

Cartouche

Number 91, Summer/Autumn 2015

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Geohistory-Géohistoire Canada
Canadian Historical Geographic Information Systems Partnership - Partenariat
canadien en systèmes d'information géographiques historiques

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CHGIS Partnership

The vision of the Canadian Historical GIS Partnership is to provide a forum for academic and public researchers and institutions, in Canada and beyond, to share data and best practices for mapping Canadian historical subjects on the web. At present we are a group of people who have been using Geographic Information Systems to explore Canadian historical questions, in many contexts, for many years. We collect, research and analyse historical data and use them to make historical maps, build models of long-destroyed landscapes or streetscapes, and do statistical or spatial analyses. We work in universities, companies, and non-profit research organizations. We work, for example, on resource and land use questions facing rural Canadians, growth and development issues confronting urban-dwellers, and the challenges all Canadians face in building and rebuilding our social and physical infrastructure. We are historians, geographers, cartographers, librarians and private citizens who think that looking at our history through a geographical lens can help illuminate many such issues facing Canadians today.

Over the past few years we have been talking about what we can do jointly to make it easier to work on these subjects using GIS, for ourselves, and for newcomers to these efforts. We have seen cases of individual historical research projects and mapping projects that have successfully addressed questions or built resources, but ways of sharing these and leveraging investments of time and energy have been elusive. These frustrations have led to a consensus that Canadian historical GIS practitioners need new and better

News & notes - latest

- Some thoughts on the state of HGIS visualization
- Initial Strategy meeting of CHGIS partnership

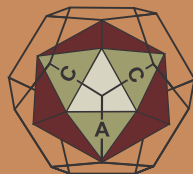
Categories

- CHGIS Partnership news
- Project progress

The Canadian Historical GIS Partnership development project has been successfully launched. The project, known as **Geohistory-Géohistoire Canada** can be accessed at www.geohist.ca. More information about this project can be found on page 4 of this issue of Cartouche.

Newsletter of the
Canadian Cartographic Association

www.cca-acc.org



Bulletin de
l'Association canadienne de cartographie

www.cca-acc.org

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"You can always tell a Midwestern couple in Europe because they will be standing in the middle of a busy intersection looking at a wind-blown map and arguing over which way is west. European cities, with their wandering streets and undisciplined alleys, drive Midwesterners practically insane."

— Bill Bryson

PRESIDENT'S MESSAGE

Christopher Storie
University of Winnipeg



Welcome to the Summer/Fall edition of Cartouche and please accept my apologies for the delay in getting this issue to press. The end of term quickly caught up with many of us delaying the release of this issue. As usual we hope you to enjoy the issue and the articles contained. We still would like to continue our "Why Am I A Cartographer" piece in future issues so please give some consideration to submitting a small write-up at a future call for submission.

Most importantly this is the official announcement of CCA2016. We are pleased to inform you that we are meeting with the Canadian Remote Sensing Society in Winnipeg, Manitoba on June 7-9, 2016. We are currently putting together a strong and engaging conference that we hope all of you can attend. Please watch out for a First Call for Papers that should be electronically arriving in your inbox shortly. The organizing committee wants to build on our strong showing in PEI with an equal or stronger showing in Winnipeg. This year's theme "Imagery to Map" was meant to be as inclusive as possible for both associations and reflects the role remote sensing and cartography plays in our understanding of the earth around us. We looking forward to seeing returning and new faces in 2016.

Finally, the CCA is going through a process of renewal. We have several opens vacancies on the executive that we need to fill. The association cannot function without volunteers and many of you have dedicated a lot of your time to this association and for that we are grateful. For those that have considered helping out in some way, now may be the time to act. Cartography as a discipline and profession is at a turning point and having a strong national association to act as the voice for all map makers is critical in ensuring that we as a community continue to remain connected, thrive, continue to grow. I encourage those reading this to think about volunteering for an open position. If you are interested please don't hesitate to contact me for additional information.

Happy Holidays,
Chris

VICE PRESIDENT'S MESSAGE

Julia Siemer

University of Regina



Recently, I came across an ad on Ebay that captured my interest: the 2-cent Canadian Christmas stamp of 1898. Many of you are probably familiar with this stamp which shows a map of the British Empire in bright red, featuring Canada in the centre of a Mercator projection. Although this map is not of particularly high cartographic quality, it fascinated me nevertheless and led me to do a bit more research on the use of maps on Canadian stamps. I was, of course, aware of the domestic stamp to commemorate the 100th anniversary of the National Atlas of Canada which I bought when it was released in 2006 – only because of my interest in national atlases. A quick Google search resulted in quite a list of Canadian (and even more international) stamps that feature maps at varying levels of detail, as well as websites with background information. Obviously, there are many people interested in philatelic cartography – just as there are many ‘normal’ cartography lovers and map geeks. Unfortunately, many do not recognize the personal value in

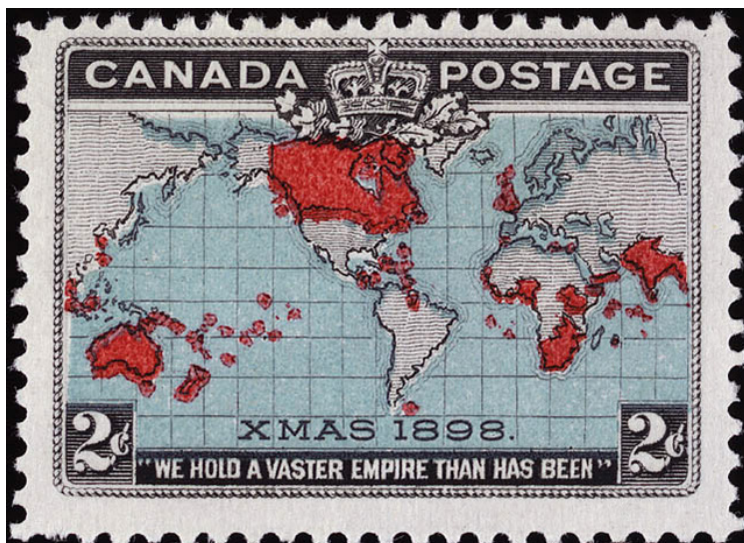
being a member of a cartographic organization such as the CCA (as our declining membership numbers indicate), nor do many seem to see the need of keeping such associations strong at an organizational level. Despite the increase in use of spatial data and its visualization – or maybe because of it – the perceived importance of cartographic knowledge seems to diminish. But we all know how important it is to know about cartographic principles, theory and practice to create attractive and useful maps. This becomes even more important with the technology currently available to create maps so very easily.

With ongoing and potential future changes to the organizational structure in the field of geosciences (e.g. GeoAlliance Canada, www.geoalliance.ca) the CCA needs to be heard and needs to be influential. One way to do this is by keeping our membership numbers strong. With Christmas around the corner, consider giving a CCA membership to someone you know who loves maps and support not only your friend or relative but also the CCA and cartography! Or treat yourself and renew your own membership for 2016 now. For more information see our website at <http://cca-acc.org/membership/>.

I wish you a cheerful and Merry Christmas and all the best for the New Year!

Julia

Julia Siemer is the Vice-President of the Canadian Cartographic Association and an Associate Professor of Geography, specializing in Cartography and GIS, at the University of Regina, Saskatchewan.



The 1898 Xmas stamp is considered one of the first Christmas stamps circulated in the world. (Source: Library and Archives Canada)

HISTORY of CARTOGRAPHY INTEREST GROUP

Byron Moldofsky

University of Toronto

The Canadian Historical GIS Partnership

In the previous issue of *Cartouche* I reported on some of the historical GIS and cartography presentations at the CCA2015 Conference in Prince Edward Island. Many of these used historical maps as integral data sources. At the end of that report, I made the point that all of these admirable projects could have benefitted if there was some way to share resources – data and methods – to facilitate historical GIS in Canada. I also mentioned that a proposal had been put forward to SSHRC for a Partnership Development Grant, by Marcel Fortin at the University of Toronto Library, supported by my department, Geography, and signed on by a number of other NGOs, universities, industry, and other partners and collaborators from across the country.

I am happy to announce that this proposal, for a Canadian Historical GIS Partnership development project, was successful. We recently launched the project website, and re-branded it as **Geohistory-Géohistoire Canada**. There are lots more details about the project proposal, and there will be ongoing updates, on its new website at www.geohist.ca.

The stated goals of the project are:

1. Build and expand a network of Canadian researchers and community members engaged in Historical GIS
2. Produce and disseminate a series of White Papers on HGIS methods
3. Develop HGIS-specific standards for Geospatial data structure and for Research Data
4. Build a pilot version of an open, accessible Historical GIS data portal.
5. Build a pilot version of an open, accessible interactive mapping website.

Of course it's much easier to work up a list of goals and some general proposals for implementation, than it is to actually create a hard plan of how to achieve them. Last August there

was a kick-off meeting at U of T, where 20 of the partners and collaborators attended. And of course it quickly became clear that historians, geographers, local history groups, and GIS industry leaders might all have somewhat different conceptions of what kinds of products and tools such a partnership should develop and promote. We're working on that.

The idea is to spend the first year of the project researching and writing these "White Papers", and working on the HGIS-specific standards for data, so we can make clear proposals for the pilot web portal and interactive mapping sites. Updates on progress on the papers and proposals will be posted on the project blog as we go along, and then draft versions mounted online in the Spring of 2016. Then there will be a meeting in June 2016, which all interested parties will be invited to attend, in person or by remote link. We hope to engage everyone interested in working in historical GIS in Canada in a wide-ranging discussion of what we have come up with, how these tools may meet their needs and wants, or not, and how the proposals could be improved. The second year will be spent developing the online pilots, and another "everybody welcome" meeting will take place in 2017 to see how we got on.

This project really intends to be a partnership development project, in the sense of building a community, and enabling communal resources - trying to pin down and create the kind of tools that the historical mapping and GIS community needs as a whole. We want to invite all interested folks to participate – if you are interested in joining in, please sign on for updates on the website using our contact form, at <http://geohist.ca/contact-us/>.

MAPPING TECHNOLOGIES & SPATIAL DATA INTEREST GROUP

Margaret Schweitzer
Hamilton Archaeological Consulting

New Kid on the Block



Chris Storie practiced his social skills of good grace and flattery by asking me recently whether I was willing to sit (perform?) on the executive committee of the CCA. The position to be filled was that of Interest Groups Chair in regards to Mapping Technologies and Spatial Data. I happily agreed, secretly hoping that I wasn't being offered the position because no one else wanted it. He also very generously allowed me to "have the floor" so to speak, so that I may bring forward topics on a wide range of mapping interests. I intend to carry out this mission with conviction and enthusiasm.

However, I wish to state at this early juncture that the work is not about me by any means. It is about all of us as cartographers, what we think, and who we are. It is about the CCA as an organization, and any team is only as good as the players who make it up. In this agency, I will initiate discussion by occasionally raising subjects that may be controversial to some. For example, do we have a responsibility of moving social change in any given direction, simply by the maps that we create? Who do cartographers ultimately answer to? Another feature which I wish to bring to the CCA is a readers' forum, where members voice their thoughts via Cartouche, because it is only when we share ideas and understand different points of view that the CCA can continue to move forward. You may address any articles previously published or bring on board discussions or arguments (or information) that you feel need to be raised. We are here to learn from one another.

And while I am a not-so-secret GIS addict personally, I challenge all of you to step back a bit and temporarily forget about all the neat technology which is so readily available to us today. After all, was David Thompson a cartographer or a data manager? The answer is, he was both of those, and much more than that. Thompson's interests in mathematics, astronomy, geography, and survey give us a set of skills to

emulate in our own lives. While some may view his map-making tools as antiquated today, they are most certainly not! The fact that we often use geospatial data to create maps in a very short time does nothing to discount the early work that went into producing that technology. In effect, we are still in David Thompson's world; we just have cool gadgets now. I believe that Mr. Thompson himself would be impressed by what we can do, but not surprised.

Let us begin with the compass. Have many of you used it lately? Have you ever used one? With continual improvement in the positional data accuracy provided by satellites, it is easy to think that there is not much use for the compass anymore. Nothing could be further from the truth. So let's have a go with it, just for fun.

You may use almost any hand-held compass; there are many types or brands available. Mine is a Silva Prospector, about 45 years old. Find an NTS map for the area you wish to explore. The larger the scale, the better, but a 1:50,000 map will do in a pinch. Set the edge of the compass horizontally along the line you want to travel (it helps to draw the line on the map with a pencil and ruler first). The location and the destination must be on a straight line along the long edge of compass, so check to make sure that the compass slide and box (if it has one) line up properly; they may be parallel but not actually lined up. Next, turn the compass housing until the meridian lines on the transparent face are parallel with the meridian lines on the map. Make sure that the North line points to North (the top) on the map. This is not the magnetic compass needle but the letter N that is part of the housing where the degree markings are.

Now you are almost ready to go. Lift the compass from the map and turn the entire compass horizontally until the red end of the magnetic needle points to the North and is also parallel with the orienting lines on the housing. This is your

line of travel, and all you need to do is to follow the sighting line. It's simple if you have a landmark in the distance to head towards, so that you don't need to continuously hold the compass out in front of you as you walk. Once you get to the landmark, you can then take another bearing and compare it to your map. Even in unfamiliar territory, if you follow these steps, it's hard to go wrong.

Some compasses have a sighting mirror. This is used when a person wants to keep a very accurate bearing. The compass must be kept level when using this feature. Lastly, don't forget about magnetic declination; this is the difference between True North and Magnetic North, measured as an angle. The amount of declination in your region will be recorded on the map that you use, and you compensate for it with your compass bearing. Add degrees for any area west of the line of zero declination (near Thunder Bay, Ontario), and subtract degrees for areas east of the line of zero declination. Simple as mud? Give it a try and you won't be disappointed. It's a great excuse to get outdoors and to practice your ability to judge ground distances and to identify map locations. When you've traveled as far as you want to along the line you chose, just turn around and use a bearing that is 180° opposite from the first one. Voila!

Please write in and share your experiences with compass and map-reading skills, no matter how embarrassing you think they are. Making mistakes is the best way to learn. Of course, stories can be about any aspect of compass use. As we end here, give a thought to David Thompson once more, and how he made maps using a sextant and other survey instruments.

CCA Position Openings

The CCA has several openings on our executive, which include:

1. Treasurer
2. Membership Coordinator (may be combined with treasurer)
3. Cartouche Editor(s)

For information on any of these openings you can consult the executive tasks list page on the CCA website or contact Christopher Storie at president@cca-acc.org.

Winnipeg is how many smoots from Brandon?

As geographers most of us have used Google Earth for research, assignments or just to view other parts of the world. One of the handiest tools available on Google Earth is the ruler. With the ruler one can measure the distance between any two places on the surface of the Earth using any unit of distance, from kilometers to miles to smoots. Smoots?

What is a smoot? A smoot is a non-standard unit of length devised as a prank by a group of MIT students in Boston. It is named for Oliver R. Smoot whose body (head to toe) was used to measure the length of the Harvard Bridge between Boston and Cambridge. A smoot is equal Oliver's height of 1.7 metres and the bridge's length was measured to be 364.4 smoots (620.1 m). Smoot graduated in 1962, became a lawyer and eventually chair of the American National Standards Institute and president of the International Organization for Standardization (ISO).

People crossing the bridge today can see markings indicating the length of the bridge measured in smoots. In October 2008 the prank's 50th anniversary was commemorated with Smoot Celebration Day at MIT. In 2011 "smoot" was one of 10,000 words added to the fifth edition of the American Heritage Dictionary.

For trivia buffs, Oliver Smoot is the cousin of George Smoot, a Nobel Prize winning physicist. George Smoot made an appearance in "The Big Bang Theory" as the featured speaker at a physics symposium where Sheldon frantically tries to collaborate with him on his research paper (even allowing George top-billing!). George rejects the offer with line, "excuse me Dr. Cooper, but are you on crack?"

For the record, Winnipeg is 119,278 smoots from Brandon.



The 100 smoot mark on the Harvard Bridge (photo credit: dvortygirl)

FEATURE ARTICLE

Steve Prashker
Carleton University

The Twilight of the Roadmap's Life – A Commentary

Is the traditional paper roadmap entering the twilight of its life? For hundreds of years, the printed map has been our guide and the document of choice for mapping out things and navigating the earth. Recently, its traditional form has been usurped by these digital renditions on screens that this author requires glasses and magnifiers to see. However, the question still is – regardless of whether a man uses the traditional paper roadmap or the current electronic equivalent, when men get lost, why do they continue to attempt to find the right path without asking for directions.

Traditionally, men have had some difficulty in admitting that they needed help in navigating, i.e. that they are lost. To stop at a gas station for directions, at the sometimes gentle suggestion or forceful request of their spouse or partner, is a blatant attack on their driving skills, or is it manhood? The spouse sits quietly watching their partners make navigation mistake after mistake, perform wrong turn after wrong turn, go south rather than north etc, all the while getting increasingly frustrated until they shout and demand that you ask for directions at the next service station.

Today, men can now breathe a sigh of relief in that they have an alternative to the horror of asking for directions when their paper roadmap, or rather, when their interpretation of the paper roadmap, fails them – the smartphone GPS navigation application or the fast disappearing standalone GPS unit. However, the horror of asking someone else for directions has now been replaced with the horror of using and programming these devices! In the old days, one just had to unfurl a trusty roadmap, find one's location, find one's destination, verify the best route for your requirements, and you were on your way. Men are again facing a similar dilemma in the digital world of navigation (or perhaps it's just this author) as they would now prefer to, or have to, spend hours on end trying to figure out how to use the GPS software and its myriad of options and settings, rather than just plain asking

for directions. And in the end, by faithfully following the small electronic gadget's directions, they could wind up at the edge of a lake with no more road ahead of them!

So what has changed in the world of road navigation? Before, you had an inanimate map that you stuffed in a glove-box, searched frantically to find, unfolded, perused, studied, wrote notes on, and refolded (usually unsuccessfully and never as originally folded, ruining the creases in the process!). Now, you have a device 1% of the size, showing at most 10% of your route, requiring dozens of configuration settings, and it still may not get you to where you are going. How many times have you heard from the GPS device 'Exit here', 'turn around', 'in 100 meters, go left, then left' - frantic repetitions as you drive against the device's wishes? Sometimes there is just silence as the device tries to figure out where you're going. However, that may all be tolerable because the device talks to you in a sexy voice that you can configure. But if men



How many types of road maps must a man read before he admits he is lost?

still get lost using a GPS, will they stop and ask for directions? Men being men – probably not!

So why is it that men, when trying to navigate, would rather be stubborn and stick to themselves than ask for directions when they get lost, regardless of the navigation method they use? A good question, so I asked someone who might know – my wife! Is it ego, embarrassment, sense of power, foolishness, stupidity or all of the above? She thinks it's a man's sense of pride to find the destination on his own, like an adventure, without any outside interference. Men are on the hunt and they want to find the kill themselves, so they can beat their chest like an ape and say 'See, I did it!' Unfortunately, it may have taken them hours longer to get to their destination.

Just a note. My wife reminded me of our last adventure and how the GPS got us lost and we ended up using the old school, trusty roadmap in the glovebox. So, perhaps the old roadmaps aren't in their twilight of their life just yet.

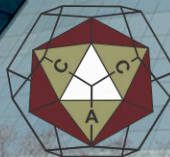
The opinions expressed in this commentary are those of the author and probably do not extend to all men in general, but the ladies may have something to say about that!

IMAGERY TO MAP

37th CANADIAN SYMPOSIUM ON REMOTE SENSING
41st CCA CONFERENCE & ANNUAL GENERAL MEETING

The organizing committee invites you to join us in Winnipeg, Manitoba, the centre of Canada, for an exciting and comprehensive program. We invite presentations for all topics in remote sensing and related technologies and cartography and its related aspects. Special sessions are invited from all interested individuals. General sessions will be organized around broad themes ranging from data acquisition to the production of the final cartographic products. We look forward to seeing you all here in Winnipeg in 2016!

JUNE 7 - 9 2016
THE UNIVERSITY OF WINNIPEG
WINNIPEG, MANITOBA, CANADA



CCA-ACC.ORG



WWW.CRSS-SCT.CA

CONTACT:

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FEATURE ARTICLE

Carmen Huber & Claus Rinner

Ryerson University

Oil Train Derailment in the City? Estimating Toronto's Real-Estate Value at Risk

The City of Toronto is crossed by major freight routes owned and operated by the CN and CP railway companies. Following the 2013 Lac Megantic disaster in Quebec, the Toronto Star newspaper started a series of articles based on growing concerns from local communities and City councillors about the risk from hazardous material transports on those tracks. For example, in April 2014, the Star reported that in a 24-hour period “more than 130 cars of crude oil, tankers carrying methyl bromide and ethyl trichlorosilane — highly poisonous chemicals rated among the world’s most dangerous — as well as radioactive material, methanol, diesel, sulfuric acid and other hazardous goods” [1] were observed on the CP line along Dupont Street, cutting

through high-density residential neighbourhoods. Around the same time, the grassroots initiative Safe Rail Communities [2] started lobbying for enhanced safety procedures, and local politicians are pressuring the federal government and railway companies for more information sharing and increased safety measures, including the re-routing of dangerous goods transports to rural areas to the north of Toronto [e.g., 3]. At the federal level, Bill C-52, the Safe and Accountable Rail Act, was introduced to amend the Canada Transportation Act and the Railway Safety Act. The amendment includes more stringent liability insurance requirements of up to \$1 billion to cover the risks of bodily injury or death, third-party property damage, as well as pollution and contamination risks [4].

In this exploratory study, we were interested in the potential real-estate property damage from an oil train fire or explosion within the City of Toronto. We used the 800-metre isolation and evacuation zone for crude oil train fires specified in Transport Canada’s Emergency Response Guidebook 2012 [5] as well as the one-mile (approximately 1,500-metre) potential impact zone considered by the US Department of Transportation according to several sources such as the web site “Oil Train Blast Zone” [6]. We found that approximately two-thirds of Torontonians live within the potential impact zone and that an oil train accident within the City could put property values up to \$14b at risk.

The analysis is based on the main railway lines from DMTI’s CanMap RouteLogistics “Rail and Transit Lines” (2014 update) as well as address points (Sept 2015) and average residential home prices per neighbourhood (2011-2012 data) from the City of Toronto open data catalogue. In Figure 1, the 800m buffer, which includes

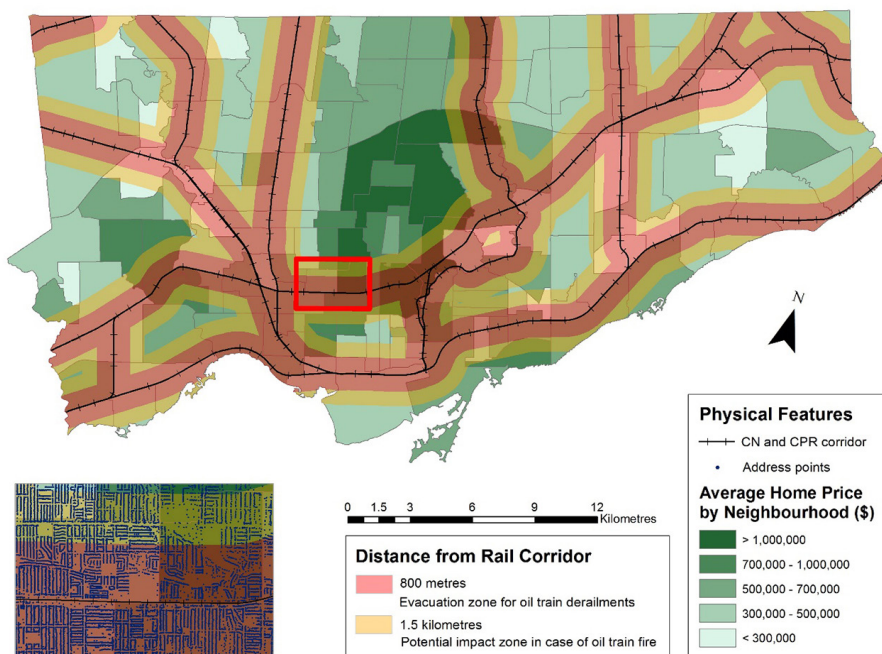


Figure 1: 800m and 1.5km buffers around major railway lines in conjunction with average home prices in Toronto neighbourhoods. Inset also shows individual address points.

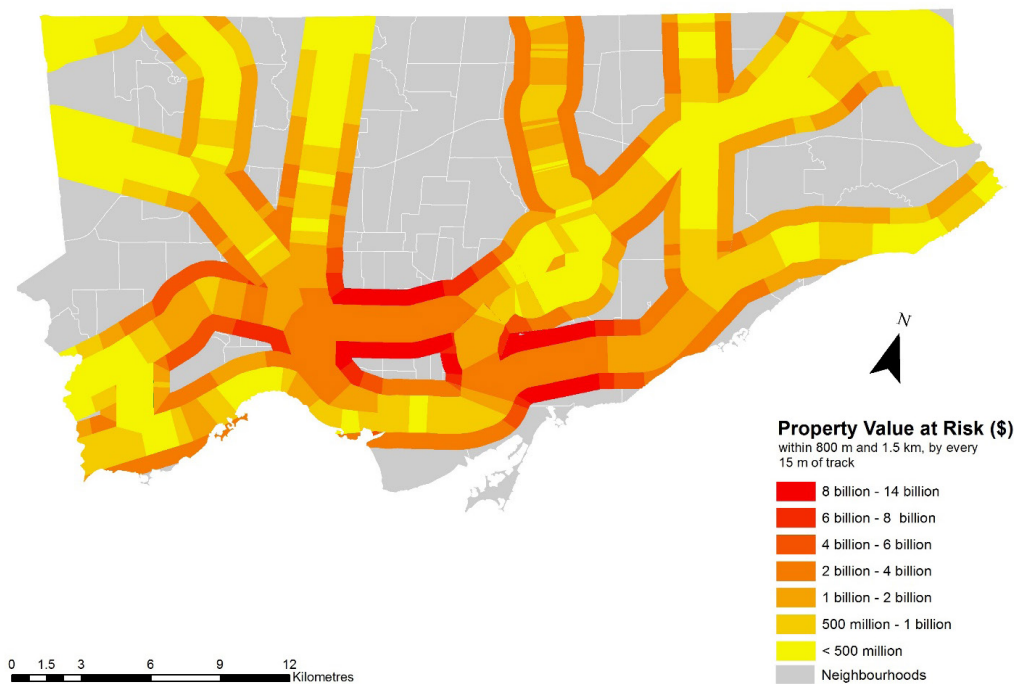


Figure 2: Total property value at risk by 15-metre railway segments.

202,506 address points or 39% of all Toronto addresses, is shown in red; the yellow 1.5km buffer includes 341,974 addresses or 66% of all addresses. To estimate the property damage that could be caused by a rail accident, we assigned each address point the average home price of its corresponding neighbourhood (also shown in Figure 1). The railway lines were then split into 15-metre segments (the approximate length of a rail car) to assess the varying risk along the each corridor. The 800m and 1.5km buffers were created around each of these potential accident locations and the values of the address points within each buffer were summed, resulting in the total potential property damage.

Figure 2 displays the spatial patterns of property value at risk. Property value at risk within the larger “potential impact” radius has a maximum of \$14 billion for a single incident, and is generally much greater than property value at risk within the smaller “evacuation zone”, which ranges up to \$4 billion. As one would expect, greater values cluster in the core of the City in densely populated neighbourhoods with expensive dwellings. The three points of greatest potential damage within the 800m buffer are located in the Annex neighbourhood, while the maximum damage points for the 1.5km distance are located in the Dovercourt-Wallace Emerson-Junction, Birchcliffe-Cliffside, and Little Portugal neighbourhoods.

Although this analysis may provide valuable risk estimates for policy-makers and community advocates, our approach has important limitations. The average home price data used were from 2011 and therefore not up to date. The inclusion of the many recently completed condominium properties, for example, would likely further increase the value-at-risk in the downtown area. In addition, different address points may represent largely different types of property, including single residential, multi-residential, institutional, and commercial. Individual property values per address are not publicly available, and using the average residential home prices as a proxy may under-estimate the value of properties near railway lines, because these may include higher proportions of expensive commercial and multi-residential properties.

However, it is also possible that some neighbourhoods have lower-price homes within undesirable proximity to the rail corridor. Although the distances used for the analysis are based on government safety regulations, it can be hoped that some properties within the circular buffers around an incident location would be not affected, or not at their full value, thus our results may be over-estimated in this regards. In addition, not all railway lines shown may currently be used for dangerous goods transports. Finally, it must be noted that the analysis did not take human casualties and the costs of emergency response, medical treatment of injuries, or lost business into account.

References and Web pages:

- [1] The Toronto Star, Toxic chemicals, crude oil, radioactive material ride the rails through Toronto. By Jessica McDiarmid, news reporter. Published on Sat Apr 26 2014
- [2] Safe Rail Communities, Web site, <http://www.saferail.ca/>
- [3] The Toronto Star, Toronto and Mississauga mayors want dangerous goods off their cities' rail lines. By Jacques Gallant, staff reporter, and Jessica McDiarmid, news reporter. Published on Thu Dec 04 2014
- [4] Bill C-52, An Act to amend the Canada Transportation Act and the Railway Safety Act. First reading, February 20, 2015, 41st Parliament, 2nd session
- [5] Transport Canada, Emergency Response Guidebook 2012, Guide 128 (petroleum crude oil)
- [6] Oil Train Blast Zone. Web site by ForestEthics, <http://explosive-crude-by-rail.org/ca/>

FEATURE ARTICLE

by Majella-J, GAUTHIER, Professor Emeritus
LERGA, Université du Québec à Chicoutimi



Study on Microclimates in Agriculture Providing Input for Reflection and Action: Case of St-Fulgence in Saguenay (Québec, Canada)*

Our team's new perspectives on climate resources of the Saguenay-Lac-Saint-Jean region are promising, especially when located at the northern fringe of agriculture in Quebec. Indeed, these perspectives open imagination on some parts of the country's agricultural landscape; this assuming that the land is used to its greatest potential. In other words, can land that is not currently used in an optimal manner be developed?

In this regard, the territory in St-Fulgence, near the Saguenay River, is an interesting case. There are propitious conditions

concretizing the existence of microclimates for horticulture; similar conditions, proportionately, to what we have seen in Finger Lakes (USA), on the northern shores of Lake Erie in Ontario, on Lake Geneva in Switzerland, and Lake Balaton in Hungary. We find there a large body of water nearby, sloping ground toward the south capturing the Sun's energy, embankments and terraces made of fertile deposits (Figure 1). This combination, found in Saint-Fulgence, is currently paired with a concentration of diverse horticultural activities on 88 ha: vegetable cultivation, berries, fruits, fruit trees, orchards, and grapevines. This is manifest proof.

Our analysis using geomatics demonstrates that it would be possible to extend horticulture over an area seven times larger than what is currently exploited, especially by reclaiming former farmland that has since reverted to forest.

The detailed map produced (Figure 2) represents an idea, a vision, of what could be a new integrated, diverse, harmonious, and living landscape, especially since it is easy to imagine that, on one hand, a greater 60 km-long strip of land has the same biophysical characteristics and, on the other hand, there are portions of land that are similar in the region of Saguenay-Lac-Saint-Jean and elsewhere in Quebec.

All that remains is for the population and development actors to see the advantages, to take the lead, and make of this part of the country a unique horticultural production site in Quebec.



Figure 1: The village of Saint-Fulgence. Conjunction of conditions conducive to the presence of microclimates for horticulture: slopes, exposed to sun and fertile soils low in altitude and near the Saguenay River (Photo: Dany Caron).

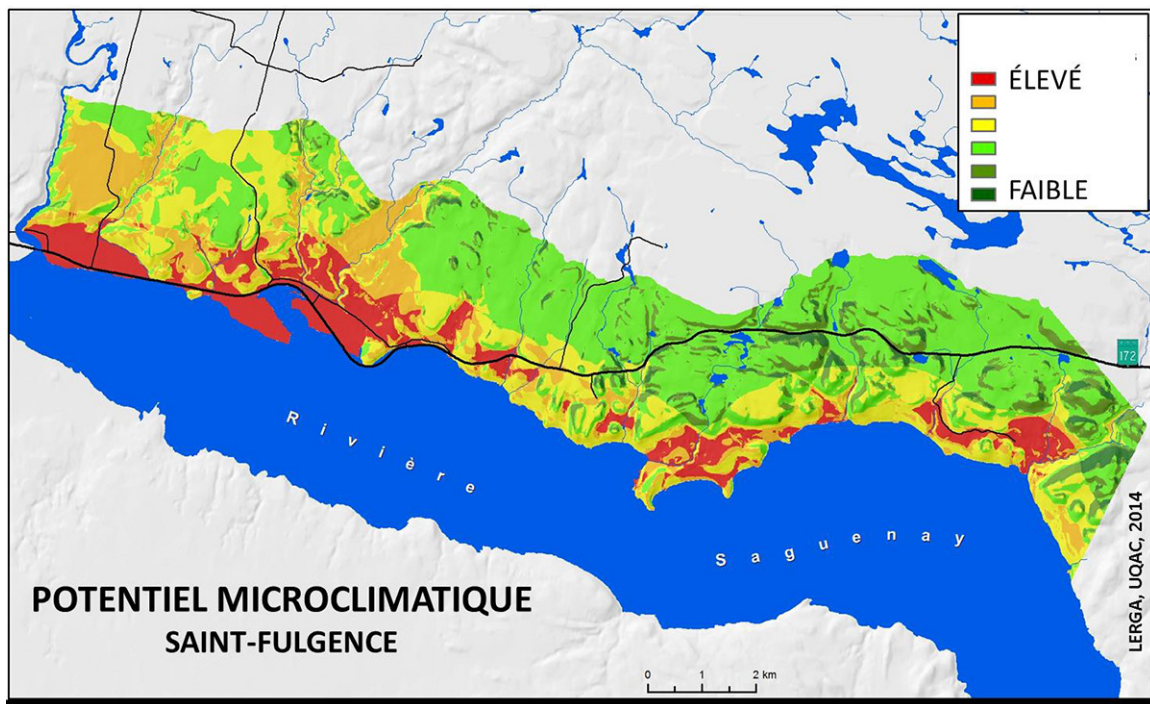


Figure 2: In terms of microclimatic potential, areas in red are the best surfaces.

References:

GAUTHIER, Majella-J., Mélanie LAMBERT et Carl BRISSON, 2015, *Délimitation de microclimats favorables à l'agriculture à Saint-Fulgence*, Québec, Canada, LERGA, Université du Québec à Chicoutimi, <http://constellation.uqac.ca/2870/>.

GAUTHIER, Majella-J., Mélanie LAMBERT et Carl BRISSON, 2015, *Microclimats et agriculture au Saguenay-Lac-Saint-Jean: le cas de Saint-Fulgence*, Bibliothèque de Jonquière, conference recorded by MATv Saguenay May 5, available on Television or on the Web (eventually). <http://matv.ca/saguenay-lac-saint-jean/mes-emissions/grandes-conferences>.

GAUTHIER, Majella-J., Mélanie LAMBERT, et Carl BRISSON, 2015, *Microclimats et agriculture à Saint-Fulgence: leurs potentiels pour l'horticulture: une analyse géographique*, LERGA, Université du Québec à Chicoutimi, research report, 148 pages (include 29 photos, 44 maps, 22 charts, and 8 diagrams).

*Thanks to Mélanie Lambert and Carl Brisson for their work as research professionals.

BOOK REVIEW

Paul Heersink
ESRI Canada

The Art of Illustrated Maps: A Complete Guide to Creative Mapmaking's History, Process and Inspiration

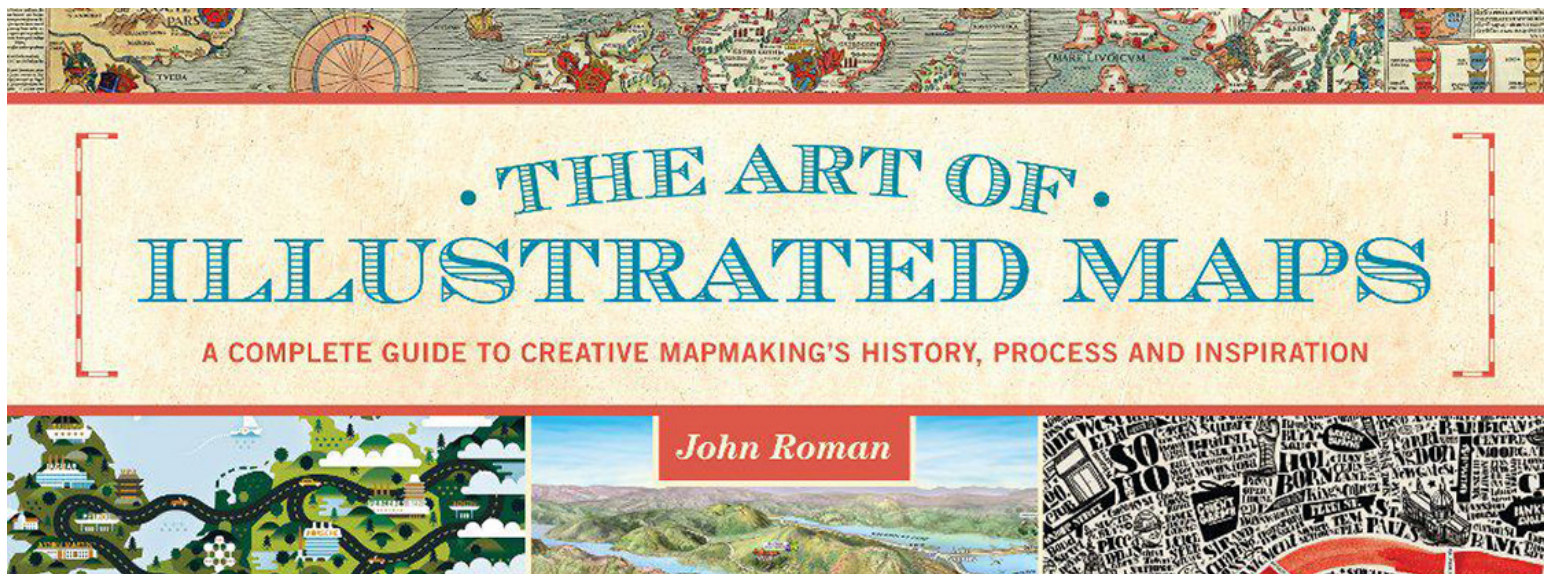
The Art of Illustrated Maps: A Complete Guide to Creative Mapmaking's History, Process and Inspiration

by John Roman

Published by HOW Books, hardcover, 200 pages \$35

The *Art of Illustrated Maps* pretty much tries to accomplish what its subtitle states. The book's first section lays out in detail what the author, John Roman, sees as the history of illustrated maps – that is, maps that are meant to be more artistic and “creative” than more technical approaches to mapmaking which tend to pay closer attention to positional accuracy and use standard cartographic symbology and representations: think 3D perspective drawings of cities or university campuses that might be used as part of a magazine story or advertisement. Cartography has often been considered to be a balance between art and science. These maps, Roman wants us to think, weigh more heavily on the artistic side of things.

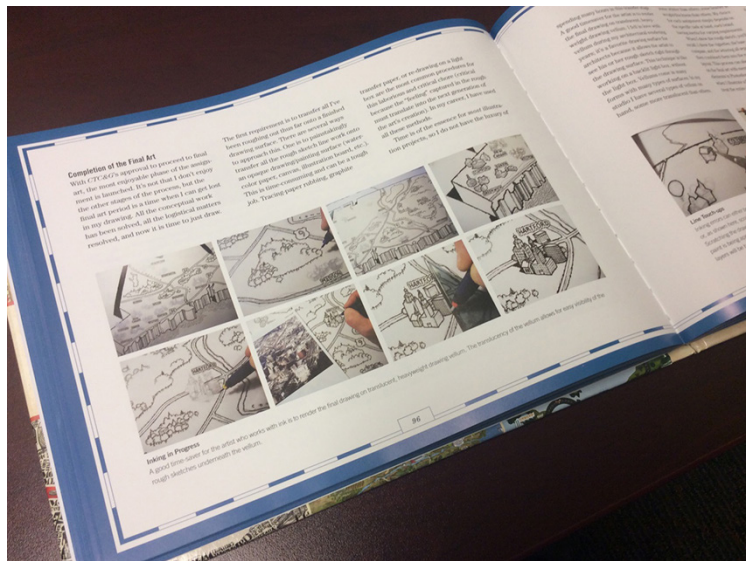
John Roman is a successful illustrator specializing in illustrated maps. *The Art of Illustrated Maps* appears to be his second published book. After introducing us to illustrated maps by relaying its long history, Roman provides the reader with some insight into the illustrated mapmaker's perspective. Keep in mind that the illustrated mapmaker is considered to be somewhat of an artist and so many of the same considerations made by an artist are discussed in detail here: the golden spiral of design, the act and impulses of creative work, and the hierarchy of design. From here the book moves on to the third section that describes in some detail the process of creating an illustrated map from start to finish. And this is where the first shortcoming with the book becomes apparent. The process described in Part III is a manual hand-drawn one with nary a computer in sight. Drafting tables, ink, vellum and X-Acto knives feature prominently. This begins to feel more like a pleasant diversion into the tricks of the trade for many “technical” cartographers – except that these tricks were a common part of any hands-on cartographer 30 years



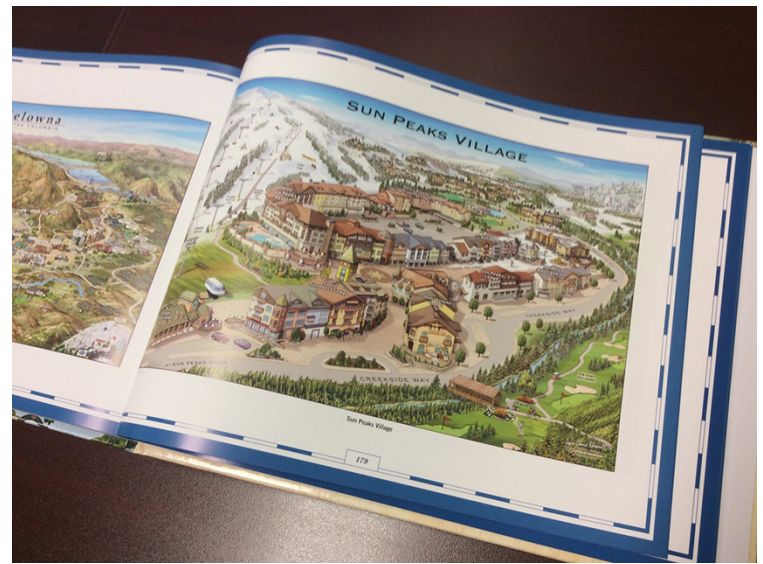
ago. Technical cartographers have moved on to employ digital tools; it appears that “creative” cartographers have not. The example illustrations in the book appear modern in style but the process by which they were created has a definite retro feel to it. There is not even a mention in this section that there may be other ways of creating illustrated maps. This section of the book ends with a number of full page examples of the author’s work.

The book is rounded out with a section that highlights the work of 16 other illustrated mapmakers with brief biographies on each and numerous colour examples taken from their portfolios. The maps are interesting and the more tech-

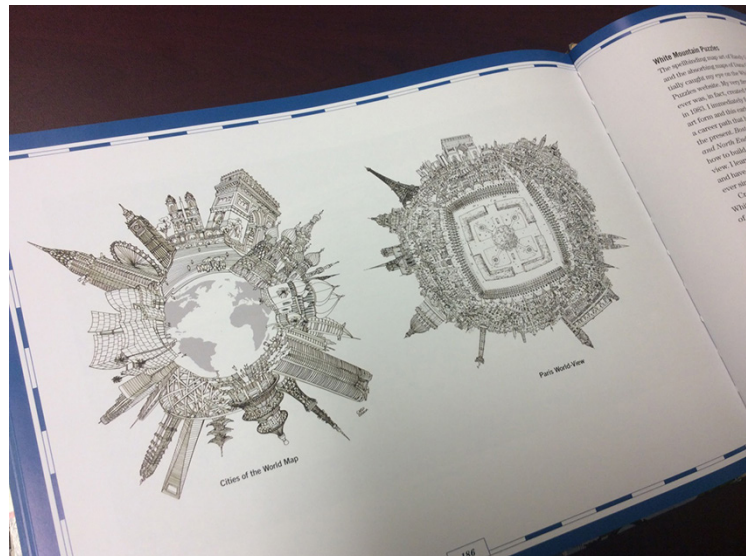
nical pieces among them impressive but many of the samples appear more as illustrations than maps. There is no fault in that – they are what they need to be but the term map is bandied about rather loosely here. Throughout the entire book, Roman seems to want the reader to consider all of the illustrated maps to be maps but maps in a different category than the technical maps bound by the mundane demands of science and accuracy. In this there is a sense of vanity and superiority of product that the author seems to convey. The book is well written and well-illustrated with a multitude of examples but I can’t get over the feeling that the entire book is a bit of a vanity project: mildly interesting but mainly a justification for why illustrated maps deserve to be in their own category.



A page illustrating the manual process of creating an illustrated map.



One of many colour examples of illustrated maps.



A couple of examples of illustrated “maps”.

CANADIAN CARTOGRAPHIC ASSOCIATION Financial Report 2015

The following pages are the CCA's annual financial report for 2015. Some highlights:

- The CCA's finances continue to slowly deteriorate.
- The association outspent revenue by \$2,555.
- Revenue from membership fees declined by about \$700.
- The PEI conference earned the Association about \$900 (this amount does not include AGM travel expenses).
- Designated funds remained stable.
- Term deposits (including general association, Nicholson Fund and Carto-Québec) earned about \$829 in interest. These term deposits mature in February 2016.

The long term success of the CCA depends on a healthy balance sheet. Although the association's reserves are substantial for such a small organization and will help to sustain it over the short term, the long term prospects are negative. Revenue/membership needs to be increased and spending significantly reduced.

Paul Heersink CCA
Treasurer
December 2015

CANADIAN CARTOGRAPHIC ASSOCIATION

STATEMENT OF FINANCIAL POSITION

30 November 2015

Association Assets	2015	2014	2013
Term Deposit ¹	\$45,133	\$44,510	\$49,147
Cash ²	\$4,397	\$6,876	\$5,646
Total Association Assets	\$49,393	\$51,386	\$54,793

Designated Assets	2015	2014	2013
Association Carto Québec Fund ³	\$7,751	\$7,644	\$7,644
Nicholson Scholarship Fund ⁴	\$8,879	\$8,756	\$8,692
ICA Children's Map Fund ⁵	\$1,872	\$2,072	\$2,122
Total	\$18,502	\$18,472	\$18,458

Notes:

¹ This term deposit is strictly for Association general use. It earned \$623 in interest in 2016.

² In addition to the amount stated, an additional \$500 will be deposited in the Association's general bank account when the term deposits mature. This \$500 will be coming from the Norm Nicholson Scholarship Fund upon maturation of the term deposit in February 2016.

³ Association Carto Québec funds are currently sitting in a term deposit and earned \$107 in interest in 2015.

⁴ The Norm Nicholson Scholarship fund earned \$123 of interest in 2015. As well, see note 2 above.

⁵ The ICA Children's Map Fund currently sits within the Association's general bank account.

ON BEHALF OF THE ASSOCIATION

Paul Heersink, Treasurer

CANADIAN CARTOGRAPHIC ASSOCIATION

STATEMENT OF REVENUE AND EXPENDITURES

November 30, 2015

Association Specific Revenue and Expenses¹

Association Revenue	2015	2014	2013
Membership fees	\$8,138	\$8,709	\$10,438
Interest on bank account & term deposits	\$623	\$364	\$2
Conference Revenue	\$3,800	\$739	\$-----
Total Association Revenue	\$12,561	\$9,812	\$10,440

Association Expenditures	2015	2014	2013
Cartographica (5 issues)	\$6,865	\$6,082	\$6,400
AGM Travel	\$3,383	\$3,684	\$5,887
Website	\$-----	\$2,184	\$-----
Conference expenses	\$2,888	\$1,993	\$1,084
Bank charges & credit card merchant fees ²	\$901	\$1,331	\$810
President's Prize ³	\$1,100	\$-----	\$500
Gifts	\$-----	\$-----	\$100
Office Expenses	\$55	\$-----	\$-----
Total Association Expenditures	\$15,192	\$15,274	\$14,781

Excess of Association specific revenue over expenditures	-\$2,555	-\$5,462	-\$4,341
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Notes:

¹ Association specific revenues and expenditures are those revenues and expenditures dedicated to the running of the organization and are not designated to other funds.

² Increase in service charges and merchant fees in 2014 is directly attributable to agreeing to finance the Banff Mountain Cartography meeting.

³ Of the \$1,100 stated in 2015, \$500 were prizes awarded in 2014 but not cashed until 2015.

CANADIAN CARTOGRAPHIC ASSOCIATION STATEMENT OF REVENUE AND EXPENDITURES

November 30, 2015

Other Designated Revenue and Expenses¹

Other Designated Revenue	2015	2014	2013
Nicholson scholarship fund deposit interest	\$123	\$64	\$----
Association CartoQuébec fund deposit interest	\$107	\$----	\$----
ICA Children's Map Competition Fund ²	\$----	\$----	\$----
Banff conference registration ³	\$----	\$13,254	\$----
Total Other Designated Revenue	\$230	\$13,318	\$2,355

Other Designated Expenditures	2015	2014	2013
CartoQuebec award	\$----	\$----	\$500
Norm Nicholson Scholarship	\$500	\$----	\$500
ICA Children's Map Competition Prizes	\$200	\$50	\$50
Banff Conference Expenses ³	\$1,340	\$11,900	\$----
Total Other Designated Expenditures	\$2,040	\$11,950	\$1,050

Notes:

¹ Revenues and expenditures of designated funds, not part of the general operating revenue and expenses of the Association.

² The University of Victoria provided us with \$2,172 for the ICA Children's Map Competition Fund in 2012. This is to be dispersed to winning children's map submissions to the ICA. This fund is sitting in the CCA's general bank account.

³ The Banff Conference was hosted in 2014 and Association resources were used to accept deposits. The balance of the amount owing for the conference was paid out in 2015.

2016 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 2016 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. All students enrolled at a Canadian university or college are eligible to submit their maps made in the 2015/16 academic year.

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 2016 are invited from all Canadian post-secondary students. All entries should be accompanied by the [official entry form](#) or on the CCA website (www.cca-acc.org/about-us/awards-prizes-and-scholarships/). Deadline for submissions is **May 20, 2016**. Mail submissions to:

CCA President's Prize Competition
c/o Dr. William Crumplin
A-250, Arts Building
Sudbury Campus
Laurentian University
935 Ramsey Lake Road
Sudbury ON P3E 2C6

Concours pour le Prix du Président 2016

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 2016 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. Tous les étudiants inscrits dans une université ou un collège canadien sont admissibles à présenter leurs cartes faites durant l'année scolaire 2015/16.

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](#) ou sur le site Web de l'ACC (www.cca-acc.org/bienvenue/prix-et-bourses/). La date limite de soumission est le **20 mai 2016**. Envoyer les soumissions à:

Prix du Président de l'ACC
a/s Dr. William Crumplin
A-250, Arts Building
Sudbury Campus
Laurentian University
935 Ramsey Lake Road
Sudbury ON P3E 2C6

2016 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 2016 are invited from all Canadian post-secondary students. They should be accompanied by an [official entry form](#) or on the CCA website (www.cca-acc.org/about-us/awards-prizes-and-scholarships/). Deadline for submissions is **May 20, 2016**. Mail submissions to:

Carto-Québec Prize Competition
c/o Dr. William Crumplin
A-250, Arts Building
Sudbury Campus
Laurentian University
935 Ramsey Lake Road
Sudbury ON P3E 2C6

Concours pour le Prix Carto-Québec 2016

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](#) ou sur le site Web de l'ACC (www.cca-acc.org/bienvenue/prix-et-bourses/). La date limite de soumission est le **20 mai 2016**. Envoyer les soumissions à:

Prix Carto-Québec
a/s Dr. William Crumplin
A-250, Arts Building
Sudbury Campus
Laurentian University
935 Ramsey Lake Road
Sudbury ON P3E 2C6

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 or 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:

Claire Gosson
Secretary, Canadian Cartographic Association
38 Ridgeway Gate
Ottawa ON K1B 4C3

For more detailed information concerning the Norman Nicholson Scholarship:

<http://cca-acc.org/about-us/awards-prizes-and-scholarships/norman-nicholson-scholarship/>

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.*

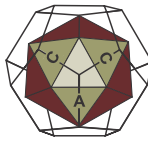
La demande sera soumise au Comité du Prix Norman L. Nicholson de l'Association canadienne de cartographie au plus tard le 15 mars de l'année de l'attribution du prix.

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

Claire Gosson
Secrétariat, Association canadienne de cartographie
38 Ridgeway Gate
Ottawa ON K1B 4C3

Pour de plus amples informations concernant la bourse Norman L. Nicholson veuillez consulter la page :

<http://cca-acc.org/bienvenue/prix-et-bourses/acte-dattribution-du-prix-norman-l-nicholson/>



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

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

Donations may be made to the Nicholson Scholarship fund.

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

Address / Adresse:

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

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City / Ville _____

Prov / Prov _____

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Please indicate relevant interest groups /

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☐ Design and Geovisualization / Cartographie analytique et conception

☐ Education / Éducation

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☐ Cartography 2.0 / Cartographie 2.0

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Techniques de production des cartes

☐ New Member / Nouveau membre

☐ Regular / Régulier (1 yr / année \$90)

☐ Retired / à la retraite (1 yr / année \$45)

☐ Student / Étudiant (1 yr / année \$45)

Educational Institution / Nom de l'institution fréquentée:

☐ Family / Famille (1 yr / année \$110)

Two names / Nom des deux membres:

☐ Corporate / Entreprise (1 yr / année \$200)

Company Name / Dénomination sociale:

Two Representatives / Noms des deux représentants:

☐ Institutional / Institutionnel (1 yr / 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.

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☐ Online access to Cartographica (\$5)

(must supply e-mail for this option)

Accès à Cartographica en-ligne (\$5)

(doit fournir une adresse courriel pour cette option)

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TOTAL / TOTAL: _____

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Chèque (chèque à l'ordre de l'Association canadienne de cartographie)

☐ VISA

☐ Mastercard

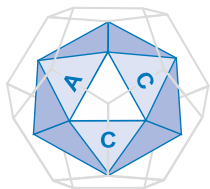
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Please Return to /
Veuillez expédier à:
Canadian Cartographic Association
c/o Paul Heersink, Treasurer
39 Wales Avenue
Markham, ON L3P 2C4
Fax: 416-446-1639
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Barbara Petchenik International

Children's Map Competition /

Compétition internationale Barbara

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