



Newsletter of the Canadian Cartographic Association
Bulletin de l'Association canadienne de cartographie

CARTOUCHE

Number 61 ▲ Spring 2006

President's Message

Herculean Efforts by CCA Executive – Membership Bounces Back



I want to take this time to let you know about some of the work that goes on behind the scenes to make the CCA more relevant to the members. For anyone who has not been following my ramblings in *Cartouche* for the last year or so, let's just say that I have had a keen interest in revitalizing the Association. Your Executive has been working very hard to make sure that my dream came to fruition and CCA member numbers have been starting to grow again.

As with many organizations, the CCA has gone through periods of rise and decline. Decisions get made at the executive level

that excite people and the membership grows; new directions are tried that may turn people away. Individual executive members may find their workload at the office increases dramatically, or their job may change or even end, or they may battle with health issues, and the result is that some things don't get done or get done late. But always, the people that you elect to run the day to day operations work very hard to make the association something you can be proud of, and when one person falters the others work harder to pick up the slack.

Getting it Done on Time

Being on the executive of the CCA is a rewarding challenge. Almost all efforts are geared towards the success of next year's conference and the planning starts as soon as the last conference ends. However, there are other issues that also need to be addressed. Issues such as the timely issuance of receipts, the collection of articles for *Cartouche* so the editors can publish on time and others crop up through the year to keep us on our toes.

This year's executive has worked extra hard at making sure things got done in a timely fashion. We work at coaxing articles from you for *Cartouche* (then remind some author's of their promise when their workload gets the better of them). We discuss ways to get membership dues in on time so that the association doesn't run short of money. Before I volunteered to be on the executive, I did not appreciate why some of these issues were so important.

For instance, over the past few years, for whatever reason, increasing numbers of CCA members have become delinquent in paying their membership dues. This has resulted in increased costs to the association in a number of ways. Because the newsletter editors and executive have wanted to make sure everyone had a chance to renew, unofficial grace periods were extended. People received their issues of *Cartouche* - sometimes more than one - while we hopefully waited for a renewal to come in. Sometimes the renewal was made in time for the conference; sometimes it never did come in. The costs of printing and mailing *Cartouche* to non-members may seem negligible, but when it happens often enough and long enough, it begins to become significant.

... can't page 2

IN THIS *Issue*

- ▲ Executive Committee Reports
Secretary
Nominations
- ▲ Welcome to New Members
- ▲ Notice of Amendment to the
Constitution
- ▲ Membership Drive
- ▲ GeoTec 2006
Conference at a Glance
- ▲ Interest Group Installments
Map Use & Design
Map Production Technology
- ▲ Atlas of Canada
Celebrating 100 Years
- ▲ Stephen Knapp - On the Map
- ▲ Upcoming Events
- ▲ Graeme Parry -
Laneing: Toronto Laneways
- ▲ Book Reviews
- ▲ Article
Papyrus Reveals Ancient Stories
- ▲ Upcoming Cartographica
- ▲ Orienteering in Ottawa
- ▲ Cartographic Humour
- ▲ 2006 Student Prize Competition
- ▲ Where is this, What is this?

Canadian Cartographic Association

Department of Geography ▲ University of Victoria ▲ P O Box 3050, Stn CSC ▲ Victoria, BC, V8W3P5

... President's Message can't

This year, the executive decided to clamp down on membership delinquency. Believe it or not, it hasn't been easy. The wording of reminder notices, no matter how diplomatic, always manages to upset someone. Often the secretary receives the brunt of the "how dare you..." response. Usually after the situation has been explained in detail, the offended member appreciates what has transpired and makes an effort to be more punctual. Most people who join the executive of an organization probably do not bring years of experience in customer relations to the job. The effort to put together a well crafted renewal reminder, on top of other duties, is a surprisingly challenging task. So please, help your executive by renewing early. That simple act will make their lives much easier.

New Committee

As part of the push to increase CCA membership numbers, a committee was struck this year and is headed by your VP, Clifford Wood. The committee's sole purpose is to generate ideas on how to grow the CCA. Executive members have put forward ideas and Cliff has assimilated them. Some of the ideas have been tried and seem to be working. If you have ideas to share, or just want to know what Cliff has been up to, make a point to contact him (cliffordwood_91@sympatico.ca).

Everyone on the executive wants to know that their efforts are appreciated and you can do that best by dropping an email or even offering to help. From the new committee's perspective, brainstorming works best when lots of people bring their brains to the table.

Upcoming Conference

As you undoubtedly know, this year's conference offers to be a spectacular event. Not only is it in the nation's capitol, but it brings together several organizations, the 20th anniversary celebration of GeoTec Event and the centennial of the Atlas of Canada.

Normally, a CCA conference would be held at a university with the members at that university taking on the responsibility of organizing. This year, there was no such CCA affiliated party to take on the task because the conference is being organized by GeoTec. Christine Earl, past president of the CCA, stepped to the plate and added to her list of duties the role of Chair of the conference organizing committee. Christine has worked tirelessly to liaise between CCA executive and the GeoTec people to make sure that all our wishes and needs are met – from correct categories for speaker topics to ensuring that CCA members get a preferred rate at the conference. (Be sure to tell your colleagues that a CCA membership will knock up to \$450 or more off the cost of admission to Canada's biggest GIS conference!)

Christine and her committee, all CCA volunteers, deserve our gratitude. After you read this, take a moment to send a note, or better yet, offer to give them a hand. If you are a student, presenting a paper, volunteering at the conference may actually get you free admission! For those of you that have students, this is a great opportunity to encourage them to go. Prospective volunteers should contact Tracy Breithaupt at

tbreithaupt@geotecevent.com expressing their interest.

Thanks

We have been very fortunate this year in that you have chosen a great group of people to run the CCA. I have been amazed at the devotion and dedication of every one of the executive committee. A lot of behind the scenes work has already taken place, and more is yet to come. It has been a pleasure to work with this executive and I look forward to continuing to work with them in the months ahead.

Rick Gray

CCA President



FROM THE NEW EDITORS

Greetings fellow cartographers/GIS users.

As your new *Cartouche* editors, we look forward to creating an exciting newsletter full of Association news and cartographic content. By way of introduction, Barb is the GIS Mapping Specialist at Abitibi Consolidated in Iroquois Falls, Ontario. Lori is a Geomatics Analytical Technologist/Cartographer for the Ontario Ministry of Natural Resources in Porcupine (Timmins), Ontario.

Each editor or editorial team brings with them their own ideas. As a result, you will notice a few changes to *Cartouche*. Along with the traditional Interest Group columns and submitted articles there will be a calendar of upcoming events and news brought forth to the association by you. Lori also brings great editorial skills while Barb adds a new graphic design twist.

We have also included a new feature called "Where/What" ... can you tell us where and what a photo is? There will be interesting prizes drawn at random for those who can correctly identify the image/photo.

Please send us anything you would like others in the association to be kept informed of and we will be sure to include it.

We are open to constructive feedback so do not hesitate to contact either of us with your questions, concerns or comments.

Barb & Lori

SECRETARY'S REPORT

In case you may wonder what your executive does on your behalf through the slower (meaning not at the conference) part of the year, here is an update. An executive meeting was held by conference call in November. This is an excellent way for input and discussion from coast to coast at minimal cost to the Association.

Upcoming conferences were a major focus. Past president Christine Earl is working hard on the committee for the upcoming GEOTEC/CCA/ACMLA joint conference in Ottawa (more elsewhere). We also are looking ahead, with potential for two conferences in Saskatchewan over the next few years; 2007 in Saskatoon and 2010 in Regina.

We are planning to have a smart golf shirt with CCA logo available for purchase at the Ottawa conference, and possibly also a more casual t-shirt with brighter design (see elsewhere for details).

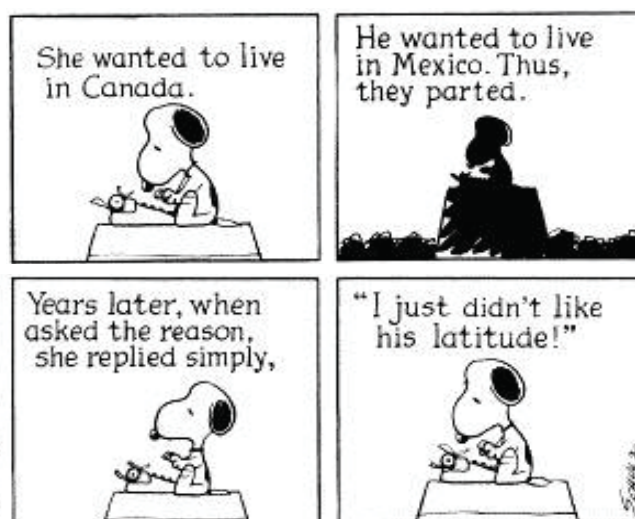
Thank you for your ready acceptance of our raised membership dues for 2006. The addition will be completely gobbled up by postal rates! What did you think of the great new colour brochure included with your application form? We are most grateful to Barb Duffin and Abitibi Consolidated for their design and production. Let us know if you can use more to promote the CCA to your colleagues and friends. Look out for details on a new initiative to encourage YOU to encourage new members to join and keep the CCA energized and growing.

Many thanks are due to Steve Westley of NRCan who has taken over upkeep of our website while Anita is on maternity leave. If you see something that is out of date

or needs attention, let us know.

You'll already have noticed that we have other changes as well. The Ottawa Cartouche editorial team has unfortunately been forced by ill health to step down, but Lori King and Barb Duffin have volunteered enthusiastically to take over this rather daunting task. Thanks, again, Barb and Lori! We promise that ALL of us will keep you supplied with material without having to be badgered for it - well, we'll try!

Diana Hocking, Secretary



WELCOME NEW MEMBERS !!

Robert Browning
Joannes Chokwe
Sara Irina Fabikant
Carson Farmer
Vicki Gazzola
Chris Hardenbrook
Anne-Flore Laloë
Jaques LeBlanc
Erin Neufeld
Environ Geomatics
June Warren Publishing Ltd.

Toronto
Lawrencetown, NS
Zurich
Saanichton, BC
Lawrencetown, NS
Redondo Beach, CA
Devon
Edmunston, NB
Victoria, BC
Penticton, BC
Edmonton, AB

Canada
Canada
Switzerland
Canada
Canada
USA
UK
Canada
Canada
Canada
Canada



NOTICE of AMENDMENT TO THE CONSTITUTION

The Executive Committee of the Canadian Cartographic Association is recommending that the Associate Membership category be deleted due to lack of interest in this category. Therefore, in accordance with **ARTICLE VI AMENDMENTS TO THE CONSTITUTION** this notice of amendment is herewith forwarded to all members of the Association at least 45 days before the Annual Meeting. Those relevant parts proposed for deletion are those with the strikethrough.

ARTICLE III. MEMBERSHIP

Section 1 INDIVIDUAL MEMBERS

~~v. Associate Members.~~

~~Persons who are members in good standing of a Canadian regional cartographic association or a member in good standing of a national association with an interest in cartography or ancillary field. The Associate Member is entitled to one (1) subscription to the Association newsletter and official notices. The Associate Member does not receive the endorsed, learned journal, is not a voting member, cannot nominate candidates for office of the Association, and is not eligible to hold office.~~

Section 4 MEMBERSHIP RIGHTS

Members in good standing shall have full rights to nominate candidates for office in the Association, vote and hold such offices if duly elected; they shall be entitled to participate, under applicable rules, in meetings, programs and other activities and services of the Association except that Institutional **and** Corporate ~~and Associate~~ Members may not hold office in the Association. ~~and Associate Members may not nominate candidates for office or vote.~~ Institutional Members may name one (1) representative and Corporate Members two (2) representatives who will be given full membership rights with the exception of the right to hold office in the Association.



MEMBERSHIP DRIVE - 2006

Do you want to pay less in membership dues in 2007?

The Canadian Cartographic Association is launching a new membership drive in the hopes of reversing the trend of decreasing membership numbers. Under this new plan a Regular Member can lower their membership fees for one year by various amounts based on the number of new REGULAR MEMBERS they bring into the Association in 2006, up to a maximum of four (4).

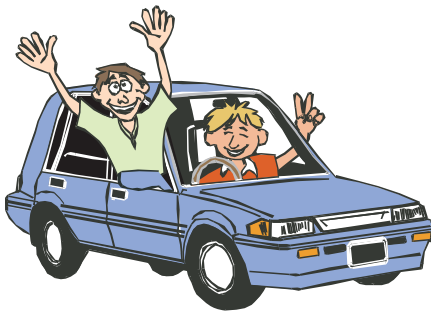
Here are the details.

For each new REGULAR MEMBER a current Regular Member sponsor in 2006 (up to a maximum of four [4]), they will receive a discount on their 2007 dues. For one (1) new member, s/he will receive a discount of 20% off their 2007 dues; for two (2) new members the sponsoring Regular Member will receive an additional discount of 15%; for three (3) new members, the sponsor will receive an additional discount of 10%; and for four (4) new members, the sponsor will receive another discount of 5%. Thus, if the sponsoring Regular Member brought in four (4) new members in 2006, s/he would realize a reduction of \$37.67 in their dues for 2007. That is a significant savings and reduces the membership fees to \$52.33 for 2007 based on an annual fee of \$90.00 for a Regular Member.

For specifics please contact Cliff Wood, Vice-President

E-mail: cliffordwood_91@sympatico.ca

Phone: (519) 666-3282





June 18-21, 2006
Ottawa, Ontario

"Celebrating History and Innovation"

*"The 2006 GeoTec Event
will be co-located with
the Association of
Canadian Map Libraries
and Archives, the Canadian
Cartographic Association,
and the International
Cartographic Association".*

... GeoTec Media

Social Events:

Gala Celebration at the
Museum of Civilization
Monday, June 19, 6:30 - 10 p.m.

Evening Reception and
Wine Tasting
Tuesday, June 20, 4 - 6 p.m.

Exhibitor Information

Workshops

General Sessions

Program Tracks



GEOtec MEDIA ANNOUNCES KEYNOTE SPEAKERS AND PROGRAM SESSION TRACKS

Opening Keynote Mon., June 19

Peter Morville - Widely recognized as a founding father of information architecture, Morville co-authored the best-selling book, *Information Architecture for the World Wide Web*, and has consulted with such organizations as Harvard, IBM, Microsoft, Yahoo! and the National Cancer Institute. Morville is president of Semantic Studios, co-founder of the Information Architecture Institute, and a faculty member at the University of Michigan.



Gala Dinner Keynote Mon., June 19

Rex Murphy
Social commentator and editorial journalist with weekly television commentary on *The National Magazine*, host of the Sunday afternoon CBC Radio program *Cross Country Checkup*, an editorial contributor to CBC Radio's *Definitely Not the Opera*, and a weekly Saturday columnist in *The Globe and Mail*.



Breakfast Keynote Wed., June 21

Tom Koch

Adjunct professor of geography (medical) at the University of British Columbia and adjunct professor of gerontology at Simon Fraser University (SFU), both in Vancouver, Canada. With undergraduate and graduate degrees in geography, Koch earned an interdisciplinary Ph.D. for a dissertation that used GIS mapping to consider the U.S. organ transplant system. The result, his 12th book, was published under the title *Scarce Goods: Justice, Fairness, and Organ Transplantation* (2001). His latest book, *Cartographies of Disease: Maps, Mapping and Medicine*, was published in 2005 by ESRI Press.



The education sessions have been organized into the following program tracks:

Atlases, Cartography and Visualization - The Atlas of Canada marks its 100th anniversary in 2006. This is a significant event, as the history of Canada is reflected in the history of the Atlas. In recognition of the centennial, this year's event is designed to celebrate the past and explore future roles of atlases. This track is designed to represent the effective use of cartographic skills for map communication, and the many new means for more realistic map visualization. In addition, this track will explore the impact of digital data and software tools on traditional cartographic skills and atlas creation.

Enterprise Integration - Geospatial technology is increasingly finding a home in information technology (IT) departments. This track will include sessions on IT requirements for geotechnology integration, spatial databases, enterprise application integration, Web services, geospatial intelligence and document and knowledge management.

Geospatial Data - Timely access to accurate geospatial data is crucial to any GIS project. Sessions will address data storage, field data collection, data integration, management, dissemination, development and promotion of standards and best practices.

Geospatial Research and Education - This track will offer educational research highlights and a forum for educators, students and employers to measure curriculum against occupational demand.

GIS Development - The flexibility of current GIS tools and architecture has led to increased flexibility for solution customization. This track will contain sessions on tools and resources to empower the advanced GIS user and systems integrator to create custom solutions of their own.

GIS and Public Policy - GIS is a powerful tool for local and national policy makers. This track deals with data policy issues as well as the application of GIS in social services, emergency response and disaster planning and mitigation efforts.

Imagery - This track will focus on the practical application of high-resolution aerial and satellite imagery, LIDAR, radar, video and sensor data.

Infrastructure and Interoperability - Geospatial data must be shared in order to leverage existing investments and minimize production costs and the duplication of effort. Learn how the geospatial data barrier problem is being solved by both large-scale data distribution efforts, such as the GeoConnections program, and the data and system standardization efforts of the Open Geospatial Consortium.

Integrated Case Studies - Vertical market applications for environment, municipal, natural resources and utilities are highlighted in this track. These sessions are devoted to a specific organization's implementation of integrated geotechnology. Presentations provide multiple perspectives with a focus on increased efficiency, better decision making and reduced costs.

NOMINATIONS COMMITTEE REPORT

The CCA Nominating Committee (Christine Earl (Chair), Jean McKendry, Diane Lacasse, Barb Duffin) would like to thank those members who responded to the call for nominations. Nominations have closed and all positions are acclaimed.

We are pleased to present the following slate of officers for Executive Positions for 2006.

Vice-President James Boxell, Dalhousie University



James Boxell is the Director of the GIS Centre and Curator of the University Libraries Map Collection at Dalhousie University. He is a Past-President of the Association of Canadian Map Libraries and Archives (ACMLA). Through his long standing connection to ACMLA, James has come to know the work of CCA and how CCA serves both member needs and the wider cartographic community through the promotion of mapping and cartographic education. His connection to CCA points to his career efforts in the areas associated with cartography, geography, geomatics and libraries – all areas where linkages are sought in the same way that ACMLA and CCA have a long tradition of meeting together. First and foremost, James sees himself as an educator, which is why so much of his time in his association and personal work has been directed towards enhancing education in these fields. By way of example, James is a founding executive member of the Nova Scotia Chapter of the Canadian Council

for Geographic Education (CCGE) and he has sought funding to host a geography teachers workshop at Dalhousie to allow teachers an opportunity to enhance skills in cartography, GIS, and field work.

He serves on the Board of Directors for the Geomatics Association of Nova Scotia and the Atlantic Division of the Canadian Association of Geographers, and is active in the CAG Education Committee and the CAG Interest Group on GIScience. He is a committee member of the International Federation of Library Associations (IFLA) Geography and Maps Section and is on the Editorial Board of the Journal of Map and Geography Libraries, Cartographic Contributions (ALA-MAGERT), and the Dalhousie Journal of Information Management. James has worked closely as either a board member, reviewer, or consultant to the Royal Canadian Geographical Society, the CAG, the CCGE, the Association of Research Libraries, American Library Association, the Canadian Geospatial Data Infrastructure and the Alexandria Digital Geospatial Library Project. James has presented and published widely in the areas of geography, geomatics, and libraries, with a soon to be published paper on “The Nature of Geospatial Information and Security” in *Government Information Quarterly*. His current research efforts revolve around developing a digital geolibrary for the Gulf of Maine, and the questions regarding security, privacy and public access to geographically referenced information. He is an Adjunct Professor in both the Schools of Planning, and Resource and Environmental Studies, and is a Lecturer of Geography in the Department of Earth Sciences. James was recently named a Fellow of the Royal Geographical Society (with the Institute of British Geographers).

Secretary Alberta Auringer Wood



Alberta Auringer Wood has a BA and MA in Geography and a MA in Library Science from The University of Michigan. She has recently retired as Acting Associate University Librarian after more than 27 years at Memorial University of Newfoundland Libraries where she served for nearly 23 years as the Map Librarian, as well as in a number of other positions. Previously, she worked at Library of Congress, University of Michigan, University of Wisconsin, University of Idaho, and World Bank. Her particular interest is in the history of cartography, but she has worked most with modern cartography. One secretarial position is on her resume, along with numerous conference reports compiled from notes by her and other attendees. Currently, she is a member of the ACMLA Bibliographic Control Committee, the Canadian National Committee for the International Cartographic Association (ICA), and

the ICA Executive Committee Working Group on Statutes Review. A variety of articles, several books, and numerous book reviews have been done by her over the years. Participation in professional societies has concentrated on cartography and map library organizations in which she has served at various levels. She has been a member of the CCA since 1975 and has attended many CCA meetings, as well as assisting with a number of the association conferences held in St. John's, NL.

Chair, Map Use and Design Interest Group Elise Pietroniro, University of Saskatchewan



Elise Pietroniro received a BFA in Interdisciplinary Studies and a BA in Geography from Concordia University in Montreal. She earned her Diploma in Digital Mapping Technology at the College of Geographic Sciences, in Lawrencetown, Nova Scotia, and completed her M.Sc. in Geography (Cartography) at the University of Saskatchewan where she was also employed as a cartographer for the Atlas of Saskatchewan Project, Millennium Edition, and cartographic coordinator for the production of the CD-ROM Edition. She is currently the manager of the GIS administrative unit at the University of Saskatchewan (GIServices), where she consults and collaborates with a variety of

university colleges and departments on various research projects. Current projects include an Atlas of the Northwest Saskatchewan Métis, designing plates for the atlas, and software development for THREATS (The Healthy River Ecosystem Assessment System), which involves customizing GIS software to measure water quality and assess the impact on aquatic ecosystem health. Elise is also a sessional lecturer in the Geography department and the department of Civil Engineering, as well as being responsible for GIS training to staff, faculty and students on campus through the IT department of the university.

Chair, History of Cartography Interest Group Edith Punt, ESRI



Edith M. Punt graduated from McGill University with a BSc in Physical Geography and Northern Studies. After an apprenticeship in cartography with Nunavik Graphics in Montreal, she went on to the College of Geographic Sciences in Nova Scotia, where she earned a diploma in Cartography, and was recognized by the Nova Scotia House of Assembly for outstanding achievement in cartography.

She was the recipient of the CCA's Nicholson Cartographic Scholarship in 1995, and was awarded the President's Prize for Best Colour Map the following year. In 1996 she won the National Geographic Society Award in Cartography, and the Intergraph Award in Computer Cartography from the Canadian Institute of Geomatics. She is the co-author of *Cartographica*

Extraordinaire: The Historical Map Transformed, along with San Francisco map collector David Rumsey. She has been a cartographer and writer at ESRI in Redlands, California since 1996.

Chair, Analytical Cartography and GIS IG Penny Hutton, Abitibi Consolidated



Penny Hutton graduated from the University of Manitoba with a B.Sc. in Environmental Science (physical geography). In 2001, she completed the Advanced Geographic Information Systems program at the Centre of Geographic Sciences in Lawrencetown, Nova Scotia.

For the past four years, Penny has been employed by Abitibi Consolidated Company of Canada, Fort Frances Woodlands Division as a GIS Analyst. She uses GIS to support forest management decisions and is currently serving as Project Manager for an Ontario-wide enterprise GIS implementation. Other duties range from system administration and design, programming, training, and data entry.

Penny is a new member of the CCA and hopes to use her term as IG Chair for Analytical Cartography and GIS to expand her knowledge of cartography and its role in GIS.

INTEREST GROUP INSTALLMENTS



Map Use and Design *Conception et utilisation des cartes:*

Sally Hermansen
Univ. of British Columbia

The merging of traditional Source Statements and current GIS Metadata: the inclusion of information about information on digital maps.

In our introductory cartography courses we teach, and were hopefully taught, the importance of the source statement; where did the data presented on the map come from, what is the date of this data, who manipulated the data in the production of the map (cartographer/organization), what is the map projection, etc. This information is important for two primary reasons: first, it gives the map a measure of credibility (one hopes the map reader is able to develop a sense of trust in the map and its data) and second, it allows the map reader to follow up on the data for further analysis and understanding.

In our introductory GIS courses today we teach students about metadata: information about information. GIS-generated maps draw on many, varied sources of spatial digital data in the compilation of the map. We need information about the original source data: its date, resolution, map projection, datum, collection agency, lineage of the data, etc. This information is necessary for resultant input, storage and analysis of the spatial information for GIS projects. Libraries and government agencies are developing standards for compiling digital sources of metadata that will accompany spatial digital datasets for distribution/downloading. Electronic atlas sites (for example the Cyber cartography project at Carleton University) are compiling digital metadata files to accompany the spatial layers of atlas data. GIS software companies like ESRI are including metadata forms as a standard part of all spatial data layers in hopes that the forms will be filled out by those using/manipulating the layers of spatial data, and thus passed on to others who in turn will use the data.

Once we have finished the input and analysis of our GIS project, we often produce a map, or series of maps, of our findings and our data. These maps are either printed for hard copy viewing, or are increasingly being produced on the web for computer screen viewing. What do we plot on the finished maps with respect to the traditional 'source statement'? A review of many digital maps on the internet shows that many of the maps have no source statement or metadata included on the map whatsoever. No information on the date of the data, its source, map projection, cartographic agency - nothing to give the mapped information some credibility. These maps are often printed, used by the general public in presentations, out of context with the source web site, with no information on them to help the map viewer develop some trust in the data or allow the map viewer to search for the original data sources.

There may be information (metadata) about the information somewhere, but we need to ensure that as digital layers of map information are compiled for web viewing and printing, a source statement (drawing from existing metadata) is included on the map, for the very same reasons we learned years ago as non-digital cartographers: to give the map a basis of credibility and trust, and to allow the map viewer to further explore the data. As GIS-generated maps tend to draw from many varied sources of data, source statements should be even more detailed and inclusive of information. The more the better, to give your mapped results the credibility they deserve.



Map Production Technology / *Technologie de production cartographique:*

Lori King
Ontario Ministry of Natural Resources

Map Making in the 21st Century...

With the introduction of digital map production, there may be as many ways to make a map as there are maps. Actually, I don't know if this is true, but it sure feels like it some days. Out of curiosity, I "googled" Map Production Technology and got 103 million results. Yikes! When I added Cartography to the search, it was narrowed down to 1.6 million results. Next, I took out Technology which narrowed the search even further - only around 500,000 results. Don't you just love Google!

An interesting find was a 2005 Buyer's Guide for Software from the Geospatial realm. It listed 167 companies that provide software ranging from aeronautical charting to digitizing/editing to Photogrammetry/image processing. Twenty-three areas of expertise were listed with Cartography/Map Production being one of them. Of the 167 companies included in the Buyer's Guide, fifty-seven indicated that they provided cartography/map production software. With apparently nothing better to do on a Sunday afternoon, I started visiting websites of the companies offering map production software, trying to answer the question "How are maps being produced and/or finished"

Rather than answering my question, the quick search I did resulted in my asking another question. What exactly is Cartography/Map Production software? More specifically, what does the industry perceive it to be? Is there an ultimate software package for cartographic map production? An informal poll is being conducted on CartoTalk: A Public Forum for Cartography and Design (www.cartotalk.com). It asks the question "What software do you use most often to do the bulk of your map DESIGN work?" Sixty-four people have

responded to date and the results are listed in Table 1.

Table 1: Cartotalk Poll: Map Design Software Results

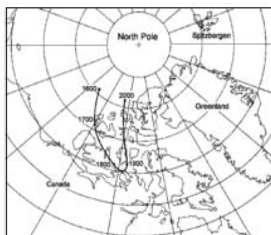
Software	% of total
Adobe Illustrator	29.7
ArcGIS	25.0
Adobe Illustrator w/MAPublisher	12.5
Other GIS (not specified)	9.4
Macromedia Freehand	7.8
CorelDraw	6.3
Adobe Photoshop	3.1
Macromedia Freehand w/MAPublisher	3.1
Other Application (not specified)	3.1

As table 1 indicates, there are a couple of software packages being used more than others, but how does one decide which software to use in the production of their maps? Being part of a large organization, there may be a vendor of record and that is what everyone uses. Smaller companies have the ability to tailor their choice to their needs. Is it GIS based, graphics based or both? Freelance cartographers may be governed by cost. I don't know if there is a right or wrong choice here.

An interesting discussion will take place at the CCA conference in June. My colleague, Ian O'Connell, chair of the Cartographic Education Interest Group, and I are organizing a session entitled "What we do and what we teach".

It will be a panel discussion comparing different map production techniques used today. How the final map is produced - GIS, graphics package or both? We hope to cover what is happening in industry, government and academia. Representatives from those three groups will briefly present and discuss the different platforms currently used in their organizations, the decision making process in selecting a platform and the role of educational programming. The panel will endeavor to present both industry and academic philosophies in respect to map creation. The intent of this session is to promote the sharing of ideas, issues, solutions and philosophies amongst everyone involved in the creation of maps.

Watch for this session at the conference in June and plan to attend. What better way to learn than by sharing experience and discussion. See you there!



At a meeting of the American Geophysical Union, Joseph Stoner of Oregon State University suggested that the magnetic north pole could drift out of Canada and into Siberia within the next century. "This may be part of a normal oscillation and it will eventually migrate back toward Canada," suggests Stoner but the magnetic poles do move around and, on rare occasions, swap places (apparently 25 times in the last 5 million years). Gone are the days of relying on compasses for direction so the impact on navigation may not be so big. Nevertheless, it might be necessary to correct the declination on all those topographic maps more often than one might suppose.

INTERESTING EARTH FACTS

How fast does the earth spin?

The speed at which the earth spins varies upon your latitudinal location on the planet. If you're standing at the north pole, the speed is almost zero but at the equator, where the circumference of the earth is greatest, the speed is about 1,038 miles per hour (1,670 kph). The mid-latitudes of the U.S. and Europe speed along at 700 to 900 mph (1125 to 1450 kph).



What is the circumference of the earth?

The circumference of the earth at the equator is 24,901.55 miles (40,075.16 kilometers).at 700 to 900 mph (1125 to 1450 kph).

Why is an atlas called an atlas?

The mythological Greek figure Atlas, who was forced to hold up the planet earth and the heavens on his shoulders as punishment from the gods, was commonly featured on old books of maps. Thus, the books with the image of atlas became known as atlases.

How hot are the planet's innards?

The temperature of Earth increases about 36 degrees Fahrenheit (20 degrees Celsius) for every kilometer (about 0.62 miles) you go down. Near the center, its thought to be at least 7,000 degrees Fahrenheit (3,870 Celsius).

What's the deepest place in the ocean?

The greatest known depth is 36,198 feet (6.9 miles or 11 kilometers) at the Mariana Trench, in the Pacific Ocean well south of Japan near the Mariana Islands.

How old is Earth?

Our planet is more than 4.5 billion years old, just a shade younger than the Sun. Recent evidence actually shows that Earth was formed much earlier than previously believed, just 10 million years after the birth of the Sun, a stellar event typically put at 4.6 billion years ago.

How much would seas rise if the Antarctic Ice Sheet melted?

The Antarctic Ice Sheet holds nearly 90 percent of the world's ice and 70 percent of its fresh water. If the entire ice sheet were to melt, sea level would rise by nearly 220 feet, or the height of a 20-story building. Scientists know there's a melting trend underway. The United Nations has said that in a worst-case scenario -- depending on how much global air temperatures increase -- seas could jump 3 feet (1 meter) by 2100.

CELEBRATE WITH THE ATLAS OF CANADA

Donna Williams and Cameron Wilson
The Atlas of Canada
Natural Resources Canada



2006 marks the 100th anniversary of the Atlas of Canada. Over the past century, the Atlas has documented the development and evolution of Canada's geography, people, environment and resources. From the early development of our nation through immigration, to the resource-based development, industrial expansion and complex social and economic environment of today, the Atlas of Canada has illustrated this information in maps.

Production of the Atlas spans six editions. The First Edition, published in 1906, was followed by four additional printed volumes, the last of which was published in 1993. The Sixth Edition, launched on the Internet in 1999, was one of the first electronic on-line atlases in the World. This most recent edition, offers a comprehensive collection of interactive maps, graphics, images and multi-media resources on the Internet.

To commemorate its centenary, the Atlas of Canada has developed a 100th anniversary component to its web site, promoting several commemorative products and promotional items to be released over the course of 2006.

The Atlas is proud to announce the launch of Toporama. These topographic maps available in a user-friendly, interactive mapping tool are the next generation of the Centre for Topographic Information's very successful Toporama product. This mapping tool enables users to view maps showing detailed data from the 1:250 000 and 1:50 000 National Topographic Databases. The electronic versions closely resemble the paper maps, with the advantage of eliminating paper map edges.

The Atlas will publish its 100th Anniversary Map Series, a free collection of maps available in a downloadable, printable format. Two commemorative items in the form of poster-maps are also being produced: one featuring Canada's watersheds and the other displaying Canada's population density. The Atlas of Canada is also proud to have its 100th anniversary recognized through the production of a postage stamp, to be issued by Canada Post in June 2006.

The pinnacle of the Atlas of Canada's 100th Anniversary celebrations will take place at the

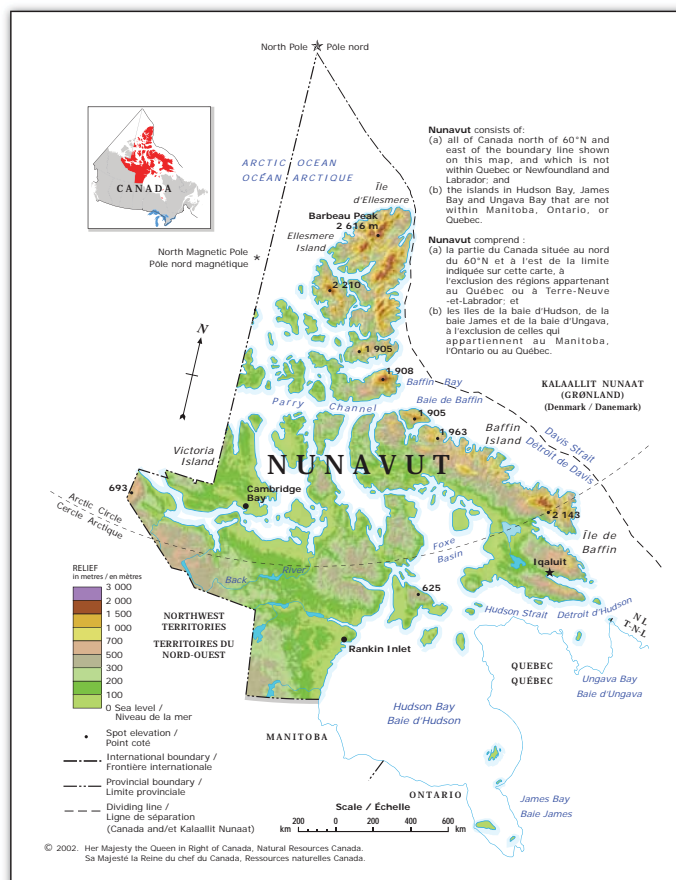
GeoTec Conference in Ottawa, Canada, June 18-21, 2006, with June 19 designated as Atlas of Canada Day, culminating with a Gala Dinner. The conference will provide an opportunity for delegates to take part in a panel discussion on the vision of the Atlas of Canada, in plotting out the course of its evolution into the Atlas of future. This conference will also provide geospatial technology professionals from all disciplines the opportunity to interact and learn from each other's experience and knowledge under the conference theme of "Celebrating History and Innovation".

To learn more about the Atlas of Canada's centennial celebrations, we invite you to visit:

http://atlas.gc.ca/site/english/100_anniversary/index.html

For more information concerning the GeoTec Conference, please visit:

<http://www.geoplace.com/uploads/GeoTecEvent/htm/intro.asp>



CÉLÉBRONS AVEC L'ATLAS DU CANADA

Donna Williams et Cameron Wilson
L'Atlas du Canada
Ressources naturelles du Canada



L'année 2006 marque le 100^e anniversaire de l'Atlas du Canada. Au cours du siècle dernier, l'Atlas a documenté le développement et l'évolution de la géographie, des communautés, de l'environnement et des ressources du Canada. L'Atlas du Canada, à travers les années, a cartographié plusieurs thèmes et ce, depuis l'époque de la découverte du pays en passant par les vagues d'immigration, par la mise en valeur des ressources et l'expansion industrielle, jusqu'à la mosaïque sociale et économique complexe qui constitue le Canada tel qu'on le connaît aujourd'hui.

L'Atlas a été publié en six éditions. La première édition, publiée en 1906, a été suivie de quatre autres volumes imprimés, le dernier ayant été publié en 1993. La sixième édition, lancée sur l'Internet en 1999, constituait l'un des premiers atlas électroniques en ligne au monde. Cette édition récente offre en ligne une collection complète de cartes interactives, de graphiques, d'images et de ressources multimédia.

Afin de commémorer son centenaire, l'Atlas du Canada a élaboré une composante relative au 100^e anniversaire sur son site Web, dans le but de promouvoir divers produits commémoratifs et articles promotionnels qui seront mis à la disposition du public au cours de l'année 2006.

L'Atlas est fier d'annoncer le lancement de Toporama. Ces cartes topographiques, disponibles à travers un outil cartographique interactif convivial, constituent la prochaine génération du remarquable site Toporama offert par le Centre d'information topographique. Cet outil cartographique permet aux utilisateurs de visualiser les cartes du Système national de référence cartographique du Canada affichant des données à l'échelle de 1/250 000 et à un niveau plus détaillé, soit à l'échelle de 1/50 000. Les versions électroniques ressemblent de très près aux cartes papier, mais avec l'avantage d'avoir en moins les contours.

L'Atlas publiera sa série de cartes du 100^e anniversaire, une collection gratuite de cartes disponibles dans un format à télécharger et à imprimer. Deux articles commémoratifs sous forme de cartes-affiches ont également été produits : une illustrant les bassins versants canadiens et l'autre, affichant la densité de la population canadienne. De plus, l'Atlas du Canada est très fier de présenter un timbre-poste, commémorant son 100^e anniversaire, qui sera émis en juin 2006 par la Société canadienne des postes.

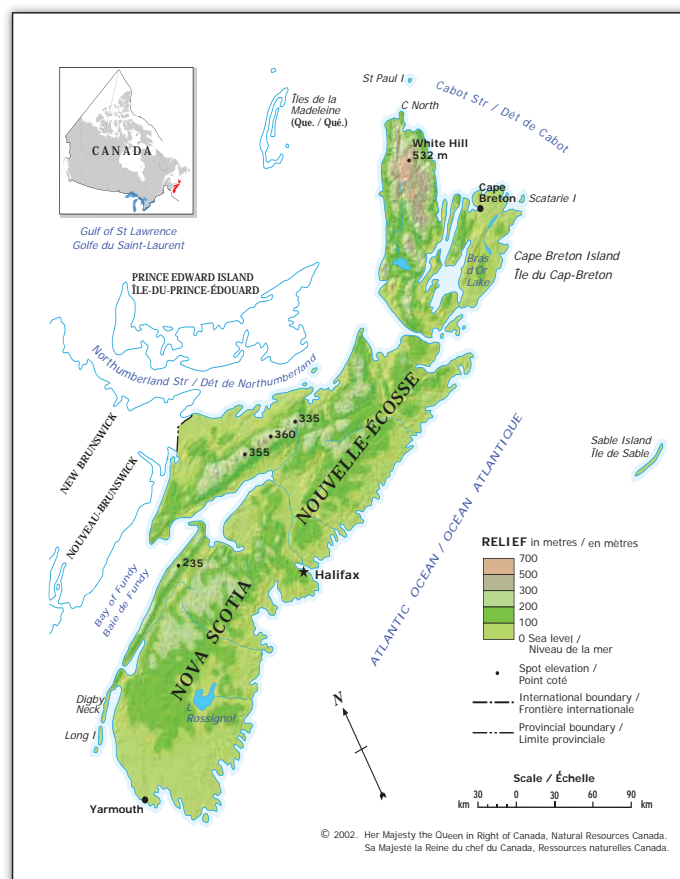
Le summum des célébrations du 100^e anniversaire de

l'Atlas du Canada se tiendra lors de la conférence GeoTec, qui aura lieu à Ottawa du 18 au 21 juin 2006. Le 19 juin sera la journée officielle de l'Atlas du Canada qui se terminera par un dîner de gala. La conférence fournira une opportunité aux délégués de prendre part à une discussion en groupe sur la vision de l'Atlas du Canada, tout en examinant le cours de son évolution vers l'Atlas du futur. Cette conférence constituera également un lieu de rencontre où les spécialistes des géotechnologies de diverses disciplines se côtoieront, interagiront et échangeront leurs expériences et leurs connaissances sous le thème « Célébrons l'Histoire et l'Innovation ».

Pour en savoir davantage sur les célébrations entourant le centenaire de l'Atlas du Canada, nous vous invitons à visiter le site Web suivant : http://atlas.gc.ca/site/francais/100_anniversary/index.html

Pour de plus amples renseignements au sujet de la conférence GeoTec, veuillez visiter le site Web suivant :

<http://www.geoplace.com/uploads/GeoTecEvent/htm/intro.asp>



Source: <http://atlas.gc.ca/site/francais/index.html>

From Interstate 70, the pair of two-story gray buildings perched low on the southern hillside look unremarkable. They're no great shakes up close, either, and you could easily drive by them on Beaver Brook Canyon Road without supposing they're anything but a couple of nice homes among the many nice homes on Floyd Hill. You have to get out of your car, climb the wooden stairs and stand before the ordinary front door to see the magazine-sized sign reading "National Geographic Maps." Beyond that modest portal lies a world of adventure.

A good map is far more than "X-marks-the-spot." Conceptually, a good map orients us to our surroundings, providing necessary context by which we relate to our physical environment. As a practical matter, a good map not only shows us where to go, it tells us what to expect along the way and what we'll find when we get there. On an emotional level, a good map fires the imagination, brings unseen vistas to life before our eyes and elevates our gaze toward the mysterious possibilities that lay beyond the horizon.

"A good map is a dream device," says NGS Maps vice president Gavin Maurer. "When you look at one, it's not long before you imagine yourself in that place." To pirate a phrase, a good map is everywhere you want to be.

Since 1997, the magazine that features "the world and everything in it" has been creating the lion's share of its celebrated cartographic tools right across the street from Clear Creek High School. How a major division of America's most collectible monthly came to rest in the Colorado foothills can be described as a happy junction of vision, opportunity and — that's right — geography.

The National Geographic Society was founded in 1888 with a primary charge to spread geographical knowledge. It published its first magazine in October of that year and, in 1915, issued its first supplemental map, a detailed plate of Europe's Western Front that included a gazetteer so that readers could conveniently follow the bloody slaughter in the trenches. Since then, National Geographic has become one of the world's three leading private cartographic institutions, alongside American Maps and Rand-McNally.

More recently, Evergreen residents Bill and Mary Kay Stoehr got fed up with the poor quality of Colorado trail maps and, about 20 years ago, launched Trails Illustrated in the basement of their home. Coloradans being what they are, the Stoehrs' accurate and detailed maps of the state's high country went over well among the rugged and, as their geographic scope kept pace with expanding sales, the Floyd Hill enterprise quickly grew into a thriving business.

Recognizing fundamental changes in how people consume information and keen to expand its line of outdoor and adventure products, National Geographic purchased Trails Illustrated root and branch in 1997, the society's first-ever outside acquisition and one of very few agencies it maintains outside of Washington, D.C. By applying the kind of resources that only an arm of the world's largest apolitical nonprofit organization can, National Geographic Maps is now America's chief guide in the wilderness.

About half of the facility's staff of 35 lives in Evergreen, with the rest sprinkled broadly around the metropolitan area. Nearly all, says marketing manager Michelle Wilkinson, grew up reading National Geographic Magazine, which makes their work doubly rewarding. "It's great to be a part of something

you love," she says. "It seems a lot less like work."

Moreover, NGS Maps is heavy with outdoor enthusiasts who are grateful to be stationed in Colorado within striking distance of some of the best alpine terrain in the world. "This is the perfect location for what we do," Wilkinson says. "We have everything from hard-core trekkers to day-hikers, and being able to work in Colorado was a big draw for everybody here. We're the envy of a lot of people in D.C."

The small Floyd Hill facility performs a task as big as all outdoors. Starting from a comprehensive topographical database that encompasses every inch of all 50 states, National Geographic Maps has charted more than 100 national parks and national forests down to the smallest detail. There are 44 Colorado titles alone, helpful guides to back-country from Steamboat to Grand Mesa to Telluride with editions customized for both pedestrians and cyclists and, for those who prefer their wilderness exotic, maps portraying boondocks from Costa Rica to Katmandu are available. "We'd like to offer more international titles," Maurer says, "but there are a lot of obstacles."

The Swiss, for instance, have superb cartographic information about their Alpen domain, but it comes with a lofty price tag attached. Mired in residual cold war paranoia, most of Eastern Europe may or may not have topographical data available but won't say which it is and won't permit anybody else to develop their own. "There's a lot of interest in Mexico, especially Baja," Wilkinson says, "but it's hard to get permission to do mapping down there. Their own stuff isn't very good and it's really expensive."

While an outfit in Loveland prints the trail maps, NGS Maps stocks world maps, regional maps, maps depicting areas of current interest, even maps of our solar system, galaxy and universe, and all products are shipped directly from Floyd Hill to dreamers around the country and the world. "There's a full-time shipping staff of four, and we hire extra help during the holidays," Maurer says. "We send out thousands of pieces every day."

Since the fundamental purpose of any map is to show someone how to get from Point A to Point B with economy, what makes these products better than, say, something sketched on the back of a cocktail napkin? The answer is at once simple and extremely complex.

Take an NGS map of the Holy Cross region, for example. It's easy to read, chock full of helpful information and laminated so that when you drop it in the creek and retrieve it a half-mile downstream it will still show you the way back to camp. Beginning with precise topographical data of that district obtained from orbiting satellites and provided by the United States Geological Survey, NGS cartographers imposed a skin of isobars, a layer of water-features, one of political boundaries and another of roads and trails. One after another — as many as 200 elements precisely affixed according to global-positioning-system coordinates — were applied to the page until a comprehensive picture of Holy Cross wilderness emerged.

"An average map uses about 150 layers," says David Lambert, a 32-year-old cartographer with a goatee and relaxed manner who came to work for the Stoehrs a decade ago and transitioned seamlessly onto the NGS team. Hour after hour, five days a week he labors at his terminal,

... On the Map can't

combining the world's diverse components into a coherent, easily comprehensible image. It's highly technical work, but not without strong aesthetic appeal. "It's not fine art," Lambert says, "but it's applied art, for sure."

Over time, of course, streams can wander, roads may fall out of use and new trails are forged through wild lands. Consequently, before a map goes to print, it's submitted to scrutiny by park authorities, the Bureau of Land Management and a host of other agencies with intimate, real-time knowledge of the area. From start to finish, the extremely complex process can take up to eight months, but the end product is simply the truest representation of hill, dale and trail attainable by the arts of man.

Sound cool? It gets better. Trails, even scientifically reproduced ones, can be awfully limiting for serious outdoor junkies, so National Geographic Maps' computer gurus cooked up mapping software that frees the inner pioneer. Viewing the Holy Cross wilderness map on a personal computer, you can add or remove layers of information like a seasoned cartographer, keeping only those features that suit your purpose. Once shed of pre-existing trails, simply draw a route of your own choosing and the program plots GPS points along the way, producing a detailed elevation model, to boot.

Once that's done, a click of the mouse will project a smooth, simulated flyover of your trail and, assured you haven't drawn your way into a lake or over a precipice, you can download those coordinates into a hand-held GPS device that will guide you unerringly through miles of untrammelled forest. It's a perfect marriage of nature and science.

Can you imagine if such magic were directed to non-recreational ends? The wizards at NGS Maps are way ahead of you, offering professional mapping software that can make us all safer. Fire Pro helps firefighters maintain instantaneous, real-time data on fire fronts, allowing speedy and effective allocation of resources. Less dramatic but equally useful, Asset Pro software enables government resource managers to keep an accurate accounting of real-world assets from building plans to streetlights to service fleets, and Vector Pro was designed to help health professionals locate, track and intercept the transmission of diseases, toxins and other public threats. "By knowing exactly where problems are in relation to assets," Maurer says, "resources can be managed with much greater efficiency."

Whether depicting the surface of Mars, distant lands or the street outside your front door, maps are incredibly versatile, enormously useful and endlessly fascinating tools that put the world into our hands. "Our mission is the diffusion of geographical knowledge," Maurer says, "but best thing we do is give people a chance to dream."

To learn more about National Geographic Maps, visit www.nationalgeographic.com/maps.

UPCOMING EVENTS AND MEETINGS



March 7-11, 2006

Association of American Geographers (AAG) Annual Meeting. Chicago, IL
www.aag.org

April 21-26, 2006

American Congress on Surveying and Mapping (ACSM) Annual Conference and Technology Exhibition. Orlando, FL.
www.acsm.net

May 30 – June 3, 2006

Thunder Association of Geographers (CAG) Annual Meeting. Thunder Bay, ON
http://cag-acg.ca/en/cag_annual_meeting.html

June 18-21, 2006

Canadian Cartographic Association (CCA) Annual Meeting in conjunction with GeoTec 2006. Ottawa, ON.
www.cca-acc.org/

June 18-21, 2006

Association of Canadian Map Libraries and Archives (ACMLA) in conjunction with GeoTec 2006. Ottawa, ON.
www.acmla.org

July 3-7, 2006

International Geographical Union (IGU) Regional Congress. Brisbane, Australia
www.igu2006.org/

August 7-11, 2006

ESRI International User Conference. San Diego, CA.
www.esri.com/ucpapers

September 6-10, 2006

GIScience 2006. Münster, Germany.
www.giscience.org/

For those interested in a comprehensive listing of world-wide, cartographic-related events and meetings, go to:

John Docktor's list: <http://home.earthlink.net/~docktor/intro.html>
Map History list: <http://www.maphistory.info/confmnu.html>

CORRECTION:

In Volume 60, Winter 2005, Clifford Wood was mentioned as the first editor of what then was named the CCA Newsletter.

Brian Cromie was the first Secretary whose responsibilities also included publishing the newsletter that came out twice a year. Cliff was the second Secretary of the CCA to whom fell the task of publishing the CCA Newsletter and made it a quarterly which has continued to this day.

LANEING: TORONTO LANEWAYS

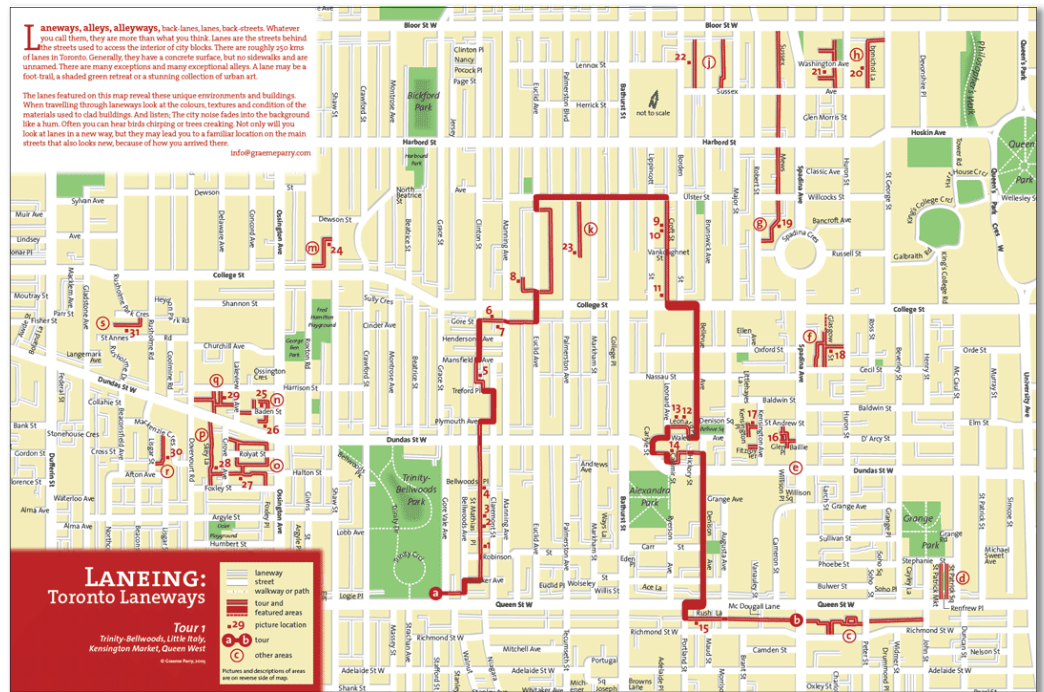
submitted by: Graeme Perry

In the thirteen years, I've lived in Toronto; I always liked taking an alley here and there, on my way about the city. As I discovered unusual buildings and unexpected environments in this secret network, my fascination grew. So with a map of laneways in my hand, roughly 250 kilometres of them, I started biking around taking pictures.

While most lanes are lined with garages, there is much more to the laneway experience. Older coach houses, industrial buildings, a lumber yard, hidden modern homes, hidden parks, quiet verdant and shaded lanes, a wide array of graffiti, and endless cladding materials of different colours and textures, in different states of decay, all these are a sampling of what exists.

Beyond the physical aspect, observed laneway activities other than people parking their cars include walking the dog, fixing/cleaning cars, kids playing, the occasional dinner party, and organized events such as Alley Jaunt, an art show using garages in lanes as galleries to name a few.

I wondered if other people had a similar interest, so I started giving a free 45-minute tour of lanes west of downtown Toronto (2006 will be my third summer and interest is growing). Then I created this map featuring the tour, through the Trinity-Bellwoods, Little Italy, Kensington Market, and Queen West neighborhoods, along with some other nearby sites of interest, in hopes that people will use it to discover alleys on their own.



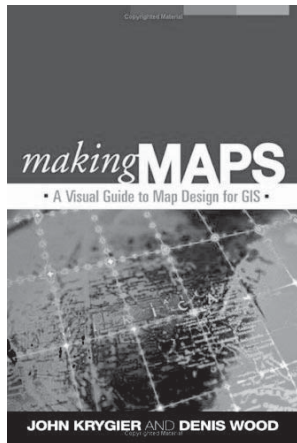
Familiarizing people with laneways in hopes that they be seen as interesting places and a possible location to live connects to a wider movement happening in the city. Two architects are trying to change city bylaws that prevent a residence from being built behind another residence so that alleys can be used to absorb the population increase Toronto will experience in the future.

Graeme Parry has been drawing maps since graduating from the University of Toronto in 1995. He focusses mainly on large scale mapping of urban areas with an emphasis on clarity, legibility and accuracy with an overall look of less is more. For more information contact info@graemeparry.com

Book Reviews

Making Maps: A Visual Guide to Map Design for GIS

By John Krygier and Denis Wood
2005, The Guilford Press
303 pages



“You cartographers are so picky,” a colleague once said to me. “You have so many rules.”

And it's true: there are rules for how text should be placed, how colour should be used, what elements should be included in the map and how they should be laid out, how data should be symbolized, what projections should

be used, and on and on. Sometimes I feel that I should apologize to my GIS colleagues for all these rules.

But only sometimes. These rules, the pickiness of cartographers, are what make maps work (and what makes us cartographers). John Krygier and Denis Wood have taken all of these rules and guidelines and laid them out in *Making Maps: A Visual Guide to Map Design for GIS*. It is a book meant for use by non-cartographers who are called upon to make maps. These days there are many such people.

The book is essentially a resource, a listing of rules and guidelines that should be considered when making a map. These cartographic principles are broken down into a number of broad categories, with one chapter for each category: layout, intellectual and visual hierarchies, map generalization and classification, map symbolization, text, and colour. Nothing unusual there.

What makes the book unique is that on each page illustrations highlight the idea under discussion, the text merely works in a supportive, explanatory role. Cartography is a visual craft and the many illustrations – two or more per page

– are essential to the success of this book. The text might introduce an idea; for example, generalization (“the systematic reduction of detail to enhance the point of your map”), the illustrations are the exemplar of what works and what doesn't and users can immediately grasp it.

This goes on for each “picky cartographer rule”: use of color values, symbol classification, type weight and form, symmetry in map layout, map projections. Each rule or guideline is simply explained and illustrated. These rules or guidelines, if implemented collectively, can result in a good map product.

Scattered throughout the book and in between chapters are examples of interesting maps whose content or purpose are not immediately obvious but which are explained at a later point. For example, the map of “areas crossed by two or more radioactive clouds during the era of nuclear testing in the American Southwest, 1951 – 1962” shows up in the first few pages of the book without a legend or any text describing the map's contents. Without a context, the reader dwells on the map's geographic pattern. The explanation, given later in the book, turns on a light bulb in the reader's head which the map itself put there, in a most satisfying manner.

If there is one fault with the book it is that on occasion, it simplifies matters almost too much. Such statements as “the earth is really big and complex” harkens to a “Cartography for Dummies” approach.

A book that is heavy on example and short on theory, *Making Maps: A Visual Guide to Map Design for GIS* is a worthwhile investment for any who are looking to produce better maps without having to take a Cartography 101 course.

Review by:
Paul Heersink
CCA Member



Book Reviews

THE USE OF MAPS IN THE EXPLORATION OF GEOGRAPHIC DATA

Corné P.J.M. van Elzakker. Utrecht : Koninklijk Nederlands Aardrijkskundig Genootschap/Faculteit Geowetenschappen, Universiteit Utrecht; Enschede: International Institute for Geo-Information Science and Earth Observation, 2004. 206 pp.: illustrations, tables, maps; 24 cm.

ISBN 9068093576 (cloth). PDF format on Web:

<http://igitur-archive.library.uu.nl/dissertations/2004-1220-153527/>



Investigating map use in exploratory cartography and cartographic visualization is an important topic that begs for additional research. This published work, which essentially is an unedited copy of the author's dissertation, comprises a qualitative study of how maps are used in an exploratory cartographic environment. Van Elzakker starts by discussing the importance of related research over the past 15 years. But he

decries the fact that research conducted in the 1990s was biased toward supply driven, rather than demand driven, maps and spatial data. He points out that "hardly anything is known about the selection and use of map displays in exploratory cartography (p. 16)", as well as "the cognitive process that precedes the actual use of an existing map or generally available visualization tool (p.32)".

Van Elzakker's objective, then, was to investigate the cognitive process in geographic data exploration by providing answers to a set of 15 questions. He rightly notes that due to technological advances in hardware and software, professional cartographers are generating a falling percentage of maps being produced, and so a map producer and map user are often one and the same. Critical among these questions, and related to map design research, are whether the map reader/producer is aware of any mistakes that may exist on current maps, map design problems that could result in miscommunication, and how his or her own data is being transformed through projection and classification.

His purpose was to develop an experimental research methodology, called the 'think aloud method', so that new hypotheses could be formulated for additional research. The think aloud method requires recording the test subjects as they voice their thoughts during the test, in addition to recording the subjects' comments while watching the videos of themselves. In that way, one gains an understanding of not only what they are doing but why they are doing particular

actions as well. Simultaneously, he wanted to conduct a thorough task analysis as he felt that one's map use is often not likely to be random, but instead looking to gain some particular geospatial knowledge. As such, the instructions that he gave to his ten test subjects were quite detailed and specific. One geography student and nine professional geographers were chosen for the study, and the area in question is Overijssel in the Netherlands. The subjects were to use paper and digital maps and map layers to construct a graphic model, starting with a given base map and using

PowerPoint with simple drawing tools.

The software chosen for cartographic visualization was ArcGIS. It was evaluated against CommonGIS, Intergraph's GeoMedia, and MapInfo. Surprisingly, the author never mentions any evaluation of the excellent Dutch product: ILWIS. Regardless, ArcGIS was used, even though, as van Elzakker admits, ArcMap "cannot be considered a cartographic expert system (p. 91)." Indeed, one can easily design ugly maps or ones that communicate poorly with ArcMap (or any of the other above mentioned products, for that matter). While this reviewer is a fan of ESRI, the author did not exactly present the most convincing argument for the elimination of the other software packages. For example, he states that while CommonGIS may be "the best example of a software system that has been designed with the purpose of exploratory cartography in mind", nonetheless, the "functionality of CommonGIS would be too unfamiliar to the test persons (p.89)." Since the subjects were not expected to know how to operate the software, but were instead helped along by either a research assistant or van Elzakker, this disqualifying statement regarding CommonGIS seems illogical, especially in light of his recommendation of CommonGIS in the concluding chapter.

Fortunately, this study was a qualitative analysis, for several reasons: 1) the small size of the test group; 2) problems occurred between the first three subjects and the two research assistants (thereafter van Elzakker acted as his own research assistant); 3) the test environment was not standardized, i.e., it was adjusted with instructions that gained specificity and added maps and data over time; and 4) the last three subjects were not allowed to use paper maps. Quantitative analyses would have been difficult, to say the least. But as he states, his purpose was "to formulate hypotheses, not to actually test them (p. 113)."

In chapter six, he presents his results under nine categories. First, under Geographic Questions, the author was disappointed that the test subjects posed few geographic questions. He may have expected too much since the study region was not of professional interest to any of the ten subjects. As a suggestion, a future study could retest professional geographers in their own specialized research environments, with the 'think aloud' method, if the desire is to build an expert system in exploratory cartography. Second,

regarding geographic themes and other aspects of geodata, van Elzakker found that map scales and dates were often ignored, and that human geographers paid little attention to physical geography and the environment. Third, the selection of maps was shown to be largely supply driven with a preference for paper maps. Fourth, in the process of regional exploratory studies with the help of maps, he noted that experts asked more and higher level questions, and that two of the ten subjects had developed systematic written plans to deal with their potential study. Fifth, concerning map types, the test subjects most often chose topographic and geographic base maps, followed by choropleth maps from the thematic map set. And choropleth and proportional symbol maps were most often generated, although not always 'correctly'. Sixth, in the general aspects of map use, the subjects typically assumed that what was displayed to

them was true and correct, that they were careless over the different map dates and took little notice of any mistakes, and that map titles and legends were not diligently studied, especially on the digital maps. Seventh, under map use tasks and activities, experts were again found to execute higher-level map use tasks and to conduct them at earlier stages than the novices. Eighth, for cartographic awareness, "the test persons did not demonstrate significant awareness of the rules of the grammar of cartography. Nor did they seem to care about this much (p. 129)." Alarm bells should now be ringing to provide better cartographic education in geography departments for non-cartographers, or at least to program cartographic expertise into existing cartographic visualization tools. Lastly, van Elzakker evaluates ArcGIS as a tool for exploratory cartography and finds it to be unsuitable.

Within his research environment, the author's concluding chapter attempts to answer the 15 questions posed in chapter one. Many of these queries overlap the above discussion and some raise more questions than they answer, which may well generate hypotheses for future studies. Overall, in spite of the problems encountered during the study, as well as my criticisms, this study was found to be very interesting and informative. Typically, I would not recommend that anyone publish an unedited dissertation into book format, and this is no exception. Typographical errors are likely to be found in any manuscript and only one glaring error is found here: on page 25, when discussing past cartographic psychophysical testing, van Elzakker states "differences in gray tones at the darker end of a graded series are more noticeable than equal differences at the light end". Even untrained cartographers easily recognize that the opposite is true. Regardless, if the author wants to have a wider cartographic and geographic audience for his research, then the work should be edited down into monograph format, or better yet, into a refereed journal article.

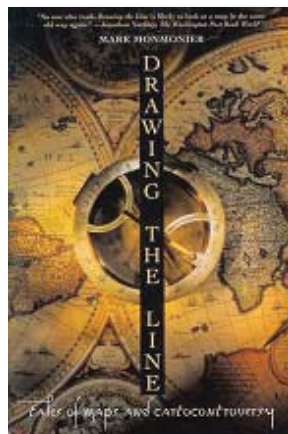
Review by:

Daniel G. Cole, Geographic Information Systems Coordinator
Smithsonian Institution
email: Cole.Dan@NMNH.SI.EDU

LIVELY AND WELL-WRITTEN BOOK TELLS STORY OF HOW MAPS PERSUADE AND INFLUENCE THROUGH HISTORY

Drawing the Line: Tales of Maps and Cartocontroversy by Mark Monmonier 1995, Henry Holt, 368pp (with notes and index)

ISBN 0-8050-2581-2



In "*Drawing the Line: Tales of Maps and Cartocontroversy*", Monmonier takes on a variety of topics, throwing a bit of rational thought on some charged subjects.

A good example is the so-called "Peters Projection" world map. This was rolled out by Dr. Arno Peters in 1967 as a response to perceived weaknesses in the widely used Mercator map.

One thing it purported to solve was a skewed view of the world brought on by the extreme distortion of the upper latitudes (Greenland appears many times larger than it ought, for instance). Another thing it aimed to correct was a "eurocentric" social bias: by enlarging the middle latitudes, it displayed many third-world countries in a more advantageous aspect than the Mercator did.

Monmonier logically and entertainingly explores the Peters imbroglio. The map, seen by many to counteract what is seen as an unjust dominance of the Third World by the First, is driven just as much by activism and personal politics of those who it appeals to just as much as any desire for flat-map accuracy. There are many dogs in this fight, detractors and advocates, and the argument continues to this day. Monmonier proves an able and illuminating guide.

The same critical light is thrown on such subjects as The Vinland Map (a map reputed to have been drawn about 1440, predating Columbus), cultural perceptions through place names on maps, the acceptance of plate tectonics, and political campaigns.

Monmonier (a distinguished professor of geography at Maxwell College of Syracuse University), is a great writer with an entertaining sense of style, who guides the reader through this Terra Incognita with wit and grace. *Drawing the Line* is a valuable book for anyone who is interested in critical

Review by:

<http://designorati.com/cartography/>

PAPYRUS REVEALS ANCIENT STORIES

By Rossella Lorenzi, Discovery News

Submitted by: Christine Earl

Feb. 8, 2006— Italian researchers have recovered part of a lost ancient Greek treatise, the earliest cartography of the Greek-Roman era, and a sketchbook for ancient painters — all by piecing together 50 fragments of a first-century B.C. parchment used in a mummy's wrapping.

Known as the papyrus of Artemidorus, the 2.5-meter- (eight-foot-) long and 32.5-centimeter- (13-inch-) wide parchment will go on display for the first time this week in Turin at the exhibition "The three lives of the papyrus of Artemidorus," which is part of the cultural events accompanying the Winter Olympics.

The papyrus "helps write new pages of Greek literature, cartography and art history," according to Claudio Gallazzi, a professor of Papirology at the University of Milan and the exhibition's curator.

"One might wonder how a single papyrus can conceal such a big treasure. Well, it was used at different times, for different purposes, and by different people," Gallazzi said.

The papyrus' story begins around the mid-first century B.C., in Alexandria, Egypt, when a copyist transcribed a book by Greek geographer Artemidorus.

Born in Ephesus around 100 B.C., Artemidorus wrote 11 books on his Mediterranean travels, which are now lost in their entirety.

Indeed, his "Ta geographumena" (Geography) treatise has been known only through 1st century B.C. Greek geographer, historian, and philosopher Strabo, who mentioned it in his books.

Featuring a detailed description of Spain, the papyrus is believed to be the most extensive remaining portion of Artemidorus' monumental work.

"Three historical sources quote the exact text found in the papyrus as by Artemidorus... We concluded that the roll featured the transcription of the second book of Artemidorus' lost 'Geography,'" Gallazzi wrote in the exhibition catalogue.

As the copyist left blank spots to insert drawings of maps within the text, the parchment was sent to a painter's studio.

But the artist made a mistake: instead of



Drawing of a Man.



Lost Treatise Found



Sketchpad



More Sketches

drawing a general map of Spain, he first drew a map which appears to represent the Betica province in southwestern Spain. By then the papyrus was ruined.

"However, it wasn't burnt, neither sold as pulp paper. A few years later, its blank spots were re-used for other sketches," Gallazzi said.

The parchment became a catalog of drawings for mosaics and frescos.

The drawings, all with Greek captions, represented mythical animals, such as the griffin, as well as real ones, such as giraffes, tigers and geese.

In the following years, pupils from the workshop used the remaining blank spots as a sketchbook and practiced by drawing heads, feet and hands.

In the last decades of the first century A.D., when no more blank spots were left on the parchment, the papyrus was sold as pulp paper, and ended up in the cartonnage — a shell-like coffin of paper and glue — used for mummies.

It lay in the ground for 1,800 years. Then, in the early 1900s, local excavators sold the cartonnage to an Egyptian collector, who owned it for about 50 years.

Brought to Europe, it ended up in the hands of a German collector, who managed to recover the fragments of the Tolemaic papyrus.

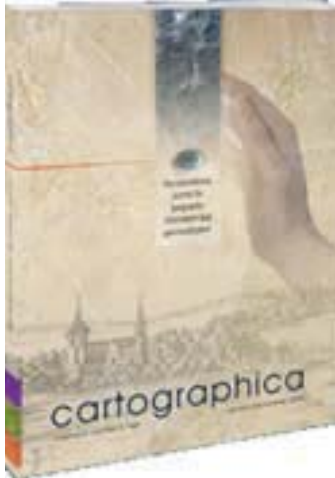
In 2004 the papyrus was bought by an Italian foundation for \$3.4 million and sent to a restoration lab where infrared and high-definition image processing revealed more text.

This was possible because at some point somebody, perhaps the artist himself, accidentally wet the papyrus: the ink was then stamped upside down on the other side of the parchment.

"It is a unique papyrus for a unique exhibition. It certainly helps add to our knowledge of the classic world," Salvatore Settis, professor of art history and classical archaeology at the Scuola Normale Superiore, Pisa, said.

The papyrus of Artemidorus will go on display at Turin's Palazzo Bricherasio starting on Wednesday for three months.

CARTOGRAPHICA ... WHAT'S COMING IN THE NEXT ISSUE?



Here's what will appear in Volume 41, Number 1, Spring 2006. This is a Special Issue on Cybercartography with D.R. Fraser Taylor and Sébastien Caquard of Carleton University in Ottawa as guest editors. We, the editors, believe this issue will be of great interest to our readers as it presents a new paradigm for mapping. It is currently in page proof and should be in the mail on schedule.

Table of Contents

Introduction. "Cybercartography: Maps and Mapping in the Information Era."

"Geo-cybernetics: A New Avenue of Research in Geomatics." María del Carmen Reyes Guerrero, D.R. Fraser Taylor, Elvia Martínez Viveros, and Fernando López Caloca.

"Understanding through Structure: The Challenges of Information and Navigation Architecture in Cybercartography." Avi Parush, Peter Pulsifer, Karen Philp, and Greg Dunn.

"Live Hypernarrative and Cybercartography You Are Here, Now." Brian Greenspan, Claire Dormann, Sébastien Caquard, Chris Eaket, and Robert Biddle.

"Role-playing Games in Cybercartography: Multiple Perspectives and Critical Thinking." Claire Dormann, Sébastien Caquard, Birgit A. Woods, and Robert Biddle.

"Designing Interactive Sound Maps Using Scalable Vector Graphics." Glenn Brauen.

"Scented Cybercartography: Exploring Possibilities." Tracey P. Lauriault and Gitte Lindgaard.

An excerpt from the Introduction: "Cybercartography has the capacity to combine expertise from different disciplines, to more fully understand the user, and to use different media to provide a diversified and engaging experience of the world. Some individual elements of Cybercartography have appeared in the cartographic literature but a major contribution of the new paradigm is its holistic and integrative nature and its combination of both qualitative and quantitative elements."

This is a don't miss issue!

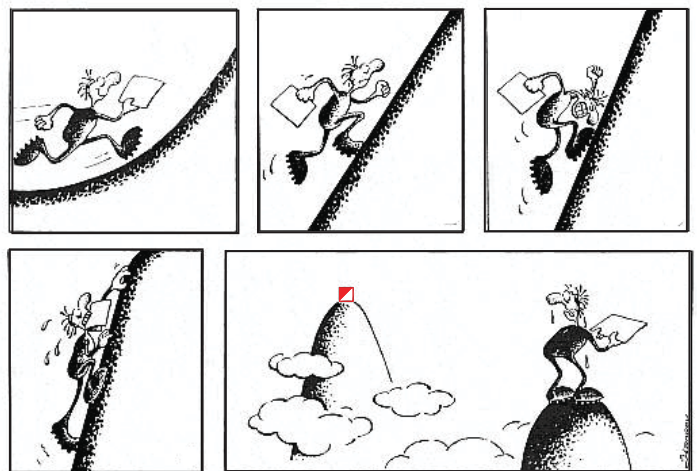
ORIENTEERING IN OTTAWA JUNE 18TH, 2006

For those who are eagerly anticipating the Tenth Nearly-Annual CCA Orienteering Event, please note that it is scheduled on SUNDAY June 18th, in the afternoon, just before the IceBreaker. Unless you are registering for a Sunday workshop, this may mean you will need to arrive in Ottawa a little earlier than anticipated. It will take place around the University of Ottawa, where many of us will be staying, so you can use it as an orientation to local surroundings as well a little exercise after their journey.

If you indicate your interest on the conference registration form, I can contact you nearer the date with details.

By the way, the last time we 'orienteered' in Ottawa, in 1999, we set the standard for the ICA. Check p.9 of their December newsletter, where it is conceded that they have now had three more competitions, in China (2001), South Africa (2003) and Spain (2005).

Diana Hocking



CARTOGRAPHIC HUMOUR

Q. What kind of sunglasses do physical relief maps wear?

A. **Hypsometric tints.**

Q. Why couldn't Mark McGwire reach first after hitting his 62nd home run?

A. **He didn't have a base map.**

Q. What do you call a map of outhouses in the woods?

A. **A shaded relief map.**

Q. How can you tell if a map was made by a troll?

A. **It is in the gnome-onic (gnomonic) projection.**

Q. What kind of maps do spiders make?

A. **Web-based maps.**

Q. What do you call the queue of foreign couples outside the Hard Rock Cafe?

A. **The international date line.**

Q. What do you call a map guide to Alcatraz?

A. **A con-tour map.**

Q. Why didn't the map have any meridians?

A. **It was a map of a parallel universe.**

Q. What is the tidiest element on a map?

A. **The neatline.**

Q. Why did the cartographer put a band-aid on the map?

A. **Because it had a bleeding edge.**

Q. What do you get when you cross a cowboy with a mapmaker?

A. **A cow-tographer.**

Q. Why didn't true north date magnetic north?

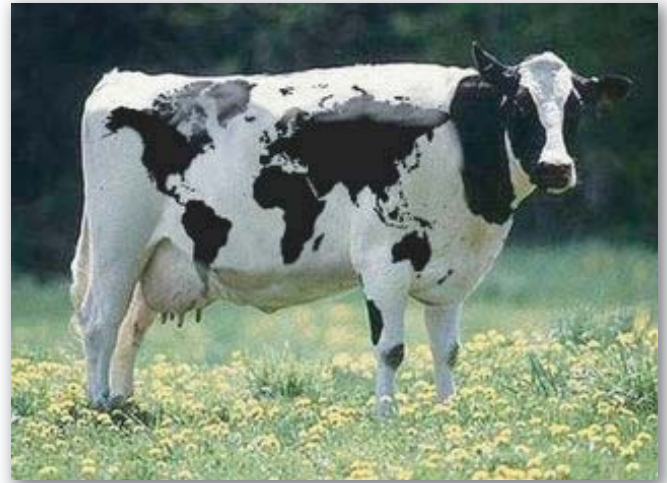
A. **She didn't like his bearing.**

Q. What did the mapmaker send his sweetheart on Valentine's Day?

A. **A dozen compass roses.**

Q. Why did the dot go to college?

A. **Because it wanted to be a graduated symbol.**



The geography teacher was lecturing on map reading. After explaining about latitude, longitude, degrees, minutes, and seconds the teacher asked, "Suppose I asked you to meet me for lunch at 23 degrees, 4 minutes, 30 seconds north latitude and 45 degrees, 15 minutes, zero seconds east longitude...?" After a confused silence, a voice volunteered, "I guess you'd be eating alone."

2006 Student Awards Competition Concours pour le Prix 2006

President's Prize:

The long-standing President's Prize recognizes excellence in student map design and production and is open to all post-secondary students who have completed and produced a cartographic project in the preceding school year. The 2006 President's Prize Competition will consist of six prizes of \$100, three for entries from college-level or CEGEP students, and three for entries from university-level undergraduate students in the following categories:

1. Canadian Issues: communicating environmental, social, health, or political issues or relationships among these themes in a Canadian context.
2. Visualization Project: geovisualization in an electronic medium with individual interface design and interactivity.
3. À la Carte: a printed map or map series not appropriate in the Canadian Issues category. It may be, for example, a reference map, a travel or special-purpose wayfinding map, or a descriptive depiction of an area of special interest.

Best Student Paper:

An award of \$100 is given for the best student paper presented at the CCA annual conference. 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. All student papers included in the program at the conference are automatically entered for this competition.

Norman Nicholson Scholarship

The Norman Nicholson Scholarship is awarded annually at the discretion of the CCA Awards Committee to a student pursuing advanced studies in cartography. The award consists of a certificate and a cheque for \$500. The purpose of the Norman Nicholson Scholarship is to recognize and encourage exceptional student achievement and ability in any aspect of cartography. The student will be in the final year of a community college or CEGEP program in cartography, or entering the final year of an undergraduate honours program with a concentration in cartography, or be accepted into or enrolled in a graduate program with a concentration in cartography. Applications must be received by March 15.

Carto-Québec Prize/ Prix Carto-Québec

The CCA is pleased to announce the second offering of the Carto-Québec Prize, a special annual competition for the best student-authored cartographic product created in French. The award has been established through a gift from the former Association Carto-Québec to promote and recognize excellence in map design. The competition is open to all post-secondary students in Canada who have completed and produced a cartographic project in the preceding school year. The Carto-Québec Prize will consist of two awards of \$500, one for entries from college-level or CEGEP students, and one for entries from university-level undergraduate students.

Cartographic projects will consist of a map or a map series forming a coherent whole and may be submitted in any finished form (on paper or other medium). Entries submitted in electronic media, whether GIS or internet mapping applications, should not require specialized software for viewing. There are no restrictions on the size of the map project or subject but the project must have been completed and produced during the school year preceding the competition. All documents must be in French.

Entry Guidelines:

Cartographic projects will consist of a map or a map series forming a coherent whole. Entries submitted in an electronic medium for the Visualization Project should not require specialized software for viewing. There are no restrictions on size but the project must have been completed and produced during the school year preceding the competition.

Entries will be judged on the basis of creativity and overall effectiveness in communication as well as excellence in compilation, design, and layout.

Entries for 2006 are invited from all Canadian post-secondary students. All entries should be accompanied by an official entry form found on the website of the CCA (www.cca-acc.org), and be received no later than June 16, 2006 to the following address:

CCA 2006 Student Awards

c/o Diane Lacasse

GeoAccess Division

Natural Resources Canada

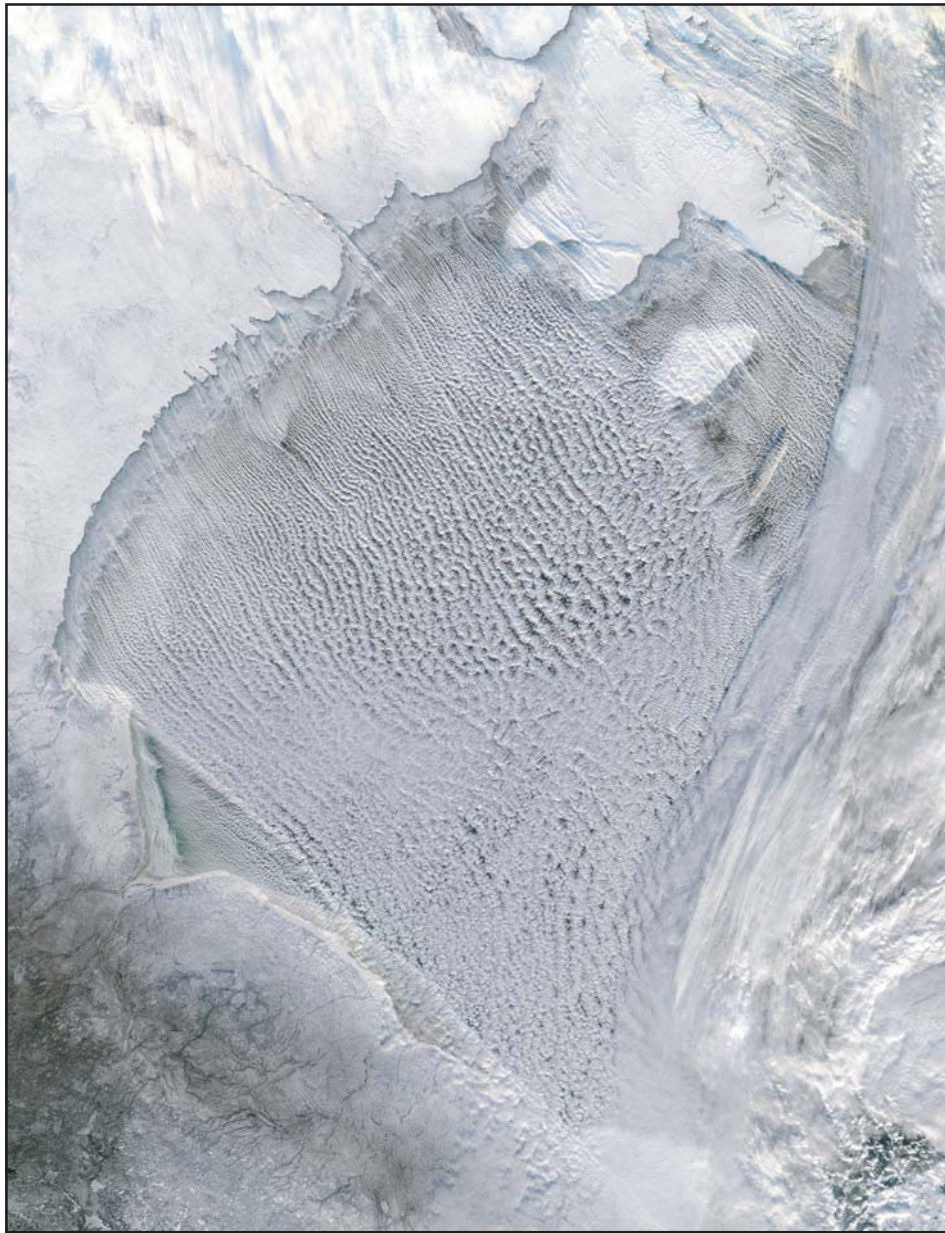
615, Booth St. room 650

Ottawa, ON, CANADA

K1A 0E9

Version français peut être
retrouvée au site internet:
www.cca-acc.org/awards

WHERE IS THIS... WHAT IS THIS?



NASA image courtesy Jeff Schmaltz, [MODIS Land Rapid Response Team](#) at NASA GSFC

The Moderate Resolution Imaging Spectroradiometer (MODIS) flying onboard the Terra satellite captured this Canadian image on November 21, 2005.

Where is this, what is this? Send your answers to the editors (Barb or Lori, address is on the back page) by May 19th, 2006.

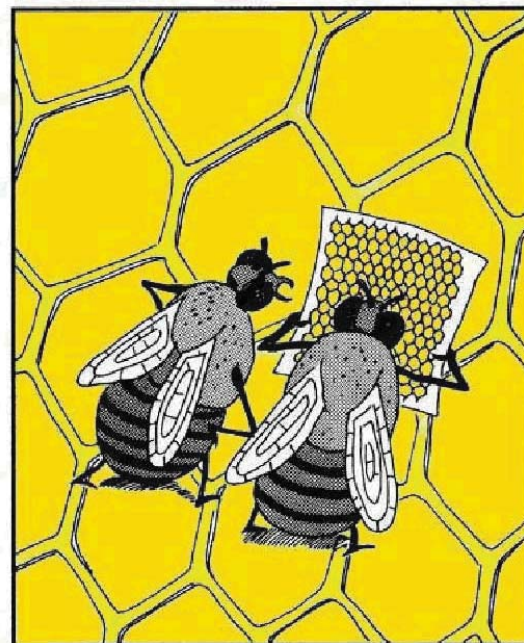
A winner will be drawn at random from all the correct entries and will receive a newly designed CCA t-shirt.



Correction

In Volume 60, Winter 2005, the list of past presidents was incorrectly printed. This following is a corrected list.

Year	President	Affiliation (University)	Conference (joint)
2005-06	Rick Gray	Ridgetown College	Ottawa, ON
2004-05	Christine Earl	Carleton	St.John's, NF
2002-04	Claire Gosson	NRCan	Victoria, BC
2000-02	Patricia Chalk (now Connors)	Western Ontario	Waterloo, ON
1999-00	Michel Fournier	Cartologique	Montréal, QC
1998-99	Roger Wheate	UNBC	Edmonton, AB (ACMLA)
1997-98	Brian Klinkenberg	UBC	Ottawa, ON (ICA)
1996-97	Gary McManus	Memorial	London, ON (ACMLA)
1995-96	Janet Mersey	Guelph	St.John's, NF
1994-95	Marcia Faurer	Winnipeg	Toronto, ON
1993-94	Alun Hughes	Brock	Calgary, AB
1992-93	Majella Gauthier	Chicoutimi	Ottawa, ON (NACIS)
1991-92	Peter Keller	Victoria	Winnipeg, MB
1990-91	Claudette LeBlanc	NS LRIS	Montreal (Carto-Québec)
1989-90	Jean Carriere	UQAM	St.Catharines/Bufalo
1988-89	Norman Drummond	McGill	Victoria, BC (PICS)
1987-88	Chris Gold	Memorial	Halifax, NS (CISM)
1986-87	Malcolm Brown	Manitoba	York, ON
1985-86	Clifford H. Wood	Memorial	Québec (Carto-Québec)
1984-85	Michel Rheault	Sherbrooke	Vancouver, BC
1983-84	David Douglas	Ottawa	Fredericton, NB
1982-83	Michael Coulson	Calgary	London, ON
1981-82	Henry Castner	Queen's	Calgary, AB
1980-81	Ray Boyle	Saskatchewan	Lindsay, ON
1979-80	Fraser Taylor	Carleton	St.John's, NF
1978-79	Fraser Taylor	Carleton	Montréal, QC
1977-78	Leonard Guelke	Waterloo	York, ON
1976-77	Gerald McGrath	Queen's	Vancouver, BC
1975-76	Janusz Klawe	Alberta	Ottawa, ON
			Kingston, ON



So where are we exactly?

Note: All Presidents worked at Universities except C.LeBlanc (Provincial Government), M.Fournier (private company) and C.Gosson (Federal Government).

The CCA was founded in 1975 to promote interest and education in maps and cartographic data and to provide for the exchange of ideas and information, at the regional, national and international levels, via meetings and publications. Membership in The Canadian Cartographic Association is open to all individuals, and public and private institutions which have an interest in maps and the aims and objectives of the Association. Membership is available in the following categories at the annual rates listed below (\$CND):

Regular	-----	\$ 90
Student	-----	\$ 45
Institutional	-----	\$ 120
Corporate	-----	\$ 200
Family	-----	\$ 110
Retired	-----	\$ 45

To cover mailing costs, US and overseas residents please add \$10 CDN to the applicable membership category.

Members receive the quarterly journal *Cartographica*, published by the University of Toronto Press and endorsed as the journal of the CCA; four issues of *Cartouche*, the CCA newsletter and the International Cartographic Association Newsletter. The Association also provides an annual conference to promote discourse and access to a range of expertise through interest groups and regional contacts.

For further information about membership qualifications and benefits contact the Secretariat of the CCA or any executive member or visit www.cca-acc.org.

L'ACC a été créé en 1975 pour promouvoir les intérêts et l'enseignement des cartes et de la cartographie ainsi que pour permettre l'échange d'idées, d'informations tant sur les plans régionaux que nationaux et ce via des bulletins et des conférences. L'adhésion à l'Association est ouverte à tous les individus et institutions (privées et publiques) qui Associa-sont intéressés par les cartes et par les buts et objectifs de l'Association. Vous pouvez adhérer dans les catégories suivantes selon les taux indiqués (cdn\$) dans la liste ci-dessous: (\$CND):

Régulier	-----	\$ 90
Étudiant	-----	\$ 45
Institutionnel	-----	\$ 120
Société	-----	\$ 200
Famille	-----	\$ 110
Retraité	-----	\$ 45

Un montant de 10\$ (cdn\$) est ajouté pour couvrir les frais postaux aux membres américains (EU) et de 10\$ (cdn\$) pour les membres outremer.

Les membres reçoivent la monographie trimestrielle *Cartographica*, publiée par le University Toronto Press; 4 numéros du bulletin *Cartouche* et le bulletin l'Association cartographique internationale (ACI). L'Association organise également une rencontre annuelle lors de conférences qui donnent accès à l'expertise issue des groupes d'intérêts et des diverses régions du pays.

Pour plus d'information concernant l'adhésion et les bénéfices de l'Association, contactez le Secrétariat de l'ACC ou, visitez notre site Internet www.cca-acc.org

The Canadian Cartographic Association

L'Association canadienne de cartographie

visit us on the web at:
www.cca-acc.org

CCA Executive / Exécutif de l'ACC:

President / Présidente:

Rick Gray
Ridgetown College
University of Guelph
Ridgetown, ON N0P 2C0
E-mail/Courriel: RGRAY@ridgetownc.uoguelph.ca

Vice-President / Vice-Président:

Clifford Wood
66 Meredith Dr.
P.O. Box 225
Ilderton, ON
N0M 2A0
E-mail/Courriel: cliffordwood_91@sympatico.ca

Past-President / Présidente-sortante:

Christine Earl
Dept. of Geography & Environmental Studies
Carleton University
1125 Colonel By Drive
Ottawa, ON K1S 5B6
E-mail/Courriel: cearl@ccs.carleton.ca

Secretary / Secrétaire:

Diana Hocking,
Canadian Cartographic Association
C/o Department of Geography
University of Victoria
P O Box 3050, Stn CSC
Victoria, BC, V8W 3P5
E-mail/Courriel: dhocking@uvic.ca

Treasurer / Trésorier:

John Fowler
Department of Geography
University of Victoria
PO Box 3050 STN CSC
Victoria, BC V8W 3P5
E-mail/Courriel: jfowler@uvic.ca

Interest Group Chairs / Présidents des groupes d'intérêt:

Analytical Cartography and GIS /
Cartographie analytique et SIG:
Andrew Millward
Department of Natural Resources
Cornell University
206 Fernow Hall
Ithaca, NY 14852 USA
E-mail/Courriel: aam33@cornell.edu

Cartographic Education / Éducation cartographique:

Ian J. O'Connell
Department of Geography
University of Victoria
PO Box 3050 STN CSC
Victoria BC V8W 3P5
E-mail/Courriel: ioconnell@office.uvic.ca

Map Use and Design /

Conception et utilisation des cartes:
Sally Hermansen
Department of Geography
Univ. of British Columbia
1984 West Mall
Vancouver, BC V6T 1Z2
E-mail/Courriel: sallyh@geog.ubc.ca

Map Production Technology / Technologie de production cartographique:

Lori King
Timmins Geomatics Service Centre
Ontario Ministry of Natural Resources
1270 Hwy 101 East, P.O. Bag 3020
South Porcupine, ON P0N 1C0
E-mail/Courriel: lori.king@mnr.gov.on.ca

History of Cartography / Histoire de la cartographie:

David Raymond
Centre of Geographic Sciences (COGS)
50 Elliott Road
Lawrencetown, NS B0S 1M0
E-mail/Courriel: david.raymond@nsc.ca

Appointees / les personnes nommées

Membership Coordinator / Coordonnateur des adhésions

Clint Loveman
Environmental Systems Research Institute Inc.
380 New York Street,
Redlands, CA 92373-8100, USA.
E-mail/Courriel: cloveman@esri.com

Cartographica (submissions/proposition d'articles):

C. Peter Keller (Co-editor)
Cartographica
C/o Department of Geography
University of Victoria
P.O. Box 3050
Victoria, BC V8W 3P5
E-mail/Courriel: carto@uvic.ca

CNC Chair/Présidente CNC

Janet Mersey
University of Guelph
Department of Geography
Guelph, Ontario Canada N1G 2W1
E-mail/Courriel: jmersey@uoguelph.ca

CCA Representative on the CNC/ Déléguée de l'ACC au Comité national canadien:

Carolyn Weiss
Statistics Canada, Geography Division
Ottawa, ON, K1A 0T6
E-mail/Courriel: weiscar@statcan.ca

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

CARTOUCHE est publié trimestriellement par l'Association canadienne de cartographie. Tous les membres peuvent soumettre des articles à l'éditeur du bulletin (voir coordonnées ci-dessous). Les articles et annonces soumis sont sujets à l'approbation de la rédaction. L'éditeur du bulletin ne peut être tenu responsable pour des erreurs de compilation ou la perte d'article. Des efforts particuliers sont déployés pour éviter de tels problèmes. Les opinions exprimées dans le cadre des éditoriaux, des articles et des lettres publiés dans le bulletin, ne reflètent pas nécessairement celles de l'Association canadienne de cartographie. L'Association canadienne de cartographie remercie particulièrement le Conseil de recherches en sciences humaines du Canada pour son apport financier.

ISSN 1183-2045

Cartouche Editorial team

Barb Duffin
Abitibi Consolidated Company of Canada
1 Park St. Iroquois Falls, ON. P0K 1E0
Phone/Tél: (705) 258-3931 ext. 4253
E-mail/Courriel: barb_duffin@abicon.com

Lori King
Timmins Geomatics Service Centre
Ontario Ministry of Natural Resources
1270 Hwy 101 East, P.O. Bag 3020
South Porcupine, ON P0N 1C0
Phone/Tél: (705) 235-1244
E-mail/Courriel: lori.king@mnr.gov.on.ca