Cartouche

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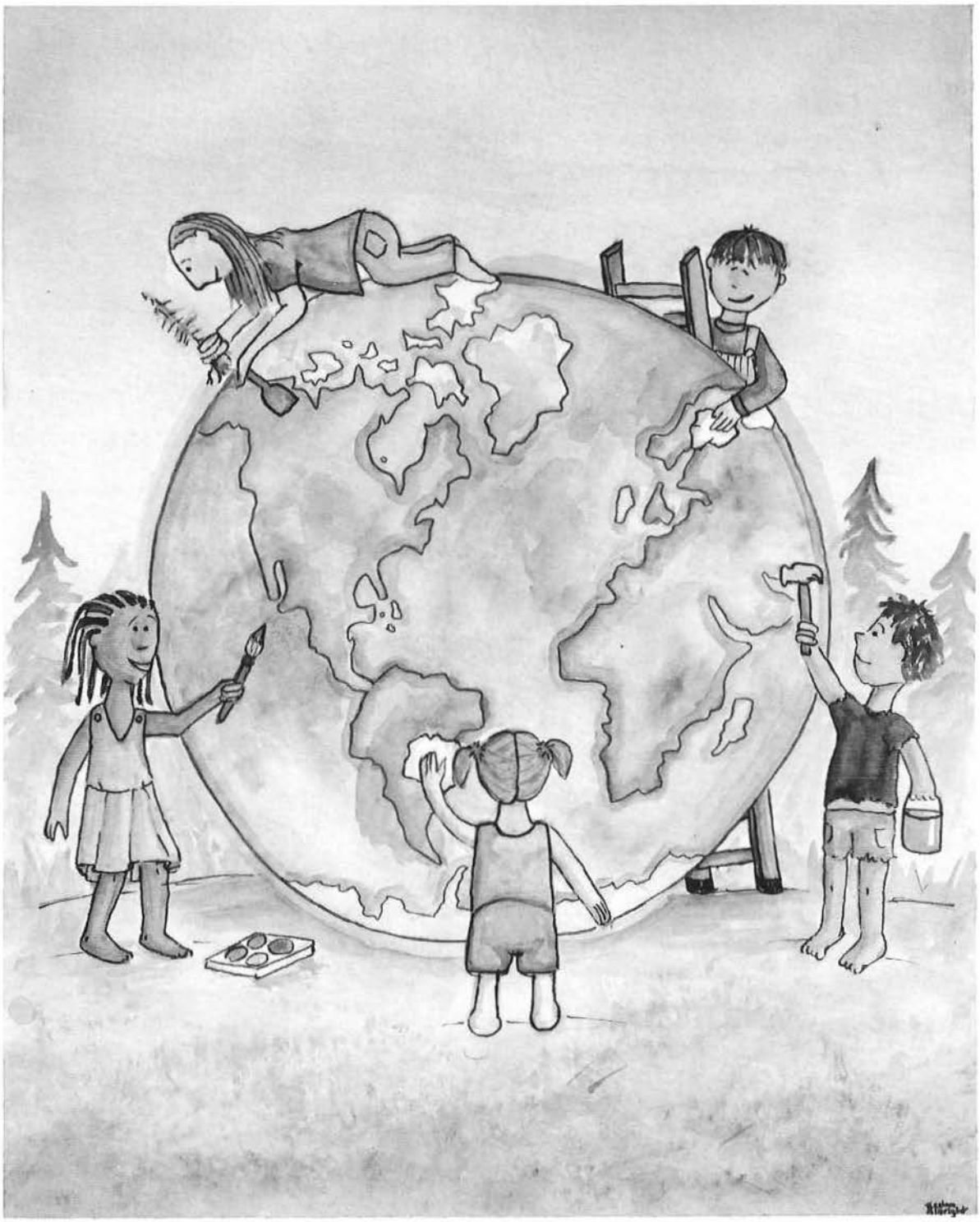

Cartouche is published quarterly by the Canadian Cartographic Association. Members are welcome to submit articles for publication. Articles and notices submitted for publication are subject to editorial approval. Please address your submissions to the editor. All other articles will appear in the language 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.

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About the cover...

This issue's cover is titled "Rebuilding Our World" was created by Keelan Albright, Age 13. Keelan is a student at Bishop Pinkham Junior High School in Calgary, Alberta. It was chosen to represent Canada at the 2003 International Cartographic Association's *Barbara Petchenik Childrens World Map Competition*, held in Durban. The image on the cover is a reduction of the original hand coloured map.

Editor's desktop...

Another year is over. It seems like a lifetime since the events of the new millennium. I am happy to report that for this year 2003, I have managed to produce the four required issues. Albeit I had to cram them in a little bit at the end. I'm sure my contributors were cursing under their breath at my compressed deadlines. I must also note that the issues kept getting shorter. This issue is only 12 pages. I am hoping we can do better than that in the new year.

Below, I have been so bold as to publish my proposed production schedule. You may indeed think I am crazy to do this, but I figure this may keep me honest.

Proposed Publishing Dates for 2004

Issue	Deadline	Mail out
#53 (Spring)	Jan. 15	Feb. 15
#54 (Summer)	Apr. 15	May 15
#55 (Fall)	Jul. 15	Aug. 15
#56 (Winter)	Oct. 15	Nov. 15

Once again, I call on any members of the Cartographic community or anyone with an interest in maps to submit items to *Cartouche*. Topics can include anything which relates to any aspect of mapping and would be of interest to our membership. Of course preferred topics relate to Canadian Cartography but we have a wide cross section of members with many varied interests.

I want to THANK YOU all for your support and wish you and yours a wonderful new year.

Gary E. McManus

Inside this issue / *Sommaire....*

Paper Road Maps Still the Best

In an article for *AutoWeek* (www.autoweek.com) Steve Thompson compared the Garmin StreetPiolt III, a portable navigation system that can be moved from car to car against OEM-installed systems. He evaluated the Garmin product (which retails for about $1000USD but has a street price of about $650USD) while on a 7,500 mile trip. Thompson sited the usual user manual and interface problems as well as a few inaccurate or incomplete map data sets as deterrents to getting you where you want to go. He felt that there was no significant difference in performance between the system tested and a majority of in-car navigation devices he has used. However in the end he concluded: "Despite their drawbacks, reliable paper maps are still my choice."

Vice-President's message/ mot du vice-Président

Christine Earl
Carleton University

Reflections

One of my primary responsibilities as Vice-President of the Canadian Cartographic Association is promotion of the Association together with the recruitment of new members. I am following in the footsteps of so many dedicated members who have held this position and tried to address this task that it is difficult to think of new ways of doing it. In thinking about the promotion of the CCA, however, I find myself reflecting on why I became a member, why I renew my membership every year and why I accepted the invitation to join the Executive when the Chair of the Nominations Committee called me last February. Answers to these questions are contained in the list of benefits which membership in the CCA confers:

- subscriptions to *Cartographica* and *Cartouche*, publications of high quality and interest, and an annual conference for networking and learning
- a community of support and a voice for those professionally engaged with maps and mapping in Canada
- a valuable network of experience and shared interest for anyone working in the cartographic/GIScience field whether researching, designing, developing, marketing, teaching, or learning

One of the things which is most appealing about the CCA is the diversity of its membership because it is an organization promoting all aspects of cartography, and welcomes anyone with any sort of interest in maps. This makes it both more difficult to promote – too general for some potential members – and easier – there is potentially a wide constituency as we welcome many types of expertise and points of view.

CCA members in all sorts of work places, I ask you to talk about the Association, tell people why you belong, tell them how welcome they would be as members, and tell them how to find out information about it. The easiest way to do this is to point to the website (*www.cca-acc.org*). New members are an essential renewal of the Association, keep it dynamic and keep it relevant. Don't doubt the importance of the role you can play. Every little bit helps.

New Atlas

This past summer, a new edition of the Penguin *State of the World Atlas* by Dan Smith was published. This edition is the seventh.

This atlas is small format (7.5 x 9.5 in.) and soft-cover and it focuses on political, social, and economic trends using colourful maps with appealingly mimetic symbol design and imaginative graphical depictions of data. For example, a bar graph of percentage of population for whom there are more than 5 psychiatric beds per 100,000 people is shown on the vertical bars of a drawing of a hospital bed.

The Atlas uses cartograms as well as a projected world base to show everything from Distribution of Wealth to the Law of the Sea. Many of the maps use hue progressions to show quantitative change and some work well given value and intensity variations as well. Some of the maps do not use colour progression effectively, however, with the middle class occasionally a yellow or neutral colour or no apparent order in the selection of purples, browns, and blues.

Despite these criticisms, the *State of the World Atlas* is worth browsing for its uniqueness and its distillation of complex and controversial data. It makes these data accessible through its simple but imaginative cartographic designs. The data are documented well and appear in tables at the end of the Atlas so that readers need not accept the interpretations exhibited by the maps.

Geographia

Most cartographers know that the practice of map projection upon which modern mapping is based dates back to the 2nd century A.D. and the Greek astronomer Claudius Ptolemy. Ptolemy described several projections in his monumental *Geographia*, a work which was lost to knowledge in medieval Europe and rediscovered in the early fifteenth century by a group of Florentine scholars. It was soon translated into Latin and the demand for copies was so strong that a scriptorium was established in Florence just for copying the *Geographia*.

It has recently been reported (*Nature*, Vol. 423, 5 June 2003, p. 588) that a copy of the *Geographia* in the original Greek exists in the Topkapi Palace Museum in Istanbul and the pages of text and maps are being studied and annotated by a team from the University of Bern, Switzerland, led by philologist Florian Mittenhuber. It is possibly the oldest extant copy of what was the most important geographical text of the ancient world. Most intriguing is the report that they have found differences between this Greek text and the Latin translation which became current in the fifteenth century, was standard in Renaissance Europe, and served as a foundation for the voyages of discovery. I, for one, will be watching for further news about this fascinating discovery.

The Business of Cartography: A Survey

Steve Spindler

Prior to the North American Cartographic Information Society's practical cartography day, I put a survey on-line at bikemap.com/cartographersurvey. The survey was intended to provide feedback that could be used in a round table discussion at the NACIS Conference, and so the questions were somewhat open ended.

Over a ten day period, 38 people responded. Of those who responded, eleven are self-employed, ten work for government, and seven are employed by cartography firms. Nine fit into the other category, which includes non-profits organizations and educational institutions.

In response to what is most important when making a map, quality, deadlines, efficiency, and client satisfaction seem to be a common response. Some respondents mentioned the importance of enjoying their work, learning about the areas being mapped, and teaching. At different times of the year, priorities will vary for some. For instance, at one point, the focus will be on GIS and database development. During another time, the focus is on map design. Profit was also mentioned as a priority.

The business models were split into three categories. The bulk of the respondents have clients or a combination of clients and retail. The value of selling retail maps came up in conversations at the conference. Potential clients can learn about the cartographers via the retail products. Only four respondents focus strictly on retail, and one mentioned that having many titles seems key to success in retail. Others mentioned that they are involved in membership organizations or developing maps for use within an organization.

While some cartographers work alone, most work with a combination of team members. Sometimes there is a lead cartographer who distributes work to other cartographers. Project teams might include an editor, authors, GIS technicians, designers, planners, outside contractors, students, researchers, and pre-press people.

As a cartographer, not all of one's time is necessarily spent developing maps. Below is a summary of the hours per day each cartographer works.

Hours Worked	Number of Respondents
1	1
2	2
3	1
4	5
5	4
6	8
7	1
8	6
9	0
10	1
>10	1

Respondents wrote a lot about how they handle pricing. Charging by the hour wasn't generally preferable. One challenge of trying to review hourly rates is that two people will take different amounts of time to get the map done. Generally, when a client needs a firm quote, one method involves estimating the number of hours a project will take, licensing, mark up of out-of-pocket expenses, hidden costs for new clients, salaries, and overhead. Some utilize salary surveys from AIGA or the Graphic Designers of Canada.

One justification for developing a price for a project rather than relying on an hourly rate is that lower wages may be justified to help develop or refine a map that will be resold later. Other justifications for developing a price for a project are so that the cartographer can charge enough to make the maps as nice as possible or set a charge based on the perceived value of the map.

Some clients, such as magazines, will often pay based on the size of the artwork. This can be very little.

So, what is a fare wage for employees? The answers were all over the place. Salary depends on experience, cost of living in an area, and other factors. The responses were as low as $10-12/hour for students and as high as $70,000. Discussions about this seemed to put salaries in the $40,000-$65,000 range for a cartographer with a fair amount of experience. One respondent wrote, "I'm shocked at how little cartographers charge." Some larger mapping firms are outsourcing work to India at rates as low as $7.50 an hour.

Subcontractors are important to many cartographers. Subcontractors are used to meet a time line or to provide skills not available in-house. Even with the higher hourly rate, it is usually advantageous to outsource work. Generally a project budget is presented, and the subcontractors determine if they can work with that budget. Rates mentioned for subcontractors were mostly between $18 and $45 an hour.

Not all cartographers use contracts. When they are used, they outline project specifications, printing, deadlines, terms of payment, licensing or ownership, project hours, and are used for making sure that the expectations are clear. In many cases these will be email agreements. Some cartographers prefer handshake or simple emails of understanding, and some seldom use contracts.

There were few responses to the question of how copyrights are dealt with.

In general, more rights means more costs. Sometimes clients want the rights, and an understanding is met. Sometimes there is a joint copyright.

Projects can be classified into large projects, moderate sized projects, small projects and map updates. Or, they could be broken down into long term and short term projects. The number of projects varies pretty dramatically, but I think this is partly due to the size firm. One respondent wrote that he would rather work with a few organizations on long projects or several small projects.

Project types that cartographers mentioned they are working on include travel guides, maps for educational uses, maps for the scientific community, planning maps, or "no particular focus". Several respondents wrote that they work in particular regions: County, statewide, mostly local, mostly regional.

In terms of marketing, word of mouth goes a long way. Many maps contain a logo or contact information. Other marketing includes trade shows, internet presence, working in a local community, advertising in journals, participating in professional organizations and responding to requests for proposals.

Competition hasn't been much of an issue for cartographers who responded. There were comments such as, "Competition hasn't been much of an issue", or "We often refer jobs". Competitors mentioned include local publishers in the same region, similar sized cartography firms, firms that lower the bar on maps in general by providing inferior quality at lower prices, other institutions, state agencies, and GIS telecommunications data providers. The "Lack of love for maps" was also sited as a response to competition.

Maybe more important that the competition was the sentiment that providing a quality service promptly leads to more work. And letting maps speak for themselves leads to more work.

The final question of the survey asked cartographers where they turn to for inspiration. Responses included the following: Colleagues, manuals, NACIS conferences, Canadian Cartographic Association, Geospatial Solutions Magazine, Map-Mac, ERIS discussion forums, Cartographers who lead by example and share their knowledge, Atlases like the Swiss Atlas or the Atlas of Oregon, Reliefshading.com, adobe.com, "Album of Projections", "Elements of Cartography", "Thematic Cartography", the Tufte book collection, National Geographic, dreaming, and experience.

I want to thank everyone who participated in the survey.

Author's email: *steve@bikemap.com*

Directions magazine

Mountain Cartography Map Review

by Roger Wheate and Nancy Alexander, UNBC

The British Columbia and Canadian Rockies Railway Map Guide (2003)

Way of the Rail Publishing, Vancouver.
ISBN: 0-9730897-0-9 $21.95 (US14.95)

Author: Chris Hanus and 8 others; details and color maps at: www.wayoftherail.com

This award-winning guide features a visually striking topographic rendition of the western mountains, via the integration of GIS, 3D visualisation and graphic design software. The main side depicts the passenger railway lines between British Columbia and Alberta and the reverse focuses on northern BC between Prince Rupert and Prince George, with two panels devoted to mileage charts along the rail lines. The 32 x 19" map is sold in a sturdy hardcopy foldout format measuring 9.5 x 4", easily handled by the map-unfolding challenged.

Cartographically, the most intriguing component is the terrain representation which uses the free 'GTOPO30' elevation data (1km resolution) and features a hillshaded oblique perspective combined with hypsometric tints, in natural greens through yellows to browns. The illumination is from the east, and the perspective resembles Tanaka's orthographic relief method, described using GIS software by Kennelly and Kimerling (2002). This approach pits enhanced visual appeal against some topographic concealment in steep terrain compared to conventional hillshading (see website).

The website gives further information on the map guide's construction involving the combination of Arc/Info, World Construction Set and Photoshop software, with final layout in Adobe Illustrator. Minor criticisms concern the ancillary information: the neatline is divided in a seemingly redundant one-inch grid numbered 1-19 vertically, and A-Z then A1-E1 horizontally (since it is 32" wide). The lack of a scale bar is perhaps justifiable given the mileage charts on one side, and the guide's function as a topological perspective.

It is a fine cartographic work, with sales already in the thousands, and this where railways are used more for freight than public transportation! Main roads and ferries are included to enable this attractive guide as a road map of western Canada for both tourists and trainspotters.

Patrick Kennelly, and John Kimerling, (2002) "Hillshading with Contours", Proceedings of the 4th ICA workshop on Mountain Cartography, Mt. Hood, Portland, OR, 2002.

www.karto.ethz.ch/ica-cmc/mt-hood/proceedings.html

Geography Addict?

Do you have geography addiction. Feed your craving or test your knowledge at *www.geosense.net*. GeoSense is an on-line, one-two player geography based game. You can compete on-line against either the program or another person. The objective is to place a city on a world/continent map as quickly and accurately as you can. This site has no ads, banners or fees. Although this site is really designed as a teaching aid for young students and geography teachers, it may fulfil your competitive desires.

Andrew Millward
University of Waterloo

An Origin With Dubious Motivation: 'UNLAYERING' The history of GIS

Reflections on GIS Day 2003 Held at Cornell University

It has never been entirely clear to me who, or what organization, was the true pioneer of the concepts underlying what we now call geographic information systems (GIS). My nationalistic pride, until recently, had me wanting to believe that its beginnings were connected to the Canadian GIS (CGIS) with which credit has been attributed to Dr. Roger Tomlinson for his work on the Canadian Land Inventory System in the 1960s. While Tomlinson's title 'Father of GIS' may be correct from the standpoint that his group was the first to incorporate map overlay into a digital environment, a feat that was showcased in Montreal's EXPO '67, it seems that he cannot rightfully be considered 'Father of Overlay'. In fact, as Dr. John Cloud aptly argued in a recent GIS Day seminar held at Cornell University, there may actually be an 'Uncle of Overlay'. Did I hear the name Sam....?

Professor Emeritus John Cloud of the Peace Studies Department at Cornell University, now a geographer with the National Oceanic and Atmospheric Administration (NOAA), delivered a provocative lecture for GIS Day 2003 that was both enlightening and shadowy, stimulating and depressing. It was a lecture of layered meanings that revealed a history of overlaid secrets. Could GIS, arguably one of the last decade's globally-transformative technologies, have a historical root in racism and inequality? Was the concept of the layered map a politically motivated tool of oppression?

Dr. Cloud began his discussion my stating that, "Pre-digital applications of integration by overlay remain the *terra incognita* of 20th century geography." He argued that the first recorded use of map overlay, and hence the beginnings of GIS, date back to the American Urban Housing Crisis of the 1930s. During this period, the Roosevelt Administration created the Federal Bureau of Commerce and the Federal Housing Administration, one of the largest and most significant U.S. national programs of the time. It was responsible for a program called Real Property Surveys, which Cloud believes may have been the pioneer of the analytical overlay. Conceived of as an approach to geographically locate the poor and those in need of improvement housing, map overlay also permitted the identification of a subset of the population that was the most economically disadvantaged.

Real Property Surveys, and their analyses, were intended to: (1) assess the nature and extent of the housing crisis in the Great Depression, (2) persuade private capital to re-enter the housing mortgage industry, which had collapsed, and (3) incite construction of new housing that would increase employment for workers in the building trades. These goals were accomplished beginning in 1932 with a unit-by-unit assessment of housing and the people inhabiting the units for 64 American cities; this was later expanded to 251 with cities in all states represented. This initiative employed tens of thousands of workers, and produced thousands of co-registered thematic maps used for exploratory data analysis. These maps permitted increasingly sophisticated (for the time) cartographic modelling.

The most extensive mapping applications were conducted as part of the Real Property Surveys and occurred in Richmond Virginia. With these data Homer Hoyt, a 1930s real estate historian, developed sophisticated methods of cartographic and statistical modeling that included the first documented systematic use of the overlay. Hoyt's work, which according to Cloud, was predicated on assisting and increasing the state of profoundly segregated housing in the city of Richmond. Urban Sector Theory, a conceptual model created by Hoyt, describes racial polarization as a function of socioeconomic stratification. This model, which evolved from Richmond housing map overlays, was important to the final extensions of "Jim Crow" segregation in the American South. In his talk Dr. Cloud stated that, "They [government or powerful political interests] could then use map layers to find the poorest neighbourhood and ream it out with a freeway because they [socioeconomically disadvantaged] won't make as much of a fuss as a wealthier neighbourhood."

The work of the Real Property Surveys and Hoyt represented technical pioneering in integration by overlay that would not be equaled for many decades. In conclusion, Dr. Cloud conveyed that although GIS is often heralded as wonderful and the technology of the future, it is a tool that can be used for good or for nefarious ends. Its origins may be morally dubious, but like so many technologies GIS has the ability to empower and bring justice to the oppressed and disadvantaged. To know where we are going with GIS, we need to know where we have come from. The layers of GIS history imparted by Dr. Cloud were informative and useful. Thank goodness for all of us that Hoyt and the Real Property Surveys personnel hadn't read Monmonier, or conceived of map algebra!

Geomatics Institute
AT FLEMING

Canadian Cartographic Association (CCA) Conference /
Association Canadienne de Cartographie (ACC)

CCA 2004 ACC

Geomatics—*A Cartographic Revolution*
Géomatiques—*Une Révolution Cartographique*

Tuesday, June 8 to Thursday, June 10, 2004
Du mardi, 8 juin au jeudi, 10 juin 2004
Lindsay, Ontario, Canada

Conference details/Détails de la conférence

Information is available at: / Information est disponsible sous:
www.geomaticsatfleming.ca/cca2004/index.htm

Program Overview / Vue d'ensemble du programme
Abstract Submission Details / Détails de soumission d'un résumé
Registration Details / Détails d'inscription
Workshop Details / Détails des ateliers
Accommodation / Hébergement

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Deadlines

- Organization of a special session, special illustrated paper session, or panel discussion: **March 1, 2004**
- Submission of a paper, illustrated paper or poster abstract: **March 1, 2004**
- **Registration:** starts **March 1, 2004**; early Registration until **April 23, 2004**
- **Accommodation:** book as early as possible. Accommodation at the College residences is limited.

Dates limites

- Organisation d'une séance spéciale, séance spéciale de communications illustrées ou panel de discussion: **1 mars 2004**
- Soumission d'une communication, d'une communication illustrée ou d'un résumé d'affiche: **1 mars 2004**
- **Inscription:** débute le **1 mars 2004**, pré-inscription jusqu'au **23 avril 2004**
- **Hébergement:** réservez le plus tôt possible. L'hébergement aux résidences du collège est limité.

hosted by the Geomatics Institute and Fleming College /
organisé par l'Institut de la géomatique du Collège Fleming

Fleming College
EXPERIENCE • SUCCESS

Paul Heersink
Ontario Ministry of Natural Resources

Adequate Maps

I have a son who is in grade three and is using maps in the classroom. He has to memorize the provinces and territories and their capitals. He came home with a blank map of Canada in which he had filled in the names and coloured the jurisdictions. Naturally, I looked at it with a critical cartographic eye and, of course, I found it wanting. I was not basing my judgement on his use of colour or his penmanship but the map itself - a simple, highly generalized, slightly askew photocopy taken from some resource book.

I knew that better maps were freely available. Did the teacher not know? Did the teacher not have time to look for something better? Did the teacher think the map was adequate for her purposes? Did the teacher not care?

Perhaps I'm a little harsh, I thought. I'm just being a picky cartographer. I've been accused of such before, suggesting possible improvements that could be made on maps created by GIS professionals. "It's just a working map," is often the response to such suggestions as if I shouldn't be too concerned with the output. "Well," as a co-worker likes to say, "that map ain't working."

It's my job to be concerned with the output. At least my GIS colleagues recognize that the maps they produce might not be up to the standards of cartographers. They know, intuitively or logically, that "cartographic" maps (for want of a better term) are in a slightly different class than maps that are simply GIS output. They know because they have seen the work of cartographers, they have heard us talk about the choice of fonts or colours, the layout, the text placement and all of the other seemingly nitpicking items that cartographers have at their disposal to make a map look better. They might think we are still nitpicking but they recognize that there is a time and a place for cartographic output and that such output is better left to trained cartographers.

There are many bad maps out there. I should restate that - there are many adequate maps out there. There are also some really good maps, and some really bad ones. Really, really bad maps are hard to find and are, strangely enough, real gems. Really bad maps are like watching a really bad movie - it is so bad that it is entertaining. I truly appreciate really bad maps because they make such fine examples of what not to do. Unfortunately there are still plenty of just adequate maps - maps that do the job but not very well. These maps are even more annoying than the really bad maps that occasionally pop up because they're not bad enough to be entertaining.

> *"The frustrating thing about adequate maps is that, with a tiny bit of effort and thought, they could be much better."*

The frustrating thing about adequate maps is that, with a tiny bit of effort and thought, they could be much better. Changing a colour, moving some text or choosing a different font type is sometimes all it takes to move a map from the standing of adequate to good. So little time and so little effort to do this and yet it is often not bothered with.

So it seems my son and his classmates are faced with an adequate map of Canada - adequate because it serves the purpose of indicating to the students the approximate shape of the country and its provinces and territories. What do they learn from this? That a squiggly line on the map is a symbolic representation indicating an undulating coastline? That shapes on a map are approximate? That it doesn't matter where text shows up on the map? That it is not the representation, or the actual map itself that matters but what the map is trying to show?

I haven't been inside a grade three classroom during class in 31 years but I suspect that cartography is not the main topic being instructed here. It is the learning of the provinces, territories and their capital cities that matter. Certainly, the teacher would want the students to recognize the shape of Canada for future purposes. But how that shape is represented seems a distant side-effect of the entire learning experience.

It doesn't need to be. My son's teacher, for instance, could easily have the students compare their photocopied, slightly askew map of Canada to a better one produced and freely available, for instance, from the National Atlas of Canada website. What would they notice? How are the two maps different? Why are they different? And so on. It would take all of 15 minutes. And they might learn to look at a map with a critical eye not only for its content but for its form.

Perhaps it should be our task as the national cartographic association to make cartographic resources available to teachers and students. The CCA website could easily host a page of links to suggested internet resources, sites that can offer age-appropriate maps and cartography learning tools (e.g., What is a projection? What makes a good map?). I challenge all of you to think about this and provide me with suggestions and comments. Such an endeavour could benefit both students and teachers and the CCA.

A Catalogue of Freely Accessible Canadian Spatial Data Sources on the Web

For what seems like years, people who were looking for freely accessible Canadian data could only look enviously at their neighbours to the south and wonder why Canada could follow the Americans lead in the free distribution of small scale base data. That is beginning to change. With some provinces making some of their base data available and the federal government's latest GeoBase offerings, Canadian, large scale data is becoming more accessible. It still has a ways to go to being as extensive and complete as the American data holdings available through USGS but it's getting better.

This is meant to be a short listing of freely available Canadian base data. There are many thematic datasets out on the web - a quick look at the GeoConnections page would show that - the focus of this article is base data, that is, road and transportation networks, drainage, elevation data, named points, and administrative boundaries. There are also many international datasets, usually at smaller scales, such as the Digital Chart of the World that include Canada but these are not included (with one exception). If I've missed other Canadian base data sources contact me at paperglyphs@sympatico.ca and I will include them in future lists.

GeoBase

www.geobase.ca/

The newest kid on the "free data" block. The current data holdings here are relatively slim and spotty but the data that does exist is well worth the visit: Landsat 7 ortho-rectified imagery (also available from Geogratis), 1:50,000 and 1:250,000 digital elevation models, National Road Network (available for 4 provinces and all 3 territories), geographic names and various geodetic control points. Select a dataset, enter your email address and wait for an email to arrive indicating that your request is ready to be downloaded. The site has promise and should be visited regularly for updates.

Geogratis

http://geogratis.cgdi.gc.ca

Perhaps not as new or flashy as GeoBase but still one of the best sites to visit for Canada-wide, freely accessible data. Base data is available at 1:1,000,000 for the entire country but there is a host of other more thematic data freely available, including the Canada Land Inventory at 1:50,000 and 1:250,000, Landsat 7 data (straight download here without having to fill out any forms; you just need to know the scene you're looking for), electoral and census boundaries, and GTOPO30 digital elevation data. There are also a number of great national datasets at smaller scales of 1:2,000,000 to 1:75,000,000.

Toporama

http://toporama.cits.rncan.gc.ca/

Looking for that NTS sheet you don't have? Visit the Toporama site. Simplified raster versions of both 1:50,000 and 1:250,000 NTS sheets in geographic format are available for download and use as well as Landsat ortho-imagery.

Canada 3D

www.cits.rncan.gc.ca/cit/servlet/CIT/site_id=01&page_id=1-005-002-005.html

Two national digital elevation models available in ASCII grid format. One has a 300 arc-second resolution, the other has a 30 arc-second resolution. Both are in geographic format. Similar digital elevation data at 30 arc-seconds is available from GTOPO30 at *http://edcdaac.usgs.gov/gtopo30/gtopo30.html*.

Shuttle Radar Topography Mission

http://edcftp.cr.usgs.gov/pub/data/srtm/

A few years ago one of the Space Shuttle's missions was to map 90% of the earth's land surface between 60°N and 60°S (Sorry, Territories! But for the Yukon see below.) using radar technology. The result is 30 m digital elevation models available in 1° tiles. The format is hgt. The quickest and best way to view it is using a free program called 3Dem available at *http://www.visualizationsoftware.com*.

Yukon Department of Renewable Resources

http://geomaticsyukon.ca/data_download.html

Most of the data that the Yukon seems to use is NTS data and, as a result, they are unable to share it freely. Data that is available includes 30 m and 90 m digital elevation models, territorial boundary, and parks and protected areas, among others.

British Columbia Ministry of Sustainable Resource Management

http://srmwww.gov.bc.ca/gis/arcftp.html

There are a number of data layers for BC available here, including park boundaries and a hillshade image. Scroll down to the bottom and there is a listing of districts. Select any of the districts to open up a listing of larger scale data. The problem is, there doesn't seem to be any clear indication as to what is what. Some guesswork as to what is what may be required.

Manitoba Land Initiative

http://web2.gov.mb.ca/mli/

You'll need to register to access the data which includes a collection of base datasets ranging from 1:20,000 to 1:2,000,000 as well as dems for the Red River Valley and southern Manitoba. There is also land use, soil classification, forest inventory and other data available.

GeoConnections

http://geodiscover.cgdi.ca/gdp/index.jsp

A good place to start your search for free data in the country. Most of the data listed here is thematic and very specialized but it's worth a look.

submitted by
Paul Heersink

Calendar/ *calendrier*

March 14 - 19 mars, 2004
100th AAG Annual Meeting
Philadelphia, PA
For information/*pour renseignements: www.aag.org*

March 28 - 31 mars, 2004
The GeoTec Event - Pathways to Integration
Toronto, ON
For information / *pour renseignements: EventInfo@GeoTecEvent.com* or phone Matt Ball @ 303-544-0594

May 23 - 28 mai, 2004
ASPRS 2004 Annual Conference
Denver, Colorado
For information / *pour renseignements: http://www.asprs.org/denver2004*

June 8 - 10 juin 2004
CCA 2004 ACC
Fleming College
Lindsay, ON
For information / *pour renseignements: www.geomaticsatfleming.ca/CCA2004*

June 20 - 23 juin, 2004
97th Annual Canadian Institute of Geomatics Conference
Ottawa, ON
For information / *pour renseignements: www.cig-acsg.ca/page.asp*

August 9 - 12 août 2004
ESRI International User Conference
San Diego, CA
For information / *pour renseignements: uc@esri.com* or 909-793-2853 ext. 1-1363

October 6 - 9 octobre, 2004
NACIS XXIV
Annual Meeting
Portland, ME
For information / *pour renseignements: www.nacis.org*

Battle of the Maps

Houston, USA, 11 November 2003 - Corporate Montage's CADscript mapping competition, Battle of the Maps, was again launched in 2003 in conjunction with the Corporate Montage International Conference. Entries to this year's competition doubled, with more than 25 maps from Australia, Germany and United States of America.

Entries to the competition were displayed on a double sided 4-meter long Battle Gallery at the Corporate Montage International Conference in Perth. All maps submitted were on display for conference delegates to view and discuss techniques used on various maps.

Battle of the Maps 2003 introduced five different categories to cater for the diverse disciplines/industries of the CADscript users. Categories included Geographical Maps, Transport Maps, Tourist Maps, Special Purpose Maps and an Atlas category.

The criteria used for judging included aesthetic appeal, clarity of layout, colour use and the number of CADscript features (Table Ordering, Gradient Fills, Halos, Flexi-text etc) used to compile and produce each map.

You can view these maps at *http://www.corporatemontage.com/events/current/battle2003/main.htm*

CCA AWARDS

The Canadian Cartographic Association presents several awards each year to deserving members of the cartographic community which it serves. These awards are meant to recognize and encourage the achievements of outstanding individuals in the field.

- **President's Prize Student Map Competition**
  ($100 prizes in several categories)

- **Norman Nicholson Memorial Scholarship in Cartography**
  ($500 scholarship)
  To recognize and encourage exceptional student achievement and ability in any aspect of cartography.

- **Awards of Distinction**
  To acknowledge exceptional professional or scholarly contributions to the field of cartography or an exceptional contribution to the Association.

For information about eligibility and how to apply or nominate individuals for these awards see the CCA web site: *www.cca-acc.org* or contact any member of the executive.

Prix de l'ACC

L'Association canadienne de cartographie présente, à chaque année, plusieurs prix à ses menbres méritants. L'attribution de ces prix a pour but de reconnaître et d'encourager l'accomplissement exceptionnel d'individus dans le milieu cartographique.

- **Le prix du Président pour la compétition des étudiants** (Des prix de $100 pour différentes catégories.)

- **Bourse Norman Nicholson** (Bourse de $500) Bourse attribuée afin de reconnaître et d'encourager un étudiant pour son accomplissement exceptionnel et ses capacités dans tous les aspects de la cartographie.

- **Prix de distinction** Prix pour reconnaître les contributions professionelles ou académiques exceptionnelles dans le domaine de la cartographie ou pour une contribution exceptionnelle à l'Association.

Pour de plus amples renseignements concernant l'éligibilité, comment postuler ou proposer un candidat pour ces prix, s'il vous plaît, veuillez visitez le site web de l'ACC à l'adresse URL suivante: *www.cca-acc.org*, ou veuillez contacter un membre du comité exécutif.

The Canadian Cartographic Association
L'Association canadienne de cartographie

www.cca-acc.org

NEW! TEMPORARY CCA Mailing Address / Nouveau! Adresse temporaire pour l'ACC

Please address all inquires for the CCA secretary to Clarie Gosson, President (see address below)

S'il vous plaît adresser tout demande pour la secrétaire de l'ACC à Claire Gosson, Présidente (l'adresse d'évêché au dessous)

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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	$80
Student	$40
Institutional	$100
Corporate	$200
Family	$95
Retired	$40
Associate	$40

To cover mailing costs US residents please add $5 CDN and Overseas residents please add $10 CND 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 the interest groups and regional contacts.

For further information about membership qualifications and benefits contact the membership coordinator 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 sont intéresés 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:

Régulier	$80
Étudiant	$40
Institutionnel	$100
Société	$200
Famille	$95
à la retraite	$40
Associé	$40

Un montant de 5$ (cdn$) est ajouté pour couvrir les frais postaux aux membres américains (É-U) et de 10$ (cdn$) pour les membres outremers.

Les membres recoivent la monographie trimestrielle Cartographica, publiée par le University Toronto Press; 4 numéros du bulletin de nouvelle Cartouche et le bulletin de nouvelle de l'Association cartographique internationale (ACI). L'Association organise également une rencontre annuelle avec des conférences qui donne 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 coordonnateur des adhésions ou l'un des membres de l'exécutif ou encore, visitez notre site Internet *www.cca-acc.org*