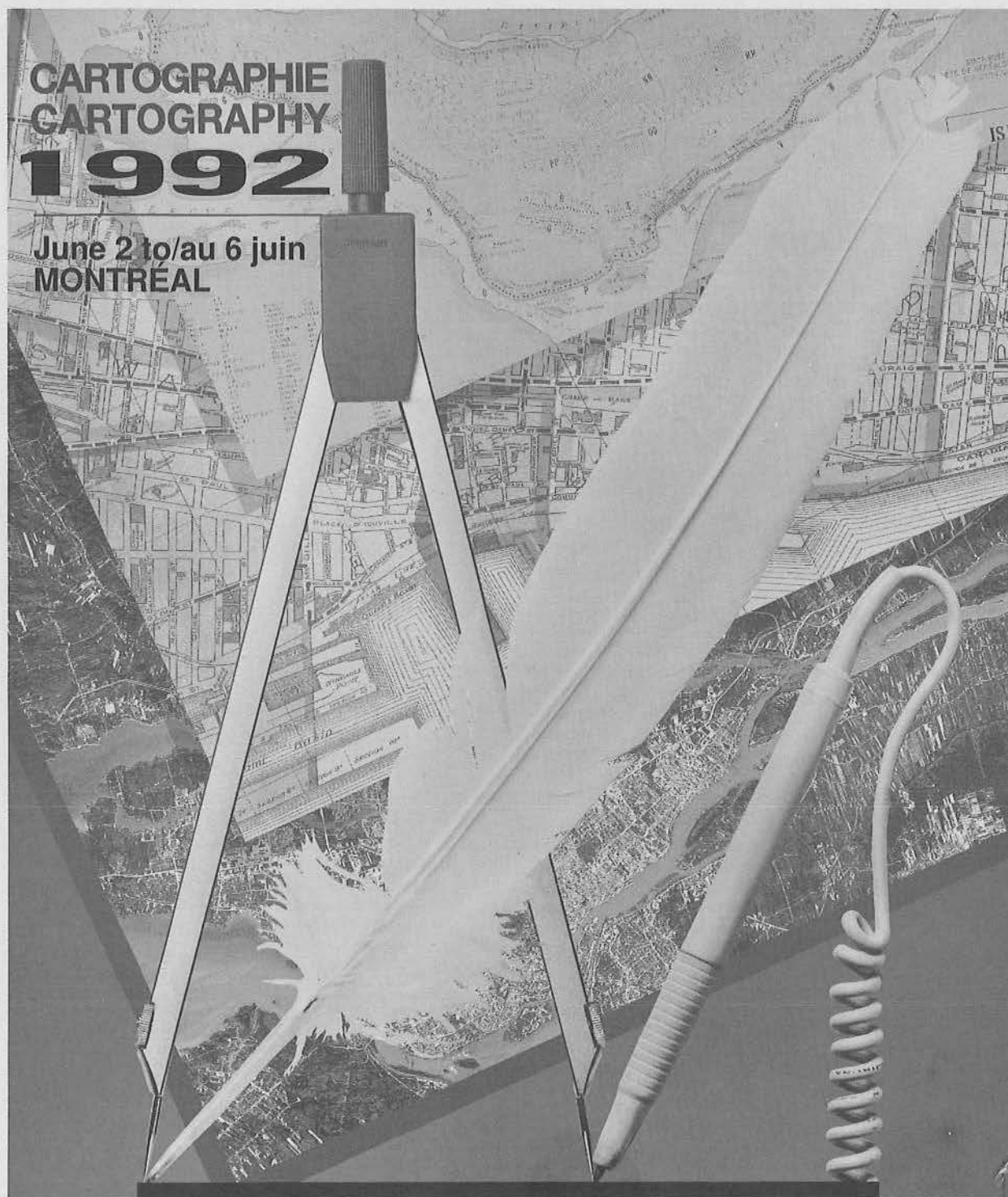


CARTOUCHE

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



CARTOUCHE

Number 4. Winter, 1991

numéro 4. hiver, 1991.

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Cartouche is produced quarterly by the Canadian Cartographic Association.

Content Deadlines are: January 31, April 30, July 30, October 31. (see page 24)

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

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(voir page 24). N'hésitez pas à soumettre des articles (vous êtes même priés de le faire!) que vous désirez publier dans le bulletin. Présentement, selon la politique en vigueur, l'éditeur doit publier en français et en anglais, l'éditorial ainsi que la description du processus de publication du bulletin. Le reste des articles paraîtront dans la langue dans laquelle ils ont été écrits. Bien que beaucoup d'efforts sont déployés en vue d'éviter de tels problèmes, l'éditeur (*de même que les cartographes!*) ne seront pas tenus responsables des erreurs de compilation ou de la perte d'articles qui leur seront soumis. Les opinions exprimées dans le cadre des éditoriaux, des articles et des lettres publiées dans le bulletin ne reflètent pas nécessairement celles de l'A.C.C.. Pour ce qui est des tarifs publicitaires, veuillez contacter le responsable de la publicité, Roger Wheate.

The Canadian Cartographic Association gratefully acknowledges the financial support given by the Social Sciences and Humanities Research Council of Canada. L'Association Canadienne de cartographie remercie vivement le Conseil de recherches en sciences humaines du Canada pour son appui financier.

The Manager's File/ filière du gérant

by/par

Roger Wheate.

1: New members/membres nouveaux

Barbara Bridgehouse	Toronto, Ont.
Mark Frith	Regina, Sask.
Malcom Lowings	Lethbridge, AB
Glenn McKean	Calgary, Alta.
Mark Shymanski	Winnipeg, Man.
Bruce Yarish	Brandon, Man.

2: Regular Membership Stats for 1991.

Canada	250
USA	87
Overseas	27
Total	364

By province/state/country:

Ontario	103	Alberta	40
Quebec	34	British Columbia	22
Nova Scotia	13	Manitoba	12
Newfoundland	10	Saskatchewan	6
Yukon	5	New Brunswick	3
Northwest Territories	2		

New York	10	Virginia	9
Massachusetts	8	California	7
Minnesota	6	Pennsylvania	6
Illinois	5	Wisconsin	4
Ohio	3	DC	3
6 states	2	14 states	1

Hong Kong	8	UK	6
Germany	2	Other	11

Associate Member Stats:

Ontario	71	Alberta	10
Saskatchewan	8	Quebec	7
British Columbia	3	Nova Scotia	3
New Brunswick	2	Manitoba	2
USA	2	UK	2
Hong Kong	2	Ethiopia	2
Other	4		

3: 1992 Membership: TIME TO RENEW!!!

Once again, as we approach the calendar year's end, whatever your faith, it is time to renew memberships. Late renewals cost the Association considerable time and money, so we would like to encourage you to renew as soon as possible, despite the onerous burdens placed on us all in December by the forces of commercialism! To this end, the executive have instigated a draw for all those individual and family members who

renew or join by February 15 1992. The prize for one lucky member will be the refund of your 1992 membership fee, a free 1993 membership and free registration to the 1992 annual meeting in Montreal, June 2- 6 1992 (a total value of up to \$250!).

Members can also help reduce association costs per head, and hence prevent the raising of fees, not only by renewing on time, but also by encouraging colleagues in the field to join. This gives all those successful in persuading new members to join, extra chances in the draw for free membership. We feel our services and benefits are worth the annual fee. On this note, I would like to remind you of just two services provided by the CCA:

1. Subscriptions to 'GIS World', are half price if you are a CCA member (US\$30 instead of \$60 for regular members) — just specify your membership when you subscribe;

2. The annual meeting in Montreal in June should be a special time. It is most unfortunate that more members cannot attend the annual meeting due to costs and commitments. All who do, agree it is the most informative and enjoyable of all the year's conferences, bar none! (And some of us have to attend many!). This year's is hosted by all four of Montreal's Universities and coincides with the celebrations surrounding the 350th anniversary of the city of Montreal. If you can, try to plan for this special event now (June 2-6, 1992).

4: Need a job?

GeoSearch of Colorado has monthly listings, mostly in GIS/Image Processing areas. Contact: GeoSearch, P.O.Box 62178, Colorado Springs, CO 80920.

5: Digitizing of Photographs.

Need a monochrome photograph digitized? Contact me at the CCA office address. Can digitize up to 4096 pizel resolution, into PIX (PCI) or Idrisi file format, easily manipulated into other common GIS formats.

Last minute addition:

I have just heard from Marcia Faurer of the tragic death of Malcolm Brown, past president of the CCA and tireless supporter of Cartography in general. He and his son, Patrick, were killed in a car accident near Regina, Saturday December 7th, while returning from a conference in Wyoming. He is survived by his wife, Betty. This issue was literally on its way out the door to the printers when I got the call, and I can't think of anything too brilliant to say right now. I can hardly edit this paragraph. I am too shocked, too sad. We have lost a good friend. Look for more in the next issue. *Editor*

President's message/ mot du président

by/par

Peter Keller.

Alas, the time has come to once again take up my pen (ups keyboard) and draft a message to you. It seems to me that a lot has happened since the last issue of CARTOUCHE, and what better a place to start then to reflect on the 15th conference of the International Cartographic Association (ICA) held in Bournemouth, England in October.

It looked for a while as though I would not be able to participate in this conference, given a registration fee of over 600.00 \$Cdn., and a total budget estimate of close to 3,000 \$Cdn. for the week. Thanks to the generosity of my University, and by switching my dog's diet from PURINA Puppy Chow to a no-name brand for the next year, I did however eventually make it; and I am glad that I did.

I am glad I went because it is not often that one gets the opportunity to examine map exhibits from all over the world, to be able to talk to cartographers hitherto familiar only through the literature, to eat ice cream with Mike Coulson while listening to a concert playing Mozart in a hall in which the Beatles once starred, and of course to walk in the good old liquid sunshine so common in the British Isles. It was fascinating to learn about, and to see first-hand, evidence of the politically motivated cartographic inaccuracies on maps from behind the old iron curtain, and to participate in a fieldtrip to the incredible efficiently organized British Hydrographic Service. I also will not forget Fraser Taylor's presidential message.

Fraser Taylor thought it important to remind us in no uncertain terms that cognition, visualization and communication are key aspects of cartography, and that we should not lose sight of this fact when struggling with the contemporary technological revolution. Computers, he correctly identified, should not be driving art and creativity out of mapping - computers should be the means to open new avenues of creativity. I am sure the president's message rang of "ivory tower" and "academia" to some of those delegates struggling with the operational headaches of technology conversion and national GIS initiatives; but at least the message is beginning to reach them that they should not lose sight of their ultimate mandate, that is to communicate the lay of the land as effectively as possible for purposes of administration, management and planning. Congratulations to Fraser Taylor for being re-elected as president of the ICA for another four year term.

Having said all that, the registration fee of 600 \$Cdn. still was far from justified. Such exorbitant fees make this type of meeting elitist, and I do hope that the ICA will address this issue for future meetings. For those of you more interested in detail concerning Canada's participation in the conference, please turn to a section in this issue of CARTOUCHE where Cliff Wood, outgoing chair of the Canadian National Committee to the ICA, reports about activities in more detail. Those of you interested in participating in an ICA pow wow should note that the next technical meeting will be in Cologne, Germany in early 1993, followed by the next full meeting in Barcelona, Spain in 1995.

Closer to home, I would like to wish Norman Drummond all the best in his new role as the CCA nominated "Technical Councillor for Cartography" to the CISM executive, which includes the role of incoming chair of the Canadian National Committee (CNC) to the ICA. This nomination has come about as the result of an interim memorandum of understanding between the CCA and the CISM concerning management of the Canadian National Committee to the ICA. More about this at our next AGM. Let me take this opportunity, however, to thank Cliff Wood as outgoing chair of the CNC, and his committee, for preparing an excellent Canadian map display, a strong slate of Canadian papers, and an excellent Canadian National Report, published in the CISM Journal, Vol. 45(1). Well done.

I am pleased to report that the organizing committee is hard at work planning our next annual meeting in Montreal, to be held jointly with Carto Quebec. The emerging program looks exciting - but don't forget that it is ultimately you that will make it all happen. Don't forget that we would love to hear about the work you do in-between our annual meetings. This includes not only academic research. We also would love to learn about the problems you are facing (and hopefully solving) in the production and reproduction environment. So start planning your participation in Montreal.

Please take note of this year's President's Prizes Competition. As your president, I have taken the liberty to change a few things. I am sure that not all of you will agree with my changes (after all nobody likes change); but let's see how it goes.

A warm welcome to all new members to the CCA, and especially to those of you that have joined us under the newly formed associate membership category. A special welcome to all you members of the OICC that have joined us in bulk as associate members. We hope to serve you well, and hope that you will find opportunity to participate in CCA activities.

As I sit here writing to you, the rain is falling outside the window, the trees are bare of leaves, and the shops are filling with the commercial aspects of Christmas. Last time I challenged you to share with us your experiences using maps on your vacation. This time, let me challenge you to tell us about the ultimate cartographic Christmas present. Already, I have seen displayed in a shop a shower curtain showing a map of the world. Beat that one.

A Merry Christmas, and Happy Mapping in 1992.

Enfin, le moment est venu de reprendre une nouvelle fois ma plume (un clavier ups) pour vous écrire un message. J'ai l'impression qu'il s'est passé beaucoup de choses depuis la publication du dernier numéro de *Cartouche*. J'ai pensé qu'une réflexion sur la 15^{ème} conférence de l'Association Internationale de Cartographie (AIC) qui s'est tenue à Bournemouth, en Angleterre dans le courant du mois d'octobre, serait sans doute la meilleure façon d'entamer ce nouveau message.

J'ai cru pendant un certain temps que je n'allais pas pouvoir participer à cette conférence en raison des frais d'inscription de 600,000 dollars canadiens et d'un budget total pour la semaine estimé à près de 3,000 dollars canadiens. Cependant, grâce à la générosité de mon Université et en faisant adopter à mon chien un régime de nourriture Sans-nom au lieu de son Purina pendant une année, j'ai finalement réussi à amasser l'argent nécessaire; et j'en suis fort satisfait.

Je suis content d'avoir pu me rendre à la conférence car il est rare d'avoir la chance d'examiner des expositions de cartes du monde entier, de pouvoir discuter avec des cartographes connus jusqu'ici qu'à travers leurs écrits. Je n'oublie pas non plus le plaisir de savourer une crème glacée avec Mike Coulson en écoutant un chœur jouer du Mozart dans un hall où les Beatles ont été une fois des vedettes, et bien entendu la chance de pouvoir se promener au bon vieux soleil liquide si particulier aux Îles britanniques. Il a été aussi fascinant de mon seulement découvrir mais de constater de première main les évidences des inexactitudes cartographiques motivées par des raisons politiques sur les cartes créées par delà l'ancien rideau de fer. J'ai enfin beaucoup apprécié la possibilité de participer à une excursion au Service hydrographique britannique dont la compétence d'organisation est remarquable. Je n'oublierai pas non plus le message présidentiel de Fraser Taylor.

Fraser Taylor a jugé qu'il était important de nous rappeler en des termes on ne peut plus clairs que la connaissance, la visualisation et la communication sont les aspects clés de la cartographie. Nous ne devrions pas

perdre de vue cette réalité lors de nos démêlés avec la révolution technologique contemporaine. Talyor a remarqué de façon pertinente que les ordinateurs ne devraient pas éliminer l'art et la créativité du processus de la cartographie — les ordinateurs devraient devenir des outils servant à ouvrir de nouvelles avenues de créativité. Je suis certain que le message du président a raisonné aux sons de la «tour d'ivoire» et de "l'académie" pour certain(e)s des délégué(e)s en lutte contre les maux de tête opérationnels de la technologie de conversion et des initiatives nationales SIG. Cependant le message commence à les atteindre et à leur signaler qu'ils/elles ne devraient pas perdre de vue leur mandat final, à savoir que ce qui importe est de communiquer la configuration du territoire de manière aussi effective que possible pour les besoins de l'administration, du management et du planning. Félicitations à Fraser Taylor pour sa réélection à la présidence de l'AIC pour un nouveau mandat de quatre ans.

En dépit de tout ce que je viens de dire, il m'est impossible de justifier les frais d'inscription de 600 dollars canadiens. Ces frais exorbitants rendent ce genre de réunion élitiste, et j'espère que l'AIC va débattre de cette question avant les prochaines assemblées. J'invite celles et ceux d'entre vous qui s'intéressent plus particulièrement à la participation canadienne à cette conférence à consulter la section de ce numéro de *Cartouche* où Cliff Nood, le président sortant du comité national canadien de l'AIC, fait le compte rendu des activités de manière plus détaillée. Celles et ceux qui sont intéressé(e)s à participer à une assemblée de l'ACI devraient prendre en note le fait que la prochaine réunion technique aura lieu à Cologne en Allemagne au début de l'année 1993. Cette réunion sera suivie d'une assemblée plénière à Barcelone en Espagne dans le courant de l'année 1995.

Plus près de nous, j'aimerais souhaiter bonne chance à Norman Drummond dans son nouveau rôle de "conseillé technique de cartographie" de l'ACC à l'exécutif de l'ACSGC. Cette fonction inclut la nouvelle présidence du comité national canadien (CNC) à l'ACI. Cette nomination est issue d'un mémorandum temporaire d'entente entre l'ACC et le ACSGC au sujet de la direction du comité national canadien à l'ACI. Cette question sera abordée plus en détails lors de notre prochaine réunion générale annuelle. Permettez-moi cependant, de me saisir de cette occasion pour remercier Cliff Wood le président sortant du CNC, ainsi que son comité, pour avoir préparé une excellente exposition de cartes canadiennes, une forte ardoise de papiers canadiens et un excellent rapport national canadien publié dans la revue de l'ACSGC. Vol. 45(1).

J'ai plaisir à signaler que le comité d'organisation est en plein travail afin de planifier notre prochaine réunion annuelle à Montréal qui se tiendra conjointement avec l'association québécoise de cartographie. Le programme qui est en train de s'établir a l'air fort intéressant - mais n'oubliez pas qu'en dernier ressort c'est votre participation qui détermine le succès de l'assemblée. N'oubliez pas non plus que nous aimerions recevoir des nouvelles de vos travaux en dehors des réunions. Ceci n'inclut pas seulement vos recherches académiques. Nous aimerions aussi entendre parler des problèmes auxquels vous faites face (et que, nous espérons, vous réussissez à surmonter) dans le cadre de la production et de la reproduction. Commencez donc à planifier votre participation à Montréal.

Veuillez, s'il vous plaît, prendre note de la compétition des prix du président pour cette année. En tant que président, j'ai pris la liberté de modifier quelque peu le règlement. Je doute que tout le monde sera d'accord avec mes changements (après tout personne n'aime les changements); mais voyons ce qui en ressortira.

Un accueil chaleureux à tous les nouveaux membres de l'ACC, et particulièrement à ceux et celles d'entre vous qui nous avez rejoint dans le cadre de la catégorie d'adhésion nouvellement formée. Un accueil particulier à tous les membres de l'OICC qui nous ont rejoint en masse en tant que membres associés. Nous espérons vous servir de manière adéquate et que vous trouverez une occasion pour participer aux activités de l'ACC.

Tandis que je suis assis ici en train de rédiger cette lettre, il pleut dehors, les arbres se sont dénudés de leurs feuilles, et les magasins se remplissent des aspects commerciaux de Noël. La dernière fois que je vous ai écrit, je vous ai invité à partager avec nous vos expériences en ce qui concerne l'utilisation de cartes lors de vos vacances. Cette fois-ci, permettez-moi de vous lancer un autre défi: faites-nous parvenir la découverte du cadeau de Noël cartographique suprême. Déjà je dois mentionner que j'ai vu à l'étalage un rideau de douche portant une carte du monde. Qui fait mieux?

Joyeux Noël à toutes et à tous, et surtout joyeuse fabrication de cartes pendant l'année 1992.

Traducteur. Demandé pour les transductions occasionnelles pour cartouche. Connaissance du langage technique. Payment disponible. Accès désiré au courrier électronique et au traitement de texte. Contact l'éditeur, adresse à page 2.

Education/éducation

by

Marcia Faurer

Literacy, Numeracy, & Computeracy

The 3 R's seem to have taken on a new meaning, & post-secondary educators will soon have to come to grips with this fact. Recently, a great deal of attention has been paid to the low levels of literacy (language & geographic) & numeracy displayed by high school students entering post secondary institutions. These problems are evident in most disciplines, & the responsibility is shunted back & forth between the public schools & universities. Appalled, university professors complain that it is not their job to teach the 3 R's. Indignantly, public school teachers claim that they are doing the best that they can; that there is a great disparity in the resources of the school system between the 'have & have-not' schools; & that the current pedagogical philosophy favors 'processing' students that would have been held back (in the olden days). Regardless of who is to blame, it is ultimately the student who suffers. It is the student who is frustrated, & who graduates functionally illiterate & innumerate.

The initiative to change this situation should, ideally, come from at least one of these participants. Alternatively, business & industry soon might become effective motivators as their pool of qualified employees begins to dwindle, & they find themselves in the position of having to train these people at their own expense.

If all this seems to be a daunting problem, consider computer literacy (computeracy), & the scenario that educators face now & might be facing in the not too distant future. If we examine those occupations to which post-secondary students are looking, most require a certain degree of experience with computers. This is, of course, becoming increasingly more important in cartography. Even though schools are introducing more & younger students to computers all the time, we still see pre-computer students at university. This is the first problem. Many of these students are receiving their introduction to computers through a cartography course. So, for the time being, we often have the added responsibility to take time from the course content to walk students through the basics of computers. This runs the risk of losing students who find this experience too time-consuming, uninteresting, or difficult, with the result that their intimidation towards the computer is reinforced, & worse, they can associate this with cartography.

The second problem has not occurred yet, but is on its way. What will happen in the near future when post secondary institutions begin seeing those students who were 'raised on computers'? I am reasonably sure that the lectures & labs that I am using for Computer Mapping will not suffice for those students. To prepare for this eventuality, I feel that educators must begin to upgrade their own training & material to be ready for increasingly challenging students. That is students who do not need to be walked through the basics of hardware, software, & DOS. In this sense the tables may be turned. Educators still may be more literate & numerate, but the students may be more 'computerate'. This problem can be further complicated by the fact that given the current economic climate, it is very likely that not all students will be raised on computers. In this way, the disparity that exists in the urban/suburban/rural school structure will be enhanced. The gulf between computer literate & illiterate will have far reaching ramifications in post secondary schools, & ultimately, in the job market. Another group of students that lack a background in computers will be those who have chosen an avenue of study that did not emphasize computer skills. This group could possibly comprise a large proportion of our cartography students. For now we can safely assume that we have to go through the most fundamental computer basics, but how will we deal with a mixed class? If we continue with that approach, many students will feel it a waste of time. If we do not offer this introduction, the rest of the class will be lost.

Cartography, either as a discipline on its own, or within a Geography department, is one in which students must have all three skills: literacy, numeracy, and computeracy. By neglecting or refusing to take on the responsibility of improving these skills in our students, we will be doing a disservice to the discipline.

1992 AGM - EDUCATION SIG

If anyone is interested in participating in a seminar on Education in Cartography at the Montreal meeting, could you please contact me as soon as possible so that arrangements can be made. This could be an excellent opportunity to meet and share thoughts and curricula on a vital aspect of cartography. This should not be limited to those who are involved in teaching and would in fact benefit greatly from the input of those members who are working in the field. I propose two POSSIBLE themes:

1. exchange and discussion of course outlines
2. teaching cartography within a geography department: course or program?

As always, I am open to suggestions. I would appreciate your responses as soon as possible.

WINNIPEG GIS COLLOQUIUM

A report of the 1991 GIS Colloquium in Winnipeg appeared in the last issue of CARTOUCHE. Malcolm Brown & I would now like to add that as a result of the Colloquium, we were able to make a donation of \$200.00 to the Norman Nicholson Scholarship. This was the 4th year that the Colloquium was held, & each year the CCA has agreed to be a sponsor.

We will be holding our 5th GIS Colloquium this spring at the University of Winnipeg & hope that it too will be as successful as its predecessors. We also hope that we will see some new faces from farther afield. If you are interested, & either want to be added to our mailing list or to present a paper, display, or demonstration, please feel free to contact me (see page 3). It will prepare you for your trip to Winnipeg in 1993 for the Annual General Meeting of the CCA.

J. M. Ellis Innovative Map of the Year Award.

J. M. Ellis Ltd. and the Cartography Technical Committee of the Canadian Institute of Surveying and Mapping is sponsoring an award for the "Innovative Map of the Year." The award is intended to promote interest in and recognize excellence of creative design in cartography. Annually, the award will highlight a single map that exhibits significant design advances. The competition is open to all Canadian residents, private firms, federal, provincial, and municipal agencies producing and publishing maps.

The award-winning map will be exhibited at the CISM Annual General Meeting, a presentation made to the award winner at the CISM annual awards luncheon, and a brief description of the map will be published in the CISM JOURNAL ACSGC. First and second runners up will also be selected and exhibited at the annual meeting. Entry forms may be obtained from the CISM office: Box 5378, Station F, Ottawa, Ontario K2C 3J1 Telephone 613-224-9851 Fax: 613-224-9577, or from the Cartouche Editor, Address: Page 2. *All entries must be received no later than March 1, 1992*

Lost Souls!

Would anyone knowing the whereabouts of the the following persons Please inform David Douglas, Dept. of Geography, University of Ottawa, Ottawa K1N6N5, or via email DHDAD@UOTTAWA.

Colleen Marie Borwick
Judith C. Ross
Helen O'Hara

Janneke Blaauboer
Dr. R. St. Arnaud
R. Beddington

Map Use/Map Design

by
Janet Mersey

GIS and Map Design

In an article in the ACSM Bulletin (Oct. 91) Jay Donnelly writes "GIS technology has provided the means for making poor maps". Donnelly is concerned that many GIS users, attracted by the powerful data management and analytical capabilities of this readily available technology, lack knowledge of cartographic theory and design principles that could greatly enhance their ability to produce effective maps. It is not difficult to find examples of GIS-generated maps where certain cartographic principles have been violated; errors such as displaying absolute values on a choropleth map (used as an example in one GIS manual I have seen!) and mapping at a larger scale than the digitized base map come to mind.

Although having a more informed GIS user would help reduce errors like these, other constraints exist particularly in the area of map design. Recently I have been involved in a project to map thematic distributions from the first census of Canada in 1871, and have experimented with a number of pc-compatible microcomputer programs to generate the maps. The advantages of these programs for organizing my complex set of related boundary and data files were obvious, but I was frustrated by how inflexible the programs were in terms of thematic symbolization and design elements. Few programs were able to generate proportional circle maps (let alone sectorized circles!), and it was difficult to control feature precedence and transparency when attempting to create visual levels to organize the display. The use of colour was also problematic; although I managed to create acceptable colour sequences on my computer monitor, I was faced with using my primary coloured plotting pens when generating a hard-copy map.

I suppose programmers would argue that my tools are too primitive, or that their programs were never intended to generate final product output. Yet GIS programs are being used in this way, and the results displayed at conferences and published in journals. In fact, many of the maps are not that bad. It's just that they could be better if GIS users and programmers tuned into the rich literature of theory and design already established in cartography, and integrated these principles into GIS technology. Is there sufficient interest to devote a session at the next annual meeting in Montreal to this challenge? Let me know! In the meantime here are a few books which I would recommend to anyone making their first map on a computer:

Dent, Borden D. *Cartography: Thematic Map Design*. Dubuque, Iowa: Wm. C. Brown Publishers, 1990, 433 pages.

Monmonier, Mark S. *How to Lie With Maps*. Chicago: The University of Chicago Press, 1991, 176 pages.

Tufte, Edward R. *Envisioning Information*. Cheshire, Connecticut: Graphics Press, 1990, 126 pages.

Weltman, Gershon. *Maps: A Guide to Innovative Design*. Woodland Hills, California: Perceptronics (Technical Report PTR-1033S-78-1), 1979, 240 pages.

J. M. Ellis Carte Innovatrice De L'Année.

J. M. Ellis Limité et le Comité technique de cartographie de l'Association canadienne des sciences géodésiques et cartographiques encourage le développement continu de la cartographie en commanditant un prix pour la "Carte innovatrice de l'année." Le prix vise à promouvoir l'intérêt pour la cartographie et reconnaître l'excellence d'une présentation créative dans ce domaine. Une fois par année, le prix soulignera une carte unique qui témoigne de progrès significatifs dans la présentation. Le concours est ouvert à tous les résidents du Canada, aux entreprises privées, aux organismes fédéraux, provinciaux et municipaux qui produisent et publient des cartes.

La carte gagnante sera exposée au cours de l'assemblée générale annuelle de l'ACSGC, le (la) gagnant(e) recevra son prix au dîner annuel de remise des prix de l'ACSGC et une brève description de la carte sera publiée dans le CISM JOURNAL ACSGC. Des deuxième et troisième places seront également décernées et exposées à l'assemblée annuelle. Les formulaires d'inscription peuvent être obtenus du bureau de l'ACSGC: C.P. 5378, succursale "F", Ottawa (Ontario) K2C 3J1, téléphone: (613) 224-9851, télécopieur: (613) 224-9577 ou de l'éditeur de Cartouche, adresse page 2. *Toutes les inscriptions doivent être reçues au plus tard le 1er MARS 1992*

For Sale:

Brown 31 inch Admiral Low Bed Camera with all standard equipment. Contact: Barbara Rigutto Museum of Indian Archaeology London, Ontario Phone: (519)473-1360 FAX: (519)473-1363

History of Cartography/ histoire de la cartographie

by
Jeff Murray

GIS at the National Archives

Of the 35 federal institutions surveyed last year by the Inter-Agency Committee on Geomatics, the National Archives of Canada placed among the top five in terms of the number of datasets it retains. "And the figure is only going to get bigger," replies David Brown, an archivist with the Cartographic and Audio-Visual Archives Division. "Under the new Archives Act passed in 1987, the National Archives of Canada was given a very clear mandate to collect the memory of the government of Canada, no matter what the media."

The Act referred to by Brown requires all federal departments to obtain the permission of the National Archivist before destroying their records, whether they take the form of electronic data, paper records, maps, photographs, or films. If the records have historical, legal or evidential value, the Act also provides for their transfer to the National Archives of Canada for permanent retention once they are no longer considered operational by the department. With the National Archives Act now enshrined in law, the Archives has collected some 13 GIS datasets from a variety of federal institutions, most notably Environment Canada, Forestry Canada, and the Geological Survey of Canada.

To some, this must seem an odd contradiction. The institution that is well known for its collections of the oldest paper-based records of the government is now turning its attention to the most sophisticated, electronic databases ever created. "Our goal is the retention of Canada's national memory," reiterates senior archivist Terry Cook. "Since Canada is a world leader in the development of GIS, we are quite prepared to take whatever steps are necessary to document this achievement for future generations."

Unfortunately, electronic records are extremely fragile and transient, and many of the original datasets that were created back in the 1970s are now lost forever. This loss is partially the result of the rather callous attitudes many departments had for their information. Senior officials usually had no idea what data were being collected by their department, let alone where they might find it. Since government departments had little interest in managing their information, decisions on the retention of electronic records were generally left to the discretion of junior personnel who had no concept as to how the information might be used by future researchers.

But with the help of Treasury Board's new policy on the Management of Government Information Holdings, federal departments are now beginning to recognize their electronic records as a corporate asset. The new policy calls for a "designated senior official" to represent the department and take responsibility for implementing a corporate perspective on the management, and later efficient disposition, of all information in all media within his or her organization.

This policy has established new precedents, and it has helped the National Archives of Canada to be one of the first in the world to collect electronic records and GIS datasets. In combination, the National Archives Act and Treasury Board's policy have enabled the National Archives to implement a planned approach to the disposition of government records. Over the next few years, archivists will be reviewing all the holdings of major government departments in order to identify records of national significance. The result will hopefully enable a more complete and systematic preservation of GIS datasets throughout federal institutions.

Further information on the GIS holdings of the National Archives of Canada can be obtained by writing the Director, Reference and Researcher Services Division, National Archives of Canada, 395 Wellington Street, Ottawa, Ontario, K1A 0N3.

People and Places

The Ontario Government's **Ministry of Northern Development and Mines** is moving its head office to Sudbury. It is expected that the move will be completed by mid 1992. As part of the move, the Ministry is building a **Mines and Minerals Research Centre** on the campus of the Laurentian University. Apparently, the (Ontario) Geological Survey Library is scheduled to be located in this new facility.

Diane Lacasse is the new head of the Map Resource Centre, Canada Centre for Mapping, Department of Energy, Mines and Resources.

The Association of Canadian Map Libraries and Archives recently announced that **Maureen Wilson** was the recipient of its 1990 Honours Award. The Award was made in recognition of Maureen's more than 30 years of dedicated service in map librarianship at the University of British Columbia.

Two evenings last May, the **Royal Canadian Geographic Society** sponsored a popular, illustrated lecture on the history of Canadian cartography. Entitled "Putting Canada on the Map," the lecture was given by Louis Sebert, one of the founding members and first Secretary of the Canadian Cartographic As-

sociation. On both occasions Lou's presentation was a sell out, with standing room only!

There has been a minor reorganization of two custodial areas in the National Archives of Canada. The **Cartographic and Architectural Archives Division (CAAD)** and the **Moving Image and Sound Archives Division (MISA)** were officially amalgamated last April. The director of the new unit is **Betty Kidd**, the former director of CAAD. When Betty left CAAD last year to become the director of MISA, it was originally intended that a new director would be found for CAAD. But as a result of cuts to its budget last spring, the National Archives brought the two divisions together as a single unit. The unit is now called the **Cartographic and Audio-Visual Archives Division (CAVA)**.

In an effort to balance its budget and help stabilize the provincial economy, the Alberta Government has drastically cut funding for its archival and museum programs. The **Provincial Archives of Alberta** has been particularly hard hit. The Historical Resources Division, of which the Archives was a separate Branch, has suffered a total loss of 24 positions. Commenting on the cuts in the *Association of Canadian Archivists Bulletin*, Provincial Archivist Brian Speirs is quoted as saying "the impact of this loss will be felt most directly in retrieval and refiling connected with the provision of public references services, technical processing of audio-visual resources, and Provincial Archives Library services." As a result of the cuts, Alberta Culture and Multiculturalism has re-organized the Historical Resources Division. The Archives has been incorporated into a restructured Historic Sites and Archives Division.

Po Chan has been named the new map librarian at Simon Fraser University. She will be replacing **Jack Corse** who has accepted the position of Criminology Librarian.

The **Cartographic Resource Centre** at the **University of Victoria** has been designated a branch of the University Libraries.

After being virtually inaccessible for more than two years, the map collection at the **University of Lethbridge** is open again. The collection is presently under the care of a part-time position.

In an effort to mark the **150th anniversary** of the founding of the **Geological Survey of Canada** in 1992, the Department of Energy, Mines and Resources is planning a number of commemorative events. The departmental anniversary committee has already put together a major exhibit on the history of the GSC. It is

currently on display at the Booth Street office, and next year it will be travelling to several major centres across Canada. Other exhibits are being planned by the Glenbow Museum, Calgary; the National Archives of Canada, Ottawa; the Royal Tyrrell Museum of Palaeontology, Drumheller; and the Redpath Museum, Montreal. In addition, the anniversary committee is also expecting a number of anniversary publications, cross-Canada speaking tours, and special conferences devoted to the earth sciences. In short, 1992 promises to bring considerable public attention to the GSC, especially to its early activities in the exploration and mapping of Canada's mineral resources.

Technical Notes:

Archival Science Bibliography Published

For the past several years the **Canadian Centre for Information and Documentation on Archives (CCIDA)** at the National Archives of Canada has been compiling an automated bibliographic data base on archives administration, records management, and their related subjects. The Centre recently released a catalogue of the entries published between 1986 and 1988. Entitled *Archival Science Bibliography, 1986-1988 = Bibliographie en archivistique, 1986-1988*, the bibliography contains 2,066 references, half of which are published in English; another 400 titles are published in French; and the remainder are in Russian, German, Dutch, Spanish and Italian. The catalogue is divided by media type with separate sections set aside for cartographic records, documentary art, film, machine readable, photographic, sound, and textual. The section on cartographic archives contains almost 200 references which are arranged under eight subject headings: acquisition, selection appraisal and evaluation; arrangement; description and finding aids; public service; reference and research; conferences, displays, diffusion and publications; copyright; and information processing. The catalogue is printed on alkaline paper and is available in English and French. Copies are free of charge and may be obtained by writing the Public Programs Branch, National Archives of Canada, 395 Wellington Street, Ottawa, Ontario, K1A 0N3.

Procedural Manuals on Cartographic Records from NARA

The National Archives and Records Administration (NARA) in Washington, D.C., recently released two new manuals of interest to map archivists. The 35 - 70 page manuals were published in NARA's Instructional Guide Series. They have been designed to assist federal agencies in the management of their cartographic records, especially those that have been selected for permanent retention by NARA. Despite their obvious bias towards the American system of records appraisal,

scheduling, and disposition, *Managing Cartographic and Architectural Records* and *Managing Electronic Records* provide practical guidance in the maintenance, use, and preservation of cartographic and electronic records for Canadian institutions. The manuals contain chapters on the scheduling of records; appraisal and selection criteria for archival records; and recommended procedures for long-term preservation and storage of the various media. Both manuals also offer glossaries on terminology specific to cartographic and electronic records and on archival concepts. The manuals are distributed free of charge and may be ordered from the Records Administration Information Center, Office of Records Administration (NIA), National Archives and Records Administration, Washington, DC 20408.

Samuel Thornton Sea Atlas on Microfiche

Micro Color International, in cooperation with the New York Public Library, has recently announced the availability of the Samuel Thornton Sea Atlas on colour microfiche. This 18th century atlas is considered by some to be the finest surviving monument to the earliest years of domestic English trade in printed charts. It is the earliest portulan atlas to record Dampier's discoveries in the Pacific Ocean and to contain Halley's magnetic world chart. The 172 charts have been reproduced on 22 top-quality, colour fiche and sells for \$450 (US). For further information, please contact Micro Color International, Inc., 85 Godwin Avenue, Midland Park, New Jersey, U.S.A., 07432; (201)445-3450.

New Cartobibliography Announced

The **University of Toronto Press** recently announced the publication of Joan Winearl's *Mapping Upper Canada, 1780-1867: An Annotated Bibliography of Manuscript and Printed Maps*. At 1027 pages, the bibliography is the most extensive reference source on the early mapping of Upper Canada and Canada West. It is a unique resource for historians, geographers, genealogists, surveyors, archaeologists, and local history buffs. Copies may be ordered by writing the University of Toronto Press, 10 St. Mary Street, Suite 700, Toronto, Ontario, M4Y 2W8 (ISBN 0-8020-2794-6).

Code of Ethics for Archivists

The **Association of Canadian Archivists (ACA)** recently released a draft of its "Code of Ethics and Guidance for Practice for Archivists." The code is intended to be a guide for archivists in the performance of their professional work and in the resolution of ethical problems. Map archivists interested in commenting on the code should contact the Chairperson of the ACA Ethics

Committee, Shelley Sweeney, at the University of Regina Archives. Once the code is approved by the ACA membership, the Association will decide how it will be printed, advertised and distributed.

Remote Sensing Imagery on WORM

Remote Sensing in Canada (vol. 19, no. 2, pg.7) recently reported that, beginning this year, the **Canadian Centre for Remote Sensing (CCRS)** will be providing full-colour, quicklook images of remotely sensed data on videodisk. Since 1972 when the Centre first began receiving satellite imagery, all available scenes were routinely copied to microfilm. The Centre decided to change to 12" WORM (Write Once and read Many times) videodisks because of the increasing costs of operating microfilm processing facilities and the inconvenience associated with storing, cataloguing and servicing nearly one million microfiche. Each videodisk is capable of holding 36,000 still images on each side, and access to any image generally takes less than half a second. Unfortunately for map libraries, the old quicklook imagery already recorded on microfiche will not be reproduced in the videodisk format. The Centre has reserved the new medium for current and future acquisitions only.

BOURNEMOUTH '91

by
Cliff Wood
Chair, ICA Canadian National Committee,
1988-1991

A report from the 9th General Assembly and 15th International Cartographic Conference. 23 September - 1 October 1991 Bournemouth, England

Delegates to the International Cartographic Association's (ICA) 9th General Assembly and 15th International Cartographic Conference in Bournemouth were warmly welcomed by our British hosts. Located in southern England on the Channel coast with the Isle of Wight visible in the distance, the resort city of Bournemouth was an idyllic setting for the conference. This site was particularly fitting as it was but a short distance to Southampton, the home of the Ordnance Survey which was celebrating its bi-centenary.

The conference got under way on September 3 with an official welcome from the head of the organizing committee, Mr. Peter McMaster, Director General of the Ordnance Survey. Other dignitaries extending their

welcomes included HM Lord Lieutenant of the County of Dorset, The Right Honourable Lord Digby, The Mayor of Bournemouth, Councillor Lionel Bennett, President of the British Cartographic Society, Mrs. Barbara Bond, and Member of the Royal Society's International Committee: Professor Eric Brown. ICA President Fraser Taylor then presided over the opening of the conference and received messages from international and parallel organizations associated with the cartographic profession. Following these ceremonies, the 9th General Assembly was called to order to conduct the business of the Association.

One of the highlights of the first day was the awarding of special recognition to individuals who have distinguished themselves in service to the ICA. One recipient was our own Dr. Bernard V. Gutsell, editor of the ICA Newsletter and long-time member of the ICA Publications Committee (*and editor of the Cartographica*). Congratulations to Bernie for a lifetime of commitment to the cartographic profession.

The days that followed were filled with plenary sessions that echoed the theme of the conference, "Mapping the Nations." Topics covered included the history of cartography, education, policy and institutions, mapping for the handicapped, map use and design, digital cartography, national mapping, cartographic information and its marketing, GIS, remote sensing, marine cartography, cartographic databases, and national mapping organizations. In addition to the plenary sessions, there were five forum sessions (poster sessions). Since all sessions and exhibits were staged in the Bournemouth International Centre (BIC), delegates were able to move freely between paper sessions, the Technical Exhibition in Windsor Hall, and the National Mapping Exhibitions held in Purbeck Hall. The latter exhibitions both opened on the 24th.

The conference program concentrated quite heavily on the future trends in cartography, both in a technical sense as well as from the user perspective. This emphasis seemed fitting in view of the growing worldwide awareness of environmental issues and the increasing understanding of the large potential of GIS in the international community.

No conference would be complete without technical tours and the usual range of social events. Among the tours were trips to the School of Military Survey in Newbury, the Automobile Association in Basingstoke, Hydrographic Office in Taunton, Ordnance Survey in Southampton, the National Postal Museum, and the Royal Geographic Society. All were well subscribed. Notable social events included a Government Reception on the 23rd and a Civic Reception on the 24th. On the evening of September 26, delegates and accompany-

ing persons were treated to a night of entertainment provided by the City of London Sinfonia held in the Winter Gardens nearby the BIC. The final social event of the conference was a gala dinner held at the elegant Highcliff Hotel a short distance from the BIC.

The final day of the conference, 1 October, began with a meeting of the General Assembly. Proposed Standing Committees and Working Groups were confirmed. The new ICA Executive Committee and Committee/Working Group Chairs were elected. It is a pleasure to announce that Dr. D. R. Fraser Taylor of Canada (Professor of Geography and International Affairs, Carleton University) was re-elected President of ICA for a second term (1991-1995). In addition, Dr. Eva Siekierska (Energy, Mines and Resources, Ottawa) was elected Chair of the Standing Committee on Gender in Cartography and Mr. Victor Glickman (Director, Geography Division of Statistics Canada, Ottawa) was elected Chair of the Working Group on Marketing Geographic Information. Although Canada had nominated persons for other Chairs, we were less successful in these elections. It must be pointed out however, that, by virtue of Canada's readiness to nominate qualified people, delegates did have a choice. There were elections rather than acclamations. And, those unsuccessful Canadian candidates were sought out by the newly elected Chairs and invited to join the respective Standing Committees as full members. One might deduce that there were no losers. Canada is represented on several Committees and Working Groups, but there are still several for which Canadian representation is sought. Interested persons should contact **Dr. R. Norman Drummond, Chair of the Canadian National Committee, Department of Geography, McGill University, 805 Sherbrooke St. W., Montreal, Quebec H3A 2K6** or contact the **Canadian Institute of Surveying and Mapping, 206 - 1750 Courtwood Crescent, Ottawa, Ontario K2C 2B5** for further details.

The 15th Conference and 9th General Assembly closed with the introduction of the newly elected ICA Executive Committee. The ICA flag was then presented to the Mr. Rolf Harbeck, Chairman of the 16th International Conference (Cologne, Germany - 1993) by Dr. Christopher Board of the United Kingdom.

Coming up in Cartouche #5:

The definitive word on the CCA Logo.
Member profile: Gudmund Ingvarsson.
SIG Reports.
and much more.....

Deadline January 30th. 1992 !

Publication of the First Plates of the ENVIRONMENTAL ATLAS OF THE ST. LAWRENCE

The *Environmental Atlas of the St. Lawrence* is a publication of the St. Lawrence Centre of Environment Canada which aims to illustrate the knowledge acquired on the environment of the river and the Gulf of St. Lawrence. It is a work of popularization intended to sensitize, inform and educate the general public. Prepared within the *St. Lawrence Action Plan* of Environment Canada, the Atlas illustrates the river's main resources and their interactions with human activities. The atlas is not intended just for the general public: Professors of environmental science, ecology, biology, and geography, as well as high-school and university students of these subjects will benefit from it, as will managers of organizations and community groups concerned with the river and its protection and utilization. The atlas is published in posterlike plates, 64 x 110 cm each, and distributed either folded (18 x 21 cm) or rolled. The graphic presentation of the plates is accomplished with the "poster" style which combines maps, graphic arts, diagrams, photographs, and text. The *Environmental Atlas of the St. Lawrence* is produced by the *Département de géographie* of *Université Laval* as part of an agreement with the St. Lawrence Centre. The data was gathered and processed in collaboration with numerous organizations and researchers working on the St. Lawrence. The technical production of the atlas is done entirely by computer, at Macintosh work stations, right to the colour-separation stage before printing.

Once completed, the atlas will comprise about 20 plates grouped under five themes: natural environment, human environment, uses, degradation, conservation. The plates are published simultaneously in English and French. The following five plates will be printed and available for distribution at the end of 1991:

- Wetlands: Habitats on the Edge of Land and Water
- A River, Estuaries, and a Gulf: Broad Hydrographic Divisions of the St. Lawrence
 - The St. Lawrence: Gateway to a Continent; Settlement (17th & 18th Cent.)
 - The St. Lawrence: A Vital Artery; Urbanization and Industrialization (19th & 20th Cent.)
 - An International Navigation Route: Commercial Shipping on the St. Lawrence.

These plates are also available in French. Copies of the atlas plates (at no cost for a limited time) are obtainable at the following address:

St. Lawrence Centre, Environment Canada
105 McGill, 4th Floor Montréal, Québec H2Y 2E7
Tél.: (514) 283-7000 Fax: (514) 283-9451

Publication des premières planches de L'ATLAS ENVIRONNEMENTAL DU SAINT-LAURENT

L'Atlas environnemental du Saint-Laurent est une publication du Centre Saint-Laurent d'Environnement Canada dont le but est d'illustrer le bilan des connaissances environnementales sur le fleuve et le golfe du Saint-Laurent. C'est un ouvrage de vulgarisation dont les objectifs sont la sensibilisation, l'information et l'éducation du public en général. Préparé dans le cadre du *Plan d'action Saint-Laurent*, d'Environnement Canada, l'Atlas illustre les principales ressources du fleuve et leurs interactions avec les activités humaines. Outre le grand public, l'atlas s'adresse aux professeurs enseignant les sciences de l'environnement, l'écologie, la biologie, la géographie ainsi qu'aux étudiants recevant le même enseignement, depuis le secondaire jusqu'à l'université; il s'adresse aussi aux gestionnaires des organismes et groupes communautaires concernés par la problématique environnementale du fleuve, sa protection et sa mise en valeur. L'atlas est publié en planches détachées, de dimension 64 x 110 cm, distribuées en format plié (18 x 21 cm) ou roulé. La présentation graphique des planches est effectuée selon le style «planche-affiche», associant des cartes, des graphiques, des schémas, des photographies et du texte. L'Atlas environnemental du Saint-Laurent est réalisé au Département de géographie de l'Université Laval dans le cadre d'une entente avec le Centre Saint-Laurent. La cueillette et le traitement des données sont effectués en collaboration avec de nombreux organismes et chercheurs oeuvrant sur le Saint-Laurent.

Une fois complété, l'atlas comprendra une vingtaine de planches regroupées à l'intérieur de cinq thèmes: milieu naturel, milieu humain, usages, dégradations, conservation. Les cinq planches imprimées et disponibles pour distribution à la fin de l'année 1991 sont les suivantes:

- Les milieux humides: des habitats au contact de la terre et de l'eau
- Un fleuve, des estuaires, un golfe: les grandes divisions hydrographiques du Saint-Laurent
- le Saint-Laurent: porte d'entrée d'un continent; la mise en place du peuplement (17e & 18e siècles)
- Le Saint-Laurent: une artère de vie; l'urbanisation et l'industrialisation (19e & 20e siècles)
- Une route de navigation internationale: la navigation commerciale sur le Saint-Laurent

On peut obtenir des exemplaires des planches de l'atlas (sans frais pour une période limitée) en s'adressant à:
Centre Saint-Laurent, Environnement Canada
105, rue McGill, 4e étage Montréal (Québec) H2Y 2E7
Tél. (514) 283-7000 Fax : (514) 283-94515

**President's Prize Competition
1992**

**Concours pour le Prix du Président
1992**

Submissions are invited for the 1992 President's Prize Competition. The competition is open to students of post-secondary institutions and to persons occupying junior positions in places of employment where maps are made or used.

Vous êtes invités à soumettre votre projet cartographique au concours pour le Prix du Président 1992. Ce concours est ouvert aux étudiants(es) de niveau post-secondaire ainsi qu'aux personnes venant d'accéder au marché du travail et occupant depuis peu un emploi dans un organisme réalisant et utilisant des cartes.

Five Award Categories/ Les cinq catégories du concours:

MONOCHROMATIC MAP (Introductory Course)/CARTE MONOCHROME (Cours d'introduction)

A printed map or proof in black and white completed as part of an introductory cartography course. Emphasis in this category will be placed on the map's communication ability, based on data manipulation, symbolization and graphic design, and judged relative to data complexity. (Entries must specify that the map was designed as part of an introductory cartography course requirement).

Une carte imprimée ou une épreuve en noir en blanc réalisée à l'intérieur d'un cours d'introduction à la cartographie. L'accent dans cette catégorie sera mis dans l'habileté à communiquer à l'aide de cartes et sera basé sur le traitement des données, la symbolisation, le design graphique et la complexité des données. (Les soumissions doivent indiquer que la carte a été conçue dans le cadre d'un cours d'introduction à la cartographie.

Award value/valeur du prix: 50 \$ Cdn

MONOCHROMATIC MAP/CARTE MONOCHROME

A printed map or proof in black and white. Emphasis in this category will be placed on the map's communication ability, based on data manipulation, symbolization and graphic design, and judged relative to data complexity. All monochromatic maps submitted qualify.

Une carte imprimée ou une épreuve en noir en blanc. L'accent dans cette catégorie sera mis dans l'habileté à communiquer à l'aide de cartes et sera basé sur le traitement des données, la symbolisation, le design graphique et la complexité des données. Toutes les cartes monochromes soumissionnées seront retenues.

Award value/valeur du prix: 50 \$ Cdn

COLOUR MAP/ CARTE EN COULEUR

A printed map or proof in multiple colours. Emphasis in this category will be placed on the map's communication ability, based on data manipulation, symbolization and graphic design, and judged relative to data complexity.

Une carte ou une épreuve à plusieurs couleurs. L'accent dans cette catégorie sera mis dans l'habileté à communiquer à l'aide de cartes et sera basée sur le traitement des données, la symbolisation, le design graphique et la complexité des données. Toutes les cartes à plusieurs couleurs seront retenues.

Award value/valeur du prix: 50 \$ Cdn

JOURNALISTIC MAP/CARTE JOURNALISTIQUE

A map suitable for reproduction in a popular newspaper or magazine. Each entry accompanied by a brief (500 word max.) typewritten text describing the purpose of the map qualifies.

Une carte prête pour la reproduction dans un journal ou un magazine populaire. Chaque soumission accompagnée d'un court texte dactylographié (max. 500 mots) présentant les objectifs de la carte sera retenue.

Award value/valeur du prix: Time magazine has generously donated 300\$US for this award.

Le magazine Time offre généreusement 300\$US pour ce prix.

INNOVATIVE COMPUTER MAP/UNE CARTE INFORMATISE INNOVATRICE

A map demonstrating innovative methods to manipulate computer cartographic software. Emphasis in this category will be placed on innovative programming to circumvent data manipulation and display limitations inherent in specific computer cartography software.

Entries accompanied by a brief (500 word max.) typewritten text describing the specific software limitation encountered, and the method by which the limitation was circumvented qualify.

Une carte démontrant des méthodes innovatrices dans l'utilisation d'un logiciel de cartographie. L'accent dans cette catégorie sera mis dans la programmation innovatrice pour contourner les limitations inhérentes à ce logiciel. Les soumissions, accompagnées d'un court texte dactylographié (max. 500 mots) décrivant les limitations rencontrées du logiciel et la méthode par laquelle la limitation a été déjouée, seront retenues.

Award value/valeur du prix: 50 \$ Cdn

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

The best student paper presentation. The paper may be co-authored with a member of faculty as long as student actively participated in the research, and as long as the paper is presented by the student. Judgement will be based on research content, presentation delivery, and visual aids.

Le meilleur exposé présenté par un(e) étudiant(e). La communication peut avoir été préparée en collaboration avec un membre du département, mais il faut que l'étudiant(e) ait participé activement à la recherche et que ce soit lui (elle) qui présente l'exposé. L'évaluation sera basée sur le contenu de la recherche, la manière de le présenter et sur les moyens visuels utilisés.

Award value/valeur du prix: 50Cdn

ENTRY CONDITIONS / LES CONDITIONS DE SOUMISSION

Membership in the CCA is not required.

Maps submitted qualify for all appropriate categories, but maps wishing to be considered for "Journalistic Map" or the "Innovative Computer Map" must be accompanied by appropriate text. A map can win only one award. Submissions should reach the CCA office in Calgary (address on page 2) by May 11 at the latest, or may be brought directly to the annual meeting to be held this year in Montreal

L'adhésion à l'ACC n'est pas requise.

Les cartes soumises seront retenues pour toutes les catégories appropriées, mais les cartes voulant être prises en considération à l'intérieur des catégories "Carte journalistique" et "Carte informatisée innovatrice" devront être accompagnées d'un texte. Une carte ne peut remporter qu'un seul prix. Les soumissions doivent être acheminées au bureau de l'ACC à Calgary (voir l'adresse à la page 2) pour le 11 mai au plus tard, ou peuvent être apportées directement à la prochaine réunion annuelle qui se tiendra à Montréal.

The Norman L. Nicholson Scholarship in Cartography La Bourse Norman L. Nicholson en Cartographie

The Canadian Cartographic Association is proud to offer the Norman L. Nicholson Scholarship in Cartography in honour of our late colleague. This scholarship, valued initially at \$500.00, is awarded annually by the Canadian Cartographic Association. It is intended to recognize and encourage exceptional student achievement and ability in any aspect of cartography. Membership in the CCA is not required.

L'Association canadienne de cartographie est fière d'offrir la bourse Norman L. Nicholson en cartographie pour honorer cet illustre collègue. Cette bourse, dont la valeur est au départ établie à 500,00 \$, est remise annuellement par l'Association canadienne de cartographie dans le but de reconnaître et d'encourager les étudiants dont les réalisations et les talents sont exceptionnels dans un aspect ou l'autre de la cartographie. L'adhésion à l'ACC n'est pas requise.

To qualify the applicant must be:

1. A Canadian citizen or landed immigrant.
2. A student who proposes to continue full time studies in cartography in one of the following institutions:
 - a) entering the final year of a college, CEGEP or an undergraduate honours program, or
 - b) entering the first year of a graduate program.

Pour être admissible, un candidat doit être:

1. Un citoyen canadien ou émigrant reçu.
2. Un étudiant qui se propose de poursuivre des études à plein temps en cartographie dans un des cas suivants:
 - a) entrer dans l'année terminale d'un Collège communautaire, de CEGEP, ou d'un programme honneur de premier cycle,
 - b) avoir été accepté en première année d'un programme d'Études Supérieures.

To apply, the applicant must submit the following:

1. A completed application form;
2. An official transcript of all college/CEGEP/university courses completed and grades received;
3. Letters of recommendation from two faculty members who are familiar with the work and abilities of the applicant. Letters must be sent directly to the CCA office by these faculty members;
4. A one-page typed statement outlining the applicant's goals for continuing education in cartography.

Pour postuler, il faut soumettre les documents suivants:

1. un formulaire de demande dûment complété;
2. un relevé de notes officiel de tous les cours terminé dans un collège/CEGEP/université avec les notes reçues;
3. des lettres de recommandation de deux membres du corps enseignant qui connaissent bien le travail et les qualités de l'étudiant. Les lettres de recommandation doivent être expédiées *directement par les enseignants* au Comité des bourses à l'adresse sous-indiquée.
4. un exposé d'une page dactylographiée indiquant vos buts dans le cadre d'études avancées en cartographie.

All materials must be received by the Awards committee no later than March 27, 1992. Requests for applications and all other questions should be directed to the CCA Office. (See page 2 for address.)

Les documents doivent parvenir au Comité des bourses le 27 mars, 1992 au plus tard. On peut se procurer un formulaire en appelant le bureau central de l'ACC (voir page 2 pour l'adresse).



ASSOCIATION CANADIENNE DE CARTOGRAPHIE

CANADIAN CARTOGRAPHIC ASSOCIATION

et

ASSOCIATION QUÉBÉCOISE DE CARTOGRAPHIE

CARTO-QUÉBEC

ACC/AQC Congrès annuel conjoint,
du 2 au 6 juin 1992
Image- Cartographie-Réalité
APPEL POUR CONFÉRENCES

CCA/AQC Joint Annual Conference,
June 2 - 6, 1992
Image-Cartography-Reality
CALL FOR PAPERS

En 1992, Montréal célébrera le 350^e anniversaire de sa fondation. Nous vous invitons à venir participer aux festivités. **Assistez au congrès conjoint** de l'Association canadienne de cartographie et l'Association québécoise de cartographie (Carto-Québec) organisé autour du campus universitaire de McGill. Les hôtes de ce congrès sont les quatre universités montréalaises: Concordia, Université de Montréal, Université du Québec à Montréal et McGill. Le programme comportera des séances plénières, des conférences techniques, des présentations d'étudiants, des séances d'affichages, des ateliers, des exposants et des événements sociaux reliés aux festivités.

1992 is the 350th anniversary of the founding of the city of Montréal. Come and share in these celebrations. **Attend the joint conference** of the Canadian Cartographic Association and l'Association Québécoise de Cartographie (Carto-Québec) centred at McGill. Your hosts are the four universities in Montréal: Université de Montréal, Concordia, Université de Québec à Montréal and McGill. The programme will include plenary sessions, technical and student papers, poster sessions, displays, workshops, exhibits and social events appropriate to this multicultural anniversary.

Les cartes, ces résultats graphiques provenant du processus de collectes de données, de traitement et de conception touchent à tous les aspects de notre vie quotidienne. Au cours des vingt dernières années, la nature des cartes de même que leur disponibilité ont beaucoup évolué. **Comment évoluera la cartographie?**

Maps, the complex graphics which result from the processes of data collection, manipulation and design touch every aspect of our daily lives. Over the past few decades their nature and availability have changed. **Where is cartography going in the future?**

La conférence tentera d'explorer la réalité de la cartographie des années 90. Les conférenciers invités pour les séances plénières du matin analyseront et compareront les objectifs et les attentes des agences gouvernementales, des milieux de l'éducation ainsi que des compagnies privées. Les ateliers, les conférences et les séances d'affichage poursuivront l'étude du thème en analysant des sujets variés allant des héritages laissés par la cartographie historique jusqu'aux problèmes de cartographie des changements environnementaux à l'aide de l'informatique.

The conference will attempt to explore the map reality of the 1990's. The keynote speakers of the morning plenary sessions will examine and compare the goals and expectations of governmental agencies, educational institutions and private companies in the 1990's. The workshops, and afternoon papers and poster sessions will continue the theme examining a broad spectrum of topics which range from the contributions and legacies of historical cartography to the problems and challenges of mapping environmental change with computers.

Si vous êtes intéressé à contribuer à la réflexion sur le thème **la réalité cartographique des années 90** en donnant une présentation (20 minutes), en préparant une séance d'affichage, une exposition ou en organisant un atelier (2 heures), veuillez faire parvenir un résumé ou une proposition d'atelier en suivant les directives ci-après décrites à:

If you are interested in contributing to the exploration of the **map reality of the 1990's** by giving a 20 minute paper, preparing a poster presentation, display, or organizing a workshop (2 hours), please send an abstract or a proposal for a workshop, following the guidelines below, to:

Jacqueline M. Anderson
Department of Geography
Concordia University
1455, Boul. de Maisonneuve Ouest
Montréal, Qc H3G1M8
Téléphone: (514) 848-2052/848-2050
e-mail JAHFH10@VAX2.CONCORDIA.CA
Fax (514) 848-3494 **Attention Geography**

Jacqueline M. Anderson
Department of Geography
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1455 de Maisonneuve Blvd W.
Montréal, Qc H3G 1M8.
Tel. (514) 848-2052 / 848-2050
e-mail JAHFH10@VAX2.CONCORDIA.CA
Fax (514) 848-3494 **Attention Geography**

Directives pour les résumés et les propositions:

Le résumé ou la proposition devra être dactylographié, à double interligne et comporté moins de 200 mots en français ou en anglais. On devra y trouver le titre, le nom de l'auteur, son institution, adresse postale et courrier électronique de même que le téléphone et le télécopieur.

Les résumés et propositions retenus seront publiés dans la langue utilisée par l'auteur et distribués à la conférence*.

LA DATE LIMITE POUR SOUMETTRE UN RÉSUMÉ ET UNE PROPOSITION EST LE 15 JANVIER 1992.

*Note: Les conférences, ateliers, séances d'affichage et expositions seront sélectionnés à partir des critères suivants: lien avec le thème de la conférence, originalité et vision de la présentation de même que l'expérience de l'auteur.

Guidelines for Abstracts and Proposals:

The abstract or proposal, in either English or French, should be typed, double spaced, good quality and less than 200 words. Include a title, the author(s) name(s), affiliation(s), mailing and e-mail addresses, telephone and fax numbers.

The abstracts and proposals selected will be published in the language received and distributed at the conference.*

THE DEADLINE FOR THE SUBMISSION OF ABSTRACTS AND PROPOSALS IS 15 JANUARY, 1992

*Note: The conference papers, workshops, poster presentations and displays will be selected according to the following criteria: relevance to the conference theme, scope and originality and experience of the author(s).

Corporate News

Corporate Members

J.M. Ellis Ltd.,	Metcalfe, Ont.
Map Art,	Brampton, Ont.
National Atlas Info. Services,	Ottawa, Ont.
Chefford Canada (GIMMS)	Ottawa, Ont.
ESRI Canada	Don Mills, Ont.
GeoVision Corporation	Ottawa, Ont.
Idrisi Project	Worcester, Mass.
Intera Tydac	Nepean, Ont.
Intergraph Canada	Calgary, Alta.
PAMAP	Victoria, BC
Metric Mapping	Calgary, Alta.
Bell Canada	Toronto, Ont.
DMAHTC	Washington, DC
Northern Micro Online Services	Hay River, NWT
Projections Mapping Group	Calgary, Alta.
Stanley Associates Engineering	Calgary, Alta.

SPANS used in Canada-France boundary dispute.

The office of the agent for Canada has used SPANS, TYDAC's Geographic Information System to present Canadian arguments in the Canada-France dispute over the delimitation of the Maritime boundary off Newfoundland and the French islands of St. Pierre and Miquelon.

Over the past two years Canada and France have presented their written and oral pleadings to an International Court of Arbitration in New York. The court, consisting of five judges from Uruguay, Italy, the United States, Canada and France, will establish a single Maritime boundary to determine control valuable natural and commercial resources.

During the oral hearings the Canadian team used SPANS to respond quickly and efficiently to French arguments designed to influence the court in France's favour. Throughout the duration of the case the GIS analytical results clearly affected the development of the Canadian position, and will be valuable in assessing the impact of the decision on the economy and livelihood of Canadian coastal communities.

Canadian counsel, Ian Binnie, stated that "*The GIS provided a means to put before the court a wealth of factual material quickly and painlessly. The judges quickly adjusted to absorbing the detailed graphics that illustrated many of the complex factual aspects of Canada's case.*" It was also observed that "*The successful use of SPANS at the court owed much to its ability to effectively present complex concepts to a wide range of people scientists, fisheries stakeholders, senior government officials and legal experts.*"

SPANS is produced by INTERA TYDAC Technologies Inc. of Ottawa. For more information contact Jane Frarey Wark at 613-722-7508.

ESRI introduces new ArcCAD Software

On October 31 at the GIS/LIS conference in Atlanta, Georgia, ESRI and Autodesk, creators of AutoCAD software, made a joint announcement introducing ArcCAD, an new product that integrates ESRI's ARC/INFO and Autodesk's AutoCAD software packages.

In making the announcement, ESRI's President, Jack Dangermond, and Autodesk's Executive Vice President, Malcom Davies indicated that this was one of the most significant new products to appear in several years in the GIS and CAD markets. The two systems are completely integrated, not just interfaced, resulting in a new technology that will change the way CAD and GIS users work.

This announcement follows other announcements from ESRI about ArcView, a new geographic query and display software package characterised by a simple user interface, and the capabilities to be found in version 6.0 of the ARC/INFO software package.

Users Rank Intergraph No. 1 in Customer Satisfaction.

Several independent industry sources have recognized the high priority that Intergraph Corporation has placed on client service and support by naming the company number one in customer satisfaction. Datamation, Daratech, PC Week, and Dataquest all conducted surveys that ranked the Huntsville-based company highest in a number of categories.

Datamation magazine surveyed fifteen hundred corporate workstation systems users and placed Intergraph above IBM, Sun Microsystems, Unisys, Hewlett-Packard, DEC, and Silicon Graphics in customer satisfaction based on their responses. Dataquest Incorporated in their measurement of worldwide technical workstation market share ranked Intergraph number one over Computervision, Hewlett-Packard, Sun Microsystems, and over 200 other vendors. This survey counted all vendors who gained revenue from technical workstation sales.

These high scores were duplicated in surveys by Daratech Incorporated that measured users' "confidence in their buying decisions" and "satisfaction with their vendors' future prospects", as well as PC Week's survey of corporate satisfaction for users of reduced instruction set computer (RISC) workstations.

A SURVEY OF TOURISM/HIGHWAY MAPS IN CANADA

Prepared on behalf of the Map Design Special Interest Group
of the Canadian Cartographic Association

By:

C. LeBlanc

Land Registration and Information Service (LRIS)
Amherst, Nova Scotia, Canada B4H 3Z5

SUMMARY

Official tourism/highway maps are published on a regular basis by various government departments throughout Canada. They are distributed to millions of map users and are one of the most common forms of mapping.

This report presents the results of a survey which was carried out on behalf of the Map Design Special Interest Group of the CCA to study the design and information content of Canadian tourism/highway maps. The results the level of importance that the general public, publishers and cartographers assign to the various features shown on these maps, and identify the factors which could account for inter- and intra-category preferences and trends. Design suggestions made by the survey respondents are also reviewed. The survey results should enable map makers and publishers to improve their products.

1.0 RATIONALE

Tourism/highway maps are published, often on a regular basis, by government departments and by the private sector throughout Canada and the rest of the world. These maps range from relatively simple reproductions to artistic and elaborate multi-colour representations. They are distributed to millions of map users; tourism/highway maps are the second most common form of mapping in use by the general public, the first being journalistic mapping.

Although map makers and publishers regularly request feedback from map users regarding their products, few comments are received, based on the author's experience. Also, it is believed that an evaluation of the requirements and preferences in relation to the design and information content of these maps had not previously been undertaken on a nation-wide basis.

2.0 PURPOSE

The survey was carried out to study tourism/highway mapping in Canada and to evaluate, in general, developing design trends from the perspective of the general public, map makers and publishers. To that end, survey packages were distributed to four main categories of respondents:

- i) individuals without a cartographic background;
- ii) individuals with a cartographic background;
- iii) transportation/highway department map publishing officials;
- iv) tourism department map publishing officials.

The identification of both inter- and intra-category preferences and trends was a primary goal of the survey. The survey questionnaires and subsequent analysis and evaluation were designed to obtain that information.

3.0 SURVEY DESIGN AND EXECUTION

For practical and financial reasons, the survey was restricted to the study of official tourism/highway maps published by governments. As these maps are produced by both the private sector and governments, it was felt that, in general, they would be representative of this type of mapping.

The major phases in the survey design and execution were as follows:

Phase 1

The contacting of government personnel responsible for official tourism/highway map publishing in the provinces and territories and the requesting of maps from these individuals in quantities sufficient for inclusion with the survey packages;

Phase 2

The preparation of questionnaires with input from government officials, professional survey-takers and statisticians, and CCA members. Questions were designed to elicit a response relating to information content and design considerations such as style, format, colour, scale, size, folding, type styles and symbology;

Phase 3

The distribution, with the assistance of CCA members, of two hundred survey packages. Approximately 50% of the packages were distributed to cartographers (primarily those from the Map Design Special Interest Group); 30% to the general public; and 10% each to tourism and transportation officials.

Each survey package contained:

- an introductory letter describing the purpose of the survey and how to participate;
- the official tourism/highway map for each of the ten provinces and two territories in Canada (1988 or 89 edition);
- one questionnaire identifying social and personal factors (e.g., distance travelled per year, age of respondent) which could affect inter- and intra-category results;
- one questionnaire dealing with tourism/highway mapping in general; and
- three additional questionnaires relating specifically to three of the enclosed twelve maps.

Phase 4

The computerized input, analysis and subsequent evaluation of the collected information.

Preliminary results of the survey were presented at the 1989 CCA Conference held in Toronto.

4.0 ANALYTICAL CONSIDERATIONS AND PROCEDURES

Of the 200 survey packages which were distributed, 122 were returned resulting in a 61% return rate. Survey distribution/response data is indicated in Table 1.

The responses on the returned general and individual questionnaires were input into a relational data base which was then used to generate specific reports and comparisons. The analysis was of a simple nature consisting of the calculation of mean values, weighted averages and standard deviations.

Due to the relatively small sample size, i.e. 122 respondents, the results should be interpreted only as apparent trends. During the analysis, the small sample size was partially offset by the use of a relatively large 10% difference in ratings to identify significant trends.

Table 1

SURVEY PACKAGE DISTRIBUTION/RESPONSE DATA

	No. Distributed	No. of Responses	% of Responses by Prov., etc.	% of Total Response
Nfld & Lab	16	11	69%	9.0%
PEI	11	09	82%	7.4%
NS	20	14	70%	11.5%
NB	14	10	71%	8.2%
Québec	22	12	55%	9.8%
Ontario	28	12	43%	9.8%
Manitoba	09	09	100%	7.4%
Sask	16	12	75%	9.8%
Alberta	15	09	60%	7.4%
BC	16	09	56%	7.4%
Yukon	08	04	50%	3.3%
NWT	07	01	14%	0.8%
USA	18	10	56%	9.2%
TOTAL	200	122		100.0%

It was anticipated *a priori* that the following factors would influence the survey results:

- i) map use, e.g., general travel, city travel, display, etc.;
- ii) mode of use, i.e. as a driver-navigator or passenger-observer;
- iii) active participation in the design and/or production of tourism/highway maps;
- iv) profession, i.e. relating primarily to tourism, transportation, cartography or other;
- v) approximate total vehicular distance travelled per year;
- vi) approximate vehicular distance travelled requiring the use of a tourism/highway map;
- vii) the frequency of use of tourism/highway maps;
- viii) age of respondent;
- ix) gender;
- x) sense of direction;
- xi) colour blindness;
- xii) province or territory of residence;
- xiii) residence in a rural or urban environment;
- xiv) education level; and
- xv) income level.

Respondents answered a series of questions relating to the above; the answers were used to identify the factors which influenced preferences and dislikes.

5.0 RESULTS

5.1 Tourism/Highway Map Information Content

The questionnaires included a listing of map features commonly found on tourism/highway maps, under the broad headings of Transportation, Communication, Administration, Travel and Tourism, Information Panels and Other. The level of importance that the sur-

vey respondents attached to these various features was rated on a scale of 1 to 5. Table 2 is a listing of the features in the ranked order of importance together with their scale value based on 100% of the responses:

Table 2

INFORMATION FEATURE RATINGS

FEATURE1	RATING
Highway Number	4.66
Legend	4.61
City/town Enlargement	4.56
Distance Table	4.52
Non-paved Highway	4.38
Index to Towns, Cities, etc.	4.35
Information Centre	4.32
Service Centre	4.20
Park	4.19
Marker Distance	4.14
Hospital	4.12
International Crossing	4.08
Regional Enlargement/Reduction	4.08
Highway Classification	4.06
Major Attraction	3.98
Exit Number	3.91
Rest Area	3.88
Map Use Instructions	3.84
Campground	3.83
Ferry	3.82
Multi-lane Highway	3.72
Multi-lane Divided Highway	3.72
Traffic Signs, Regulations	3.72
Tourist Route	3.68
Customs	3.60
First Aid	3.52
Controlled Access	3.52
Picnic Site	3.50
Metric, Imperial Conversion	3.46
Beach	3.42
Police	3.41
Remote Telephone Service	3.36
Proposed Highway	3.30
Museum	3.26
Lookout	3.24
Hiking Trail	3.17
Time Zone	3.12
Conservation Area	3.07
Mountain Pass	3.03
Mountain	3.03
Population	2.95
County/Region Boundary	2.94
Municipal Boundary	2.90

Table 2 (cont.)

FEATURE1	RATING
Glacier/Ice Field	2.87
Elevation Contours	2.86
Airport	2.82
Sport Fishing	2.47
Lighthouse	2.45
Golf Course	2.37
Radio Station	2.36
Dam	2.34
Boat Launch	2.31
Marina	2.30
Indian Reserve	2.27
Railway	2.26
Covered Bridge	2.24
Airfield	2.10
Wireless Station	1.84
Carpool	1.72
Seaplane	1.63
Meteorology Station	1.61

Cross-country Skiing and Downhill Skiing are two significant features which were inadvertently omitted in the Listing of Features in the Survey Questionnaires.

5.1.1 Influencing factors

The social and personal factors listed in Section 4 were then taken into consideration. The inter- and intra-category analysis indicated that most of these factors, e.g., map use, gender and education level, did not significantly affect the information feature ratings. However, three factors were found to affect the results significantly, namely:

- i) regionalism; and, to a lesser extent,
- ii) residence in an urban or rural environment, and
- iii) profession.

Regionalism, however, influenced both the other factors.

Regional differences:

The responses from Alberta and Prince Edward Island cartographers represent 4.1% and 4.9% respectively of the total cartographic response. A comparison of information feature ratings from these two provinces in Table 3 serves as an example of regional influence.

Table 3
REGIONAL DIFFERENCES (Cartographers)
Rating 1 to 5

	ALBERTA	PEI	DIFF.
Police	1.80	3.00	-1.20
First aid	2.00	3.17	-1.17
Exit number	2.80	3.67	-0.87
Proposed highway	2.40	3.17	-0.77
Airport	2.00	2.67	-0.67
International crossing	4.60	2.83	1.77
Controlled access	3.80	2.17	1.63
Information centre	4.80	3.33	1.47
Multi-lane divided highway	4.60	3.33	1.27
Multi-lane highway	4.40	3.17	1.23
Mountain pass	3.40	2.17	1.23
Park	4.80	3.67	1.13
Indian reserve	2.60	1.50	1.10
Marker distance	4.80	3.83	0.97
Highway classification	4.60	3.67	0.93
Customs	3.60	2.67	0.93
Campground	4.40	3.50	0.90
Covered bridge	2.20	1.33	0.87
Major attraction	4.00	3.17	0.83
Ferry	3.80	3.00	0.80
Municipal boundary	2.80	2.00	0.80
Exit number	4.40	3.67	0.73
Non-paved highway	5.00	4.33	0.67
Rest area	4.00	3.33	0.67

The results reflect, as expected, geo-economic considerations. For instance Alberta, in contrast to Prince Edward Island, places considerable emphasis on high density highway features. Of particular interest is the low rating given by PEI respondents to tourism features; this can be explained perhaps by the Islanders increasing concern for their fragile environment and the demands thus placed on it by the perceived tourist influx.

Urban/rural differences:

The cartographic group was used for this comparison to eliminate inter-profession bias; it was also equally represented on a regional basis. The comparison between ratings based on residency of cartographers in either an urban or rural environment is indicated in Table 4.

Table 4
URBAN/RURAL DIFFERENCES (Cartographers)
Rating 1 to 5

	URBAN	RURAL	DIFF.
Rest area	4.12	3.11	1.01
Information centre	4.40	3.44	0.96
Major attraction	4.00	3.11	0.89
Tourist route	3.48	2.67	0.81
Police	3.35	2.56	0.79
Service centre	4.23	3.44	0.79
Controlled access	3.67	2.89	0.78
Picnic site	3.53	2.78	0.75
Hospital	4.14	3.44	0.70
Marker distance	4.23	3.56	0.67
Municipal boundary	3.09	2.44	0.65
International crossing	4.09	3.44	0.65
Highway classification	4.07	3.44	0.63
Mountain pass	3.26	2.67	0.59
Lookout	3.37	2.78	0.59
Non-paved highway	4.51	4.00	0.51

The lesser level of importance attributed to these features by rural respondents possibly reflects a feeling of self-sufficiency in the countryside at large. It may also reflect a greater radius and frequency of travel by rural respondents, hence the familiarity with and lesser reliance on mapped features.

Professional differences:

Obvious professional biases were observed when comparing inter-group responses from the tourism sector and other professions. Similar biases were identified when comparing the transportation group to the other groups. However, the 2.5% total response rate from the transportation group makes it difficult to draw any conclusions. It is interesting to note that the responses from the cartographic sector and the general public were similar, and thus it would be satisfying to think that cartographers are effectively evaluating client needs.

Table 5 is a comparison of the feature ratings for the tourism group and the cartographic group. In contrast to cartographers (and the other professional groups) tourism officials understandably place higher emphasis on those features which facilitate tourism.

The intra-group feature ratings by the cartographers indicates a bias based on regionalism. The results are understandable when the other major influencing factor, i.e. rural/urban are taken into consideration.

Table 5
PROFESSIONAL DIFFERENCES
Rating 1 to 5

	TOURISM	CARTO	DIFF.
Mountain pass	2.28	3.15	-0.87
Multi-lane divided highway	3.06	3.92	-0.86
Indian reserve	1.50	2.33	-0.83
Multi-lane highway	3.06	3.87	-0.81
Dam	1.72	2.33	-0.61
Tourist route	4.33	3.33	1.00
Exit number	4.56	3.58	0.98
Radio station	2.94	2.14	0.80
Airfield	2.56	2.00	0.56
Information centre	4.78	4.23	0.55

5.2 Tourism/Highway Map Design

The evaluation by the survey respondents of the various design features for each map was interpreted and rated qualitatively according to three categories: inadequate; good; and excellent.

When the individual feature evaluations were taken into consideration and averaged, the ratings for all the provincial and territorial maps included in the survey package were within the good category. It is significant that the ratings for the maps were not affected appreciably by the respondents having used (or not used) the maps in a practical situation. The familiarity of the respondents with tourism/highway maps in general also did not appear to affect the results significantly.

5.3 Design Guidelines

The following list of general design guidelines and recommendations was compiled from the written comments made by the respondents. The guidelines are not listed in any particular order:

- A horizontal map, i.e. a map whose width is greater than its height, is preferred to a vertical map. (*Obviously, this effect is more difficult to achieve if the province or area mapped has a greater geographic extension in a north-south direction. In some cases, this can be accommodated by mapping only the developed areas on the main side of the map and by the use of insets to map the remaining areas.*)

- If possible, the orientation of a map should be north-south in a vertical direction.
- The map components on both faces of a map should be oriented in the same direction.
- Regional enlargements should be indicated on an inset map.
- If possible, the legend and the index to towns, streets, etc. should be located in one vertical panel at the right on the main map face. If space permits, it is preferable to include a legend on the secondary face of the map if it features enlargements, city maps, etc.
- A few well-placed meaningful photographs are desirable, space permitting. Large montages, and ministerial photographs and messages should be avoided.
- In relation to folding, map components should be placed to fit within the limits of fold panels as much as possible.
- Vertical staggered or offset folding with number and colour coding is preferable for ease of access to the information. However, offset folding seems to wear more quickly.
- It is critical to achieve a balance between scale and level of detail. (*Map makers sometimes find this difficult to control because of political and other pressures exerted on the tourism/highway departments by the public, municipalities, etc.*)
- Scale statements should be precise rather than approximate.
- In general, maps should be drawn at scales which are rounded off (e.g., 1:750,000) for ease of use.
- It would be preferable if symbology could be standardized. (*This is unlikely to happen to any significant extent.*)
- The following information is desirable on maps:
 - Time zones
 - Radio stations
 - Railway systems
 - Up-to-date populations (*can be handled in index or city map enlargements*)
 - Public parking on city maps or enlargements, scale warranting

(*These features were singled out by a number of respondents in written comments as being most desirable; this is in part supported by the level of importance attached to these items by 100% of the respondents as indicated in Table 2.*)

- The inclusion of travel lure and other textual information should be kept to a minimum. This type of information is usually more appropriate in other tourism publications. However, addresses and telephone numbers where tourism information is available should be given.
- The land fill background should be coloured with a pale pastel shade. This is preferred to a white or darker background.
- Warm red is preferred to magenta as a colour to portray map symbols and other pertinent information or to highlight areas. (If requested, colour film separators can separate colour prints or transparencies to replace magenta with warm red in 4 colour process printing negatives.)
- The publication year and the date for the last update should be clearly indicated.
- Indicate where roads at the edge of a map lead to - and distances also.
- Highway sign descriptions and regulations are useful, especially to foreign visitors.
- Mileage charts should include major Canadian centres. Pastel colour bars facilitate the use of these charts.
- Topography is best portrayed in an inset map. If topography is to be shown on a large-scale map, especially in the form of hill shading, it should be very subtle so as to minimize interference with the readability of other information.
- City maps should show more details if possible. Major streets, at least, should be labelled. It is helpful to show all streets even if they are not labelled; if this can't be done, a note saying Selected Streets Shown should be included. It is also important to indicate one-way streets. (As this is not always possible given the limitations of scale and other considerations, the map user could be directed to more detailed city maps.)
- As much as possible, multiple city insets on a map should be drawn at the same scale and with borders.
- Paper should be of a good quality and of a minimum weight of 120M.
- Separate editions for French and English maps are preferable. However, it is understood that cost is a major factor to consider.

6.0 POSTSCRIPT

It is hoped that the publication of this study will be of value to the study respondents and to other cartographers associated with the design and production of tourism/highway maps.

ACKNOWLEDGEMENTS

I would like to thank the following individuals for their assistance with the design of the survey and the subsequent analysis of the results: G. Strole of the Rural and Small Town Research and Studies Programme of Mount Allison University, Sackville, New Brunswick; and J.F. Corning and M.J.A. Butler of LRIS Amherst. T. Bradley and M. Jones of LRIS kindly input the information and word processed the report. The efforts of the survey respondents and the CCA members who assisted with the distribution of the survey packages are also appreciated.

Obituary

Franklin R. Stern (1923-1991)

Perhaps not known by many Canadian members of CCA, Frank Stern contributed in many indirect ways to the development of teaching programmes in introductory geography and cartography in this country. Following formal studies in geography at Dartmouth, Syracuse, and Oslo he gained field experience in N.W. Europe as a travel director for the U.S. National Education Association. From teaching posts in Rhode Island, Massachusetts, New York, and (in the mid 1960's) at McGill University and its Summer Schools, he brought a broad perspective to many related aspects of human geography, field studies and practical work in cartography. His close rapport with students and teachers both in the classroom and in the field gave them an unusual understanding of the interdisciplinary nature of the subject. A native of New Jersey, his interests included both urban and rural aspects of Canadian and (particularly) Norwegian subarctic settlements. After leaving the teaching profession he worked in the U.S. Defence Mapping Agency and, upon "retirement", as a very knowledgeable sales "clerk" at a map supply store in Rhode Island. Older colleagues will remember his ceaseless efforts to promote the wider use of maps and his projects to market large city maps and guides all part of his attempts to merge (profitably) his two main loves of urban studies and cartography. His enthusiasm for his innovative (if sometimes impractical) ideas will be remembered by many and his friendly personality, with its deep concern for others, will be missed by all who knew him well.

With condolences to his family, *Norman Drummond*

The Canadian Cartographic Association l'Association canadienne de cartographie

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