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CARTOUCHE

THIS ISSUE

Quarterly Newsletter of the
Canadian Cartographic Association/Association canadienne de cartographie
www.cca-acc.org

"Oh no... I warned him about getting
his necktie caught in the plotter."

Drawing courtesy of Bill Brookes
(Retired from the Geodetic Survey Division, Natural Resources Canada.)

A Word from the Editorial Team

The winter is now behind us and the spring days are getting longer and warmer. Hopefully the sun is giving you the energy to get prepared for the CCA conference this May. Looking forward to sessions and discussion must be on everybody's mind!

In this issue, the chair of the Map Use and Design Group invites all CCA members to take part in a discussion on map design versus map users; we look forward to your participation! The chair of Mapping Technology and Spatial Data Group discusses the importance of the flexibility of cartographic standards as mapping technologies evolve. The Chair of the History of Cartography Group zooms his lens on Manitoulin Island and shows you lakes and islands that you have never seen before! Also, our Vice-President and our CCA Representative on CNC both introduce thoughts on the future of CCA encouraging open discussion among members.

Rendez-vous in Waterloo!

The Cartouche Team: Anna, Diane, Ivy & Eric

PRESIDENT
Gerald Stark

A Message from the President
Out of Winter and Towards Integration

Greetings Fellow CCA Members

As we move out of what has been a somewhat unusual winter from a weather perspective for most of us, it is once again time for cartographers to gear up for our upcoming Annual General Meeting. This year's gathering is to take place in Waterloo, Ontario at Wilfred Laurier University and the University of Waterloo from May 28th to June 1st.

We shall be continuing a bit of a tradition from past conferences by partnering with our good friends in the Canadian Association of Geographers. I have always been of the opinion that cartographers and geographers are family and the Waterloo conference should support my contention of this.

I'm also thinking about the theme of this conference – *Towards Integration*. As described on the conference website (*www.cag2012.org*) the organizers have stated (and correctly so) that the Waterloo event will be the bringing together of the two main branches of geographic research which are both the human and physical areas of the discipline. For cartographers, there is no need to feel left out, however. Geographers are almost certain to use the map as a means of conveying their research. We should therefore see some interesting use of maps during the various paper and poster presentations at Waterloo.

I am also looking forward to other events at Waterloo, such as our traditional orienteering exercise and the student map competition. The CCA has also stepped up to sponsor a refreshment break at the conference. More details should be posted soon on the conference website.

In conclusion I would like to thank the other members of the CCA Executive Committee who have assisted in ironing out a few last minute details related to the CCA's participation at the upcoming conference. I would also like to pass along my appreciation of the CAG conference organizing group for their work on partnering with the CCA.

I look forward to touching base with as many of you as I can at Waterloo.

Gerald Stark

Gerald Stark is the President of the Canadian Cartographic Association and a Cartographer at Alberta Agriculture and Rural Development in Edmonton, Alberta.

VICE-PRESIDENT
Anna Jasiak

The Future of the CCA – Part II

As the vice president of the CCA – soon to take on the role as president, I have asked myself what it is I need to focus on during my tenure. How has the association evolved? How has it been relevant to the members and the broader cartographic community over the years? I decided to review some of the earlier publications of *Cartouche* to see if the answers were there and stumbled across a 2005 Edition #60. The president of the day was Rick Gray, and he wrote about many of the same issues that I have been reflecting upon – specifically the role and future of the CCA.

As it was for Rick at the time, I too am relatively new to the association (12 years). Most of my cartographic experiences and exposure to mapping have been developed within the walls of the federal government. I was not isolated from advances in new cartographic applications such as mobile or on-line visualization, WMS services, geodatabases…it is now a fact of life for all of us in this field, no matter where our careers develop. Some key points made by Rick focused upon: relevancy to membership and to all 'practicing map makers in Canada'.

He addressed the shift of technology and the impact on map making. Since then the use of maps as apps and tools on hand-held or mobile devices has embedded the potential use of some form of mapping into almost anything we do – particularly if it is in digital form. What does that mean to us as an association of cartographers? Are we still relevant in light of these changes? We know we are – only because we have evolved within this process of change. But do new map makers accept and respect our classic principles? Do they care? If that cohort is the future of the association – what does resonate with them?

This leads me to another question. A component of our organizational structure consists of several special interest groups. I am unaware how long these groups have been in existence – but I am aware that perhaps the subjects may need to be revisited to better reflect the new generations of cartographers and GIS experts. To ask ourselves "What is important today?"

This may be an opportunity to challenge ourselves with a new vision of what the CCA can offer its membership and encourage a new arm of interest to grow, reflecting on the latest technology, research and training. And to make similar decisions as to what we need to let go – not because we are no longer

interested – but what we need to focus upon that would spark interest amongst the budding cartographers in our community. This sentiment was also expressed by Rick in 2005:

> *"…Here is our chance to recognize the past while we explore the future. As an association, we need to embrace that future, adapt to the changes in our map-related professions, and find ways to expand both our horizons and our membership base."*
> -- Rick Gray, Cartouche, Number 60, Winter, 2005.

My goal as President this coming year will be to address these issues in discussions which I am hopeful will bring some change for our organization. I am also hopeful that many of us are encouraged to ensure that the CCA will remain relevant. I extend to the CCA executive and the CCA membership a task – to reflect on their own experiences within the association, and how one would propose a positive change to take place. I then encourage those of you who will be attending the conference this May in Kitchener-Waterloo, to share your thoughts and suggestions, as I will be addressing this topic at the AGM meeting. For those of you who will not be able to attend, I still encourage you to share your ideas, suggestions and opinions by sending them to me directly at: anna.jasiak@nrcan.gc.ca

I will ensure that all comments will be both shared at the meetings this spring, and collated into the beginnings of a plan for our future.

Many years of committed participation are evident in everything I have read. I truly believe that the CCA will endure many more productive and informative years.

I look forward to hearing from many of you,

Anna Jasiak.

Anna Jasiak is Vice President of the CCA and a Senior Research Geographer and Corporate and Strategic Communications and Partnerships Specialist at the Mapping Information Branch, Natural Resources Canada in Ottawa, Ontario.

CCA REPRESENTATIVE ON THE CANADIAN NATIONAL COMMITTEE

Roger Wheate

The end of the Golden Era of Cartography, or just the beginning ?

Each year as we approach the annual meeting, we recognize in the new millennium that CCA membership numbers continue to decline, and yet general interest in mapping has never been higher, with greater access to digital data, applications such as Google Earth, web-based mapping and the overall democratization of cartography.

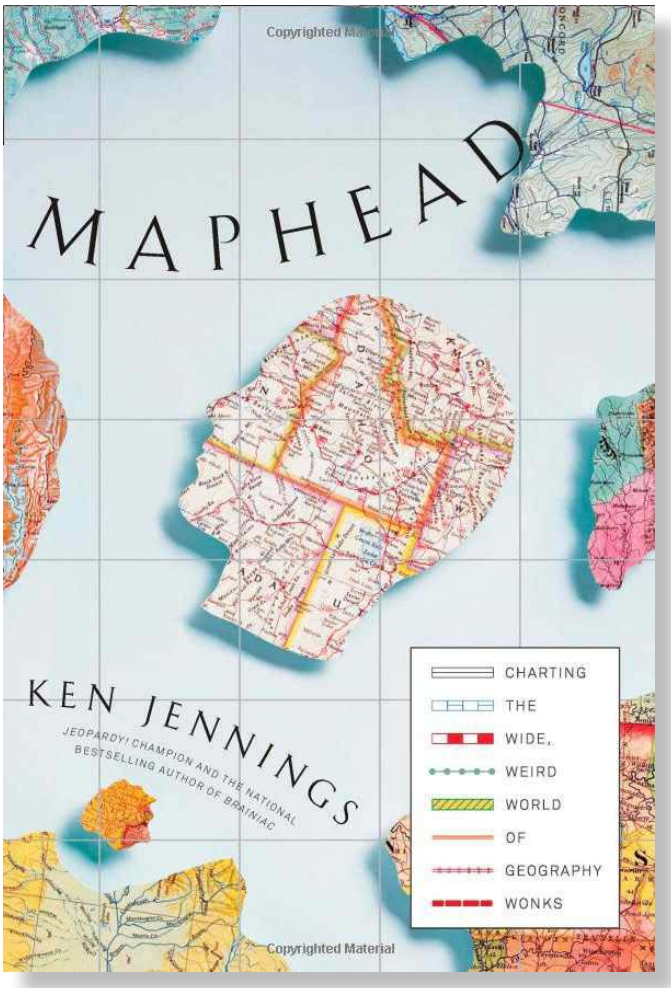


Figure 1: Cover of the book *Maphead* by Ken Jennings

In his recent book *Maphead*, Jeopardy legend Ken Jennings writes … *"I could literally look at maps for hours. I was a voracious reader, but while a page of a novel might last me only 30 seconds, each page of an atlas was an inexhaustible trove of names and shapes and places, and I relished that sense of depth, of comprehensiveness."*

As an example of his enthusiasm for all things mapping, he identifies the world's largest 'triple island' (the largest island in a lake on an island in a lake on an island) as located in Nunavut, not as is sometime claimed, in the Philippines — go to: 69.793° North, 108.241° West, or to this website: *http://www.lifeslittlemysteries.com/2096-world-largest-island-lake-island-lake-island-google-earth.html*

We all probably got interested in cartography for similar reasons to Ken, and subsequently joined the CCA. For myself, as soon as we acquired our first family dog, I used the local topographic maps to explore new places and follow trails and footpaths.

The founding of the CCA

By two lucky coincidences, I came to Canada just as the CCA was being formed in 1975, and by complete accident, at the only University at the time offering advanced education in Cartography. Our supervisor, Henry Castner was one of the 'gang of eight' working with Bernard Gutsell to create the association, and he made us join from the start.

The CCA was formed about the same time as similar groups in the USA and UK, in response to the growth of cartography as a separate discipline and the subject taught in educational institutions, following the pre-war era where those making maps were often the same people as those doing the surveying. The founding members felt that their distinct interests were not being sufficiently served by the Canadian Institute of Surveying and Mapping (now the Canadian Institute of Geomatics).

Stability and growth with automation and GIS

Almost from the start, membership reached into the 200s and 300s. The development of GIS in the 1980s, often with CCA members at the helm spurred on activities with GIS vendors and users eager to learn more through meetings and newsletters. Several provincial societies grew in response to local interest in mapping and GIS. But by the early 1990s, this boom had ended, and both these societies and many vendors disappeared as the GIS industry matured. This was the end of what ICA and CCA past-president Fraser Taylor described as the "Gee-whiz" period of GIS. It also marked the high point for CCA membership; the subsequent decline has had two major causes:

The maturing of GIS in the 1990s

As the GIS industry matured, and expanded well beyond traditional mapping arenas into areas such as forestry databases, ecosystem modeling, 3D imaging and visualization, the new users have greater background and interest in data processing and applications than in final output. Colleges and universities have replaced cartography with GIS in programs and instructors. Today only one college and one university across Canada proclaim a cartography program. This trend is likely more marked in Canada than the US and European countries due to our natural resources to population ratio; industry and government hire GIS technicians instead of cartographers. GIS development has resulted in application papers and sessions in theme conferences, such as forestry, wildlife biology, anthropology etc., more than GIS-centric meetings.

The rise of the internet and the web (into the 2000s)

In the early years, cartographers communicated via newsletters and meetings, for interaction, mapping tips and personal development. The age of the web since 1993 has enabled a multitude of online resources, and reduction in membership for many types of organizations, not just cartography. Even the large GIS conferences of the 1980s and early 1990s have dissipated, as notes, findings and research are published online (and users meet in theme conferences instead). A further impact of web resources is that many people can now access the journal Cartographica online, through their workplace, reducing the impetus for society membership.

One might also add that society in general spends more time online and less joining groups and associations of all kinds, especially younger generations. But if the CCA has experienced major decline in membership, have other groups seen the same trend?

Below I highlight a few, and offer suggestions why their fortunes have differed.

Other 'like-minded' Associations

Association of Canadian Map Libraries and Archives (ACMLA)

The ACMLA membership has remained stable and grown in recent years. While educational institutions have stopped hiring mapping instructors, they continue to supplement map archives with the need to maintain and distribute digital data, as well as provide basic instruction on GIS / data mapping to users. The ACMLA membership and structure has risen commendably to these tasks, and holds productive annual meetings.

Canadian Association of Geographers (CAG)

The CAG has a committed membership base that is almost entirely academic geographers. It tends to be biased towards social and urban geographers, as physical geographers are also drawn to other groups, such as the Canadian Geophysical Union. The CAG has an active GIS group, but much fewer cartographers and remote sensors.

Canadian Remote Sensing Society (CRSS)

The CRSS has substantial program sessions in annual meetings. It combines researchers in universities, government and industry; this could be partly attributed to the great need for remote sensing in Canada and the industry position as a world leader, as well as the ever increasing access to satellite imagery for mapping, feature extraction and environmental changes.

North American Cartographic Information Society (NACIS) and the Society Of Cartographers (SOC)

These US and UK based societies respectively have experienced some membership decline but have the advantage of a larger population base and (in my opinion) a stronger cartographic tradition, better preserved in education and production compared to Canada with its more resource based mapping. Both societies run well-attended annual meetings focused on practical mapping and are admirable role models to help retain membership.

International Cartographic Association (ICA)

The ICA meets every two years, with member countries providing two official delegates, and a total attendance exceeding 1000 participants. Meetings are held in relatively exotic locations, such that most CCA members can only attend when it is in North America. The ICA has about 30 commissions (similar to our interest groups), covering all aspects of mapping. For example I am a member of the High Mountain Cartography group. It is frequently commented that these group meetings can be more focused and rewarding than the large biennial congress (most recently in Paris 2011 and next in Dresden 2013, and Rio de Janeiro 2015).

Future activities

The CCA has a core of enthusiastic members, involved in an ever changing mapping world, and with the association in a healthy financial situation. We have had an excellent 'generation' since formation, but to continue long term, we need to entertain some changes. As well as declining membership, there are always an inadequate number of submissions for independent annual meetings. Yet there is tremendous potential for successful conferences as long as these don't repeat existing meetings. Specific themes might be developed for annual or biennial meetings, such as: web mapping, satellite image mapping, mapping the north, animation and geovisualisation, as examples to engage new and peripheral members of the mapping community. Fewer people may think they are doing cartography, but a massive number are massaging and displaying spatial data. I would like to think that map output is the glue that unites the range of data mapping technologies, including GIS, remote sensing, GPS and surveying.

In this regard, do the interest groups represent current mapping activities in the mapping world: GIS and Geovisualisation, Cartographic Education, History of Cartography, Map Use and Design, Mapping Technologies and Spatial Data. Would a re-organisation help funnel future activities? Finally, how might the CCA contribute as ombudsfolk for improving map output in the media, especially concerning images associated with GIS output, where software defaults are too often accepted without regard for good design.

Please send any thoughts, feedback to Cartouche or wheate@unbc.ca

Roger Wheate

Roger Wheate is the CCA Representative on the Canadian National Committee and an Associate Professor and GIS Coordinator at the University of British Columbia in Prince George, British Columbia.

MAP USE AND DESIGN
SPECIAL INTEREST GROUP
Chair: Julia Siemer

What is Good Map Design?
Your Contribution Needed

I recently had a discussion with a friend, who has no professional background in cartography, about what constitutes good map design. Our conversation was inspired by last year's attempt at a new design of the London Tube Map (*http://www.fastcodesign.com/1664692/london-tube-map-sparks-furor-over-what-design-means*) (see Figures 1 and 2). Here are some of my interlocutor's comments (with a Saskatchewan twist):

> *"… I have noticed that subway "maps" (in Montréal, for example) really give you no idea of where you are - or where you are going for that matter. They serve only to tell you how to get somewhere. Emerging from the subway after following the diagrams in the tube is somewhat like getting off a plane. I have been to Florida and I know how to get there, but a plane trip above the clouds doesn't really give you any indication of where you are in relation to other places of reference that might exist in your head or on a map.*
>
> *That's the reason I always like to travel with large-scale maps when I am out in the country. I like to know where the towns used to be, where the road intersects a ravine and where the railroad tracks used to run. It makes me feel as if I have actually been there. Conversely, like subway maps, the tiny GPS in my car makes me crazy – it doesn't really tell me anything about where I am or where I am going – it just tells me how to get there. …"*

This all mirrors Erik Spiekermann's comment on the "common misunderstanding about Harry Beck's legendary wayfinding display [the London Tube Map]: that it isn't a map at all, it's a diagram. Not meant to show geographic relationships, but connections." On another level, our discussion also backs up the blogger's (*www.fastcodesign.com*) view on who establishes good design – the user rather than the designer or cartographer.

This is all, of course, debatable. As such, I'd like to start a discussion in this section of *Cartouche* where the cartographer's and/or map user's point of view is the focus rather than the graphic designer's. In this light, I'd like to invite you all to contribute to this section in the future. Please consider submitting some of your own best maps or maps designed by someone else that you find interesting for discussion. These maps should be accompanied by short commentaries on their design concepts, the positive (and/or negative) aspects of their design, potential issues you had while designing the maps, and/or the effectiveness from a map user's perspective. With your help, I am hoping that we could create a lively showcase for the work that we are so passionate about. To submit maps and commentaries for discussion, please e-mail me at julia.siemer@uregina.ca

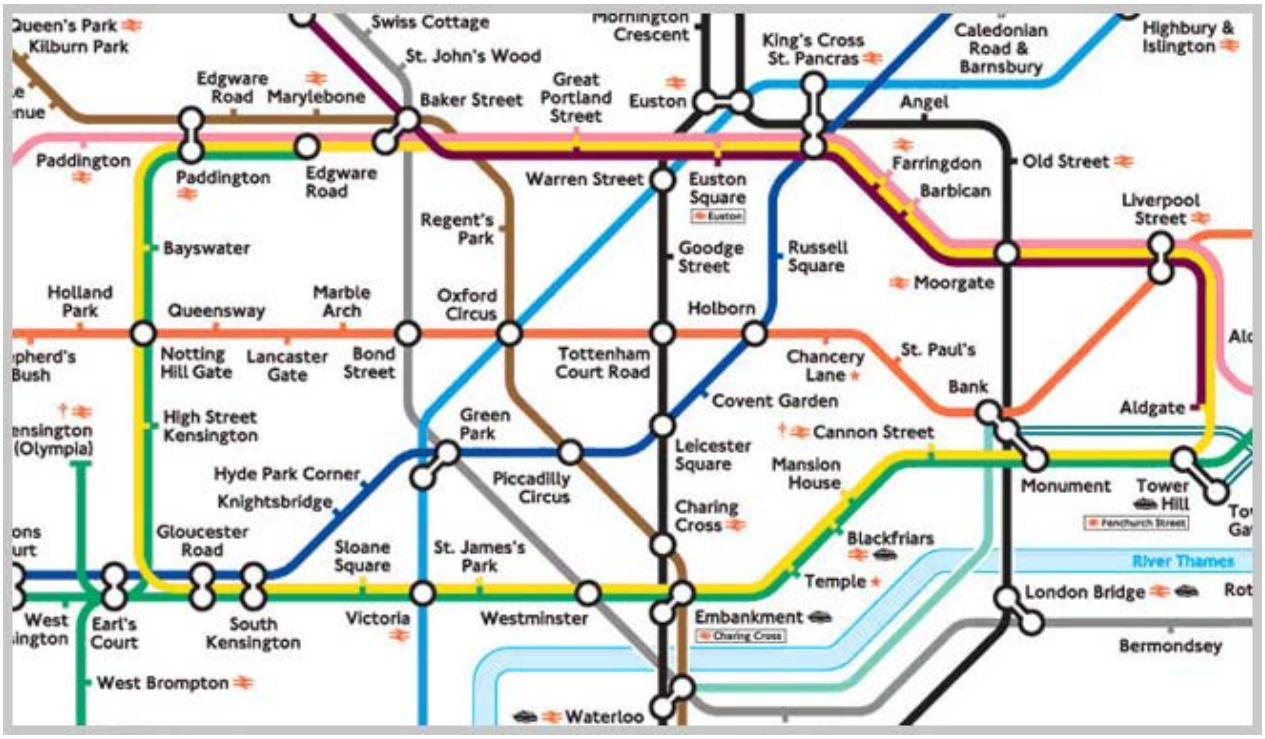


Figure 1: The London Tube Map (Harry Beck's design)

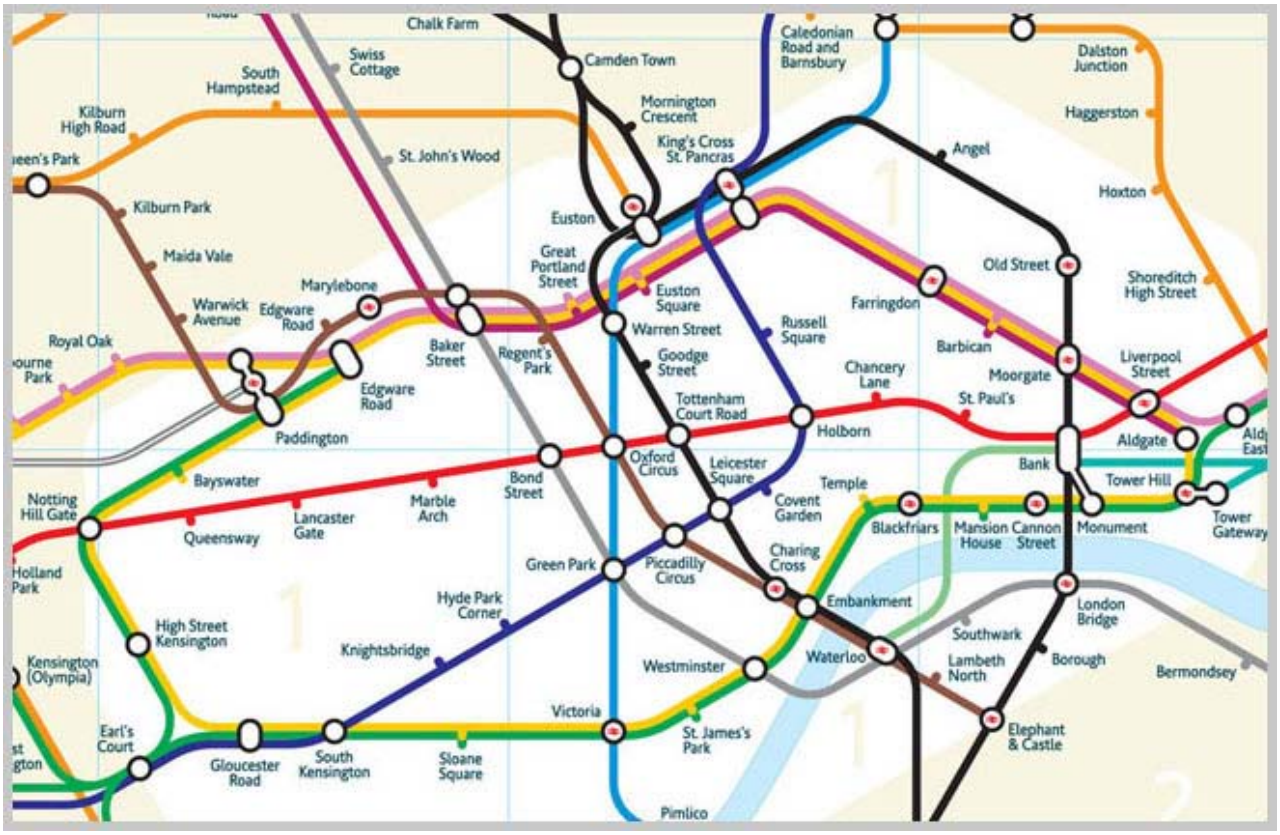


Figure 2: Suggested new design of the London Tube Map (Mark Noad's design)

Julia Siemer is Chair of the Map Use and Design Interest Group and an Associate Professor of Geography, Cartography and GIS at the University of Regina, Saskatchewan.

Advances in Mapping Technologies Require Flexible Cartographic Standards

Geological maps present significant challenges for clear presentation of map information and provide a good example of where flexible cartographic standards are required. A long tradition based on standardized geologic symbols improved cartographic representation. This has been maintained through technological changes that saw the transition from scribing and offset printing to the compilation of digital data and map production where on-demand publishing uses inkjet plotters and maps can be used in web mapping applications. To achieve standardization, the United States Federal Geographic Data Committee (FGDC) developed the Geologic Map Symbol Standard:

http://ngmdb.usgs.gov/fgdc_gds/geolsymstd.php

The United States Geological Survey (USGS) currently maintains it at:

http://ngmdb.usgs.gov/fgdc_gds/geolsymstd/maintenance.php

Documentation for the FGDC Geologic Map Symbol Standard (PDF format) can be found at:

http://ngmdb.usgs.gov/fgdc_gds/geolsymstd/download.php

The FGDC Digital Cartographic Standard for Geologic Map Symbolization (PostScript Implementation) can also be found at:

http://pubs.usgs.gov/tm/2006/11A02/

The Geological Survey of Canada (GSC) has adopted the FGDC symbol set for its geological map production using the ESRI ArcGIS suite of applications. The type of geologic features and symbols traditionally used in the GSC maps are not all included in the FGDC set, but the original FGDC standard is flexible and documents provisions and guidelines for adding or customizing symbols. Protocols and procedures have been put into place by the GSC to manage the additional symbols in the form of a GSC subset. This is only one aspect of the flexibility required in these standards. The FGDC documentation also allows the size, colour, and/or lineweight of existing symbols to be changed to accommodate differences between output devices, see the 'How to Use this Standard' in Appendix A (See Reference) of the standard's documentation.

Depending on the type of plotter and its printing resolution the symbols' appearance may vary. The FGDC documentation notes that "reducing lineweights below 0.125 mm (0.005 inch) may cause symbols to plot incorrectly if output at higher resolutions (1800 dpi or higher)". Recent improvements in the functionality of web mapping applications will further increase the demand for delivery of maps in web format which may require slightly different rendering of the symbols. These aspects of cartographic representation are of particular importance for geologic maps that may be viewed at different scales and include areas of detail where a change in lineweights can greatly improve the legibility of the map (Figure 1). The adjustment in

lineweights in this example make a significant improvement in the amount of detailed geology that can be interpreted in an area, but a reduction in the frequency of marker symbols along many of the line symbols would further reduce visual clutter and provide an even greater improvement.

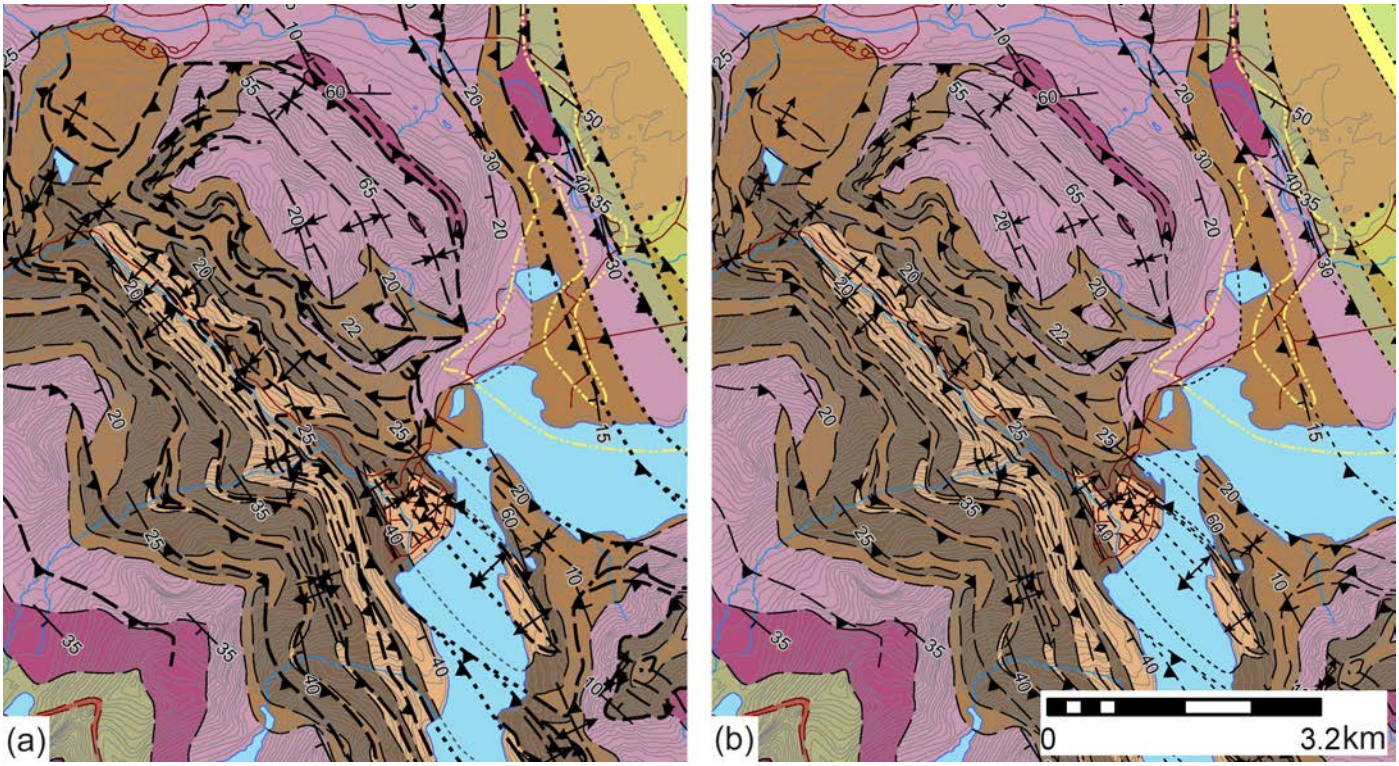


Figure 1. Comparison of line symbols using the FGDC standard in (a) and the reduced line weights in (b) to provide better clarity in an area of detailed geology.

The FGDC symbols have accompanying 'Style Files' designed for the ArcGIS software. The GIS application provides the tools for relatively easy yet potentially time consuming editing of the symbol properties to achieve the type of results noted in Figure 1. Copies can be made of the original style files to make these types of changes and allow for preservation of both the original and altered versions. However, allowing customization of standardized symbols in a work flow must be managed so that an organization can leverage the work done. This may require some planning to identify where and when alteration of standard symbols is advantageous for the delivery of a particular series of cartographic products and will allow the altered symbols to be used in future work. The GSC is in the initial stages of implementing the FGDC standards and has the advantage of being a late adaptor who can plan for accommodating the type of changes that advances in mapping technologies will continue to demand.

Reference:

Federal Geographic Data Committee [prepared for the Federal Geographic Data Committee by the U.S. Geological Survey], 2006, FGDC Digital Cartographic Standard for Geologic Map Symbolization: Reston, Va., Federal Geographic Data Committee Document Number FGDC-STD-013-2006, 290 p., 2 plates.

Paul Wozniak is Chair of the Mapping Technologies and Spatial Data Interest Group and a Geospatial Data Specialist at the Geological Survey of Canada.

HISTORY OF CARTOGRAPHY SPECIAL INTEREST GROUP
Chair: Ken Favrholdt

Recursive Lakes and Islands in Canada

Manitoulin is a sacred island to the Anishinaabe, Ojibwe, Odawa and Potawatomi tribes whose legends describe the Great Spirit, Gitchi Manitou, who created the world and made a special island set in the Great Inland Sea (the Great Lakes). Manitoulin means "power of the Manitous," spirit island. As well, it is an unusual island geographically.

Manitoulin Island, situated in the northern part of Lake Huron, is approximately 160 kilometres (100 miles) long and from 4.8 to 70.4 km (3 to 45 miles) wide with an area of 2766 square kilometres (1068 square miles). It is the largest island in the Great Lakes and the world's largest freshwater island, that is, the largest island in the world in a freshwater lake. Second largest in the world is René-Levasseur Island in Manicouagan Reservoir, Quebec, which is man-made. Manitoulin Island itself contains over 108 freshwater lakes. Lake Manitou (about 104 square kilometres/40 square miles) is the largest lake on a freshwater island in the world (See figure 1).

There are also a number of small islands in Lake Manitou, making them islands in a lake on an island in another lake. Manitoulin Island has the greatest number of levels of "island within an island" in the world. Treasure Island in Mindemoya Lake (an Ojibwe word meaning "old woman") on Manitoulin Island is the largest island in a freshwater lake on an island in a freshwater lake in the world. Manitoulin Island surpasses, by one level another example of recursive lakes and islands, Crater Lake on Vulcano Island in Lake Taal on Luzon Island in the Philippines (see: Elbruz.org).

However, the phenomena of recursive islands and lakes can be confusing. According to another source, *WorldIslandInfo.com*, the largest island in a lake on an island in a lake on an island is the largest island in the largest lake on Glover Island, in Grand Lake on Newfoundland. Glover Island, the world's second-largest island on an island, has many lakes on it, and the largest has about 17 islands. The largest of these is two acres / 0.8 hectares. Newfoundland, of course, is a salt-water island.

There may be more. It has been suggested that Victoria Island in Nunavut may have the greatest number of degrees of an island within an island in the world. In the meantime, let's allow Manitoulin Island the claims, both mystical and geographical, that it has long held.

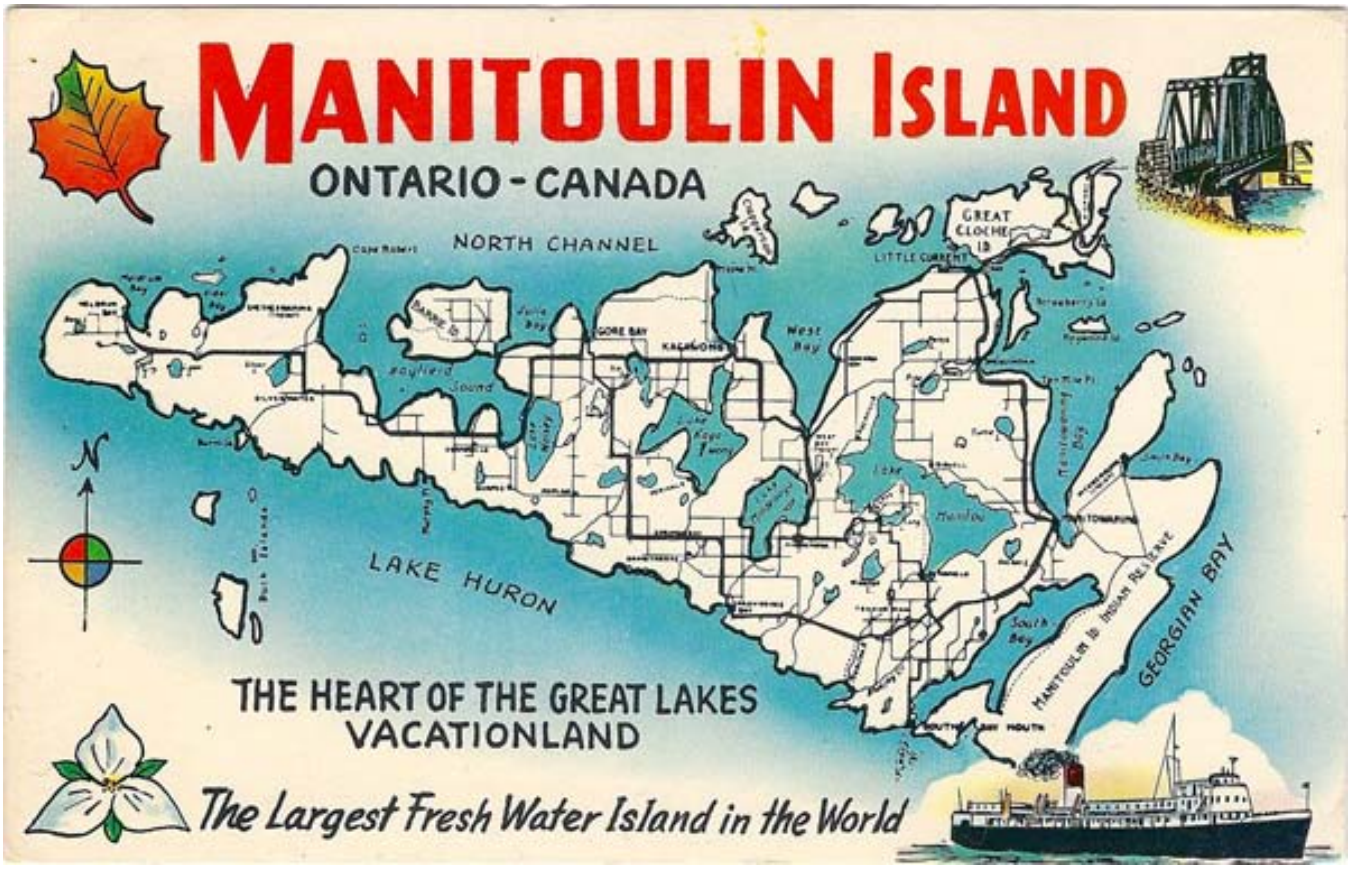


Figure 1: Manitoulin Island postcard map.

Sources:

Elbruz.org. Some interesting Islands and Lakes. *http://www.elbruz.org/islands/Islands and Lakes.htm*. Retrieved October 12, 2011.

Lake Manitou Area Association. About The LMAA. *http://lakemanitouarea.ca/index.php?option=com_content&view=article&id=2&Itemid=2*

The Case for Freshwater Capital of the World. *http://www.manitoulinstreams.com/index.php/fun-stuff/132*

Wikipedia. Manitoulin Island. *http://en.wikipedia.org/wiki/Manitoulin_Island*

Wikipedia. Rene-Levasseur Island. *http://en.wikipedia.org/wiki/René-Levasseur_Island*

World Island Info. *http://worldislandinfo.com/blog/index.php/2007/07/26/the-real-largest-island-in-a-lake-on-an-island-in-a-lake-on-an-island/*

Largest lake Islands of the World. *http://www.worldislandinfo.com/LAKEV1.htm*

Ken Favrholdt is Chair of the History of Cartography Interest Group and the Curator of the Secwepemc Museum and Heritage Park on the Kamloops Indian Reserve, Kamloops, Brtish Columbia.

The Atlas of Canada's Latest Release: Northern Canada / Nord du Canada

By Peter Morton

This is not the first time that the Atlas of Canada has published a map of this region at 1:4 000 000. In the Fourth and Fifth editions published in 1974 and 1982 the map was called "Northwest Territories and Yukon Territory". In the 6th Edition, the first digitally produced version was published in 2000 as "Yukon Territory, Northwest Territories and Nunavut". The 2011 version was renamed "Northern Canada / Nord du Canada" to better reflect the entirety of the geographic information mapped north of approximately 50 degrees latitude.

Canada's north is a vast area. The three territories alone, Nunavut, Yukon and Northwest Territories, encompass approximately 40% of the total area of Canada. The northern regions of the provinces shown on the map include the seven provinces of British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec and Newfoundland and Labrador. Combined, the territories and the northern portions of these provinces represent just less than two-thirds of Canada's landmass.

It is an area of varying contrasts, from taiga (boreal) forests of the subarctic region, to the tundra, permafrost and barren landscape of snow and ice of the Arctic. Most of the population live in isolated communities, scattered across the region and of the 342 populated places on the map only eight have more than 25 000 people.

The production of this map has had its challenges, primarily with labelling. The previous edition was created in command-line ArcInfo which had a different annotation data model with different strengths and weaknesses and only supported fonts incompatible with the Windows platform. The other major challenge was finding a workflow for exporting a file from ArcMap that a printing company could use.

The thematic information on the map includes:

- Populated places including those in Russia, Alaska, and Greenland
- Major roads, railways and a selection of airports and seaplane bases
- Major ports identified by showing cargo and/or ferry movements between two populated places
- Economic geography:
    - o Mineral and metal mines
    - o Natural gas and crude oil fields, and oil sands
    - o Major pipelines
    - o Hydroelectric generating stations
- Physical geography:
    - o Shaded relief
    - o Bathymetry
    - o Major glaciers, ice fields, and ice sheets
    - o Selected mountain peaks
    - o Tree line
    - o Limit of permanent polar sea ice, 1972 – 2007
    - o Over 2900 named hydrographic and land features
    - o National parks and other federal protected areas
- An inset of the Labrador coast
- The hydrology and other base data was improved and aligned to the Atlas of Canada 1:1 000 000 scale National Framework data.

As of March 31, 2012 the wall map is available for purchase from the Canada Map Office network of Regional Distribution Centres:

http://www.nrcan.gc.ca/earth-sciences/products-services/mapping-product/obtaining-maps/10580

A digital version in PDF and JPEG formats is also available on Natural Resources Canada's GeoScan website for viewing and downloading at no cost:

http://geoscan.ess.nrcan.gc.ca/cgi-bin/starfinder/0?path=geoscan.fl&id=fastlink&pass=&search=R%3D289594&format=FLFULL

The GIS product has also been released as a geodatabase, on the GeoGratis website (look for *Atlas of Canada, Northern Goedatabase*, under "All Collections"):

http://geogratis.gc.ca

Peter Morton is a Research Geographer at the Mapping Information Branch, Natural Resources Canada.

A Major Milestone in Mapping: The Completion of the 1:50 000 Scale Map Coverage of Canada

By Sylvain Lemay

This spring marks a major milestone in Canadian mapping: NRCan's Mapping Information Branch (MIB) will complete the last 1:50 000 scale topographic map, produced through a program that was started over 100 years ago. Mapping for geological maps started with the Geological Survey of Canada in 1842. However, the first organized system of mapping in Canada started in 1871, and was based on a land survey system carried out in the Prairie Provinces at a scale of 1 inch equals 3 miles.

The current National Topographic System (NTS), which provides the numbering scheme for Canadian map tiles at scales of 1:50 000 and 1:250 000, originated from a 1948 agreement between the military mapping agencies of Canada, the United States and Great Britain to standardize map scales for defense purposes. The level of government funding and the funding mechanisms themselves have fluctuated over the years. Once the 1:250 000 scale mapping was completed in the early 1990's, the government had to carefully manage the level of effort between three lines of production: new 1:50 000 scale maps where none existed; updating the existing maps; and modernizing the map production systems. Regarding the production of new maps, as of the summer of 2009, there remained 1600 tiles that had never been published.

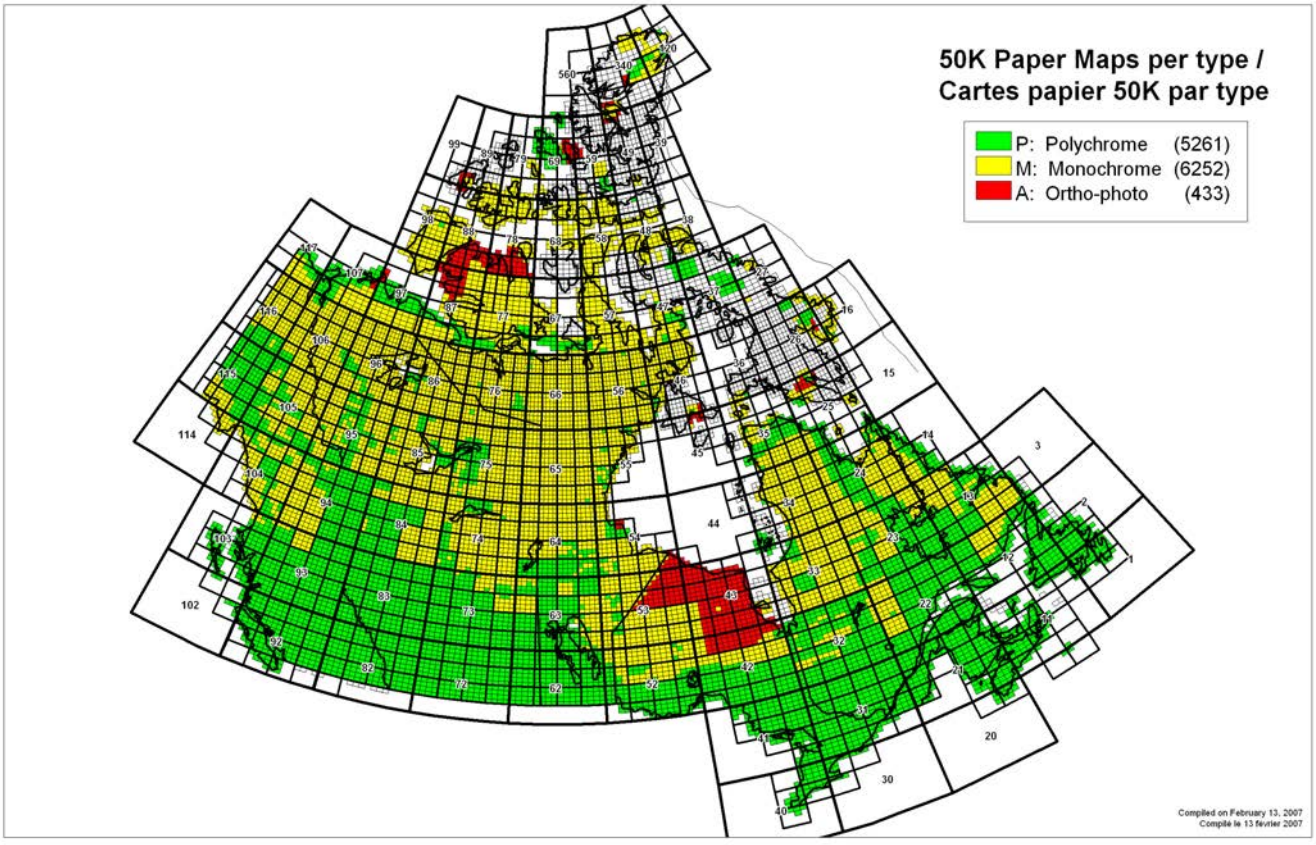


Figure 1: Canadian Map Coverage at 1:50 000. The areas in Northern Canada where no colour appears (white) correspond to the missing 1600 tiles that had yet to be published as of 2009.

In a bid to increase map production rates, MIB developed the Map Generator, a semi-automated system that harnessed the power of geospatial databases and Geographic Information Systems (GIS), which has enabled the production of all of the remaining 1600 maps over 3 years.

All of these new maps, along with the over 13 000 existing maps, are available for download free of charge on the GeoGratis website (*http://geogratis.cgdi.gc.ca/geogratis/en/index.html)*.

Sylvain Lemay is Acting Program Manager, Topographic Mapping Initiatives, Mapping Information Branch, Natural Resources Canada.

ANNOUNCEMENT

GIScience Study Group of the Canadian Association of Geographers

By Scott Mitchell

The GIScience Study Group is a group of individuals that have self-identified, at the time of registering/ renewing their Canadian Association of Geographers (CAG) membership, as having interests in geographic information science. We were formed to encourage communication and collaboration, academic excellence, and student training in geomatics, GIS, and related fields.

To foster those goals, we have an email discussion list to encourage sharing of opportunities, successes and challenges (see *http://www.yorku.ca/gis_sig/*), and we use the modest membership dues to fund student awards at conferences (usually the annual meeting of the CAG, but we have also partnered with other related conferences and organizations).

We encourage all practitioners, researchers, students, and other parties in the broadest possible definition of GIScience and Geomatics, to join our group or collaborate with us. We organize an annual social/ networking dinner at the CAG conference, and we encourage anyone from sister societies with affiliated interests to come join us.

Scott Mitchell is a member of the Canadian Association of Geographers.

2012 President's Prize Competition

The CCA 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 2012 President's Prize Competition will consist of two prizes of $200, one for entries from college-level or CEGEP students, and one for entries from university level undergraduate students in the following category:

A **thematic map** on any subject. A thematic map is a map that is meant to communicate a specific single subject matter within a particular geographic area. They are often defined as special purpose maps and can be either quantitative or qualitative in nature. The International Cartographic Association (ICA) defines the thematic map this way: "A map designed to demonstrate particular features or concepts. In conventional use this term excludes topographic maps" (Dent 1999, 8).

Entry Guidelines:

The cartographic project will consist of a single map. There are no restrictions on size but the project **must** have been completed and produced during the school year preceding the competition. Each entry must be accompanied by a **clear and succinct statement of design objectives** that will weigh heavily in the judges' decision.

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 2012 are invited from all Canadian post-secondary students. All entries should be accompanied by an official entry form found on page 24 or on the CCA website (*www.cca-acc.org*). It must be submitted **no later than May 18, 2012** to the following address:

CCA President's Prize Competition
c/o Dr. Julia Siemer
Assistant Professor of Geography
Cartography and GIS
University of Regina
Department of Geography
3737 Wascana Parkway
Regina, Saskatchewan
S4S 0A2

2012 Carto-Québec Prize

The CCA is pleased to announce the 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 donation from the former Carto-Québec Association 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.

Entry Guidelines:
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.

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 2012 are invited from all Canadian post-secondary students. They should be accompanied by an official entry form found on page 24 or on the CCA website (*www.cca-acc.org*).

Submit **no later than May 18, 2012** to:

Carto-Québec Prize Competition
c/o Dr. Julia Siemer
Assistant Professor of Geography
Cartography and GIS
University of Regina
Department of Geography
3737 Wascana Parkway
Regina, Saskatchewan
S4S 0A2

Concours pour le Prix du Président 2012

Le Prix du Président de l'ACC reconnaît l'excellence dans la conception et la production cartographiques par des étudiants. Tous les étudiants du niveau postsecondaire qui ont terminé et produit un projet cartographique au cours de l'année scolaire précédente sont admissibles. Le concours pour le Prix du Président 2012 décernera deux prix de 200$, un pour les soumissions de niveau collégial et un pour celles d'étudiants du premier cycle universitaire, dans la catégorie suivante :

Carte thématique de n'importe quel sujet. Une carte thématique, aussi appelée carte à sujet unique, est une carte qui met l'accent sur un thème spécifique ou unique dans une zone géographique particulière. Elles sont souvent définies comme des cartes à usage spécial et peuvent être soit quantitatives ou qualitatives. L'Association cartographique internationale (ACI) définit une carte thématique comme suit: «Une carte conçue pour démontrer des détails cartographiques ou concepts particuliers. Selon l'usage conventionnel ce terme exclut les cartes topographiques» (Dent 1999, 8).

Critères d'inscription :
Les projets cartographiques consisteront d'une seule carte. Il n'y a pas de restriction quant à la taille de la carte mais **il faut** que le projet ait été terminé et produit au cours de l'année scolaire précédant le concours. Chaque soumission devra être accompagnée **d'un énoncé court et clair sur les objectifs de la conception** de la carte. Cet énoncé sera crucial pour la décision du jury.

Les soumissions seront jugées selon la créativité et la façon dont le message est présenté ainsi que l'excellence de la préparation, la conception et la présentation du projet.

Le Président de l'ACC invite tous les étudiants canadiens de niveau postsecondaire à soumettre leur projet cartographique. Toutes les soumissions doivent être accompagnées d'un formulaire officiel de participation, disponible à la page 25 ou sur le site Web de l'ACC (*www.cca-acc.org*). Faire parvenir le tout, **au plus tard le 18 mai 2012** , à l'adresse suivante :

Prix du Président de l'ACC
a/s Dr. Julia Siemer
Assistant Professor of Geography
Cartography and GIS
University of Regina
Department of Geography
3737 Wascana Parkway
Regina, Saskatchewan
S4S 0A2

Concours pour le Prix Carto-Québec 2012

L'ACC a le plaisir d'annoncer le Prix Carto-Québec. Ce concours annuel, ouvert aux étudiants postsecondaires à travers le Canada, sera décerné pour le meilleur produit cartographique créé en français.

Ce prix a été établi grâce à un don de l'ancienne Association Carto-Québec pour promouvoir et reconnaître l'excellence dans la conception des cartes. Le Prix Carto-Québec comprendra deux prix de 500$, l'un pour les soumissions de niveau collégial et l'autre, pour le niveau du premier cycle universitaire.

Critères d'inscription :

Les projets cartographiques comprendront une carte ou une série de cartes formant un ensemble cohérent et pourront être soumis en version imprimée ou autre. Les soumissions électroniques, qu'elles comportent des applications SIG ou de l'Internet, ne doivent pas nécessiter de logiciel spécialisé pour les visualiser. Il n'y a aucune restriction concernant la taille ou le sujet de la carte, mais le projet doit avoir été fait au cours de l'année scolaire précédant le concours. Le projet doit être produit en français.

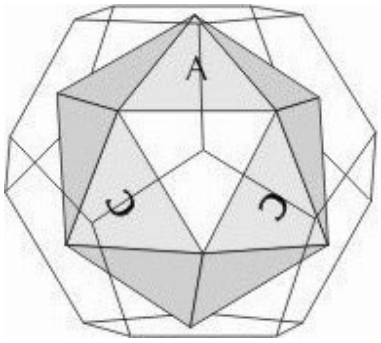
Les soumissions seront jugées selon la créativité et la façon dont le message est présenté, ainsi que l'excellence de la préparation, la conception et la présentation du projet.

Le Président de l'ACC invite tous les étudiants canadiens de niveau postsecondaire à soumettre leur projet cartographique.

Toutes les soumissions doivent être accompagnées d'un formulaire officiel de participation, disponible disponible à la page 25 ou sur le site Web de l'ACC (*www.cca-acc.org*). Faire parvenir le tout, **au plus tard le 18 mai 2012**, à l'adresse suivante :

Prix Carto-Québec
a/s Dr. Julia Siemer
Assistant Professor of Geography
Cartography and GIS
Universi ty of Regina
Department of Geography
3737 Wascana Parkway
Regina, Saskatchewan
S4S 0A2

CCA Prizes Entry Form 2012



Award:

❑ President's Prize ❑ Carto-Québec Prize

Post-secondary category:

❑ College or CEGEP Year or Level: 1 2 3 4 5

❑ University

President's Prize Category:

❑ Thematic Map

Instructor's name and course name/number: _____

In a **clear and concise manner,** state your design objectives of your project and provide a rationale for your design choices:

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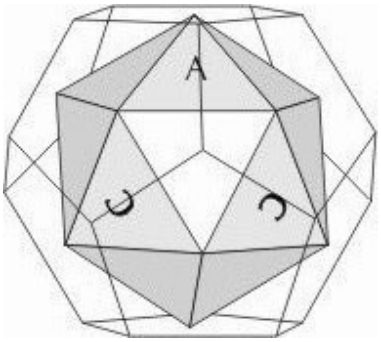
In order to be eligible, this form must be submitted with your entry. **Entries must be received no later than May 18, 2012**. No entries will be accepted after that date.

Send entries to:

CCA President's Prize or Carto-Québec Prize
c/o Julia Siemer
Assistant Professor of Geography
Cartography and GIS
University of Regina
Department of Geography
3737 Wascana Parkway
Regina, Saskatchewan
S4S 0A2

Formulaire de participation des Prix ACC 2012



Prix :

- ❑ Prix du Président ❑ Prix Carto-Québec

Catégories post-secondaires :

- ❑ Collège ou CEGEP année ou niveau 1 2 3 4 5
- ❑ Université

Catégorie Prix du Président :

- ❑ Carte thématique

Noms de l'instructeur et du cours numéro : _____

Dans un **style clair et concis**, indiquez vos objectifs de conception de votre projet et fournissez une justification de vos choix de conception:

_____

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_____

Pour être admissible, ce formulaire doit être soumis avec votre inscription. **Les inscriptions doivent être reçues au plus tard le 18 mai 2012**. Aucune inscription ne sera acceptée après cette date.

Envoyer les soumissions à :

ACC, Prix du Président ou Prix Carto-Québec
a/s Julia Siemer
Assistant Professor of Geography
Cartography and GIS
University of Regina
Department of Geography
3737 Wascana Parkway
Regina, Saskatchewan
S4S 0A2

Best Student Paper

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

A paper may be co-authored by a faculty member, but the student must have actively participated in the research and have sole responsibility for delivering the paper.

The entries will be judged by a three person panel including the chair of the CCA Cartographic Education Special Interest Group. Judging will be based on the content and structure of the paper and the quality of the presentation. The judges may also take into account the extent of the student's involvement in the research on which the paper is based, and his or her status (i.e. undergraduate or graduate) and year level.

Meilleure présentation donnée par un étudiant

Un prix de 100$ sera attribué à la meilleure présentation donnée par un étudiant lors de la conférence annuelle de l'ACC. Toutes les présentations faites par un étudiant inscrit au programme font automatiquement partie de la compétition.

Une présentation peut avoir un co-auteur qui est un membre d'une faculté mais l'étudiant doit avoir activement participé dans la recherche et doit avoir la responsabilité de la présenter lui-même à la conférence.

Les présentations seront jugées par un jury de trois personnes incluant le président du groupe d'intérêt sur l'éducation cartographique. Le jugement sera basé sur le contenu et la structure ainsi que sur la qualité de la présentation. Les juges peuvent aussi prendre en considération l'étendue de l'implication de l'étudiant dans la recherche sur laquelle est basée la présentation, ainsi que de son statut (étudiant sous-gradué ou gradué) et le nombre d'années complétées.

Norman Nicholson Scholarship

The purpose of the award is to recognize and encourage exceptional student achievement and ability in any aspect of cartography. The award consists of a certificate and a cheque for $500.

Eligibility

The award shall be made to a student in good standing who is registered full-time in a recognized college or university program. The student must be a Canadian citizen or landed immigrant.

The student should have the following student status: entering the final year of a community college of CEGEP program in cartography, **OR** entering the final year of an undergraduate honours program with a concentration in cartography, **OR** a student accepted into or enrolled in a graduate program with a concentration in cartography.

Any student awarded this scholarship is not eligible in any subsequent year. The award is tenable only in the year in which it is granted.

Application

A student member who wishes to compete for the award will submit an application consisting of the following:

- An official transcript of all college or university courses completed and grades received.
- Letters of recommendation from two faculty members who are familiar with the student's work and capabilities. Letters of Recommendation are to be sent directly to the Awards Committee.
- A one-page statement from the student regarding plans for continuing education in cartography.

The application will be submitted to the Awards Committee of the Canadian Cartographic Association by March 15th of the year in which the award is to be granted.

Your application and all letters of recommendation should be sent to:

Elise Pietroniro
Secretary, Canadian Cartographic Association
708 Paul Metivier Drive,
Nepean, Ontario
K2J 2T4

For more detailed information concerning the Norman Nicholson Scholarship please read the following:
http://www.cca-acc.org/norman-nicholson.asp

Bourse Norman L. Nicholson

Le but de ce prix est de reconnaître et d'encourager les étudiants qui ont fourni un accomplissement et une compétence exceptionnels dans un aspect de la cartographie. Ce prix consiste en un certificat ainsi que d'une bourse d'études de 500$.

Éligibilité :
Ce prix sera remis à un étudiant en règle inscrit à temps plein dans un programme collégial ou universitaire reconnu. Cet étudiant devra être citoyen canadien ou résident permanent.

Cet étudiant devra être dans l'une des situations suivantes: entrer dans la dernière année d'un programme en cartographie d'un collège communautaire ou CEGEP, **OU** entrer dans la dernière année d'un programme universitaire de premier cycle spécialisé avec concentration en cartographie, **OU** un étudiant qui a été accepté ou qui est inscrit dans un programme d'études supérieures avec concentration en cartographie.

Tout étudiant qui recevra cette bourse d'études ne pourra être éligible pour une année ultérieure. Ce prix n'est valide que pour l'année de son attribution.

Poser sa candidature :
Un étudiant membre de l'Association qui désire concourir pour cette bourse d'études doit soumettre sa candidature comprenant les éléments suivants:

- Un relevé de notes officiel de tous les cours collégiaux ou universitaires complétés dont les notes ont été reçues.
- Une lettre de recommandation de deux membres de la faculté qui sont familiers avec le travail et les capacités de l'étudiant. Les deux lettres de recommandations doivent être directement envoyées au Comité du Prix Norman L. Nicholson.
- Un document d'une page où l'étudiant exposera ses plans futurs concernant la poursuite de son éducation en cartographie.

La demande sera soumise au Comité du Prix Norman L. Nicholson de l'Association canadienne de cartographie au plus tard le 15 mars de l'année de l'attribution du prix.

Votre candidature, ainsi que les lettres de recommandation, doivent être envoyées à l'adresse suivante:

Elise Pietroniro
Secrétariat, Association canadienne de cartographie
708 Paul Metivier Drive,
Nepean, Ontario
K2J 2T4

Pour de plus amples informations concernant la bourse Norman L. Nicholson veuillez consulter la page :
http://www.cca-acc.org/norman-nicholson_fr.asp

Canadian Cartographic Association (CCA)
L'Association Canadienne de Cartographie (ACC)

MEMBERSHIP RENEWAL / *APPLICATION*
RENOUVELLEMENT D'ADHESION ANNEE 2012

All fees are in Canadian dollars (no GST). Please note the additional mailing costs for members outside of Canada.

A $25 fee will be charged for any NSF cheque.

Donations may be made to the Nicholson Scholarship fund.

Tous les frais indiqués sont en dollars canadien (TPS nonincluse). Veuillez noter qu'un coût postal supplémentaire s'applique pour les membres hors-Canada.

Des frais de 25$ sont applicables pour les chèques sans fond (NSF).

Nous acceptons les dons pour le fond de la bourse Norman Nicholson.

☐ New Member / Nouveau membre

◯ Regular / Réglier (1yr / année $90)

◯ Retired / *à la retraite* (1yr / année $45)

◯ Student/*Étudiant* (1yr / année $45)

Educational Institution/ *Nom de l'institution fréquentée*:

_____

◯ Family/*Famille* (1yr / année $110)

Two names/*Nom des deux membres*:

_____

◯ Corporate/*Entreprise (*1yr / année $200)

Company Name/*Dénomination sociale*:

_____

Two Representatives/*Noms des deux représentants*:

_____

◯ Institutional/*Institutionnel* (1yr / année $45)

Institution Name/*Nom de l'institution*

_____

One Representative/*Nom de un représentant*:

_____

Institutional membership receives Cartouche only.
Les membres institutionnels reçoivent Cartouche seulement.

Address /*Addresse*:
Please make changes where necessary. / *S.V.P. indiquer les modifications s'il y a lieu.*

Name / Nom _____

Street / Rue _____

City / Ville _____

Prov/State _____

Country/Pays _____ Postal Code _____

E-mail/Courriel: _____

(must provide e-mail to receive Cartouche / *fournir courriel pour recevoir Cartouche)*

Tel(business)/*Tél(bureau)*: _____

Tel(home)/*Tél(domicile)*: _____

Fax/Télécopieur: _____

Please indicate relevant interest groups/
S.V.P. indiquez vos groupes d'intérêt:

☐ Map Production Technology/Technologie Cartographique

☐ Cartographic Education/Éducation Cartographique

☐ Map Use and Design/Conception et Utilisation des Cartes

☐ History of Cartography/Histoire de la Cartographie

☐ GIS and Geovisualization/SIG et Geovisualization

Additional Mailing Payment / *Coût Postal Supplémentaire*

☐ Outside Canada/*À l'extérieur du Canada* ($10)

☐ Online Access to Cartographica ($5)
(Must supply e-mail for this option)

Donation / Don: _____

TOTAL: _____

Payment/*Paiement*:

☐ Cheque (Cheques payable to/*chèque à l'ordre de*:
Canadian Cartographic Association/*L'Association Canadienne de Cartographie)*

◯ VISA ◯ Mastercard Exp. Date: ☐☐☐☐

Card Number: ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

Please Return to /
***Veuillez expédier à*:**

Canadian Cartographic Association
c/o Paul Heersink, Treasurer
39 Wales Avenue
Markham, ON L3P 2C4
Fax: 416-446-1639
treasurer@cca-acc.org

Quarterly Newsletter of the
Canadian Cartographic Association/Association canadienne de cartographie

www.cca-acc.org

CCA Executive / Exécutif de l'ACC

Interest Group Chairs / Présidents des groups d'Intérêt

Appointees /Personnes nommées

ISSN 1183-2045

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