien faire, n'hésitez pas à faire parvenir une note, un message, un article ou un point de vue directement à l'Éditeur de Cartouche, il appréciera vos contributions, de même il en sera pour la communauté. Après tout, c'est votre bulletin de nouvelles. J'en profite encore une fois pour vous rappeler cette date importante du 15 avril, date limite d'inscription aux Conférences annuelles à moindre coût.

Michael Coulson has stepped down as editor of Cartographica. Brian Klinkenberg is now the editor of Cartographica.

Michael Coulson a fait un pas vers le bas comme éditeur de Cartographica. Brian Klinkenberg est maintenant l'éditeur de Cartographica.

Building for the Next Millennium

Michel Fournier
Cartologique

Everyday thousands of maps are produced in the world and every day we can look at them in a newspaper, a book, a magazine or on TV. Use of cartography in new technologies such as the Internet give us a further dimension to the art and science of cartography. Nevertheless, it reminds us how basic cartographic and semiologic rules have made great progress and also a step backwards.

We cannot, of course, hinder the progress made in cartographic computer evolution. However, we can maintain high quality standards in cartographic production. Standards are well defined and must be respected, particularly in daily use, even if the cartographer's survival does not seem obvious with time.

Opportunities for cartographers are minimal or in decline, but prospects in geomatics seem more attractive. Outside university and exceptional private enterprise operations, thousands of maps are published throughout the country. This does not translate into more work for cartographers, as non-cartographers who are not hardened to cartographic semiology or map language do a large portion of map production. A map that does not reflect the content of accompanying text or data, usually results in a meaningless map of questionable quality. This situation is very serious and worrying because it marks the beginning of the decline of the professional cartographer and opens the door to "packaged" maps used in any conditions and usually of substandard quality.

What we can do to avoid this? If we want better control of our destiny, we should become more active in our environment throughout the map production process. In that spirit, I encourage you, loyal readers and members of the Association, to participate in a study that will help us to understand map publishing better and those involved in it. From my point of view, it is time to track down those in the field of cartography, to find the real use of maps and what mapping should be (is there a distortion between reality and theoretical use?). Who are these "mapmakers," whose maps we see in numerous publicity folders, tourism guides, newspapers and so on . . . ? Who is producing these maps?

What's the use of cartographers if their work is unknown!...

This study will consist of drawing up an inventory of the largest map producers throughout the country and assessing their work. A synthesis of the information gathered will be published in *Cartouche*. From that point, we will develop a strategy to dispel misconceptions about cartography, cartographers and maps, in the agencies concerned (for example, in the communication agencies). With better knowledge of our "world" we will be in a position for developing tools that will help us increase public awareness about cartography.

To bring this study to a successful conclusion, your contribution is important and will consist of making contacts with the newspaper or magazine editors of your region, the directors of the regional tourism association or others known map producers in your community and ask them the following questions:

- Who is in charge of cartography, what is his or her profession?

❑ Cartographer ❑ Graphic artist
❑ Geographer ❑ other (specify)

- What is the importance of maps in the publication?

- What is the profession of the map producer?

❑ Cartographer ❑ Graphic artist
❑ Geographer ❑ other (specify)

- How long does it usually take to make a map?

❑ 1 hour ❑ 2-4 hours ❑ 1 day
❑ More than a day (specify)

- Do you sometimes appoint a cartographic consultant?

❑ Yes (specify) ❑ No (specify)

- What is your knowledge about the cartographic work?

- What are your needs regarding cartography?

- Do you sometimes use services from mapping specialized agencies (eg.: Reuter, AFP, . . .)? If so, who ?

- If you were aware of a cartographer in your proximity, would you use him or her as a consultant? If not, why (state reasons)?

NOTE : You may also ask some pertinent questions if the discussion goes in that direction and if it is pertinent to the study.

You can pass on all information by E-mail: (*acsg_mtl@mlink.net*), by fax: (514) 522-6712 or by mail to: Michel Fournier, 1853, boulevard Pie-IX Montréal, H1V 2C7. If you come across some examples of maps of questionable quality, please mail them to me, I will use them for a session on bad maps at our next conference (do not forget to identify the source).

I thank you all for your help, your cooperation will be greatly appreciated.

The Impact of Maps on Conservation Planning

Brian Klinkenberg
University of British Columbia

Normally in my articles I write from the perspective of a cartographer. For this article I have decided to view cartography and GIS from the perspective of an outside discipline. In particular, I will consider how the emergence of computer cartography and GIS has affected a data-intensive discipline such as the life sciences. The observations I make are, in the end, applicable to more than just the life sciences–witness the explosion of texts relating the use of GIS to archaeology, planning, ecology, etc.

Although life science data gathering has been ongoing since the first botanists explored the nooks and crannies of Canada, detailed inventory work increased in scope and intensity throughout the twentieth century. Floras, site inventories, faunal atlases became the norm in the 1980s. However, it does appear that efforts to catalogue Canada's biodiversity received a "shot in the arm" with the advent, first of computer databases, then, more significantly, with the advent and eventual "global" use of Geographic Information Systems.

The appearance of Conservation Data Centres in Canada in the 1990s, modelled after those developed by the US Nature Conservancy, was a significant and major attempt to coordinate and coalesce biodiversity data. Nevertheless, it was with the arrival and widespread acceptance of GIS that biodiversity cataloguing became "legitimized" in the eyes of planners, funding agencies, and government.

Why did GIS make such data gathering suddenly not only legitimate, but also desirable? We speculate here that the ability of GIS to "package" data and present it visually in a way that planners and others could relate to played a significant role in this process. For the first time, biodiversity moved from the realm of dry paper lists of Latin names of interest only to ecologists and other scientists, to exciting, visually colourful, easily packaged, "sexy" information. This transition from "list" to "information may be the catalyst that not only made this sexy, but added a sense of excitement to the idea of cataloguing this country's diversity and the diversity of the planet in general. For the first time, key players in the funding of biodiversity cataloguing could access this data in a way that clearly showed the limits of knowledge, through spectacular graphs, maps and tables, and in tandem with this, clearly showed the immense amount of knowledge that we lacked.

The constant drive by planners and government agencies to "get a handle" on the problem (for example: how much was being lost in a particular situation, or how much we could afford to lose), was finally put in perspective. Visualization through the production of maps played a key role here, allowing the "layperson" an insight into what botanists, zoologists and ecologists had grasped all along. Now data sets, and subsets, can be extracted with ease and presented in ways that highlight weaknesses in knowledge.

We also speculate that GIS has allowed in a way for the human mind to identify what is known and to turn on the "collector" in each viewer that would in the end say "we are missing this, we'd better go get it." Knowledge gaps are easier to grasp.

The ease with which GIS can not only handle data, but make it compatible with and available to other global initiatives, allowed for a strengthening of a world perspective on the issue of biodiversity. Efforts by agencies such as the Nature Conservancy, the World Wildlife Fund, and the UN Environmental Program, had laid the foundation for just such an approach to biodiversity, by clearly laying out the need and necessity for such data gathering, but GIS was the catalyst for making it a reality.

With the arrival of GIS to handle biodiversity data gathering, there is, in a sense, no going back. We now know too much, and we now know the immensity of what we are missing. But, more important, we can easily and readily identify the missing pieces, thus allowing funders easy packages to target for funding proposals, and scientists well-defined identification of gaps.

Although data gathering would have been ongoing and continuous without GIS, my premise is that, in a sense, GIS has lent hybrid vigour to the process. Biodiversity knowledge and databases have exploded.

Look, for example, at the variety of ways in which data in now being gathered and presented. CDC's are making information readily available on endangered and vulnerable species, as well as plant and animals communities and ecosystems. Researchers are now able to target gaps at regional levels, and at species and ecosystem levels. The drive to ensure representation of all the planet's biodiversity, like Noah and his Ark, has provided a focus for this work such as we have never seen.

Without the visualization aids, and data presentation abilities, of GIS, we speculate that the excitement and sexiness of biodiversity cataloguing would have continued to trudge along on the back pages of research. GIS, however, has changed all that, stimulating both researchers and students to attack this problem with a vigour that is new and significant.

In addition, because GIS underscores the problems inherent in accuracy of data, and the need for that data to be comparable at all levels, new efforts have been made on the parts of the data gatherers to provide more accurate location information, and more precise information tags on the data they capture. GPS has played a key role here, allowing unheard of precision in locational infor-

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Canadiana Database to Include Cartographic Records

James Murray
National Archives of Canada

Last summer witnessed the passing of a significant milestone for our colleagues in the Association of Canadian Map Libraries and Archives. After a thirty-year lobbying effort by the Association, the National Library of Canada has finally agreed to include bibliographic information on maps in its listing of Canadiana titles.

Since the early 1950s, the National Library has distributed its Canadiana titles • that is, titles legally deposited in the Library by Canadian publishers • to public institutions and individual researchers. This program has been made possible under the Library's mandate for the preservation and promotion of Canada's published heritage. At first the bibliography was limited to books and was itself disseminated in the traditional book format. However, with production costs increasing due to the ever growing size of the bibliography, the Library switched to a microfiche format in the early 1970s. The growing popularity of inexpensive electronic publishing has now allowed the National Library to embrace CD-ROM technology. This latest venture has provided the Library with an avenue for expanding the scope of the national bibliography to include not only a wider variety of media, but works in other national collections as well.

In its CD-ROM format, Canadiana: The National Bibliography now contains an incredible 1.2 million bibliographic and authority records. It lists and describes publications produced in Canada and titles published in other countries, but only if they have a Canadian subject matter or are written by a Canadian author. Full bibliographic entries are provided for books, monographs, serials, theses, microforms, government publications, sheet music, sound and video recordings, and CD-ROMS. Bibliographic records for cartographic items are supplied by the National Archives of Canada and are based on its extensive collections of government and non-government maps, atlases, and globes in traditional paper-based formats, and also microforms and electronic.

The search function included with the CD-ROM is fast, intuitive, and fully functional in both official languages. Cartographic entries, for example, can be searched by using a variety of fields: name, title, date, publisher, and/or geographical coordinates (longitude and latitude). The search result can be displayed in a number of forms, including MARC format to facilitate the downloading of the record into other databases.

The first release of the CD-ROM was unveiled last June in Victoria at the annual conference of the Canadian Library Association. It offers bibliographic records on Canadiana published between the years 1973 and 1997. The next release of Canadiana, which is due out this summer, will include all the Library's records on items published before 1973 and entries from the Canadian Institute for Historical Microreproductions (CIHM). Eventually the Library hopes to have the CD-ROM updated on a quarterly basis.

"We see Canadiana on CD-ROM as an ideal complement to information that we are currently making available through Access AMICUS," the Library's Director of Bibliographic Services, David Balatti, is quoted saying in the June issue of the National Library News. "The CD-ROM offers extensive functionality for both the library professional and independent researcher, and makes the national bibliography available to a wider audience."

Further information about the National Library's Canadiana: The National Bibliography can be found on their Web site, see http://www.nlc-bnc.ca. Demo diskettes are available from the Library's Marketing and Publishing, phone (613)995-7969.

People and Places

Gilbert Bland's amazing adventure in the antique map trade was the subject of a feature article in last November's issue of Saturday Night Magazine. Writer Jim Beatty chronicles the Florida map dealer's theft of some 250 maps from nineteen prestigious North American collections. Armed with nothing more than a shape exacto knife, Bland systematically combed the archival collections of such well known institutions as the University of British Columbia, the George Peabody Library, Johns Hopkins University, and Duke University. In his bid to become a prominent dealer in the map world, Bland sliced his way through 400-year-old bindings, removing an estimate $700,000 worth of maps and inflicting untold damage to such treasures as Captain James Cook's elegantly bound journal of his third and final voyage to the Pacific. Thankfully Bland was eventually caught. He was sentenced to 17 months in prison and was ordered to pay $79,000 (US) in restitution.

The co-publishers of the Anglo-American Cataloguing Rules (the Canadian Library Association, the American Library Association, and the Library Association of the United Kingdom) recently announced the release of an electronic version of their cataloguing rules, AACRe. Used by map librarians throughout the English-speaking world, AACRe runs on FolioVIEWS 3.1 included on the CD-ROM. In a press release issued by the Canadian Library Association (CLA), AACRe was praised for its ability to improve cataloguing productivity. It allows users to access particular rules via keywords or rule number; to access and display related rules either in sequence or simultaneously in multiple windows. For further information on

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What is Cartographic Design?

Ada Cheung
COGS

A student asked me this question in my cartographic design class last year and strangely enough, it took me a moment to answer. As a cartographer who was trained using traditional techniques and has converted to digital tools, the question made me think about whether there are significant differences in cartographic design that are dependent on technology. I came to the conclusion that the communication of geographic data in a user-oriented map remains unchanged. While the methods of creating maps have revolutionized the industry, I think that today's cartographic designer, with an ever-increasing arsenal of cartographic tools, must be aware of the potential for upsetting the balance between accurate representation of data and graphic representation of that data.

I have reevaluated my own concepts of 'what mapping should be' and have been delighted to see the wonderful spectrum of mapping related products. With this increase in map availability, there have also been some disturbing aspects. Specifically, I have noticed a huge increase in the number of cartographic products in the marketplace which make me suspicious about the qualifications of the 'map-maker' as an interpreter of geographic data. I consider the process of map design as an integral part of the whole process of map-making and therefore am wary of maps that have aesthetic appeal without strict relationships to the real-world data from which the map is derived. In the other extreme, maps which do not stimulate interest or have barriers to communication of data because of poor design choices are also in abundance.

Defining Map Design

One definition of design states that design is an organization of a means toward a specific end; that design is a creative process; that a manipulation of variables is involved and that decision-making is necessary. Design is also a method of communication, a form of expression and a translation of concept into a visual form. Therefore, critical problem solving skills are required to determine the optimum choices for the design of map features. I had like to explore some changes that have developed because of the technology in the way cartographers make design decisions.

Organization toward a specific end - the Map User

If maps are created for a specific purpose, I would consider the communication of information to map user serves that purpose. Diversification of map products has created an explosion of map users, or is it the other way around? Has the number of map users, hungry for innovation in map delivery, created the types of maps available? How can the cartographer get a better understanding of the needs of the map user? Issues such as experience with the Internet and familiarity with mapping concepts come to mind. The potential for discovering what the potential users require in their maps has expanded the need for market analysis and surveys. Trends in demographics may answer some questions regarding targeting specific sectors of the map using public but quantifying the nature of the map user has become a larger challenge than ever.

Manipulation of Geographic Data

I had the experience of speaking with a graphic artist about a map he was interested in creating for a magazine publication. He admitted he had no cartographic training but wanted a map showing the world with emphasis on the Greek islands. When I started to explain the nuances of projection, generalization of geographic data etc., he understandably became confused. It made me wonder about the numerous map products created today with little or no understanding of geographic data or the relationship of the data to the map and the real world.

Education remains the key. The basic cartographic concepts of scale and their relationship to 'real' geo-referenced data sets should not be ignored and representation of nominal, ordinal, ratio, and interval data should be maintained. This is where non-cartographers experience criticism from the map-making community. GIS software is far superior to graphics packages for the statistical manipulation of data but cartographers must use both to create the product suitable for their map user. Is there a perfect cartographic software that relieves the map-maker of good design decisions for a large variety of mapping situations? How often have you had to 'tweak' software to generate what you had originally visualized for the map? Customization of digital tools for cartographic representation of geographic data is and will continue to be the niche of cartographers for the future.

Map Production & Technology

Does map production technology determine the design or does design determine the map production technique? Are these entities entirely separate? In my view, map design has often been placed on the back burner in the coming of new technology because, let's face it, the time for the learning curve for software has often compromised the graphic qualities of the product. Essentially, the 'Let's put some thought into how it looks and how it communicates information to the user' is placed in a secondary role after finally crunching data into a reasonable

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Getting the Best Moderately-Priced Colour Printer for Cartographic Needs

Byron Moldofsky,
University of Toronto

There is a clever and amusing series of TV commercials that dramatize the difficulty of selecting the ideal photocopier for your organization. In one episode, a fellow is perched on a ledge of a 10-storey building, ready to jump, because of the intolerable pressure. Of course, the sales rep of the company sponsoring the commercial comes to the rescue with the perfect solution, at a rock-bottom price, and the fellow's job and sanity is saved.

For cartographers, the choice of the optimum colour printer may be fraught with the same kind of pressures. The selection can have a serious impact on the efficiency and validity of any project one undertakes with extensive colour design requirements. In the old days, we just used a colour chart from a printing house showing overprinted percentages of the process inks, to specify colour combinations, and plan scribing and peelcoat production. Often we did not have a chance to view the final product until the colour proofing stage. Even then, using dye proofing or colour-key overlays, there could be many variations between the proof and the final printed product – especially if post-proof changes were required. Using the old labour-intensive, expensive, colour-proofing methods, how many additional proofs could one afford? So the old process incorporated its own pressures, and an element of risk!

Colour printing from graphics files gives the capability for multiple test prints, throughout the design and production process. For this to be useful, however, the prints must accurately reflect the final product. My experience is that this is seldom the case – that it takes special attention to get a printing system that will faithfully represent offset-printed results with standard process colour inks. This is especially true when cost is also a constraint, and the most expensive "state-of-the-art" printers are not an option. So how does one find a moderately-priced colour printer that will simulate offset-printed CMYK output with the least hassle possible?

Constraints/requirements:

In my office we have been working with several different colour printers, none of which were truly satisfactory on this count. For a forthcoming project, I was determined to address this problem, by doing some serious comparison shopping. As usual, the budget was limited, and there were some other constraints and requirements. The main ones included:

- Price in the $1500-$3000 range
- Capable of at least 11" by 17" prints (the bigger the better)
- Capable of linking to the department PC network, and printing Postscript files sent from Unix machines also
- Can handle large graphics files easily
- The bottom line: Excellent simulation of process CMYK printing

My first step was a visit to the main hardware vendors' web sites to determine likely candidates (see table). Shortly thereafter, phone calls to a number of retail computer shops established the prices which we would have to pay for the models in question. It should be noted that other vendors such as Canon, Tektronix, and QMS were canvassed for possible qualifying printers – none were identified. High quality colour laser printers which would have met the specs were in the $5000-$6000 range.

Vendor/dealer flexibility:

Generally I found this attempt at systematic comparison shopping much more difficult than I expected. The key factor in this was vendor/dealer flexibility. As stated, our main requirement was good CMYK reproduction. To compare this fairly, I created a test file containing a number of colour patches with specified ink combinations, and converted this file to a variety of formats (Coreldraw, Illustrator, EPS.) I then tried to find dealers or vendors who would print the file on the required machines.

By far the most accommodating vendor was Lexmark Canada. I contacted them by phone, E-mailed them the file, and their representative delivered it to my office the following day. A case of Number 3 trying harder? It took many calls to find an Epson dealer who could provide a print from the Stylus 3000; Vistek Imaging, in downtown Toronto, finally did. Despite multiple calls to Hewlett-Packard's help line and tens of calls to dealers, I never found one who would comply with my request. Most HP dealers appear to be straight resellers, whose idea of 'value-added' is keying in your MasterCard number and subtracting their cut.

Comparison table:

Lexmark also gets full marks for encouraging comparison of its products to others. They publish a little 100-page booklet entitled *Lexmark Printer Sales Guide*, which contains tables directly comparing their printers with the competition. The table accompanying this article is based on theirs, with some amendment. Of course, it being their booklet, the tendency is to construct comparisons favourable to their own products. For example, the Optra 45n goes up against the less expensive Epson 1520, rather than the costlier Epson 3000. Despite this, the willingness to compare was a refreshing contrast to other vendors' attitudes.

Factors not important to cartographic needs should be excluded from the comparison table. This will vary from office to office, depending on your facilities and the type of image-making you do. For our operation, factors such as the printer's size and weight, the number and type of fonts resident, and

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Printer Make and Model	Lexmark Optra 45n	Epson Stylus 3000	HP Deskjet 2500 C
List price ($CDN)	$2550 (Ethernet standard)	$3300 (w. Ethernet option)	$2800 (w. Ethernet option)
Going price Jan '99 (with educational discount)	$1705 (Ethernet standard)	$2560 (w. Ethernet option)	$2700 (w. Ethernet option)
Print Technology	Thermal inkjet 2 head CMY-K	Micro Piezo inkjet 2 head CMY-K	Inkjet 4 head C-M-Y-K
Print speed (maximum) **Black & White** **Colour**	at 300x600 dpi 8 ppm 4 ppm	in Economy mode 7 ppm 7 ppm	 9.5 ppm 7.5 ppm
Paper Size (maximum) [maximum image area]	12.6" x 22" [12.2" x 21.6"]	17" x 22" [16.1" x 21.3"]	13" x 19" [unknown]
Resolution (maximum)	600 x 600 dpi	1440 x 720 dpi	600 x 600 dpi
Processor (internal)	33 MHz	n/a Uses host computer	unknown
Memory (internal) **Standard** **Upgrade (maximum)**	 24 MB 72 MB	 Input buffer 64 KB Memory: uses host computer	 4 MB 76 MB
System compatibility	Win, Mac, Unix	Win, Mac	Win, Mac
Language (PS compatible?)	Postscript 2 PCL 5c	Epson ESC Postscript 2	PCL 3 Postscript 3 upgrade available spring '99?
Network interface **Standard** **Optional**	Ethernet 10BaseT/10Base2 ENA, Add. Parallel	None Ethernet 10BaseT/10Base2	None Ethernet 10BaseT/10Base2 10/10BaseTX
Warranty	1 year (LexExpress)	2 year limited	1 year
Supplies (letter size pages) @ 5% coverage per page **Black only supplies** **No. of pages printed** **Cost per 100 pages**	 $59 (black cartridge) 1,075 pages $5.49	 $95 (ea black cartridge) 3,800 pages $2.50	 $50 (black cartridge) 1,000 pages (estimate) $5.00
Colour supplies **No. of pages printed** **Cost per 100 pages**	$59 (CMY cartridge) 400 pages $14.75 + $5.49 (K) = $20.24	$95 (ea C,M,Y cartridge) 2,100 pages $4.52 + $4.52 + $4.52 + $2.50 (K) = $16.06	$50 (ea C,M,Y cartridge) 1,000 pages (estimate) $5.00 + $5.00 + $5.00 + $5.00 (K) = $20.00
Colour reproduction quality (Low, Medium, High)	(based on my test file)	(based on my test file)	(based on my demo print)
Cyan	High	Medium	Medium
Magenta	Low	High	Medium
Yellow	Low	Low	Medium
Black	Medium	Medium	Medium
CM combination	Low	Medium	n/a
CY combination	High	Medium	n/a
MY combination	Medium	High	n/a
KY combination	High	Medium	n/a
Low-saturated screens	Low	Low	n/a
High-saturated screen	Medium	Medium	n/a

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the paper-handling setup were all unimportant features, and so were left out.

Some dubious or confounding factors listed in the table, which may be more significant than they really are, should be noted. One example is print speed rating in **ppm** (pages per minute.) This is notoriously difficult to measure and compare, varying with print resolution, host setup, and type of graphics printed. The rating invariably overestimates actual performance. I saw references to the use of ratings in **gppm** (graphics pages per minute) which seemed like a good idea. Nevertheless, even if you can find this rating, all the same caveats apply. Similarly, all the other comparisons in the table need to be seen in the context of the user's operating environment.

Comparisons of specific printers:

As stated above, the most important deciding factor was CMYK reproduction, for which I used my test file of colour patches. Since I was not able to get a test print from the HP2500C, and since no Postscript interpretation is available now, it was eliminated.

That left the Lexmark Optra 45n and the Epson Stylus 3000. A step by step comparison of colour reproduction quality found that each did reasonably well, but both had problems printing low-saturation screens, and getting the yellow level right. Offsetting for these kinds of problems using the colour adjustment capabilities of the drivers for both printers should be possible. A more serious and deciding factor was that the magenta ink used by the Lexmark printer appeared to have a significant cyan component (compared with my colour charts it was about M100 C15). This kind of problem is much harder to adjust. As well, overprinting screens of the Magenta and Cyan inks resulted in bluish shades of purple that left much to be desired. Therefore the Epson 3000 was selected, due to superior colour reproduction, abetted by other advantages such as a 17" by 22" paper capacity and a higher maximum resolution.

Conclusion:

Ink-jet technology has come a long way, and although colour laser printers may yet show a marginal advantage in CMYK reproduction, ink-jet machines are a viable moderately-priced alternative. While getting sample sheets and demo prints from a number of printers, the variability I found amazed me. Much of this seems to result from the different hues of ink used, despite purporting to be process CMYK. Variation in the technology of applying the inks has a role as well.

A tabular comparison is a good way to assemble and compare all the standard specifications and rating information about the prospective printers necessary for an informed choice. Getting controlled test prints from each printer is highly advisable as well, so that direct evaluations and comparisons of output may be made.

Book Reviewers Needed!

Jan Mersey
University of Guelph

I have received copies of the following books for review in Cartographica. If you are interested in writing a review of one of these books for publication, please contact me. Reviews should be completed within three months of receiving the book, and although there is no fixed length, 600 words can be considered a guideline. Reviews may be written in either French or English, and the reviewer may keep the book they review. First time reviewers are welcome! Contact Jan Mersey, Book Review Editor for Cartographica, Department of Geography, University of Guelph, Guelph, Ontario, Canada N1G 2W1; FAX 519-837-2940; E-mail jmersey@uoguelph.ca.

Books available for review:

GIS Data 2: Geographic Objects with Indeterminate Boundaries edited by Peter Burrough and Andrew Frank, 1996. Softcover, 345 pp.

GIS Data 4: Spatial Analytical Perspectives on GIS edited by Manfred Fischer, Henk Scholten, and David Unwin, 1996. Softcover, 256 pp.

Innovations in GIS 2: Selected Papers from the Second National Conference on GIS Research UK edited by Peter Fisher, 1995. Softcover, 257 pp.

Innovations in GIS 4: Selected Papers from the Fourth National Conference on GIS Research UK edited by Zarine Kemp, 1997. Softcover, 285 pp.

Interpretation of Airphotos and Remotely Sensed Imagery by Robert H. Arnold, 1996. Softcover, 250 pp.

Maths for Map Makers by Arthur L. Allan, 1997. Softcover, 305 pp.

An Introduction to the Theory of Spatial Object Modelling for GIS by Martien Molenaar, 1998. Softcover, 246 pp.

Interoperable and Distributed Processing in GIS by Andrej Vckovski, 1998. Softcover, 230 pp.

Putting Your Data Out To Pasture

Joe Piwowar
University of Waterloo

One of the activities I support at the University of Waterloo is the cre ation and maintenance of a remote sensing image library. It is a modest collection of about 200 images acquired periodically over the past 20 years, with most arriving nearer the start of this time. For those who remember computing 15 years ago, you may recall this was the era of the mainframe and minicomputer. Computer rooms actually had "computers" in them - not network file servers and Internet routers. Back then the distribution medium "par excellence" for large files (such as remote sensing imagery) was the 9-track CCT (computer-compatible tape). You know the ones: they came on 12 inch reels and are still featured prominently spinning away in Hollywood's computer rooms (Well I don't suppose you really can blame Hollywood, since 9-track tape drives were a standard peripheral in every computer room of the 70s and 80s, and their blinking lights and spinning reels made it look like the computers were actually doing something.) Given the age of the bulk of our image library, well over 90% of our collection rests peacefully on CCTs. Suffice it to say, when I received notice about a year ago from the central computing folks here at Waterloo that the last remaining 9-track tape drive on campus was about to be taken out of service, a bead of sweat appeared on my brow.

I am sure we all have some valuable spatial data sets sitting somewhere on a disk or tape. It doesn't have to be remote sensing images. It could be the street network files you purchased and then spent the next two months cleaning. Or, it could be the topo map you digitized with ever failing eyesight. The main issue is that these data sets have inherent value and you cannot just leave them where they are.

When the data were new and you were still actively using them, they probably resided on your computer's hard disk. That's fine until one day, long after you have finished the project that used those data in the first place, when you discover that you cannot load a new data set because your disk is full. If you are like me, you scramble around searching the depths of your disk's directory structure looking for enough files to obliterate until there is enough space to work with your new data. Then the moment of truth arrives: you discover your long-lost data files. You take a hard look at the "old" data you took so long to create just sitting there on your disk hogging valuable megabytes. What to do? You cannot just erase these files -- they just took too long to create. Besides, what if you needed to do some reanalysis on that old project again? You decide that you must move the data from your hard drive to some form of archive media.

Whether you are a single user looking for a retirement home for your few important files or the manager of a data warehouse containing several hundred "terra" bytes of data, you face a common problem: what "kind" of archive media are you going to move your precious data to? There are three basic classes of archive media: magnetic disk (e.g., your computer's hard disk, and removable hard disks like Zip's and Jaz's), optical disk (e.g., CD-ROM and DVD-ROM), and tape (e.g., DAT and Exabyte). Although there are many variants within each class, the broad characteristics of a class generally hold true across all of its subtypes. If you only have one form of external storage available to you, then your choice is obvious. If, however, you have several options at your disposal then you have to decide. Here are some points to consider when selecting an appropriate media solution for your archive:

Access Time:

How quickly are you going to need to gain access to the data? If you require subsecond response time, you should invest in a larger hard disk. If you are willing to wait for a few hours to have your data retrieved from the archive, then tapes make more sense.

Frequency of Use:

In addition to how fast you need the data to appear when you request them, you should also give some thought to how often you will need to get at the files. All things being equal, optical storage is best for frequently requested data.

Concurrent Access:

Do you foresee the need for several people to use the data at the same time? This is very important if you are running a data warehouse, but can be a consideration for smaller operations too. Since concurrent access also infers random access to all parts of the data, this rules out tapes. You could go with magnetic disks, but cheaper optical storage is the better option.

Archive Requirement:

Just how long do you want to keep the data? After all, is your street-line network of Saskatoon going to be useful to anyone in 25 years, when it is projected that we will be able to get almost daily satellite imagery of the globe at better than one m resolution? Perhaps not. On the other hand, your files may provide a valuable historical "snapshot" of a point in time. For data permanence, you cannot beat optical storage. The funny thing about the longevity of data on optical media like CD-ROMs is that they are "too" efficient. If you burn your data onto a CD-ROM today, 25 years from now every bit of information on that disk will still be in pristine condition. Nevertheless, that won't matter since you will not find a CD-ROM reader, or any other device, that will read your disk to get your data back. It is hard to believe right now when CD-ROMs are ubiq-

uitous, isn't it? Believe me: look what has happened to my 9-track tapes!

Cost per Megabyte:

Lets face it. Money doesn't grow on trees. If you are running on a shoestring budget, or if you need to have very low storage prices simply because of the volume of data you must archive, then tapes are the clear winners. There is a hundredfold decrease in cost-per-megabyte of storage as you move from magnetic disks to optical storage. There is another hundredfold decrease in storage costs when you compare optical storage with tapes.

To minimize the potential for data loss, professional data archivists start migrating data to new media at the midway point of the current storage technology's life-span. The life-span of magnetic tapes is about 10 years. For tape archives then, you should start to move your stored data to new media when the tapes are only 5 years old. Even with the added costs involved, tapes are still the cheapest option.

An unintended benefit of the need to migrate often is that at least your data are always on media that are current with the technology to access them.

Capacity:

You can only store as much information on a hard disk as the size of the disk. That's also true with optical disks, but because they are inherently removable, your storage capacity is virtually limitless. If you are running one of those massive data warehouses, however, you need also to be concerned about how often your jukebox robots need to be flipping media around, putting new ones in, and taking old ones out. The more data you can fit on one media unit, the better off you will be. The newest optical technology - DVD-ROM - has a data storage capacity of about 4 gigabytes. There are tapes out there which can cram 50 GB of data into their cartridges. Tape is the clear winner here.

Getting back to my image library problem, I have been busily trying to "beat the clock" in retrieving the old imagery before time runs out on the 9-track tape drives. I am happy to report that I have successfully migrated the archive off the CCTs and am looking forward to writing the data onto CD-ROMs or DVD-ROMs for long-term storage.

As a closing thought, consider this. At a data archiving symposium I recently attended in Washington, D.C., a NOAA scientist was reviewing the billions of dollars spent by his organization alone just to get old, "legacy" data into digital form so that they can safely archive it with the current information. He urged the participants to think about how they will view current data archiving practices in the future. He challenged us to consider it a crime if anyone in the future has to spend even one cent to clean up, reformat, or reproduce any of the data sets we create today. I put forth that same challenge to you.

Now that you know what I think, let me know what YOU think! E-mail me at *piwowar@watleo.uwaterloo.ca*

1999 Membership Renewals

It is time to renew your CCA membership for 1999 and, if you wish to take the two-year option, for 2000 as well. Membership renewal forms are due to be mailed out in early January. Please watch for it and send back your renewal promptly.

I would again like to ask U.S. and Overseas members to pay by credit card (VISA or Mastercard) if at all possible for your and our convenience (in terms of the exchange rate and bank service charges for foreign cheques).

Please send your payments to:

Monika Rieger
CCA Membership Coordinator
c/o Department of Geography
University of Calgary
Calgary AB T2N 1N4
CANADA

ACMLA ACACC

"On behalf of all memembers of the Association of Canadian Map Libraries and Archives, I would like to extend to each of you salutations and warmest greetings! The recent joint CCA-ACMLA conference in London was, by all accounts, a huge success - and it provided great opportunities for colleagues to gain insights and renew friendships. Over the next few months, leading up to the 1999 ICA meeting in Ottawa, the ACMLA executive will be communicating with a number of similar associations and societies in order to promote collegiality and develop more lasting actions related to issues of common concern. In particular, the impact of cartographic and geographic information access and dissemination policies on the ability of students, teachers, and researchers to fully explore research and educational opportunities concerns us greatly. We firmly believe that, in cooperation with the CCA and others, we will be able to promote the importance and use of our cartographic heritage - and the significant contributions of our cartographers to our understanding." with warmest regards,

James C. Boxall, Map Curator
Map Collection, Killam Library
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President, Association of Canadian
Map Libraries and Archives

Using the World Wide Web in the Classroom

Ute J. Dymon
Kent State University

Adopting the World Wide Web as a teaching tool, adds a new dimension to our option when teaching cartography. This past semester I introduced the World Wide Web into my cartography class curriculum. The idea to develop this exercise came after a student of Peter Keller, Erin Kuyenhoven (University of Victoria), offered her paper at the CCA Annual Meeting in London, Ontario. In her presentation ***Marketing Tourism Destinations on the Internet: An Analysis of Spatial Images***, Erin encouraged her audience to critique various tourism maps for their usefulness. Taking this exercise a step further, my students were instructed to browse the Web to find interesting maps that were critiqued for their usefulness. In addition, we employed two very popular Web sites not only for critiquing maps, but for the opportunity to redesign the maps. In this process, cartographic principles were considered, and we explored the question as to whether these principles should be applied to maps on the Web. One of my students generated a spin off project. She compared the use of maps from two Web sites to navigate from A to B. Students in the class had an opportunity to critically observe the maps and the routes displayed. In each case, students were familiar with the routes and could critique the usefulness of each map displayed. If your students have access to the Web, you may want to add Web exercises into your curriculum. Those described here generated lively discussion and interest among my students.

New books are also available to add to your classroom. Borden Dent's fifth edition of ***Cartography: Thematic Map Design*** was just released. A CD accompanies this McGraw-Hill publication that includes exercises in Arc View. Another newcomer is Terry Slocum's ***Thematic Cartography and Visualization*** published by Prentice Hall. Both books are suitable for use in introductory cartography classes. A valuable addition to your cartographic library for more advanced students is ***Policy Issues in Modern Cartography*** edited by D.R. Frazer Taylor. Also somewhat pricey, this book covers opinions by a group of knowledgeable experts writing about current policy issues which affect us all. For those using CorelDraw, ***A Guide to Map Design and Production using CorelDraw 7 and CorelDraw 8***, is fresh off the press. Copies can be obtained through our own Clifford H. Wood, Department of Geography, Memorial University of Newfoundland, St. John's, Newfoundland, Canada A1B 3X9 , Phone (709) 737-8988.

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mation, long the bane of ecological analysts who frequently could not be certain of exact locations, thus leaving them unable to judge whether populations represented by collections were actually new, or just extensions of previously known ones. The technological need to data accuracy has resulted in, or grown with, the ability to provide such accuracy.

One only has to look at site inventory reports and floristic inventories from the pre-1990s, and compare these with the data displays now available, to get a sense of just what has happened in the biodiversity field. Not only has ecological data gathering entered the twenty-first century, but it has done so with a blast equivalent to the shift from the first propeller planes to the immensity of the Concorde. GIS has lent speed, colour, complexity and manageability to the global biodiversity drive. In the end, GIS might well be the marker, the milestone, by which we judge the "protection era" to have truly begun.

Calendar / *calendrier*

July 26-30 *juillet* 1999
19th Annual ESRI International User Conference
San Diego, CA, USA
For information / *pour renseignements:*
Tel / *tél:* 909-793-2853 ext. 1-1363
E-mail / *Courr. élect:* uc99@esri.com

August 14-21 *août* 1999
ICA 1999 / ACI 1999
19th International Cartographic Conference / *19e Conférence cartographique internationale*
Ottawa, Ontario
For information / *pour renseignements:*
Tel / *tél:* (613) 992-9999
Fax / *téléc:* (613) 995-8737
E-mail / *Courr. élect:*
ica1999@ccrs.nrcan.gc.ca

September 19-24 *septembre*
XIX Brazilian Congress on Cartography
Recife, Brazil
For information / *pour renseignements:*
Tel / *tél:* 55 (21) 240 6901
Fax / *téléc:* 55 (21) 262 2823
E-mail / *Courr. élect:* sbccarto@fst.com.br

October 18-22 *octobre* 1999
Internaional Symposium on GPS
Ibaraki, Japan
For information / *pour renseignements:*
Tel / *tél:* 81 (3) 5802 8644
Fax / *téléc:* 81 (3) 5689 7234
E-mail / *Courr. élect:*
GPS99@eri.u-tokyo.ac.jp

November 9-11 *novembre* 1999
GIS/LIS
Los Angeles, California USA
For information / *pour renseignements:*
ACSM
5410 Grosvenor Lane, Suite 100
Bethesda, Maryland USA 20814-2122

March 9-10 *mars* 2000
***Géomatique 2000: Le millénaire de l'excellence* / Geomatics 2000: Excellence in the New Millennium**
Palais des congrès de Montréal

Report from the Chair of the Canadian National Committee for Cartography and the CIG Technical Councillor for Cartography

Peter Keller
University of Victoria

Greetings - and may all your cartographic wishes for 1999 come true. My time since the last report to you has been occupied primarily with *ICA Ottawa 1999* business. Let me share a few details and insights:

ICA Ottawa 1999

Great Interest: The Ottawa office so far has received well over 1000 enquiries about the conference. These enquiries have come from over 90 different nations. It looks like we are in good shape to host a truly international conference.

Preliminary Program: By the deadline of September 15, the call for papers to *ICA Ottawa 1999* attracted over twice as many oral presentation abstracts as could be accommodated by the programme (for those of you unfamiliar with ICA meetings, the organization insists on minimizing the number of concurrent sessions). Submissions of course did not stop after the deadline - UGH. This has made for a very busy Fall trying to differentiate what submitted abstracts would make excellent poster presentations, excellent oral paper presentations, or both. We used an anonymous peer review process to keep everything fair. As chair of the committee who had to make final decisions, I am pleased to tell you that everybody worked very hard to put together a strong agenda representative of the breadth and depth of all submissions made. The preliminary program is available at *http://www.geog.uvic.ca/ica1999/*. It should by now also be up on the conference website at: *http://www.ccrs.nrcan.gc.ca/ica1999/*

ICA Children's Map Competition

The baton for organizing Canada's participation in the ICA Children's Map Competition has been handed over from Shelley Laskin to Erin Kuyvenhoven. A note of thanks to Shelley. Shelley did a great job advertising for, collecting, judging and submitting our entries for the Stockholm conference. Shelley's appointment to the Toronto school board does not leave her the time to carry on with this portfolio. Erin kindly has agreed to step in to look after Canada's entry for Ottawa. Thank you Erin. We have been able to find a small budget for Erin to carry on with the job. Announcements have gone out. The best way to drum up support for Canadian submissions to this competition is through you folks pushing this competition in your local area. Erin can be reached at:

Mrs. Erin Kuyvenhoven,
attn: ICA map exhibit
c/o Department of Geography
University of Victoria
Victoria, BC,
Canada.V8W 3P5

erkuyven@uvic.ca
Web Site: http://web.uvic.ca/~erkuyven

Erin can use all the help you can offer her to get the word out, to create local enthusiasm, and to see it all translate into lots of entries. A flyer announcing the competition details should be included in the next issues of the various associations' newsletters. Please encourage educators and parents to submit entries. Do you have young talent at home that wants to compete?

Canada's 1995-99 Four Year Report on Canadian Cartographic Activities to the ICA

One of my responsibilities as chair of the CNC is to guest edit a four-year report summarizing cartographic activities in Canada as a special issue of GEOMATICA. I am very grateful to Cliff Wood for agreeing to work with me on this task. We have approached some of you for submissions. They are slowly beginning to arrive. Keep them coming.

New Organizational Structure for Canada's Geomatics Community

Efforts are ongoing to look at ways to reorganize the geomatics community in Canada. I would like to encourage all the different organizations, associations and lobby groups interested in geomatics to participate. To those of you from the cartographic community who have asked me, it still is too early to give clear answers about details and possible ramifications to applied and academic cartography in Canada. A lot will depend on your association's participation in the process, and its position relative to what models are suggested. Keep your ears to the ground - these are exciting times - and times for opportunity.

The ISO/TC211 Initiative

I continue also to receive questions concerning Canada's proposal to the ISO of an initiative for standards in qualifications and certification of geomatics and geographic information sciences personnel. I understand that the initiative is continuing. I encourage your organization to communicate with those spearheading this exciting proposal.

Next Chair of the CNC

I already mentioned in my last report that the term of office for chair of the Canadian National Committee ends August 1999. A new chair will need to be nominated by the CCA, to be ratified by the CIG. If you are interested in the job, or you wish to nominate somebody, please contact the CCA nominations committee.

ICA / CCA Ottawa, 1999
The CCA Portion of the Program

Tuesday, August 17

08:30 - 10:00: Session C1 Canadian Mapping Initiatives

C1a ***CGDI Data Alignment Layer***
Christine Parent, Centre for Topographic Information, Natural Resources Canada, Sherbrooke, Quebec, Canada

C1b ***Geogratis: A Canadian Geospatial Data Infrastructure Component That Visualises and Delivers Free Geospatial Data Sets***
R.A. O'Neil and Cameron Wilson - Canada Centre for Remote Sensing, Natural Resources Canada

C1c ***Global Positioning and the Canadian Spatial Reference System: What Cartographers Need to Know***
Sheryn McGregor-Sauve, Gordon Garrard, Norman Beck *and* Douglas Scott, Geomatics Canada, Natural Resources Can.

C1d ***The CGNDB: Its Past, Present and Future***
David Fraser, Barbara Bowler, Paul O'Blenes *and* Jocelyn Revie, Natural Resources Canada, Centre for Topographic Information, Geographical Names Section

13:30 - 15:00 Session C2 Canadian Atlases

C2a ***An Overview of the National Atlas of Canada***
Donna Williams and Joanne Frappier – CCRS, Natural Resources Canada

C2b ***The New and Improved Base Framework for National Atlas Data***
Ken Arsenault and Rupert Brooks - GeoAccess Division, Canada Centre for Remote Sensing

C2c ***Partnerships and the Evolution of the National Atlas of Canada***
Stefan Palko, Jeff Labonté, Eric Kramers - GeoAccess Division, CCRS, Geomatics Canada, Natural Resources Canada

C2d ***L'Atlas du Québec et de ses régions***
Jean Carrière - UQAM, Montréal, PQ, Canada

15:30 - 17:00 Session C3 Marketing, Business and Legal Aspects

C3a ***A National Topographic Database for the 21st Century: Paradigm Shifts in Business Process and Technology***
Geoff Howard and Robin Pickering - Land Information New Zealand, Wellington, New Zealand

C3b ***Production and "Intelligence" of Raster Maps***
F. Hegyi, C. Vester Hegyi - GeoTechnologies International Inc C. Armenakis, E. Siekierska - Mapping Services Branch, Geomatics Canada

C3c ***Perspectives of Legal Protection of the Content of Digital Topographic Databases***
Jan Neumann - Land Survey Office, Praha, Czech Republic

C3d ***Production Flow Charting for Mapping Organisations: A Guide for Both Lecturers and Production Managers***
Sjef J.F.M. van der Steen - International Institute for Aerospace Survey + Earth Sciences (ITC), Enschede, Netherlands

Wednesday, August 18

08:30 - 10:00 Session C4 High Resolution Imagery in Remote Sensing and GIS

Various speakers presenting on new remote sensing data, including Stan Aronoff, and Diane Richardson (CCRS); Chair: Joe Piwowar

10:30 - 12:00 Session C5 Canadian Overseas Capacity Building

Various speakers who have experience teaching and in technology transfer overseas in Cartography and GIS, may include Bob Maher (Africa/Indonesia), Brent Hall (S. America), Steve Rose (Qatar), Jim Britton (Fiji), Val Thomas (Indonesia), Darko Poletto (Afghanistan).

13:30 - 15:00 Session C6 Map Design Uses

C6a ***Un outil d'aide à la gestion du territoire; Les cadres écologiques de référence en atlas,***
Yves Lachance, Vincent Gerardin, Direction de la conservation et du patrimoine ecologique, Ministere de l'Environnement et de la Faune du Quebec

C6b ***Creating an Atlas of American Indians in the United States: Issues and Prospects,***
Daniel G. Cole - Smithsonian Institute, Washington, DC, USA, and William J. Gribb, University of Wyoming, Laramie

C6c ***Making Practical and Effective Electronic Aeronautical Charts,***
Bob Johnson, Rupert Brooks and Sonia Rivest, Aeronautical and Technical Services, Geomatics Canada

C6d ***The Design of Three-Dimensional Proportional Symbols: A Reappraisal,***
Borden D. Dent - Georgia State University, Atlanta, GA, USA

15:30 - 17:00 Session C7 Databases Issues

C7a ***Updating of the Canadian Road Network (Actualisation du Reseau Routier Canadien)***
Daniel Begin - Ressources Naturelles Canada, Sherbrooke, Quebec, Canada

C7b ***Nunavut Territory, Property Mapping: Past, Present and Future***
Stan Hutchinson - Legal Surveys Division, Geomatics Canada, Natural Resources Canada, Yellowknife, NWT, Canada

C7c ***Un outil d'aide a la gestion du territoire: le systeme d'information du bassin versant de la riviere Saint-Charles, Quebec***
Jean Bissonnette et Vincent Gerardin, Ministere de l'Environnement et de la Faune du Québec

C7d ***The Future of Automated Map Generalization***
Brian E. Smith, Henry L. Jackson and Reid L. Maier, Intergraph Corp. Huntsville, AL, USA

Thursday, August 19

ACMLA SESSIONS

08:30 - 10:00 A1 ***The Future of Cartographic Information from a Map Curator's Perspective***
13:30 - 15:00 A2
15:30 - 17:00 A3 ***Data Acquisition in the Electronic Age - Securing our Past and Future Digital Urban Atlases***

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facsimile of a map. GIS has conquered many historic problems of digital map production but how many maps have you seen which do not fulfill the basic qualities of suitable projection, map scale, and legible symbolization? I experience this myself as an instructor where in the products of a cartographic design class are very different from those in the GIS courses. Why is this? Why are maps often poorly designed? Is it a factor of time or just a lack of awareness among map-makers? What are your views?

Flexibility and Networking

Design choices should be made before map production begins. A good method of starting this design process is critiquing other maps of similar purpose. Keeping a scrapbook of successful map products, web-sites and other references (such as this newsletter) keeps the 'good' designer on the alert for improving qualities in their own designs. The networking opportunities are tremendous today. The CCA has established a list of web sites for cartography and this would be a good place to explore alternative avenues of thought. This year's ICA conference is a great opportunity for Canadians to observe how cultural differences in map design will influence a nation's choice for showing the same data.

In closing, I put the question out to you . . . Do you think maps, in general, are well-designed today?

Which examples are very good? What innovative ideas have you seen recently in map design or use that warrant special attention? Please E-mail me (*cheunga@cogs.nscc.ns.ca*)and I will release the results in the next issue.

1999 CCA Presidents Prize Competition

The President's Prize Competition provides awards for excellence in student map making. A prize of $100 will be awarded to the winners of each category. In addition, there is a newe category open to ALL CCA members:

❑ **Best Map from GIS Output**

The five categories in the student mapping competition are:

❑ **Monochrome Map** (Undergraduate Program)
❑ **Monochrome Map** (College or Graduate Program)
❑ **Colour Map** (Undergraduate Program)
❑ **Colour Map** (College or Graduate Program)
❑ **Journalistic Map** *A journalistic map is one which is created to accompany and elucidate a pub lished article taken from a newspaper or magazine. The map must be created at a size to fit the page format of the newspaper or magazine it is to illustrate. The map may be monochrome or colour. Every journalistic map submitted is automatically entered in the appropriate mono chrome or colour category also, but a map may win no more than one award.*

ENTRY CONDITIONS FOR THE MAP COMPETITION

1. **Every entry must be accompanied by a completed ENTRY FORM**. The entry form is published in *Cartouche*, on the CCA web page (http://www.geog.ubc.ca/~cca/) or is available from any Executive member of the CCA.
2. The competition is open to all students in post-secondary institutions. Membership in the CCA is not required.
3. The mapmay incorporate more than one map as well as other graphics, but multiple map entries are not allowed.
4. All non-original artwork, photographs, maps used in the work must be clearly credited and referenced.
5. Entries in the journalistic map category must also be accompanied by an **original copy** or **photocopy** of the published article that the map is intended to illustrate. Journalistic map entries must be drawn to a size which fits the page format (e.g., full page, column width, bound-in fold-out, etc.) of the newspaper or magazine it is intended to accompany.
6. Entries must be received the day prior to judging.

JUDGING CRITERIA FOR THE MAP COMPETITION

1. Entries will be judged at the 1999 annual conference in Ottawa, Ontario by a three-person panel including the chair of the CCA Map Use and Map Design Special Interest Group.
2. The judges reserve the right to withhold an award if the standard of the entries is inadequate.
3. Maps will be judged in terms of their design, originality of content, overall communication effectiveness and technical quality. In addition, journalistic maps will be evaluated in terms of how well they support the article they accompany.
4. The judges may also take into account such factors as student year level, time available for completion, number of students involved, techniques and equipment employed, depth of research and innovativeness in design.
5. No map can win more than one award.

Prix du Président

Les prix du Président sont des récompenses pour souligner l'excellence de travaux cartographiques réalisés par des étudiants. Un prix de 100$ récompense chaque gagnant.

- **Les meilleurs resultants cartographiques de données SIG** (nouvelle catégorie)

Les prix du Président sont remis dans 5 catégories dont les conditions et les critères d'attribution sont décrits cidessous:

- **Carte monochrome** (étudiants dans des programmes sous-gradués)
- **Carte monochrome** (étudiants dans des programmes gradués ou collégiaux)
- **Carte couleur** (étudiants dans des programmes sous-gradués)
- **Carte couleur** (étudiants dans des programmes gradués ou collégiaux)
- **Carte journalistique** *Une carte journalistique est une carte qui accompagne un article dans un journal ou une revue et qui permet d'éclaircir le contenu de l'article. Les dimensions de la carte doivent correspondre à l'espace présumé qu'elle devrait occuper dans l'article de journal ou de la revue concernés. La carte peut être monochrome ou en couleur. Chaque carte soumise est automatiquement éligible aux autres catégories de carte cependant, chaque carte ne peut gagner qu'un seul prix.*

CONDITIONS DE PARTICIPATION

1. **Chaque inscription doit être accompagnée d'un formulaire d'inscription complété**. Le formulaire est publié dans *Cartouche*, disponible sur le site Internet de l'ACC (http://www.geog.ubc.ca/~cca) ou auprés des membres de l'exécutif de l'ACC (voir liste dans *Cartouche* et sur le site Internet).
2. Le concours est ouvert à tous les étudiants du post-secondaire membres et non-membres de l'ACC.
3. Toutefois, un document cartographique peut incorporer plus d'une carte et des graphiques, l'inscription pour plusieurs cartes, dans ce contexte, n'est pas permise.
4. L'usage de documents, photographie(s), carte(s) ou autres matériels n'originant pas de l'auteur du document cartographique présenté est permis, il faut toutefois en indiquer la ou les source(s) et le ou les auteur(s).
5. Les inscriptions dans la catégorie carte journalistique doivent être obligatoirement accompagnées par une **copie originale** ou une **photocopie** de l'article publié pour lequel la carte a été conçue. La carte doit être conçue en tenant compte de la dimension du format de la page de l'article de référence (i.e. pleine page, largeur de colonne, limite d'un dépliant, etc...) du journal ou de la revue en question.
6. Les inscriptions doivent être reçues au moins un jour avant le jugement des cartes soumises.

CRITÈRE D'ATTRIBUTION DES PRIX

1. Les inscriptions seront jugées par un comité de trois personnes dont le Président du groupe d'intérêt Utilisation des cartes/dessin des cartes, lors du congrès annuel de 1999 qui se tiendra à Ottawa (Ontario).
2. Le jury se réserve le droit de suspendre la remise de prix si les inscriptions ne rencontrent pas les règles de base.
3. Les cartes sont jugées en fonction de la qualité générale du document, de la représentation graphique et de l'efficacité du message véhiculé. Quant à la carte journalistique, elle sera évaluée en fonction de la complémentairité de la carte avec le texte d'accompagnement.
4. Les juges pourront tenir compte des critères tels que le degré d'avancement scolaire de l'étudiant, le temps nécessaires pour réaliser la carte, le nombre d'étudiant concerné, les techniques et les logiciels utilisés, l'importance et la profoundeur de la recherche ainsi que l'innovation dans la représentation visuelle de l'ensemble.
5. Aucune carte ne peut gagner plus d'un prix.

Des Atlas environnementaux pour le fleuve Saint-Laurent

Michel Fournier
Cartologique

Dans la dernière décennie, le fleuve Saint-Laurent a été, et le sûrement encore pour de nombreuses années, sondé et scruté à la loupe, sous toutes (ou presque) ses coutures afin de faire le point sur son état et ce, sous l'égide du Centre Saint-Laurent (CSL) d'Environnement Canada, dans le cadre du Plan d'Action Saint-Laurent (PASL). Les informations receuillies se retrouveront dans de multiples ouvrages parmi lesquels, un mini-atlas "Le fleuve ... en bref" (format 8.5" X 11") et l'Atlas environnemental du Saint-Laurent (format 25" X 36").

"Le fleuve... en bref - Capsules-éclairs sur l'état du Saint-Laurent"

L'Atlas est un assemblage de 104 planches qualifiées de capsule-éclair, réalisées depuis mars 1993 et actualisées pour la présente édition. Elles sont présentées selon l'ordre numérique de leur réalisation, on peut toutefois les consulter selon un regroupement thématique, en consultant la liste prévue à cet effet au début de l'ouvrage. Les capsules sont le résultat d'une somme considérable de travail, de recherches qui synthétisent l'état des connaissances les plus récentes sur chaque thèmes abordés et ce à trois niveaux soit: mondial, national et régional.

Le niveau mondial (5 capsules) permet d'esquisser un léger portrait environnemental des dynamiques inhérentes aux grands fleuves dans le monde. C'est le premier pas d'un approche sytémique qui nous permet de situer dans l'espace la teneur d'une partie des grands enjeux, à l'échelle planétaire. Ces autoroutes d'eau, malgré le rôle ingrat qu'on leur attribue par notre utilisation souvent abusive, méritent que l'on se penche sérieusement sur leur cas car, il est plus que l'on ne le pense, lié à notre futur.

Le niveau national, de loin le plus détaillé avec ses 91 capsules est le coeur de l'ouvrage. Il en va de soit puisque, c'est là que se situe le coeur des interventions entreprises ou à entreprendre, pour rendre au fleuve Saint-Laurent son tonus d'antan. Le fleuve et ses abords sont auscultés tant au niveau physique, biologique et socio-économique qu'au niveau des activités de l'homme dans son milieu. Le tout étant complété par les actions et interventions pour rétablir l'équilibre, la diversité et la qualité du milieu naturel, afin de favoriser son utilisation et son épanouissement par les espèces animales et les végétaux dont la présence/disparition, dans plusieurs cas, demeure relativement préoccupante.

Quant aux 8 capsules du niveau régional, elles sont dédiées au programme de Zones d'intervention prioritaire (ZIP) et à la description de quelques unes d'entre-elles. Un programme qui vise notamment à susciter et appuyer la participation des citoyens dans la définition de priorités d'intervention locale, l'élaboration et la mise en oeuvre des plans d'action et de réhabilitation écologique (PARE).

L'ouvrage est certes constitué d'une grande quantité de cartes mais également de tableaux, de textes et de références qui font de chaque capsule un tout. La présentation générale de l'ouvrage est particulièrement soignée. Plus particulièrement, la cartographie est d'une rare qualité pour un ouvrage monochrome. On conçoit aisément que le soin apporté à la préparation de chaque planche correspond à l'objectif de transparence que l'organisme véhicule quant à ses méthodes de travail et aux objectifs qu'il espère atteindre. Ce bilan représente un excellent point de départ pour ceux que désirent effectuer des recherches sur le fleuve. Ce bilan constitue une source inestimable d'information.

Environnement Canada/ Saint-Laurent vision 2000, *Le fleuve en bref - Capsules-éclairs sur l'état du Saint-Laurent*, 1997, 104 pages. ISBN: 0-662-81849-0

These plates and publications are also available in English at:

Centre Saint-Laurent
Conservation de l'environnement
Environnement Canada
105, rue McGill, 4e étage
Montréal (Québec)
H2Y 2E7

Téléphone : (514) 283-7000

"L'Atlas environnemental du Saint-Laurent"

Michel Fournier
Cartologique

L'atlas environnemental du Saint-Laurent fait partie d'une série d'ouvrage visant à faire le point sur l'état du fleuve. Destiné au public en général, c'est un outil didactique d'information, d'éducation, de sensibilisation, à l'environnement et à la protection de ce patrimoine unique. Les grands fleuves sont des écosystèmes marins exceptionnels sur notre planètes. Source de vie, ils représentent un héritage que nous devons nous efforcer de préserver pour les générations futures.

La stratégie du *Plan d'action St-Laurent (PASL)* vise à remettre ce long fleuve dans un meilleur état, en le débarassant de ses plus grandes sources de pollution, ou à tout le moins en les contrôlant (ou les atténuants); de préserver ou améliorer les habitats propices à la faune, à la flore et de permettre à la population d'y accéder à nouveau par un usage plus réfléchi. Il fait parti de l'engagement canadien, dans un contexte mondial, d'assainissement et de préservation de la ressource hydrique et de réduction/ disparition de sources polluantes.

L'atlas environnemental est constitué d'une douzaine de planche, non-reliée. La publication des planches s'est étalée sur une période de six ans (1990-1995). Il illustre les principales ressources du fleuve et les interactions avec les activités humaines. Les planches sont regroupables sous 4 grands thèmes :

Milieu naturel:

1. **Les milieux humides** - des habitats au contact de la terre et de l'eau
2. **Un fleuve, des estuaries, un golfe** - les grandes divisions hydrographiques du Saint-Laurent
3. **La richesse du monde Marin** - les écosystèmes marins de l'estuaire et du golfe Saint-Laurent
4. **Une mosaïque d'habitat** - les écosystèmes des eaux douces et saumâtres
5. **Des berges douces aux littorauax escarpés** - la forme et la dynamique des rives du Saint-Laurent
6. **Îles et paysages riverains** - les mille reflets du Saint-Laurent

Milieu humain:

7. **Le Saint-Laurent: Porte d'entrée d'un continent** - la mise en place du peuplement (17e-18e siècles)
8. **Le Saint-Laurent : une artére de vie** - l'urbanisation et l'industrialisation (19e et 20e siècle)
9. **Le Saint-Laurent au Coeur de l'Espace Habité** - la population et l'occupation des rives

Usages:

10. **Une route de navigation internationale** - la navigation commerciale sur le Saint-Laurent
11. **Des Ressources Halieutiques** - la pêche commerciale dans le Saint-Laurent

Conservation:

12. **Un Fleuve en Héritage** - la conservation et la mise en valeur des patrimoines

Ce sont en quelque sorte, des méga capsules-éclairs constituées d'un amalgame de textes, cartes, graphiques, tableaux et illustrations. La mise en page s'inspire largement du concept de l'InterAtlas†. La qualité des recherches, du contenu scientifique permet de mettre en valeur la complexité et la diversité des multiples inter-relations entre les occupants du milieu (faune, flore, activité humaine ou autres). C'est donc, un périple fantastique qui s'offre à nous tout au long des planches, tout au long des quelques 4200 km de rives et de cette imposante masse d'eau.

L'esthétique général des planches est agréable à l'oeil toutefois, l'équilibre entre les divers contituants est quelques fois rompu par des textes trop présents voire encombrants, par un graphisme qui malgré son avant-gardisme, oubli de mettre en valeur le thème traité en conformité avec les règles sémiologiques usuelles en cartographie. En effet, il eut été préférable de diminuer la taille des textes pour laisser plus de place à l'expression géographique qui, à maintes occasions, vu la petitesse des cartes conjuguée avec des choix de textures et/ou de couleurs (ton sur ton, de valeurs trop rapprochées ou encore trop saturées) rendent le message difficile à déchiffrer voire illisible. Enfin, pour permettre une meilleure compréhension des textes, l'ajout d'un glossaire eut été judicieux, considérant la destination tout public.

Quoiqu'il en soit, l'Atlas environnemental est un ouvrage incontournable pour ceux qui veulent mieux connaître le fleuve Saint-Laurent.

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AACRe, please contact Elizabeth Morton of the CLA at (613)232-9625, ext. 322.

The first issue of MapForum has been released to cyberspace. It is a bold new WEB magazine for promoting the study of old maps. The editor intends to cater his electronic magazine to both the novice and the experienced collector by providing articles at all levels of interest and expertise. Regular features in MapForum will include: Checklist (a collation of plates associated with at least one early book or atlas); Cartographical Curiosities and Items of Ephemera; Map Libraries; Dealers' Profiles; Readers' Services (an identification and biographical service); Handbook (an ongoing file of useful information and reference materials); Reviews (of new books relating to the History of Cartography); and Dealers' Catalogues. This newest addition to the history of cartography is edited by Ashley Baynton-William, a well respected antiquarian map dealer. For further information, visit the MapForum WEB site at: www.MapForum.com

Candidates for Election to the 1999/2000 CCA Executive

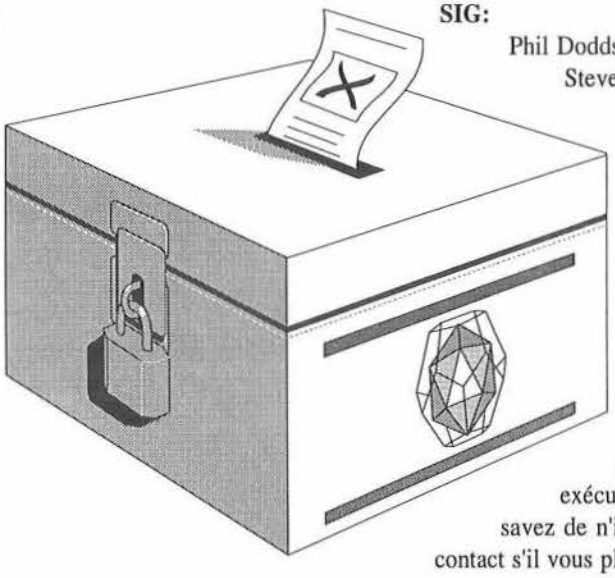
The CCA Nominating Committee is pleased to present the following slate of candidates:

Vice-President:
Patricia Chalk, University of Western Ontario
(Candidate to be named later)

Chair, Cartographic Education:
David Broscoe, Algonquin College
Diana Hocking, University of Victoria

Chair, Analytical Cartography and GIS:
Phil Dodds, Intergraph Corporation
Steven Prashker, Carleton University

Chair, Map Production Technology:
Ken Francis, Geomatics Canada
(Candidate to be named later)



Nominations are still open for the positions of Vice President and Chair, Map Production Technology Interest Group. If you wish to run for one of these positions, or if you know of anyone who is interested, please contact:

Brian Klinkenberg
Chair, Nominating Committee
Department of Geography
University of British Columbia
Vancouver, BC
V6T 1Z2

Candidate profiles and ballots will be included in the next issue of *Cartouche*.

Candidats aux élections au Comité exécutif de l'ACC 1999/2000

Le Comité de nomination de l'ACC a le plaisir de soumettre la liste de candidats suivante aux élections au Comité exécutif de l'ACC 1999/2000.

Vice-président:
Patricia Chalk, University of Western Ontario
(Candidat à nommer plus tard)

Chef, sur l'Éducation cartographique:
David Broscoe, Algonquin College
Diana Hocking, University of Victoria

Chef, Groupe d'intérêt sur la Cartographie analytique et SIG:
Phil Dodds, Intergraph Corporation
Steven Prashker, Carleton University

Chef, Groupe d'intérêt sur la Technologie de production cartographique:
Ken Francis, Géomatique Canada
(Candidat à nommer plus tard)

Les nominations sont encore ouvertes pour les positions du vice-président et chef, groupe d'intérêt de technologie de production de carte. Si vous souhaitez exécuter pour un de ces positions, ou si vous savez de n'importe qui qui est intéressé, entrez en contact s'il vous plaît:

Brian Klinkenberg
Président, Comité de nomination de l'ACC
Department of Geography
University of British Columbia
Vancouver (Colombia-Brittanique)
V6T 1Z2

Des profils et les votes de candidat seront inclus dans la prochaine issue de *Cartouche*.

The Canadian Cartographic Association
L'Association canadienne de cartographie

CCA Executive / *Exécutif de l'ACC:*

President / *Président:*
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Vice President / *vice-Président:*
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Secretary-Treasurer / *secrétaire-trésorier:*
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Interest Group Chairs and Appointees:
Présidents des groups d'Intérêt et les personnes nommées:

Analytical Cartography and GIS / *Cartographie analytique et SIG:*
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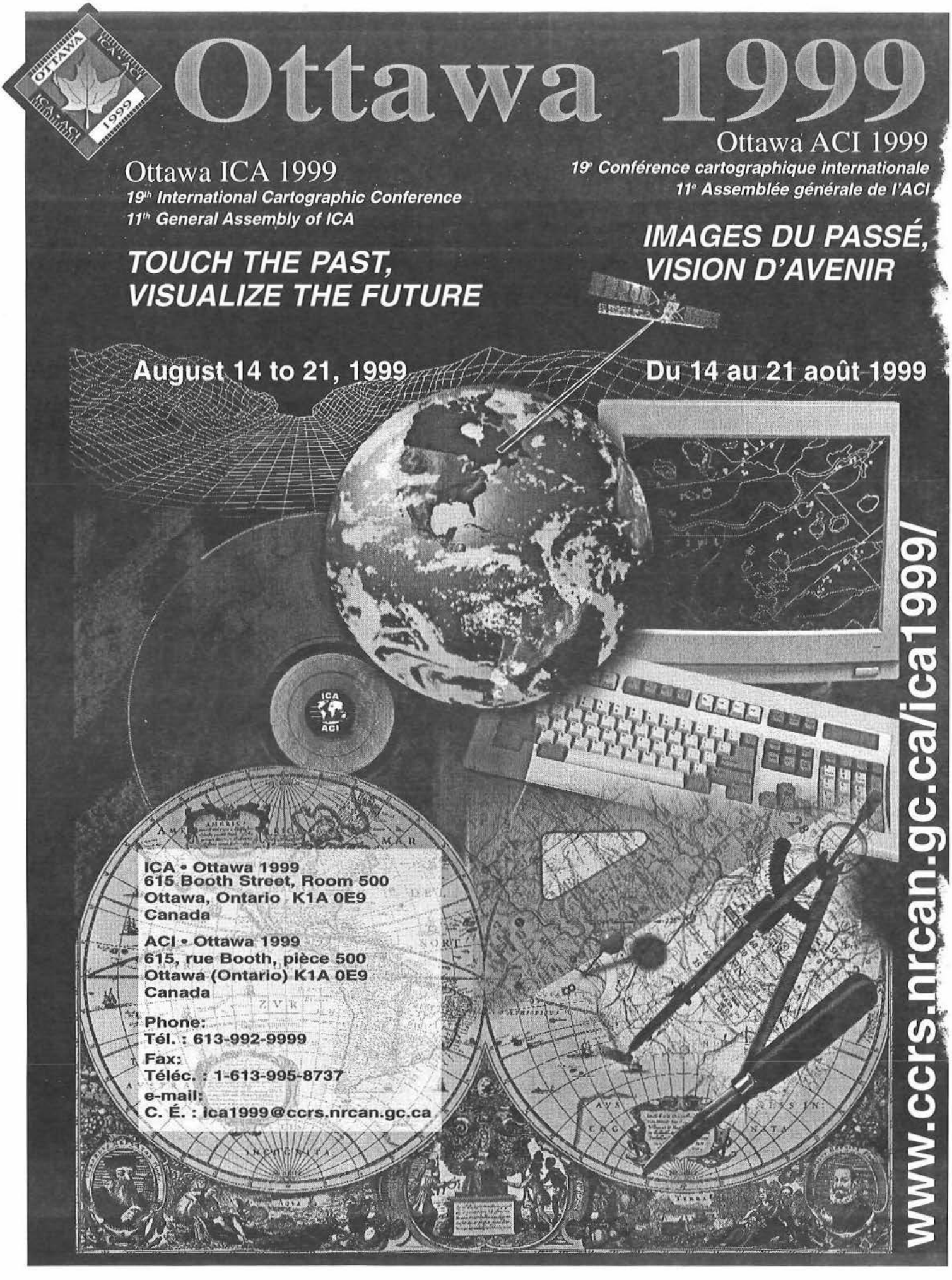
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