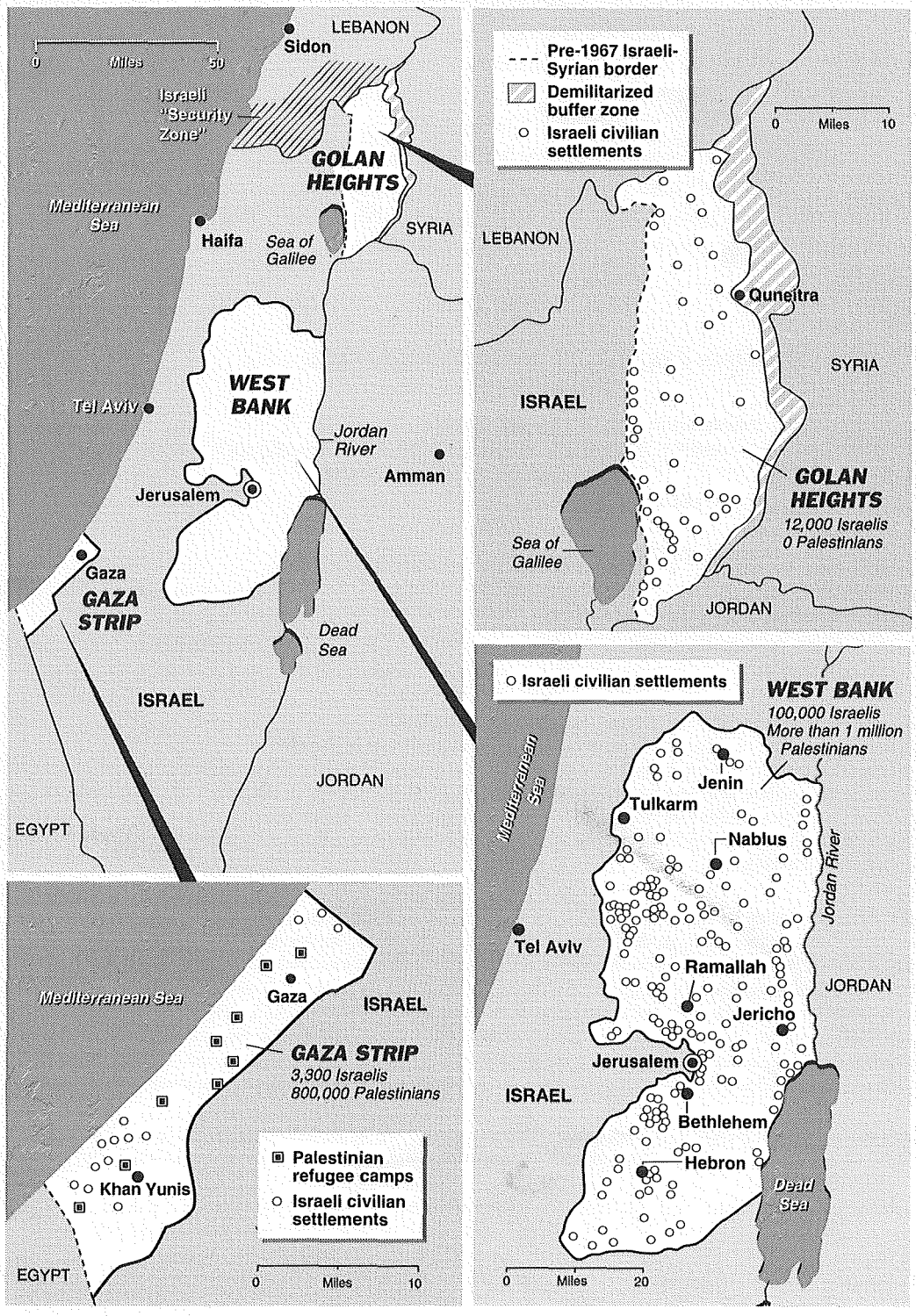
Where the Israeli Settlements Are



CARTOUCHE

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In this issue/ Dans ce numéro .....

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Editor & CCA Secretary/Éditeur responsable et secrétaire de l'acc:

James Britton
Cartography and Geographic Information Systems Departments.
School of Natural Resources, Sir Sandford Fleming College, Lindsay, ON, Canada. K9V 5E6
Phone/Tél: (705) 324-9144 *Fax/Télécopieur: (705) 878-9312*
E-Mail/Cour élect : JBritton@FlemingC.on.ca

CCA Managerial Office/ Bureau central de L'ACC

c/o Geography Department,
University of Calgary, Calgary, AB, Canada. T2N 1N4
Phone/Tél: (403) 220-4892 or 220-5597
Fax/Télécopieur: (403) 282-6561

Membership lists/liste d'inscription:
Monika Rieger
mkrieger@acs.ucalgary.ca

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

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Les dates limites pour l'envoi d'articles ou de documents sont les suivantes: 10 janvier, 31 mars, 30 juin, 30 septembre (*voir la dernière page*). 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..

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Our Cover: An example of journalistic mapping from the pages of the September 8, 1993 issue of *The New York Times*. Discussion on the cartographic department of the Times is found in this issue's President's message on Page 4.

Data Sources: US Central Intelligence Agency, Israeli Embassy. Map reproduced here at 80% of original size.

The Canadian Cartographic Association
L' Association canadienne de cartographie

CCA Executive/ Comité Exécutif de l'ACC (1993/1994)

President/Président: *Alun Hughes*
Geography, Brock University
St. Catharines, ON L2S 3A1
Phone/Tél: (905) 688-5550 Ext.3489
Fax/Téléc: (905) 688-2789
E-Mail/Courr. élect: ahughes@spartan.ac.brocku.ca

Vice-President/Vice-président: *Marcia Faurer*
Geography, University of Winnipeg
515 Portage. Winnipeg, MB R3B 2E9
Phone/Tél: (204) 786-9481
Fax/Téléc: (204) 786-1824
E-Mail/Courr. élect : Faurer@uwpg02.uwinnipeg.ca

Treasurer/trésorier: *Shelly Laskin*
Globe Graphics
664 Balliol Street Toronto, ON M4S 1E7
Phone/Tél: (416) 481-9513
Fax/Téléc: (416) 481-1236

Past-President: *Majella Gauthier*
Département de géographie.
Université du Québec à Chicoutimi
555, boul. de université, Chicoutimi, QC G7H 2B1
Phone/Tél: (418) 545-5096
Fax/Téléc: (418) 545-5012
E-Mail/Courr. élect : MGauthie@uqac.uquebec.ca

Interest Group Chairpersons/Chefs de Groups d'Intérêt.

Computer mapping-GIS/automation-SIG: *Y. C. Lee*
GIS Division, EMR
615 Booth Street, Ottawa, ON. K1A 0E9
Phone/Tél: (613) 996-2812
Fax/Téléc: (613) 952-0916
E-Mail/Courr. élect : yclee@gisd.emr.ca

Education/éducation: *Nigel Waters*
Geography, University of Calgary
2500 University Drive
Calgary, AB T2N 1N4
Phone/Tél: (403) 220-6398
Fax/Téléc: (403) 282-6561
E-Mail/Courr. élect : water@acs.ucalgary.ca

History /histoire de la cartographie: *Iain Taylor*
Geographical Services Division, EMR
615 Booth Street, Ottawa, ON. K1A 0E9
Phone/Tél: (613) 992-4028
Fax/Téléc: (613) 996-8282

Map Use & Design/conception et utilization des cartes: *Christine Earl*
Geography, Carleton University
Ottawa, ON. K1S 5B6
Phone/Tél: (613) 788-2600 Ext 2570
Fax/Téléc : (613) 788-4301
E-Mail/Courr. élect : cearl@ccs.carleton.ca

Technology/technologie: *Patricia Chalk*
Geography, University of Western Ontario
London, ON N6A 5C2
Phone/Tél: (519) 661-3425
E-Mail/Courr. élect : chalk@vaxr.sscl.uwo.ca

1994 Annual Meeting Head/Chef, Congès Annuel 1994: *David Douglas*
Geography, University of Ottawa
London, ON N6A 5C2
Phone/Tél: (613) 564-4045
Fax/Téléc: (613) 564-3304
E-Mail/Courr. élect : dhdad@acadvm1.uottawa.ca

CIG Technical Councillor for Cartography: *R. Norman Drummond*
Geography Department, McGill University
805 Sherbrooke Street W., Montréal, QC H3A 2K6
Phone/Tél: (514) 398-4939
Fax/Téléc : (514) 398-7437
E-Mail/Courr. élect : in23@musicb.mcgill.ca

Cartographica Editor: *Bernard Gutsell*
12 Goodview Road, Willowdale, ON M2J 2K5
Associate Editor: *Edward H. Dahl*
National Archives of Canada
Ottawa, ON K1A 0N3
Phone/Tél: (613) 995-1452
Fax/Téléc : (613) 995-6575
E-Mail/Courr. élect : ad504@freenet.carleton.ca

President's message/ mot du président

by/par
Alun Hughes

Maps of the Times

One of the delights of spending several weeks of the summer in the United States was discovering The *New York Times*. There is much about it to savour – the staid, old-fashioned look, the curious slogan "All the News That's Fit to Print," the idiosyncratic (one might even say long-winded) headlines, the breadth of the news coverage, the quality of the writing, the fact that most of the articles are written by people, not news agencies... and the maps.

Yes, the maps. *The New York Times* contains more maps than I have seen in any newspaper. It is not unusual to see two or three maps per page, and they are good ones at that. Most are relatively small, straightforward maps illustrating news articles, but others are large and complex – major productions by any standards.

These maps are clearly the product of a keen cartographic intelligence, for despite the constraints of printing in black-and-white on newsprint and often having only a small area to work with, they are models of clarity and design. Particularly noteworthy are the employment of grey tones to create contrast and to highlight areas of interest, the effective use of insets to show the mapped area in its geographical context, and the consistency in style between one map and another, especially those on the news pages.

Though successive daily editions of the paper often contain articles on the same theme (e.g. the Balkans, the Middle East), the maps illustrating them are always different. Thus when Hurricane Emily threatened the eastern seaboard, we were presented with daily updates in map form. Evidently, each map in the paper is tailor-made for the article it accompanies.

Intrigued, I phoned The Times to find out more, and what I learned was more than a little surprising. I talked to *Stephen Hadermayer*, Manager of the Map Department, and he told me that 75% of their work consists of maps, the remainder comprising charts, diagrams and other graphics.

Most requests for maps come from the News Department, and the lead time can vary from several days to as little as 20 minutes! The Map Department can respond quickly because all its work is done by computer (and has been since 1989). It maintains a complete electronic file of the maps produced; this is indexed geographically, so when necessary existing maps can be retrieved and modified at short notice. Original mapping takes much longer of course, especially if a lot of research is involved. They use Mac-based Adobe Illustrator for production.

I asked Mr. Hadermayer how many cartographers he employs. He gave me two answers: thirteen and none! He has no fewer than 13 full-time people (not to mention the occasional freelancer) working for him, which is remarkable in itself. But even more remarkable is the fact that none of them has a formal cartographic qualification. One has a geography degree, but otherwise they all have a graphic arts background!

I make no further comment, except to note that despite this serious (?) deficiency (?) the maps they produce are examples of journalistic mapping at its best.

The President's Prize

Journalistic mapping is of course one of the categories in the CCA's President's Prize Competition. The rules of the competition were recently revised, and the new rules are published in this issue of *Cartouche*. If you are a student or instructor, please read them carefully, for they differ appreciably from the previous ones. The new rules result from a dialogue that continued by mail and E-mail through the summer months, and I would like to thank *Henry Castner, Christine Earl, Marcia Faurer* and *Nigel Waters* for their thoughtful and constructive comments.

Some of the changes seek to remedy what were considered deficiencies in the old rules, and others are a response to changes in cartography itself. We have dropped two categories (Monochromatic Map-Introductory Course, and Innovative Computer Map) and restructured the rest to draw a clear distinction between university and college students. We have also redefined the Journalistic Map category, and clarified the entry conditions and criteria for judging.

We make no claim, however, to have achieved perfection. Our experience with the 1994 competition will no doubt suggest further changes, perhaps yours?

Les cartes du Times

L'une des plus belles choses qui puisse arriver lorsque l'on passe plusieurs semaines aux États-Unis, c'est de découvrir *Le New York Times*. Comment ne pas apprécier le sérieux, l'apparence soignée, le curieux slogan «Imprimer toute nouvelle qui en vaut la

peine», les titres «idiosyncratiques» (on peut dire généreux), l'ampleur de la couverture des nouvelles, la qualité d'écriture, le fait que la plupart des articles soient écrits par des individus et non par des agences de presse... et les cartes.

Oui les cartes. *Le New York Times* contient plus de cartes que j'en ai jamais vues dans n'importe quel journal. Il n'est pas habituel de voir deux ou trois cartes par page, et il y en a de bonnes. La plupart sont relativement de petites dimensions et illustrent directement les articles; néanmoins, d'autres cartes sont grandes et complexes – de toute évidence, c'est beaucoup de travail.

Ces cartes sont vraiment le produit d'une vive intelligence cartographique, en dépit des contraintes d'impression en noir et blanc et du peu de surface disponible, elles sont des modèles de clarté et de conception.

Particulièrement remarquable est l'utilisation des tons de gris afin de créer du contraste et pour mettre en relief les aires d'intérêt; l'on doit signaler l'utilisation efficace des cartons pour montrer la région cartographiée dans son contexte géographique, et la consistence dans le maintien du style d'une carte à l'autre, spécialement celles apparaissant dans les pages d'actualité.

Bien que les éditions quotidiennes du journal contiennent des articles sur le même thème (exemple, les Balkans, le Moyen-Orient), les cartes qui les illustrent sont toujours différentes. Ainsi, quand l'ouragan Emily a menacé la côte est des États-Unis, on nous a présenté chaque jour des cartes renouvelées. Évidemment, chaque carte dans le journal est faite sur mesure pour l'article qu'elle accompagne.

Intrigué, j'ai téléphoné au *New York Times* pour en savoir un peu plus; ce que j'ai appris, fut plus que surprenant. Je me suis entretenu avec *Stephen Hadermayer*, responsable du Département de cartographie, et il m'a affirmé que 75% de leur travail consiste a produire des cartes, le reste étant des chartes, diagrammes et autres sortes de graphiques.

La plupart des commandes de cartes viennent du Département des nouvelles, et le temps de production varie entre plusieurs jours et moins de 20 minutes! Le Département de cartographie peut répondre vite car tout est réalisé à l'aide de l'ordinateur (cela a commence en 1989). On maintient un fichier électronique complet des cartes produites; c'est indexé en fonction de l'espace géographique, ainsi, quand c'est nécessaire, les cartes existentes sont récupérées et modifiées en peu de temps. Bien sûr, les cartes originales exigent beaucoup plus de temps, spécialement si cela demande beaucoup de recherche. On utilise le logiciel Adobe Illustrator et des ordinateurs Macintosh.

J'ai demandé à M. Hadermayer combien de cartographes travaillent pour lui. Il m'a donné deux réponses: treize et aucun! Il n'a pas moins de treize personnes travaillant a plein temps (sans mentionner les personnes à la pige); c'est digne d'attention n'est-ce pas? Et, ce qui est encore plus remarquable est le fait qu'aucune d'elles n'a une qualification formelle en cartographie. Une personne possède un diplôme en géographie et les autres ont une formation en arts graphiques.

Je ne fais pas de plus amples commentaires, excepter que je puis noter que malgré cette sérieuse (?) déficience (?), c'est-à-dire en formation cartographique, les cartes qu'ils produisent sont des exemples de la cartographie journalistique à son meilleur.

Le Prix du Président

La cartographie journalistique est bien sûr l'une des catégories du Concours de l'ACC pour le Prix du Président. Les règles du concours ont été révisées récemment, et les nouvelles règles sont publiées dans ce numéro de *Cartouche*. Si vous êtes un étudiant ou un professeur, s'il vous plaît, lisez-les avec attention, car elles diffèrent passablement des anciennes. Les nouvelles règles résultent de nombreux dialogues qui ont eu lieu par courrier électronique durant l'été dernier; à ce propos, j'aimerais remercier *Henry Castner*, *Christine Earl*, *Marcia Faurer*, et *Nigel Waters* pour leurs commentaires justes et constructifs.

Quelques-uns des changements essaient de remédier à ce que nous trouvions de déficient dans les anciennes règles, et d'autres sont des réponses aux changements dans la cartographie elle-même. Nous avons enlevé deux catégories (Carte monochrome -cours d'introduction et Carte informatisée innovatrice) et nous avons restructuré le reste afin de mettre une distinction claire entre les étudiants des universités et des collèges. Nous avons aussi raffiné la catégorie Carte journalistique, et rendu plus clairs les conditions d'admission et les critères de jugement.

Nous ne garantissons pas cependant que nous avons atteint la perfection. L'expérience du concours de 1994 nous suggérait fortement que des changements s'imposaient; si vous avez des idées à ce sujet, nous serions heureux si vous nous les communiquiez.

Technology/ technologie

by/par
Patricia Chalk

There Remain Two Camps?

In the not so distant past many of us employed as cartographers listened to the insightful proclamations of a few geographers that computers would soon do cartographers out of their jobs'. Most cartographers were able to place such comments in proper perspective by casting their gaze upon the design-challenged maps clutched with such glee in the hand of the visitor. Generally the most memorable aspects of these creations were the unique patterns generated by overprinted characters and the striking lack of cartographic design. Such products had their place in the research process but could hardly be considered a serious threat to a well-designed cartographic product. Two distinct camps had developed with respect to the role of computers in cartographic representation.

Another group of digital map enthusiasts made its rounds into cartographic labs a few years later. This time the maps sported the ever-so-bold line and dot patterns generated by the early desktop computer drawing packages. While these computer images showed promise, they generally had a heavy handed appearance which, unfortunately, wasn't softened by the "jaggies": those stepped edges on slanted lines. In terms of digital output evolution, progress was being made but image resolution and ability to customize was still poor. Some middle ground between the camps was on the horizon, however.

It was during this period that I delivered a paper at the CCA in Fredericton (1987). Its title captured the message: 'Real Cartographers Should Embrace Computers'. Although this view was not entirely well received at the time, the approach did prove to be a valid one. While many cartographers were still strongly opposed to computer generated graphics of any kind, others in the Association were making graphic strides forward using desktop computer products. The following few years witnessed a remarkable improvement in hardware and software capabilities as developers moved quickly to address their products' limitations in such areas as customization, resolution, speed and output capabilities. It was this evolution that has made it possible for cartographers to produce design-conscious maps in the digital world.

Just when I thought most design-challenged maps couldn't be blamed on computer hardware or software limitations, examples from GIS software provided good fodder for a session by Rieger and Coulson at this year's CCA Annual Conference. Limitations in customization of maps produced in GIS software were well documented in this thought provoking session.

Among the benefits of belonging and participating in the CCA are the exposure to many points of view and types of expertise. Responses of some fellow CCA members to Rieger and Coulson's presentation revealed some interesting perspectives from the software designer's point of view (it is the juxtaposition of those views that prompted this column). It would appear that some GIS software developers may be hesitant to deal with code to improve design customization because of the time commitment involved. Since the software continually needs upgrading to keep the product attractive to the GIS markets, time taken to write code to improve cartographic design capabilities would sacrifice desirable analytical enhancements planned for a software upgrade.

A further point made during the session was that many GIS files may now be exported to non-GIS professional drawing programs for redesigning. Why should GIS companies invest the time to write customization procedures within the GIS programs when the files may be exported to professional drawing packages?

Since many of our members are not able to attend the conferences and benefit from the exchange of ideas on subjects such as this one, please forward your comments to me at the address below for publication in Cartouche. The diversity of our membership is one of our strengths as an association. We all benefit by the exchange of ideas. Let your thoughts be known!

CCA/ACC-NACIS '94

August 9-13, août 9-13
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A joint meeting of the CCA and the North American Cartographic Information Society/ une réunion conjointe de l'ACC et de la North American Cartographic Information Society.

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Map Design and Use/ conception et utilisation des cartes

by/par
Christine Earl

Cartographic Fauna

"We study animal populations by isolating individuals of a species in zoos, natural history museums, and television nature programs. ... I have attempted to dream about animals from the inside, and to replenish our world from the imagination."; thus, Montreal-based "pataphysician and visual artist" *Richard Purdy*, introduces his descriptions of new species of animals in his book *Natural Selection*. While this book is full of interesting fauna, two species would appear to be of *particular* interest to cartographers: the *PRINT GRUB* and the *HOMING RAT*. In the interest of expanding the limits of cartographic understanding, we reproduce the descriptions here.

PRINT GRUB (*Visus litteratum*)

The North American print grub is a well-known pest infecting libraries and bookstores. This tiny grub has a transparent lens-like body that distorts the print below it and gives the impression of a typographical error or misprint.* The print grub lives on book pages and licks the ink up off the page, slowly erasing whole lines of type as it feeds. The grub digests the gum arabic or glue content of the ink and defecates the pigment residue, leaving behind an unsightly smudge.

The print grub has become a significant pest in North American libraries, reducing entire books to defecatory blobs. In recent years, researchers in the Saskatchewan Bibliographic Centre have discovered marked tendencies in the print grub's habits. For instance, statistics show a consistent preference for glossy magazines. No infestation has been found in the works of William Shakespeare, Marcel Proust, Henrik Ibsen or Mervyn Peake, although volumes on nearby stacks were considerably infested. It may be going too far to suggest that print grubs are executing a type of literary criticism; yet, the facts are undeniable.

*Typographical errors in this publication may be attributable to print grubs. Please check carefully.

(I would not be surprised to learn that the print grub has a liking for maps and is frequently responsible for distortions of cartographic information, missing place names, stray symbols, inaccurate scale bars, etc. *CE.*

I would go further and suggest the existence of a subspecies, or digital relative of the Print Grub: *Visus electrolitteratum* or perhaps *Visus Desktopublishing*. Read any past issue of *Cartouche* to see the effects of this malignant cross between true *Visus litteratum* and various mutant computer virus strains. *Ed.*)

HOMING RAT(*Ratus problematicus*)

Ratus represents the only known example of a written language generated by an animal. Between 1951 and 1954, the Detroit Institute of Behavioral Psychology (DIBP) did research in artificially induced hysteria. Experiments involved running rats through mazes that were continuously changed during learning. After months of running and learning mazes that consistently denied food rewards, the rats began rolling around, lacerating their stomachs with their teeth. Researchers originally concluded that this behaviour was an hysterical response to intolerable frustration.

During a fire that broke out on April 14, 1954, many of these rats escaped, fleeing into the Detroit sewer system. From there they spread to other urban centres. These rats, living in chaotic, man-made cities, continued their habit of lacerating their stomachs, and developed the ability to formulate marks that helped them to orient themselves in their territory. The small wounds turned into permanent pictographic scars related directly to certain features in the environment: burrow hole, street corner, etc. If the rat became disoriented, it felt its stomach with its paws; the scars acted as a kind of Braille map to re-orient the rat on its forages. Experts now agree that this behaviour evolved in the DIBP laboratories, where the rats lacerated themselves, not out of frustration, but out of an impulse to establish some form of permanent record of the constantly changing mazes that they were forced to run. In the wild, the rats have developed a standardized 'vocabulary' of fifteen environmental features represented by graphic scars.

Reprinted from the Journal of Wild Culture by permission of Somerville House Publishing, Toronto.

In our next issue:

Cartographica Report,

Newspaper extracts,

and more, in *Cartouche* #12...

Automation/ automation

by/par
Y. C. Lee

IS THERE NEED FOR A NEW CARTOGRAPHY?

Cartography is an old technique and GIS is a new tool; they must work together under a digital environment. The new environment will not change the prime objective of cartography, which is to create a graphic message for spatial communication. However, the new technology has prompted us to review the cartographic principles required to achieve the objective.

Many of the cartographic principles have been developed to help create a clear and accurate message. Generalization and the use of symbology, for example, are for reasons of clarity. The study of map projections, on the other hand, is for reasons of accuracy.

We have learned that clarity and accuracy are sometimes mutually exclusive. Hence the many rules of cartography developed to reconcile their conflicting needs. If we look deeper into this problem, we will find that the analogue nature of maps is really the culprit.

An analogue map has a finite dimension, and the clarity and accuracy of analogue data depend very much on their density and physical size. Because of these reasons, an easy to read map must contain an appropriate amount of graphic symbols of appropriate sizes. If the surface on which to display the map is small, not many of these symbols can fit without interfering with each other. Thus, the practice of generalization leads to positionally less accurate maps.

In an analogue map, the flat surface (usually paper) is used to store and display the map. It is also the surface on which map analysis is based. This multiple use of the surface is central to the problem. For display, we want clarity. For storage and analysis, we want accuracy. Their conflicting needs are difficult to resolve on a single surface.

A digital map allows the separation of storage from display. Spatial analysis can then be performed on the stored data in their most accurate form. When it comes to display the map, cartographic enhancements only affect the visual image and not the stored data.

Moreover, the visual image can be less accurate because demanding analysis can be performed on the stored data. Hence the question:

Could this separation of stored data from the visual image lead to a new era of cartography?

To answer this question, I have identified the following areas of concern:

1. Symbology is mainly used to depict attributes of features on a map. Since we can retrieve the attributes from the stored data on demand, can we now reduce requirements on symbolization?

2. Zooming is a very effective method of reducing clattering on a map. Since we can enlarge a display on demand on a graphics terminal, can we now reduce requirements on generalization? In particular, can we avoid most cases of feature exaggeration and shifting?

3. A significant part of the study of map projections is to determine the characteristics of their geometrical distortions. Since we are not making measurements on the visual image, can we now pay less attention to the positional accuracy of map projections? I think the visual impacts of map projections are still very important.

Your thoughts please.

"MAP OF THE HUMAN HEART"

Cartographic Film Review by
Roger Wheate

Maps and cartographers usually receive only passing reference in full-length feature films, that is until the release of 'Map of the Human Heart', a co-production from Canada, England, France and Australia. The story begins in the Canadian Arctic as Walter, a map surveyor from Montreal, flies into an isolated village and whisks away Avik, an ailing 11- year- old boy, to a Montreal hospital. Avik strikes up a relationship with a Métis girl named Albertine, who is then transferred to Ottawa by an alarmed teacher.

We then shift to the second world war and Avik is a bomber crewman in England, where he reconnects with Albertine, who is working in bomber command, analysing aerial photographs. But to Avik's dismay,

...continued on page 13

An Interview with Denis Wood

Denis Wood is the author (with John Fels) of *The Power of Maps* (Guilford Press, 1992). He is Professor of Design at the School of Design at North Carolina State University. *The Power of Maps* is a provocative, and in my opinion , a very important book for the cartographic community. It contains much that may revolutionize, or at least significantly alter, the way cartographers think about their work. As with any controversial material, it has generated a lot of discussion (see recent, and forthcoming, issues of *Cartographica*). Much of the discussion has been at a fairly sophisticated academic level. Yet the main point of the book is valid for all cartographers. It is hoped that, after reading this interview, more practicing cartographers may be enticed into reading the book and joining the debate. I interviewed Denis at his home in Raleigh, North Carolina, earlier this year.

Question: Your book appears to deal with cartography in a way that many established cartographers might find a little confusing, so I thought we might start by simplifying things. What is the main point of the book?

Answer: Well, that maps are powerful. I don't mean that in any subtle way. I mean they have power over our lives; I mean they are instruments of social control and dictate the way we live to a degree that is unimaginable to most people.

Question: What if a cartographer says, "No, I just create an objective, abstracted picture of the world. How can that be powerful?"

Answer: I would contest not merely the assertion that the map is not powerful, but the assertion that it is a picture of the world. Although I don't make this argument in the book, it is implicit there, and it is that not only is the map *not* a picture of the world, but that the world is often a sort of picture of the map, because the world is often forced to conform to the map, instead of the other way around. So that instead of the cartographer being an instrument of great transparency who views reality and transcribes it is some way, actually the world is some version of a vision the cartographer carries around in his or her head (or is carried around in the head of the person who hires or employs the cartographer). Let me give you an example of that. We have zoning maps. Now zoning maps are great examples, because rarely are they pictures of the way the world is. Instead, they're pictures of the way some people want the world to be. In Raleigh there was a couple selling vegetables out of their garage in a zoning district that was exclusively residential. Now, if the zoning map had in fact been a picture of the world, it would have shown this exception to the zoning, it would have drawn the boundary in a different way to keep this couple out of the district, or would have symbolized their existence some other way. But since zoning maps are not pictures of the world, but visions of the way some people think the world ought to be, the couple were forced to conform to the map. So here a map was in error and instead of correcting the map we corrected the world. And this goes on all the time. Maps are extraordinarily powerful this way, and if this is a trivial instance, just think about the general role maps have played in urban development in our century. It is through the power of maps that the horrible cities we live in have been brought into being. We are developing landscapes in conformation with a vision of reality that is encoded and dispersed and essentially alive ... in maps.

Question Are you proposing that the cartographer is acting as an agent of some group, such as planners?

Answer: Well, maybe. The planners are probably no more or less agents than the cartographers, but, yes, these people are all agents of those who pay to get the maps made, and who, in the end, by controlling the form and content of the maps, impose their vision of reality on the world. The cartographers work for the planners, who work for the city council, which is elected in a process that is more or less amenable to control by the media, the people with money, the people who care to have their voice heard. What we have is a dominant ideology that is lived out through the lives of the people who control society and their agents — all of us in the end. This ideology is composed of all those very general values, very vague elusive ideas about human dignity and worth, how people should live, and so on. And of course it's hard to act on these very general kinds of ideas. But in the hands of the cartographer these very slippery things all of a sudden turn into precise lines that say, "This shall take place here, and that shall take place there; these people shall live over here, and those people shall live over there; and these people shall go to school here, and those people shall go to school there;" and so on.

Question: So we get the idea that the cartographer lends a credibility to what has, up to the point of mapping, been something very loose, open to persuasion, and open to the whims of a power group in control.

Answer: What the cartographer does is concretize through an act of inscription a set of abstractions. Human values are very abstract. Until they are concretized they are hard to act on and hence lack authority. It is the concretization of values in the map that allows them be transformed into a landscape, which then underwrites the reproduction of society. You don't *need* a map to do this, but without a map we couldn't do it at the scale we do, we couldn't plan Levittown, we couldn't control the lives of millions of people.

Question: Do you feel that the cartographer then faithfully reproduces the decisions of this group within the map or does the cartographer bring his or her own set of biases to that inscription process?

Answer: I don't know. The cartographic process is one of conventionalization and the conventions evidently intervene between the values and their concretization in the landscape. I don't know that I can answer the question, in general, how the cartographic convention translates the values of those in control of the process. Is it a perfect reproduction? Does it produce a lot of distortion? I would say that the aim of cartographers is to be as transparent as possible, to reproduce those values as faithfully as they can. But I don't know if they do or not, or even how I would measure it. I am frequently astonished to run into people whose values have been inscribed on the land and hear them say, "Whoa! I didn't know they would be so close!" or "I didn't know they would have to cut down all those trees!" These changes were easier to support in map form not only because drawing lines is always more benign than bulldozing earth, but also because the cartographic convention is to show only what is important, and if they tress weren't important in this or that planner's mind, then they're not shown on the map. And the council votes this way or that without ever even thinking about the trees. This is cartographic "generalization" which is always presented in the texts as this benign technical process, but it is more political than just about any other. Brian Harley always wanted to talk about the way this produced the blank maps of the New World that failed to prepare the colonists for the Indians it generalized off the map, but I mean "political" in a more comprehensive way. I mean to include what Harley was talking about, but what I really want to stress is the way the cartographic convention system is completely caught up in the way we think about *everything* in the world. I argue, for example, that the reason someone like Dan Quayle could think about wetlands in the simple-minded way he did was because as a well-educated American he had been endlessly exposed to cartographic images in which the wet world was blue and the dry world was tan or green, and the two were separated by a fine black line. That these lines really stood for complicated zones of shifting wetness and dryness was never something cartography was very good at making clear, or had any interest in making clear. What the cartographer helps construct in peoples' minds is a very simple concrete version of what actually is — just like human values — a very general, vague, amorphous thing, a river, or a seashore, or an estuary. The conventionalized symbolization process translates very complicated, general notions, some of them very deep in our consciousness as, say, Europeans, into very fine lines. On the basis of these lines other lines will be drawn that will say, "Flood insurance is so much here," or "This land may be converted into a shopping center." And this isn't something new. Our oldest maps were doing this. We are talking about a very, very old process in cartography. In what other sign system do humans concretize the idea of river or water flow as they do in a map? And this not only inscribes boundaries that control our behavior, but concretizes conceptual values and conceptual categories that, before they were mapped, were very slippery, were very hard to put your finger on, were very dynamic. And not just rivers, but forests, and pastures, and city, and country, all these things acquire a new, *harder,* identity once they're mapped. And suddenly, you can put your finger on them.

Question: There are some who may say that advances in technology in data collection and information processing and the future of virtual maps and similar computer-based realities may allow us to store maps that are (a) more accurate portrayals of reality, and (b) encode more information at the same time.

Answer: I don't think accuracy is an issue. The oldest maps we have were accurate for the purposes that were required by the societies that were using them. I have no interest in contesting the assertions of the cartographic community that the maps they are making are accurate to an unbelievable degree of precision. In fact, it is precision well beyond any human need. I do not need to know where the corner of my property is to the millimeter: the fence post I am going to put in the ground is such a crude instrument in comparison. But the problem as posed is silly. If maps were really complete and totally accurate, they'd be useless. If a map looked just like the real world why would I need it? I already have the real world itself. Why would I require a perfect reproduction of reality: then I'd just have two realities. In *Sylvie and Bruno,* Lewis Carroll describes a map that is drawn to the same scale as the real world and therefore, of course, it is the same size as the whole country and when it is

finally unrolled it completely smothers everybody. This is not a completely apt demonstration of my point, but it does suggest one way in which a map that reproduces reality is not useful for us, is not, that is to say, a map. The only reason maps have been used historically is precisely because they *selectively* describe the world, making it possible for those making the map to control or enter into social processes in ways they otherwise couldn't. To function this way, the map has to be selective, since it is nothing but its selectivity that makes it useful. So if we were to come up with a form of representation that was indistinguishable from reality, the one thing it wouldn't do is show us is all the things the map does show us, the things that the map selects, foregrounds, generalizes, abstracts, makes simple or concrete. Such a map wouldn't work, or wouldn't work any differently than the world already works without such a map. What such a map wouldn't show, of course, would be the human values or meanings that we find, not in the world, but in our head, which *are* things, but things we extroject into the world. I would argue, for example, that the way we conceptualize a tree is a product of a certain kind of cultural orientation. If I were thinking about this problem from a sort of feminist perspective, I would say that we think about trees the way many feminists say men think about women, that is, they objectify them. This objectification of the tree has a certain utility for us (it lets us cut them down), just as the male objectification of women has enabled men to exploit women in a historically contingent kind of way. If I think about cartographic representation of trees I see immediately a dot being put at the center of the trunk at the ground plane and depending on the scale, that might be it. Or at a larger scale there might be some kind of outline of the drip line. I will not, however, be enabled to see the way the tree mingles its branches with other trees, a phenomenon of great interest to students of tropical rainforests where the trees don't seem to be usefully conceptualized in isolation, but only as components in a more or less viable community. Now, this conceptualization problem doesn't go away just because we are using digital processing or because our images are scanned instead of photographed. The conceptualization problem just gets located somewhere else. In the case of satellite imaging one of the places it gets located is in the choice of bandwidth. This federal agency wants one bandwidth, that federal agency wants another. The military could care less: it's concerned with resolution. The decision what to do is not decided "technically" but through the political balance of power achieved by these competing agencies. What looks to outsiders like "objective" and "scientific" debates dissolve, once you read the interagency memo traffic, into intense turf battles. The problem has never been a technical one. It has always been, "Whose perspective do we choose to see the world from? Yours or mine?" It doesn't matter if the map is a computer generated false color satellite mosaic or a hand drawn pictorial bird's eye view.

Question: So, if we accept that the map has its own agenda of some kind based on the people who have caused it to be created, how does the cartographer deal with that issue? I mean, up to now, for the most part, cartographers have worried about their design process and how faithfully they transform the real world data into the actual map. Many have written about this issue, and it is of concern to cartographers. Take, for example, the current interest in Monmonier's *How To Lie With Maps*. But here you are saying that, besides the biases of cartographers, there is a whole range of biases involved *before* the cartographer gets the job. So does the cartographer just accept this and then ignore it, or is there some other way to deal with it?

Answer: Let me respond to the *How To Lie With Maps* issue first. This is where the cartographic community has been most disingenuous. Where they have had the opportunity to let people in on how maps work, what they have done instead is say, "See: maps *can* lie. Here are some examples." The implication, however, is very different: it's that ... *most maps don't lie.* What the cartographic community has got to acknowledge is that it is *only* its biases that makes map useful. It has to be acknowledged that the map serves an interest, that the map is interested in something, that it is important in somebody's life. In saying that the map is biased and selective and interested I do not mean to say that it is therefore insidious or nasty or lying. Bias is bias: it's only bad when it's hidden. In fact, bias is the grounds for choice, and it is out of its ability to chose to show this at the expense of that that the enormous power of the map arises. Its utility is a function of these decisions *not* to show everything, to choose, to be selective. The first thing the cartographic community has got to say is, "Yes, this map is committed to showing — not everything — but this geologist's best understanding of the geologic structure of Europe," or "the crime rate by such-and-such a district using the FBI's narrow notion of crime" or whatever. And what needs to be made is a more explicit acknowledgment of precisely the *ways* in which the map is interested as well. For instance, it's not enough to say, "European Vegetation in the Late 1990s," but to be up front about the ways the map is conventionalizing "Europe," "vegetation," "the 1990s", that it is, in essence, a piece of literary discourse infected with all the characteristics we have always associated with literary discourse. Throughout school we are taught to critique literature:

we have to apply that same education to the map. If somebody asks me what the point of a movie or book is, I try to cut to the core and say, "Oh, this a a Catholic representation of the decline of the family under state socialism." I could be referring to a sprawling family drama that lasted two hours, but that would be one way of encapsulating its point. Well, why can't I do this to a map? I should be able to look at a map and say the same sort of thing: "Oh, this is the U.S. from the perspective of an Eisenhower-era Boy Scout." I happen to be thinking of the *AAA Atlas* with its maps of the fifty states etc., but that's the point of the maps, "Buy American and drive wherever you're going. Don't take the train: it's communistic." How do I do this? I use the same skills I learned in school to apply to Homer and Dante and Shakespeare (I look for allegory, metaphor, emphasis, and so on); and these skills force me to think about what the map puts in its center, how it's oriented, the colors it uses, the things it doesn't show, and so on. Once I begin to be continuously aware of those things I can say, "Oh, this is a North American view of the world from the perspective of its upper classes." Or let's say I am looking at Bill Bunge's *Nuclear War Atlas,* I can say, "Oh ho! This is the view of a highly educated Marxist critic of Western capitalism." Now it would be nice if Bill Bunge were to write this on his maps: "This map is produced by a well-educated product of classical schooling who views the world from a Marxist perspective." That would be helpful. And the USGS should say on its maps, "This is the product of a Western scientistic orientation toward the world committed to exposing in it what can be exploited, dug, harvested, and otherwise consumed to support the growth of the capitalist owners of the United States." The maps should say that. Then I could discount the map accordingly, and I wouldn't have to fight with the pretense that the map is "neutral," "objective," "scientific" and all the rest of it. What I confront now is a mask that says, "This is a neutral image of the world." The only thing it interposes between me and the world are the aspects of the world it shows, how its chooses to show them, etc., etc.,. in other words, the selectivity and lack of comprehensiveness in which its interest lie. I want the map to be as straightforward about its interests as it can be. What I think will happen then is that people will begin to realize that maps are forms of human discourse just like books, magazines, newspapers, you know, "All the news that's fit to print." Of course it depends on who's editing it what "all" and "fit to print" mean. Once we acknowledged the interestedness of maps, maps could enter the fray like other forms of discourse do. The map would be self-conscious about its persuasiveness, would stop hiding its rhetorical flourishes under lies like "clarity" and "accuracy." The map would say, "Look at me: I want to try and persuade you." The reader would know immediately he or she was in the presence of persuasive rhetoric. I think map readers would be more attentive, would pay more attention. I can imagine maps dueling in public, can foresee the day when citizens will arrive at hearing chambers armed not just with their emotions but with maps that take their side.

Question: The idea that we, as cartographers, should not spend our time critiquing design for its fidelity in abstraction, but rather learn how to critique our maps from a literary perspective is pretty threatening to an average, non-literary, cartographer. We typically come from a geographic-scientific background, and are not immersed in the humanities. Not that we are uncultured, but ...

Answer: Well, maybe. But I think it is easy to overlook the skills that every cartographer brings to his or her critique of any other piece of discourse. You know, "Whoa! This is just another form of the human discourse I have been dealing with since the seventh grade and gotten better and better at. And all I have to do now is apply this skill to the analysis of the map." Cartographers already have those skills. They come with secondary school and college. So that's one side of it. The other side is that this is nothing new to cartography anyhow. I think back to the Robinsonian intervention when he encouraged cartographers to think about map design from a frankly Bauhaus perspective. There was terrific resistance. "What? We're scientists. Why should we concern ourselves with these art values?" But the cartographic community ended up embracing them with a great deal of ease and I think the same thing will happen in this case. This is merely, in fact, an extension of Robinson's program in a way in that it is an insistence that, yes, maps are formal products and not only do they have colour and line weight and other qualities we associate with art and design, but in fact, they are all but indistinguishable from the products of artists in almost every way. Not even the map's claim to being uniquely systematic can be entertained, for it is obviously not always true that maps are systematically produced (Robinson's own projection is a sort of example, but zillions of maps are casually sketched) and certainly there is plenty of art that is systematically produced. There is no gulf or chasm between art and cartography; they are neighbors on a continuum of texts that reaches out to embrace the comics and poetry and mathematics and billboards and science writing and sculpture, all of which is open to classical techniques of critique. "The building is beautiful." "The theorem is beautiful." Now, what do those mean? It means we have to unpack the word "beauti-

ful" and if we can do that with respect to a mathematical theorem or a building we can do it with a map. The theorem or the building works or it doesn't work, it advances this agenda or that agenda, pushes in this way or that. Just like the map. All we want to do is bring the map back home, make it part of the family of human discourse once again.

Thank you, Denis.

In related news, *The Power of Maps,* an exhibition, opened November 9, at the Smithsonian International Gallery, 1100 Jefferson Drive S.W., Washington, D.C. Organized by Cooper-Hewitt, National Museum of Design, Smithsonian Institution, in New York City, the exhibit was curated by Denis Wood and Lucy Fellowes, project director of the museum's exhibition office.

The exhibit, which first opened in New York, presents a variety of maps from around the world, ranging from a 1500 B.C. clay tablet from Mesopotamia to 19th-century Native American maps and a contemporary supercomputer map of the current ozone hole over Antarctica. Highlights also include an early 13th-century map of the coast of China, Pacific islanders' navigational charts made of reeds, and a global "hotspots" map, used to develop ecosystem conversation strategies.

The exhibition will remain in view until January 23, 1994.

Map of the human Heart....continued from p8.

she has become involved with Walter, now a colonel specialising in reconnaissance.

Map metaphors abound as Avik triangulates his romantic position, sending Albertine coded messages in photographs he takes from his bomber. Meanwhile Walter hardens into a calculating villain with a fetish for cartography. "Women are a map, you've got to understand their longitude and how much latitude you can take" (while he admires his female mannequin, decorated as a map)

The movie contains haunting scenes from Baffin Island, spectacular cinematography and a first-rate cast. Two solid thumbs up!

Adapted from a review in Maclean's, May 17 1993 (read en route home from the CCA annual meeting in Winnipeg)

Les cartographes de plus en plus loin de la réalité-terrain ou le syndrome du zero-grazing. Cartographers who are more and more remote from field-reality, or The Zero Grazing Syndrome.

by/par
Majella-J. Gauthier

Le présent texte veut mettre en relief le fait que les personnes, qui ont à cartographier des phénomènes, utilisent de plus en plus des données dont la provenance leur est étrangère et dont la qualité leur est souvent inconnue.

Le souci de bien connaître la qualité des données fait partie de toute recherche sérieuse. En effet, c'est sur la présicion, l'exactitude et la représentativité des données que doivent miser les personnes qui se donnent la mission de décrire et d'expliquer la réalité géographique, d'en prévoir l'évolution, voire même de l'orienter. Il n'est pas besoin de reculer loin dans le temps pour se rappeler notamment comment les premiers cartographes avaient un contact étroit avec le terrain. Ils étaient eux-mêmes les artisans de leurs oeuvres: relevés sur le terrain, compilation, généralisation, symbolisation, toponymie; rien ne leur échappait. Ils n'avaient besoin que de copieurs, de traceurs, de dessinateurs pour produire un document final et, le tour était joué. Ainsi, les cartographes, avec les moyens dont ils disposaient, avaient le mérite de positionner sur les cartes des éléments du paysage qu'ils avaient vus, qu'ils avaient inventoriés.

Aujourd'hui, les cartographes sont de plus en plus loin de la réalité terrain. Ils font appel à des données qui leur sont fournies par des organismes gouvernementaux et, de plus en plus, par des banques spécialisées dans le domaine. Est-il évident que les utilisateurs de ces données, colligées par d'autres qu'eux-mêmes, s'inquiètent de leur qualité?

Par exemple en agriculture, sait-on que pour établir un tableau mondial du nombre d'agriculteurs par pays on a dû faire des acrobaties pour ajuster des définitions qui varient d'un pays à l'autre? Sait-on que même à l'intérieur d'un pays, d'un état, d'une province, les définitions sont différentes selon les parties concernées: la définition d'une ferme de recensement au Canada est différente de celle d'une ferme pour fins de reconnaissance du statut de producteur agricole? De plus ces définitions varient dans le temps. Sait-on aussi, que les données agricoles du recensement du Canada sont attribuées à la subdivision de

recensement où se trouve le siège de l'exploitation agricole? Or, il arrive souvent qu'une exploitation soit répartie dans plusieurs municipalités. Ainsi, en regroupant des données en des lieux géographiques inappropriés, le chercheur, le cartographe risquent de représenter une réalité autre que celle qui existe sur le terrain.

Évidemment, on n'obligera pas quelqu'un qui s'intéresse au climat ou à l'agriculture de la Pampa argentine de recueillir lui-même toutes ses données sur le terrain (avec thermomètres ou questionnaires) quand il est possible d'obtenir des chiffres officiels du pays. Mais, j'ai personnellement de la difficulté à m'imaginer que quelqu'un puisse effectuer son étude sans du moins y avoir séjourné un moment, c'est-à-dire sans pouvoir valider du moins sur le terrain des données officielles.

Loin de moi l'idée de dire ici que les données officielles et celles qui proviennent de banques sont fausses, inutilisables et qu'il faille à tout prix cueillir soi-même son information sur le terrain. Non. On assiste de plus en plus à une division des tâches dans le domaine scientifique. Certains développent des outils de plus en plus sophistiqués pour recueilir l'information: inventaires exhaustifs, sondages; d'autres compilent, éditent et publient. Ces derniers ont le devoir de bien indiquer les limites des notions dont ils traitent et des termes qu'ils utilisent.

Je m'adresse ici aux professeurs de cartographie et aux chargés de projets afin qu'ils puissent inculquer à leurs étudiants le réflexe spontané de questionner la valeur et la qualité des données qu'ils auront à manipuler, traiter, analyser et à cartographier. Il faudrait également les inviter à aller "sentir" les données sur le terrain.

Avant de terminer, il serait bon que je justifie le sous-titre de ma chronique. Voici. Il existe en matière de système d'élevave bovin plusieurs façons d'alimenter le bétail. L'une d'entre elles consiste à garder les animaux constamment à l'étable, on les nourrit sur place une couple de fois par jour avec des fourrages fraichement coupés . Ces éleveurs pratiquent ce que l'on appelle le *zero-grazing* puiqu'ils n'utilisent pas de pâturages. Faudrait-il que les cartographes deviennent ces transformateurs de fourrages, ignorant ce qu'ils consomment, faisant une confiance aveugle à la recette prescrite, ne sachant même pas que les fourrages poussent au fond d'une vallée magnifique, ne se doutant aucunement du plaisir d'arracher l'herbe verte à pleines dents et ne se doutant pas de la joie de gambader dans un champ de marguerites?

This text emphasizes that people who have to map various phenomena often use data that they have no part in collecting and whose the quality is often unknown to them.

Knowledge and concern for the quality of data is a part of all serious researche. People whose mission is to describe and explain geographic facts, to find the trends and their evolution, and even to change them, must count on data that are precise, accurate and representative of reality.

We don't need to go far back to remember how cartographers had a close a relationship with the realities of the fieldwork. They were themselves the authors of all their work: surveying, compilation, generalization, symbolization, and toponymy; nothing escaped them. They only needed to call upon the services of draftsmen and artist to copy the final maps and the procedure was completed. In this way cartographers, using the tools they had at that time, had the valuable opportunity to position on maps the elements of landscape they had seen and surveyed.

Today, cartographers are more and more removed from the field reality. They use data provided by governmental organizations, and increasingly, those available in specialized data banks. Is it evident that these users of data, collected by other persons, worry about the quality of the data ?

For example, assume we are creating a world portrait of farmers by country. Do we know what acrobatics have been performed to create conformity from definitions that vary from one country to another? Do we know that inside a country, a state, a region, definitions are different depending on the interests of the group doing the definition: According to Statistics Canada, the definition of a farm for census purposes is not the same as the one used to qualify farmers for an union of producers. To complicate the issue, definitions change through time. Although data on farms provided by the Statistics Canada are assigned according to the census subdivision where the farmstead is located, it often happens that the farm may be scattered in many different municipalities. In this case, because all data are grouped in the same subdivision, researchers and cartographers risk representing a model different from the reality existing in the field.

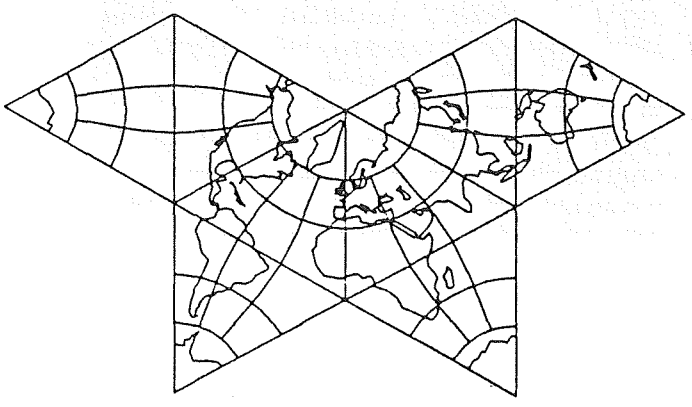
Of course, it is out of the question to oblige individuals interested in the Argentinean Pampa to collect all their data in the field (using questionnaires, thermometers, planimeter, etc.), when it is possible to get official figures from that country. Personally, I have difficulty imagining that someone can analyze an area

without travelling through it for some time. That is to say, without at least validating the official data in the field.

Far be it from me to say that official data and those coming from specialized banks are wrong, unserviceable, and that we must collect our own data in the field for all researches. No. Even in the scientific domain, there is job specialization. Some are developing sophisticated tools for collecting data: exhaustive surveys, sampling; some are compiling, analyzing, editing and publishing. The latter have the duty to indicate the definition of their concepts and the limits of their terms.

Now, I would like to address cartography teachers, professors and persons in charge of projects, so they may instill into students and assistants the spontaneous reflex of questioning the value and the quality of the data they manipulate, process, analyze, and of course map. We should also encourage them to go "smell" the data in the field.

Before closing, I would like to explain the subtitle of this article. It is a long detour. There are in farming systems several ways of feeding cattle. One of them consists of keeping the cattle constantly in the barn feeding them freshly cut grass twice a day. We say they are practicing *zero grazing* because they never enter the pasture. Must cartographers become forage eaters, being ignorant of what they swallow, trusting blindly the prescribed recipe, not knowing that the forage grows in a beautiful valley, unable to imagine the pleasure of cutting grass with teeth and having no idea of the joy of frolicking in a daisy covered field?



Vice-president's message/ mot du vice-président

by/par
Marcia Faurer

As vice-president, I see the promotion of the Association as my primary task. At a time when membership in most associations is stagnating, or even falling, it is particularly difficult to keep and increase membership. Alun Hughes attacked this job by writing the Careers and Opportunities in Cartography booklet that is nearing completion and will go a long way to promote Cartography. This will be hard for me to follow but as I think about ways to promote the Canadian Cartographic Association, I must think about why I became a member, why I renew my membership each year, and why I try to encourage others to join and participate. I am sure each member could add to the following list:

* The consistently high quality of *Cartouche* and *Cartographica*, which can only continue with your submissions.

* The CCA is dedicated to promoting ALL aspects of Cartography.

* The CCA provides a valuable network for anyone working in, researching, teaching, and learning cartography.

* The CCA offers a supportive voice that can and does help its members when needed.

While all of these and other advantages are available to members, we must also remember that in order to keep this valuable Association alive and dynamic, the members have to give something back. As you read through this newsletter, remember that it is edited, produced, and distributed by a volunteer member; *Cartographica* is edited and managed by volunteers; and volunteers conduct the business and advancement of the Association. As members and cartographers, we all have something we can, or must, contribute.

Future growth of the association is important, too. If you have any suggestions or success stories for promoting the CCA, or ideas on things the CCA should be doing, I would be very happy to hear from you.

Thank you.

16th INTERNATIONAL CARTOGRAPHIC CONFERENCE COLOGNE, 3-9 MAY, 1993

ONE PARTICIPANT'S OBSERVATIONS AND THOUGHTS

by/par
PeterKeller

Some time ago now I wrote to you about the ICA conference held in Bournemouth, October 1991. I concluded that it had been fun and interesting to meet cartographers from all over the world. I told you that I learned a lot and that, professionally, it had been a worthwhile experience. I also told you that the event had been so expensive that it was poor value for money, and that it was unreasonable to expect practising cartographers, academics and delegates from the developing world to be able to afford to attend.

In the year following my comments to you, I was to learn over and over again that many cartographers from all over the world shared this opinion. There appeared to be consensus that something ought to be done to avoid excess costs at future ICA meetings.

In anticipation of change, I agreed to participate in the next conference of the ICA, to be hosted in Cologne in Germany in May of 1993. I have just returned from this event and I wish to share with you my experience. Before I commence, let me tell you that I enjoyed the meeting, but be warned that my comments may come across as negative and bitter. Stay with me to the end of the report and you will see why I have chosen my words.

It all started with a week before the conference spent in Visegrad in Hungary. Here, three of the ICA commissions had decided jointly to host a workshop on electronic atlases. It was a week of such welcome, hospitality and exchange of ideas that I will not forget it for a long time. Our hosts from Budapest were superb. They offered a down to earth package of transportation, accommodation, meeting room, meals, entertainment and field trips that ideally suited the needs of those who attended , and that suited the profession of cartography.

From Hungary it was on to Cologne, a beautiful city on the river Rhine in a geographical region I am very familiar with since I grew up nearby, and I have family left living there.

The meeting was planned to be held in conjunction with the 42nd meeting of the German Cartographic Society (42. Deutscher Kartographentag) and 'GEOTECHNICA', an international trade fair and congress for geosciences and technology. All events were planned to happen in a compound known as the KÖLNER MESSEGELÄNDE, a congress centre in the heart of Cologne of sufficient size to hold the world's largest trade fairs.

Indeed, the congress centre was huge, and delegates to the ICA conference and the German cartographers meeting were somewhat lost in the vast expanse of buildings, parking lots and closed entrance doors. However, all our functions were held in a reasonably compact area of the overall complex, although ten minutes' walk away from the GEOTECHNICA exhibit.

Given the reputation of German efficiency and the fact that the German cartographers had opted to bring aboard a group of consultants from Switzerland to assist in planning and organizing the event, expectations were high for a smooth and well run meeting. Indeed, all did go reasonably well despite occasional contradiction of instructions for those who had prepared the map exhibits and for delegates presenting papers.

I was especially impressed by the organization when I turned up 30 minutes early at the hall where I was to present my paper in order to organize the loading of my slides. I was immediately accompanied by an official to a room where a second official monitored the loading of my slides. A third official carried the slide tray back to the lecture theatre only to hand it to a fourth official who mounted the tray and ran all slides once more to check that all was well.

I enjoyed the sessions although I was disturbed by the large number of 'no shows' of presenters. I realize that 'no shows' are a major problem to conference organizers - it happens all the time. But something can be done about it. The last two times I was responsible for organizing academic programs for a conference we had decided on 'substitute' options by arranging for presenters that would agree to give suitable presentations should a 'no show' arise. If we could organize this on shoestring budgets, surely the expert consultants from Switzerland could have arranged something for the $ 600.00 plus registration fee they charged.

Given that I was brought up speaking German, I must confess that I spent most of my time at sessions organized by the German Cartographic Society (GCS). I wanted to learn more about German cartography, and I was very impressed by their program which was

very well attended. This was not surprising given that members of the GCS were able to register at a fraction of the fee charged to international delegates. True, they did not receive the proceedings; but these were available for approximately $ 70 right at the convention.

Before I finish telling you about the academic side of the program, I must tell you about the opening ceremony. It was a truly glamorous show with addresses, greetings, awards, and a keynote address interwoven with a classical music program of preludes, interludes, and postludes. The keynote speaker was *David Rhind*, Director General of the Ordnance Survey, Great Britain. He choose to speak on "Mapping in the New Millenium". In a speech outlining advances in computing technology he advocated GIS and reached the unfortunate conclusion that, in the future, cartography will prosper, but not cartographers. It certainly was disappointing to learn at an international professional cartography meeting that a member of our profession, and indeed one in a very influential position, holds this viewpoint without offering suggestions for hope or action. I guess time will prove him right or wrong.

The academic program aside, I was a little disturbed to discover that coffee breaks between sessions were designed to let you queue at a concession stand where a cup of coffee could be purchased for approximately three dollars. A glass of beer was cheaper, making for sleepy heads in the afternoon. While on the subject, coffee after desert at the $ 65 per head banquet cost even more (nearly four dollars); and some delegates from the USA will be quick to tell you that they were charged $ 7 for each carafe of tap water they consumed.

Delegates had mixed reactions to field trips that were organized, some of which had to be cancelled because of lack of interest. One delegate noted that the same place was passed five times on a tour of the city. There were other organizational hiccups here and there: a bus hired to transport delegates to go on a field trip to a coal mine went to the mine first to pick up its passengers. These problems are hard to avoid; we just did not expect them from our teutonic hosts.

What was most disturbing to me was that there were very few, indeed far too few, delegates from the developing world, and there were not enough practising cartographers. In short, this international professional meeting failed to attract a representative sample of its practitioners.

Based on my experience, and on comments from many other attending delegates from Canada, the USA, Europe and elsewhere, I must conclude that Bournemouth was not enough of a lesson for the executive of the ICA, or else we did not speak up loudly enough. Putting it simply, and calling a spade a spade, the Cologne meeting went down as a lavish party organized by the German cartographers at the expense of international delegates to coincide with the 42nd meeting of the GCS. The meeting was organized to please dignitaries and luminaries with large travel budgets who are used to living and entertaining in style.

Why am I telling you all this at the risk of coming across as a sour old grump? I am sure that you are aware that Canada is in the process of bidding to host this international cartographic event in 1999. I am delighted that Canada is taking the initiative and I have a lot of respect and admiration for those individuals who have set our nation's bid in motion. I have been directly and indirectly involved in encouraging this bid in my role as president and past president of our association, and I continue to support our initiative to the best of my ability - and it is the latter that makes me write the above words. What have we learned from Bournemouth and Cologne that can help us plan for 1999?

I think that we have a number of options when planning for our hosting of the 1999 ICA conference. We can try and reverse a trend set in motion in the recent past by aiming to return the international meetings of the ICA back to an event affordable and enjoyable by a representative cross-section of our profession, including increased participation by the developing world, practising cartographers and those in research, education and training. On the other hand, we can aim to outdo the last party by emphasising and adding even more show and glamour; but is the latter really reflective of our profession?

I hope that the above will not offend those working hard to plan the 1999 bid and that, some day, I will not have cause to regret having written these words. On the contrary, I hope that my observations will be taken as constructive input to help make the 1999 ICA conference the most professional and stimulating ICA meeting ever hosted!

If you have thoughts on this issue, let your executive know them.

Minutes of CCA Annual General Meeting, June, 1993, Winnipeg.

(To be accepted at 1994 AGM)

The President, Majella Gauthier, welcomed all members and passed around a proposed agenda. Some minor modifications in sequence were made, and agenda was agreed to.

Minutes of Previous AGM

Secretary indicated problem with minutes being available. Proposed a method for acceptance with members requesting copy to be distributed with next *Cartouche*. Members would have 30 days to indicate errors and propose changes.

Motion to accept proposal: M. Coulson, S. Laskin. Carried.

President's Report (Majella Gauthier).

Indicated his main role was to act as coordinator for executive.

Discussed proposal for Office sharing with Canadian Institute for Geomatics (CIG, formerly Canadian Institute for Surveying and Mapping). Indicated that costs were too high, and CCA needs were not that great at this time. CCA executive would probably decline offer. No objections from members.

MoU with CIG is continuing along with some minor modifications.

Outlined work with granting committees. Thanked all who had helped.

Noted increase in entries for President's Prize this year.

Indicated his other main task was translator for a variety of documents.

Q: J. Mersey asked if relationship with SSHRC was going to change in the future. A: No.

Vice-president's Report (Alun Hughes).

Careers Booklet had been main task over the past year. Invited members to review work of group.

The CCA has been reaching out to other organizations, but we need to do more.

Reminded members that the CCA can support individuals in their cartographic endeavors, especially when needs of cartography are being "trampled" or ignored to the benefit of other disciplines.

Past-President's Report (Peter Keller).

Announced winners of elections: *Patricia Chalk, Nigel Waters,* and *Marcia Faurer*. Noted that *Shelley Laskin* was Treasurer by acclamation. Thanked members who had run for office.

Secretary's Report (James Britton).

Indicated usual frustration at lack of input to *Cartouche*.

Asked for direction from members on distribution of AGM and Executive minutes. Indicated he would like to include minutes in *Cartouche,* but worried that members may view this as "filler" and feel that *Cartouche* is not as worthwhile as it might be. His feeling was that putting minutes into *Cartouche* makes for a more permanent and widely distributed record. It also eases the approval of the minutes and he noted, with embarrassment, avoids problems as encountered this year.

General consensus: Put AGM minutes in *Cartouche*, and put executive meeting synopsis into President's report or some other report within *Cartouche*.

Treasurer's Report (Gary McManus).

Distributed full report and answered some minor questions.

Members agreed that report was satisfactory and that financial affairs were in good order.

Motion to accept Treasurer's Report as circulated: D. Douglas, P. Chalk. Carried.

Manager's Report (Roger Wheate, read by Peter Keller).

AGM '94 would be in Ottawa in conjunction with NACIS AGM. Probably in a Wednesday to Saturday time frame in the second week of August.

Q: Why not in early June as usual? A: NACIS usually meets in October and August date was a compromise.

It is possible that a design symposium may concatenate with AGM.

Peter Keller noted that the Manager was stepping down this year and the position was not being filled pending possible executive restructuring. Roger has done a tireless and brilliant job as manager and chief promoter of the CCA over the past years, often with little support or resources. Secretary James Britton commented that he has served on the executive for three years now and, without detracting from the work of others, he felt that no one had done as much work for the CCA as Roger during this time. In his role as *Cartouche* editor, he worked closely

with Roger and had observed a lot of the work that went unnoticed, even by other executive members. It seemed at times that Roger was the glue holding the CCA together. The members owed Roger a great round of thanks. Treasurer Gary McManus, himself completing a four-year term, agreed with these comments.

Motion: Peter Keller, Norman Drummond. "That the members go on record to recognize the outstanding work of Roger Wheate in supporting the CCA and Cartography in general through his efforts as Manager over the past years." Carried.

Technology Interest Group Chair's Report (Roy Doyon).

Indicated his main efforts in the past year had been a series of articles for *Cartouche,* and workshop for 1993 AGM.

Map Use and Design Interest Group Chair's Report (Christine Earl).

Christine was unable to attend this year's AGM, but had set up sessions at the meetings.

Education Interest Group Chair's Report (Marcia Faurer).

Noted the quality and number of student papers at this year's AGM. Judges had a difficult decision. Extended congratulations to Jun Yang and Monika Rieger, joint winners of the best student paper competition.

Automation Interest Group Chair's Report (Y.C. Lee).

Arranged workshop on GPS and GIS integration.
Has datasets for sale if anyone is interested.

History of Cartography Interest Group Chair's Report (Iain Taylor).

Indicated he is seeking input on how he can best serve members.

ICA (Norman Drummond).

Outlined relationship of ICA/CIG/CCA.
Gave report on ICA meeting in Köln. Copy to appear in *Cartouche.*
Suggested that we start thinking about ICA '99, even though it is six years away.
Peter Keller will be coordinating Canadian Papers for Barcelona.

Publications Committee (Michael Coulson).

Outlined relationship of CCA/ITP and *Cartographica.*
Discussed recent history of *Cartographica* and made reference to Ed Dahl's article in recent *Cartouche.*
Overall, *Cartographica* is still behind in publication, but is catching up.

MoU between CCA and Canadian Institute for Geomatics (Norman Drummond).

Indicated that we have been able to strengthen our ties with the CIG.
MoU to be finalized next week at CIG AGM and will remain in effect until either party withdraws.
MoU covers structure of Canadian National Committee on Cartography and relationship between National and Regional Organizations.
CCA President thanked Norman for all his work at the international level.

Honourary Members and Awards.

CCA executive has worked extensively for a few years to come up with a draft policy on these issues.
Final draft is to be issued with *Cartouche,* but main points were highlighted for floor.
Policy to be finalized on "supporters of Cartography and the CCA". Copy will also appear in *Cartouche.*

Nominations Committee

The following nominations were made and accepted: G. McManus, J. Bruce, G. Shields.

New Business

Some questions about the President's Prize were raised. Incoming President Hughes noted concerns and indicated he would consider these for 1994 President's Prize.
Current President Gauthier thanked outgoing executive, particularly Gary McManus for his four years of service.
Incoming President Alun Hughes thanked 1993 Conference organizers Marcia Faurer, Brian McGregor and staff for doing an excellent job.
He went on to note the efforts of Peter Keller over the past years, indicating he had shown a brilliant grasp of issues affecting Cartography in Canada.
Majella Gauthier acknowledged the support and guidance of Peter Keller and Alun Hughes in his term as Président. In turn, Michael Coulson thanked Majella for his work as Président.

Motion to Adjourn at 11:37, Carried.

CALL FOR NOMINATIONS
APPEL POUR LES NOMINATIONS

Elections to the CCA Executive Committee will be held in the summer of 1994, with the results to be announced at the Annual General Meeting in Ottawa in August.

The positions up for election are:

Vice-president/vice-président	(1 year)
Secretary/secrétaire	(1 or 2 years)*
Chair, Computer Mapping/GIS Interest Group	(1 or 2 years)*
Chair, History of Cartography Interest Group	(2 years)
Chair, Map Use and Design Interest Group	(2 years)

* These positions are affected by a proposal for executive restructuring to be voted on at the 1994 AGM. They are currently two-year positions, but if the restructuring is approved they will cease to exist at the 1995 AGM. The terms of office of the successful candidates will therefore depend on the outcome of the vote - 1 year if the vote is in favour, 2 years if it is against. The details of the restructuring proposal will be published in a later issue of *Cartouche*.

The quality of the Executive Committee is crucial to the success of the association. Please give some thought to the kind of person you would like to see serving on the Executive. If you know of someone who would fit the bill, send his or her name (with their permission of course) to the Nominating Committee. Or, if you feel that you yourself have a role to play, put forward your own name. There is no need to be bashful - just do it! If you want more details of any of the vacant positions contact one of the present members of the Executive Committee - you'll find names and addresses on page 3.

Please send your suggestions for candidates as soon as possible to the chair of the Nominating Committee, Prof. Majella Gauthier at the address below.

Les élections au Comité exécutif de l'ACC auront lieu à l'été 1994 et les résultats seront divulgués lors de l'assemblée générale annuelle en août prochain.

Les postes a combler sont les suivants:

Vice-président	(1 an)
Secrétaire	(1 ou 2 ans)*
Directeur, Groupe d'intérêt sur la cartographie par ordinateur et les SIG	(1 ou 2 ans)*
Directeur, Groupe d'intérêt sur l'hitoire de la cartographie	(2 ans)
Directeur, Groupe dintérêt sur l'utilisation et la conception des cartes	(2 ans)

* Ces postes sont affectés par une proposition qui vise à restructurer le Comité exécutif et sur laquelle on votera à la prochaine AGA. Actuellement, la durée des postes est de deux ans, mais si la restructuration est approuvée, ils devront se terminer à l'AGA de 1995. Ainsi, la durée de fonction des candidats gagnants va dépendre du résultat du vote: un an si le vote est en faveur, deux ans si la proposition est défaite. Les détails sur la proposition de restructuration vont être publiés dans un prochain numéro de *Cartouche*.

La qualité du Comité exécutif est importante pour le succès de l'ACC. SVP, pensez aux personnes qui pourraient servir au sein de exécutif. Si vous connaissez quelqu'un qui pourrait s'impliquer, envoyez son nom (en lui demandant sa permission) au comité de nomination. Vous pouvez faire parvenir votre propre nom si vous pensez que vous pourriez apporter du sang neuf à l'organisation. Faites plus qu'y penser. Faites-le! Si vous voulez connaître plus de detail sur les postes vacants, contactez l'un des membres de exécutif dont les noms apparaissent dans ce numéro.

Les membres ayant des suggestions pour les mises en nomination sont invites a communiquer avec:

Professeur Majella-J. Gauthier
Département de Géographié, Université du Québec à Chicoutimi
Chicoutimi, QC, Canada G7H 2B1
Phone (418) 545-5096 *Fax: (418) 545-5012*
C. elect. / Email address: mgauthie@uqac.uquebec.ca

The Norman L. Nicholson Scholarship in Cartography 1994
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 bût 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 candidate doit être:

1. Un citoyen canadien ou émigrant reçu.
2. Un étudiant quise propose de poursuivre des études à plein temps en cartographie dans un des cas suivants:
   a) entrer dans l'annee terminale d'un College communautaire, de CEGEP,
   ou d'un programme honneur de premier cycle,
   b) avoir été accepté en première année d'un programme d'Etudes 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. une 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 bourse à l'addresse sous- indiquée.
4. un exposé d'une page dactylographiée indiquant vos buts dans le cadre d'etudes avancées en cartographie.

All materials must be received by the Awards committee no later than May 1, 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 bourse le 1 mai au plus tard. On peut se procurer un formulaire en appelant le bureau central de l'ACC (voir page 2 pour l'addresse).

CCA MEMBERS

The Norman L. Nicholson Scholarship is awarded through a scholarship fund. It has recognized and encouraged exceptional student achievement and ability in the field of Cartography for many years. Many past recipients have remained close to the CCA in their professional lives. The CCA needs your financial assistance to strengthen the fund. Donations to the fund are tax deductable for Canadians, and deductable against Canadian Income for most others. Please consider a contribution to the fund. The need by students is greater, given the current economic realities. Your assistance is greatly appreciated.

Send contributions to CCA Treasurer, *Shelley Laskin* at the address on page 3.

PRESIDENT'S PRIZE COMPETITION 1994

The President's Prize Competition provides awards for excellence in student map making. It also provides an award for the best student paper presented at the CCA annual conference. There are five categories in the mapping competition. These are described below, together with the entry conditions and the criteria for judging.

AWARD CATEGORIES

A. MONOCHROME MAP (Students in Undergraduate Programs), Value $75
B. MONOCHROME MAP (Students in Graduate or College Programs), Value $75
C. COLOUR MAP (Students in Undergraduate Programs), Value $75
D. COLOUR MAP (Students in Graduate or College Programs), Value $75
E. JOURNALISTIC MAP (Open), Value US$300 (donated by TIME Magazine)

1. A monochrome map is a map drawn in one colour only, usually, but not necessarily, black.
   A colour map is a map drawn in two or more colours.
2. A journalistic map is a map drawn to accompany and elucidate a newspaper or magazine article.
   The map may be monochrome or colour. Every journalistic map submitted is also automatically entered in the appropriate monochrome or colour category.

ENTRY CONDITIONS

1. The competition is open to all students in post-secondary institutions. Membership in the CCA is not required.
2. Maps may be submitted in any finished form (e.g. ink drawing, computer printout, proof copy).
3. Where a map is accompanied by graphs, diagrams or text located inside the frame, the map must constitute at least one-third of the area to be considered for an award.
4. Entries should reach the CCA office in Calgary (address on page 2) by May 31, or they may be brought directly to the annual conference in Ottawa.
5. Every entry must be accompanied by a copy of the course assignment and a printed factsheet containing the following information:

   President's Prize category ; student name and permanent address;
   university or college; course name, year level and instructor;
   amount of time available for completion of map; value of map as percentage of course grade;
   brief summary of techniques employed including applicable details of hardware and software.

6. Entries in the journalistic map category must also be accompanied by a copy of the published article the map is meant to illustrate.
7. Neither the CCA nor the conference organizer is responsible for returning entries.

JUDGING CRITERIA

1. Entries will be judged at the 1994 annual conference in Ottawa by a three-person committee including the chair of the CCA Map Use/Map Design Special Interest Group.
2. One award will be made in each of Categories A, B, C and D. Up to three awards can be made in Category E; in the event of multiple winners the total amount will be shared.
3. The judges reserve the right to withhold an award if the standard of the entries is inadequate.
4. Maps will be judged in terms of their technical quality, graphic design and overall communication effectiveness. In addition, journalistic maps will be evaluated in terms of how well they support the article they accompany.
5. The judges may also take into account such factors as the amount of time available to complete the map, the techniques or software employed, and the year level of the student cartographer.
6. No map can win more than one award.

BEST STUDENT PAPER

An award of $75 is given for the best student paper presented at the CCA annual conference. All student papers included in the program are automatically entered for the competition. A paper may be co-authored by a faculty member, but the student must have actively participated in the research and have sole responsibility for delivering the paper. The entries will be judged by a three-person committee including the chair of the CCA Education Special Interest Group. Judging will be based on the content and structure of the paper, and the quality of the presentation. The judges may also take into account the extent of the student's involvement in the research on which the paper is based, and his or her status (i.e. undergraduate or graduate) and year level.

LE CONCOURS POUR LE PRIX DU PRÉSIDENT 1994

Le concours pour le Prix du Président offre des récompenses pour l'excellence dans la confection de cartes par des étudiants. Il est l'occasion aussi de récompenser la meilleure communication présentée par un étudiant lors de la réunion annuelle de l'ACC. Il y a cinq catégories dans le volet cartographique du concours.

LES CATÉGORIES DE RÉCOMPENSES

A. CARTE MONOCHROME (Étudiants dans les programmes sous-gradués), Valeur 75$.
B. CARTE MONOCHROME (Étudiants dans les programmes gradués ou collégiaux), Valeur 75$.
C. CARTE EN COULEUR (Étudiants dans les programmes sous-gradués) 75$.
D. CARTE EN COULEUR (Étudiants dans les programmes gradués ou collégiaux), Valeur 75$.
E. CARTE JOURNALISTIQUE (Ouverte à tous les étudiants), Valeur 300$US (don de Time Magazine).

1. Une carte monochrome est une carte dessinée habituellement en une seule couleur; le noir n'est pas exclusif. Une carte en couleur est dessinée avec deux ou plusieurs couleurs.
2. Une carte journalistique est une carte conçue pour accompagner et éclairer un article d'un journal ou d'un magazine. La carte peut être monochrome ou en couleur. Chaque carte journalistique soumise, est automatiquement inscrite aussi dans les catégories monochrome ou couleur selon le cas.

LES CONDITIONS D'INSCRIPTION

1. Le concours est ouvert à tous les étudiants des écoles post-secondaires. Il n'est pas nécessaire d'être membre de l'ACC.
2. Les cartes peuvent être présentées à n'importe quelle étape de finition (ex. encre, sortie d'imprimante, épreuve, etc.).
3. Quand une carte est accompagnée de diagrammes, de photographies ou de textes inclus à l'intérieur du cadre, elle doit constituer au moins un tiers de la surface pour faire partie du concours.
4. Les inscriptions (fiches et cartes) devrait être envoyées au bureau de l'ACC à Calgary (adresse à la page 2) pour le 31 mai 1994, ou elles peuvent être apportées directement à Ottawa au début du la réunion annuelle de l'ACC.
5. Chaque carte doit être accompagnée d'une copie de la liste de cours suivis (photocopie d'une preuve d'inscription aux cours), et d'une fiche dactylographiée comprenant les informations suivantes:
   la catégorie du Prix du Président; le nom de l'étudiant et son adresse permanente;
   le nom de l'Université ou du Collège; le nom et le niveau du cours (année), et le nom du professeur;
   le temps alloué pour réaliser la carte; le poids de la carte dans le pourcentage du cours;
   un court résumé des techniques utilisées incluant les outils, machines, logiciels.
6. Les inscriptions dans la catégorie journalistique doivent être accompagnées de l'article édité que la carte est sensé illustrer.
7. Ni l'ACC et ni l'organisateur de la conférence annuelle ne s'engagent à retourner les documents après le concours.

CRITERES DE SÉLECTION

1. Les inscriptions seront jugées, lors de la conférence annuelle de l'ACC qui sera tenue à Ottawa, par un comité de trois personnes incluant le président du Groupe d'intérêt sur l'utilisation /conception des cartes.
2. Une seule récompense sera accordée à chacune des catégories A, B, C et D. Jusqu'à trois récompenses peuvent être accordée dans la catégorie E.; si jamais il y avait plusieurs gagnants, on divisera la somme totale.
3. Les juges se réservent le droit de retirer une inscription ou une récompense si les règles n'ont pas été respectées.
4. Les cartes seront jugées selon leur qualité technique, leur conception graphique, et leur efficacité générale en termes de communication. De plus, les cartes journalistiques seront évaluées également selon la manière avec laquelle elles appuient l'article qu'elles accompagnent.
5. Les juges peuvent aussi tenir compte de facteurs comme la quantité de temps alloué pour compléter la carte, les techniques ou les logiciels utilisés et le niveau (année) de l'étudiant cartographe.
6. Une carte ne peut remporter qu'un seul prix.

LA MEILLEURE COMMUNICATION FAITE PAR UN ÉTUDIANT

Une récompense de 75$ est donnée à la meilleure communication présentée par un étudiant au cours de la conférence annuelle. Tous les exposés présentés par les étudiants durant la conférence sont automatiquement inclus dans ce volet du concours. Un professeur peut être co-auteur de la communication, mais l'étudiant doit avoir participé activement à la recherche et doit avoir à lui seul la responsabilité de prononcer l'exposé. Les communications seront jugées par un comité de trois membres comprenant le président du Groupe d'intérêt sur l'éducation. Le jugement sera basé sur le contenu et la structure de la communication, ainsi que sur la qualité de la présentation. Les juges doivent aussi tenir compte de l'étape où se trouve l'étudiant dans l'élaboration de la recherche sur lequel porte l'exposé, et prendre en considération son statut (ex. gradué ou sous-gradué) et de son niveau d'année d'études.

The Canadian Cartographic Association l'Association canadienne de cartographie

Application for membership/renewal Inscription/réabbonement

Category/catégorie

Regular/régulier	$70.00/70,00$	___
Associate/associé	$35.00/35,00$	___
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