Cartouche

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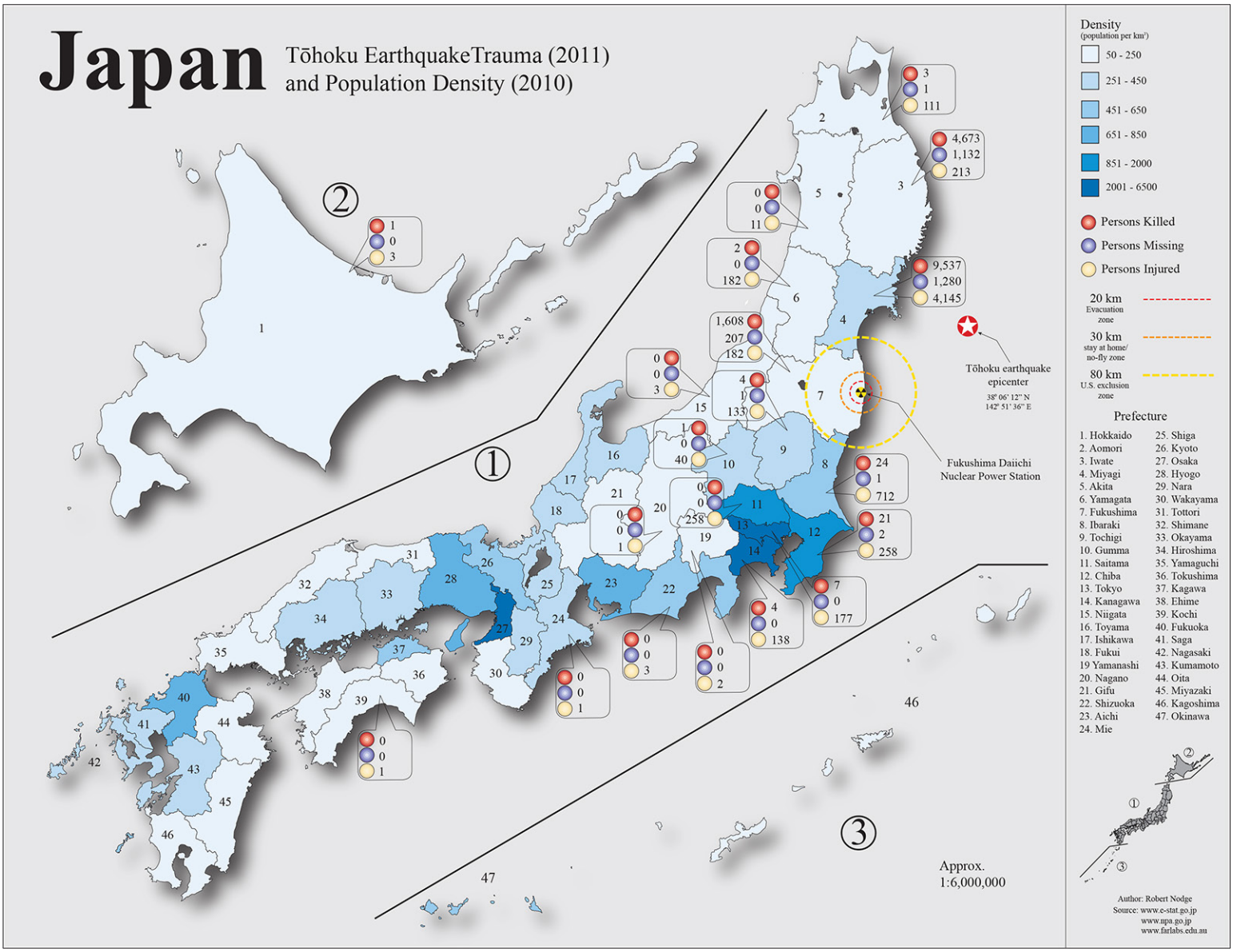


The President's Prize in the University Student competition was awarded to Robert Nodge from the University of Regina, SK, for his map 'Japan – Tohoku Earthquake Trauma (2011) and Population Density (2010)'. In the College Student category this year's prize went to Heather Smith from COGS, Lawrencetown, NS, for her poster sized map titled 'UNESCO World Heritage Sites of Canada'. Congratulations to both students for coming out on top of a fierce competition!

## This Issue / *Sommaire*



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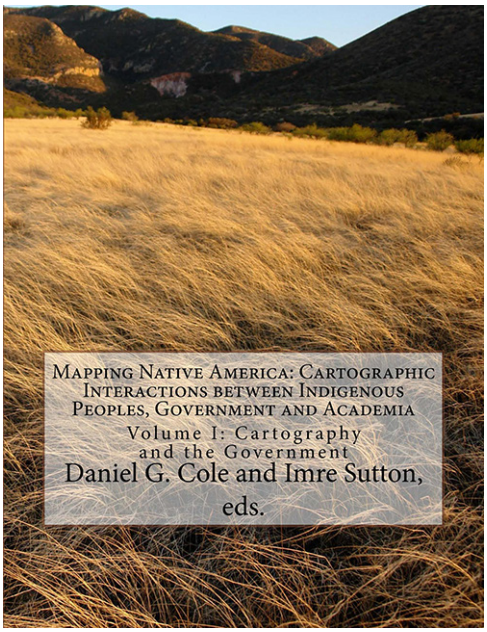
"The foremost cartographers of the land have prepared this for you; it's a map of the area that you'll be traversing. [Blackadder opens it up and sees it is blank] -They'll be very grateful if you could just fill it in as you go along."
- *Blackadder II* (British TV show from the episode "Potato")




## *Mapping Native America: Cartographic Interactions between Indigenous Peoples, Government and Academia*

A three-volume set published through CreateSpace of Amazon. Edited by Dan Cole and the late Imre Sutton. Seven year in the making the volume includes a preface, 42 chapters and an extensive Addenda. The volumes are divided as:

Volume I: Cartography and Government
Volume II: Cartography and the Academy
Volume III: Cartography and Indigenous Autonomy

*Government*, early on, from colonial through federal eras, has dominated the scene ever since in terms of tribes, communities, lands, resources, and activities, although this does not mean that state and local government mapmaking is non-existent. But the intervening administrative unit – the territory – played a major role in the negotiation of treaties leading to land cessions. In fact, the earlier meaning of extraterritorial should tell us that tribes retained their sovereignty beyond territorial boundaries and that the establishment of territorial government forewarned tribes of the very real threat of land diminishment. Nonetheless, government mapping has covered nearly all aspects of the cultural and physical environments of Native America.

*Academia*, dating back to the early 1800s, including such cartographic contributions which are not entirely products of college or university scholars, but their development, design and printing reflect an academic and/or scientific endeavor about Native America. At a much later date, academia is participating in the fieldwork, data-gathering, design and production of maps and atlases. Scholars also have figured prominently as the leaders and synthesizers of the legal cartography of tribal land claims.

*Indigenous* contributions to the cartography of Native America precede EuroAmerican occupation and exploration of the continent. Tribal mapmaking, even if not parallel to the European tradition, has played an important role in the occupation of the continent and too often in the displacement of American Indians. But tribes since the 1970s slowly but surely have initiated and been assisted in the development of the means to produce maps and related GIS technology. Some of that training and expertise have come from both governmental and academic auspices. Contributing to many newer maps that serve tribal land and resource management are various forms of land trusts and other institutional means reflecting newer trends in tribal conservation, especially in terms of bringing tribes into co-management with public land agencies.

The volumes are available as an ebook or in paperback format.

*Dan Cole is the GIS Coordinator of the Smithsonian Institution (SI). He has worked in this position since 1990, and since 1986 have served as the research cartographer at SI. His relationship to the CCA includes his first published article in the* Canadian Cartographer *back in 1978; and he served as past-past-past (nearly expired) president of the CCA in 2009-2010.*

## PRESIDENT'S MESSAGE

**Christopher Storie**
**University of Winnipeg**

Welcome to the summer/fall edition of Cartouche. I recognize that this is getting to you a bit later than normal, but I hope you will accept our tardiness when you see the contents of this issue. We have decided to include longer, more research based articles that may not necessarily fit within the traditional peer-reviewed journal structure. These articles can be on any topic of the author's choosing as long as it deals with cartography in some way. I encourage you read our first submission from Dr. Rasmus Grønfeldt Winther as it is a fascinating perspective on Cartography that many of us have not yet been exposed to. I want to thank all of our submitters who have contributed to another great edition of Cartouche.

As the incoming President, I want to thank Anna Jasiak for all her hard work over the last 2 years, and I will continue to lean on her for advice and the occasional glass of wine from time to time. I also want to welcome Dr Julia Siemer into her new role as Vice-President. Julia has done an exceptional job as the Education Interest Group chair over the last several years. Dr William Crumplin has assumed the role of Education IG chair and I look forward to working with him over the years to come. I also want to welcome Byron Moldofsky as the incoming History of Cartography IG chair and Jeff Wielki as the IG chair of Geovisualization and Map Design.

Our meeting in St Catharines was excellent. Attendance was strong and the presentations and discussion demonstrated to me the that cartography is still alive and a vital part of the geospatial information community. Thank you to everyone has attended and a special thinks must go out to Lori Martin and Christine Earl who were our "boots on the ground" co-ordinators and without whom we could not have achieved such an excellent conference.

I also want to officially announce that our annual conference and general meeting will be taking place in Charlottetown, Prince Edward Island on May 27-29, 2015. This is the associations first visit to PEI and it coincides with our 40th anniversary. I hope to see as many of you as possible in May. Please save the date. We will be posting information to our current conference page - http://cca-acc.org/conferences/current-conferences/ - over the coming weeks.

Enjoy the issue. Enjoy the fast approaching Christmas season and I look forward to seeing all of you in May!

All the best,
Chris

## CaGIS Student Scholarship Awards

It is with pleasure that I announce the annual CaGIS student scholarship awards. There is an award for masters students and an award for doctoral students who are pursuing cartography or GIScience research. To apply, each student must complete an application form (available on the CaGIS student scholarship webpage), a 400-word statement of educational objectives, a digital transcript of coursework, and a letter of recommendation from a faculty member. These materials must be emailed to fkessler@frostburg.edu no later than 5:00 p.m. EST January 18th 2015.

Please encourage your graduate students to apply for these awards. This is an excellent opportunity for a graduate student to receive recognition for their cartographic or GIScience research. Eligibility, past recipients of the awards, selection criteria, and other details can be found at the following URL: http://www.cartogis.org/awards/scholarship.php
If you have questions please don't hesitate to contact me.

Thanks,

Dr. Fritz C. Kessler, Frostburg State University
Email: fkessler@frostburg.edu

## VICE PRESIDENT'S MESSAGE

**Julia Siemer**
**University of Regina**

# Current role of the CCA and input by its members

I would like to take the opportunity to thank all members of the Canadian Cartographic Association for their support in my previous role as chair of the two interest groups 'Map Use and Design' and 'Education' over the past four years. Starting this June I have taken over the role as Vice President of CCA. I am looking forward to continue working together successfully with the current executive team in my new role.

Over the years, the CCA, its members and annual meetings have always been a valuable part of my career. Meeting other people who share the same passion of cartography and maps is always delightful. Even if some annual meetings are far away or costly to attend I very much value the opportunity for gaining professional knowledge and for social networking with like-minded people.

I hope other members and maybe even those who are currently not members of the CCA see the same value in the association and continue to or start supporting it in the future.

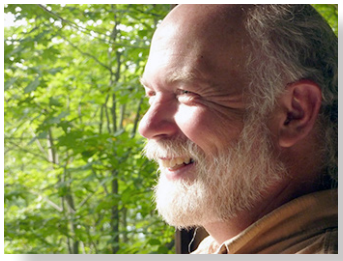
According to the CCA's constitution its purpose, among others, is to promote interest in maps and related cartographic material. In recent years cartographic products have certainly seen a rise in awareness by the public. Digital maps, apps and other cartographic applications are ubiquitous. But does this also mean cartographers are influential enough in the development and dissemination of maps? Are cartographers as engaged in the new developments as they should be? You all know the answer – much of the latest cartographic work is done by non-cartographers rather than experts in the field of spatial visualization. The CCA, together with other international cartographic organizations, still has an important role to play in not only promoting maps but also "to further the understanding and knowledge of maps by encouraging research in the field of cartography …, to provide for the exchange of ideas and information … through meetings and publications … and to advance education in cartography and in the use of maps" (Constitution of the CCA). This is no small task and we can only get closer to achieving these goals if we all support CCA's efforts. Cartography has played such an important role in our history that we cannot accept a diminished role of the experts in the field of cartography in the future.

Your contribution as members of the Canadian Cartographic Association is needed so the CCA can continue to advocate for the field of cartography, professional cartographers, and map enthusiasts alike.

*Author Julia Siemer is the Vice President of the Association. Julia is an Associate Professor of Cartography and Geographic Information Science at the University of Regina, Saskatchewan.*

## Save the date

**The Canadian Cartographic Association invites you to join us in Prince Edward Island! We will be celebrating the 40th anniversary of the association and our first visit to Prince Edward Island on May 27-29, 2015 at the Hotel on Pownal in beautiful downtown Charlottetown. We are planning a diverse and exciting event that we hope you are able to attend. Please watch for our call for papers that should be coming in the early new year.**



**EDUCATION INTEREST GROUP**
**William Crumplin**
**Laurentian University**

# GPS and the erosion of official highway maps: Or anyone can now map, but should they

It was just about a year ago when I received an email from Chris Storie asking if I would serve as the Education Interest Group Chair. He was returning the 'favour' as two years earlier I had asked him to consider becoming the VP of the CCA. How could I say no?

The duties of this portfolio include, but are not limited to organizing the annual President's Prizes for the student map competitions and reporting the winners. At the 2014 Annual Meeting and Conference, hosted by Brock University this past May, we received 17 entries in total for the university and college categories. The adjudication team, which did not include me this year, had some difficultly deciding upon the final winners. Nonetheless, winners were declared and they were:

In the university category: Robert Nodge for his map titled, "Japan - Tohoku Earthquake Trauma (2011) and Population Density (2010)".

In the college category: Heather Smith for her map, "UNESCO World Heritage Sites in Canada".

I am looking forward to the 2015 competition and encourage faculty to make their students aware of this annual event. More details will be forthcoming in the new year. Along this line and at the second 2014 meeting of the Executive, the CCA approved hiring a student to assist the Interest Group Chair with promoting this competition across the country.

Speaking of "across the country", this past summer my wife, Donna Williams, and I did a tour of eastern Canada. We spent about three and half weeks touring and taking in sites along the route from Sudbury to the Atlantic and back. The only province we did not get to this year was Newfoundland and Labrador. And being geographers and cartographers, we were looking forward to picking up road and tourist maps from each provincial tourism office as we crossed the borders.

We had a plan.

We happen to know the route between Sudbury and Ottawa better than we know the backs of our hands from the miles we travelled to visit each other before we married. Not surprisingly, all went well until we stopped at the tourist information office in Rigaud, Quebec and asked for a road map of the province. We were given an 11" x 17" sheet of paper, printed on both sides and we immediately knew something had changed in the tourist road map world.

The multi-fold road map that true cartographers and geographers can unfold and refold in a heartbeat was no more! The province of Quebec was represented on 374 square inches – who knew? But wait, there was less. The front of the map consisted of advertisements that took up 32% of the paper area. We stared down at some pretty impressive cartographers' compromises trying in our best French to be grateful. Of course there were a couple of insets, but they were without scales. There were many place names shown between Montreal and Quebec City. But the scale of the map prevented many others from being included. Most of the little places, that we knew existed and wanted, at the very least, to drive through, were not included on this map. There were no historic sites included. There was no topography symbolized. It was more like a place mat than a road map.

On the verso, east and north of Quebec City, the province disappeared as if the world ended – there was no neat line. The roads, boundaries, and rivers just stopped in white space. The dominant features on the map were the four-lane expressways represented as orange lines with yellow interchanges. It seemed to be a none too subtle statement that east-west travel must be limited to highways 20 and 40.

Nothing about this two-sided map encouraged exploring the nooks and crannies of the villages nestled along the river. In some ways, it seemed to (strongly) encourage driving across the province without stopping. This feeling reminded me of a Robert Packer cartography lecture when he described the ancient Roman flip-over straight-line marching maps.

Despite the map's call to race along highway 20, we did manage to find highway 132. (I knew it existed from a 2010 motorcycle trip to Newfoundland.) Once on highway 132 we reduced our speed and enjoyed the scenery as we lamented the changes to the province's official road map. Little did we know then that this disappointment would be repeated.

We stopped at information sites as we entered each province and began an informal critiquing of 2014 provincial road and tourist maps. Because we do not own a GPS unit, we were looking forward to leisurely carving out a route to the Atlantic and back using provincial maps. We began to realise that we are likely part of a shrinking minority. But we are not luddites. More than anything we simply suffer from what I call Wayfinding Technology Fatigue (WTF). Nonetheless, as we collected the maps we developed a hypothesis that GPS guided travel has allowed provincial highway and tourism mapping to devolve to its present and nearly worthless representations of place, space and superficial treatment of culture.

After this experience, I will be seeking papers for a special session at the 2015 CCA in which presentations will explore how GPSs and GPS dependency have influenced provincial highway and tourism mapping and touring. I will come up with a more jazzy title in the near future. But let me leave you with one last anecdote from using one of these poorly designed and un-scaled maps. I had been driving for a couple of hours as we were winding our way along a secondary highway and I asked Donna how much further did she think we had to go. She studied the map carefully for several moments. Then she moved her hand so I could see it without taking my eyes off the road. I saw that her thumb and index finger were about 1 centimetre apart. Very dryly she said, "About this far."

## The Canadian Geomatics Round Table: Building a Pan-Canadian geomatics strategy

Anna Jasiak provided an overview of the evolution of The Geomatics Community Round Table (CGCRT), which is an informal gathering of Canadian geomatics stakeholders, professional and experts. Representatives of organizations spanning the geomatics sector have participated at several meetings hosted by the GeoConnections Program of Natural Resources Canada. Participants have included federal and provincial/territorial governments, private sector companies, non-governmental organizations, professional organizations and associations, and geospatial data and service consumers. The Round Table provides a forum for discussion of issues and concerns that affect professional practice and activities in the Canadian Geomatics sector. Through such discussions the collective community continues to find ways in which to collaborate in resolving some of those issues.

In 2012, the Round Table undertook the development of a Pan-Canadian Geomatics Strategy. In January 2013, the Round Table agreed to take a Team Canada approach where governments adopt a facilitating role, where the private sector thrives under supporting policy, where there is sector-wide and citizen collaboration and where the sector is conscious of supporting Canada's future economic, social and environmental future. Based on seven strategic dimensions: Identity, Market, Business Model, Leadership and Governance, Education and Capacity Building, Data Sources, and Legal and Policy Interoperability, the Round Table Steering Committee developed the first draft of a Pan-Canadian Geomatics Strategy between January and December 2013. Input to and feedback on the Strategy from the Canadian Geomatics community was gathered over the early part of 2014. Endorsement, action and implementation planning by the community were completed in May 2014.

To learn more about the Geomatics Strategy, the current activities of the Round Table and to find out how to be part of the conversation, visit the website at: http://cgcrt.ca/.

http://canadiangis.com/canadian-geomatics-community-round-table-the-pan-canadian-geomatics-strategy.php

## HISTORY of CARTOGRAPHY INTEREST GROUP

**Byron Moldofsky**
**University of Toronto**

# Historical maps: Getting personal

This being my first column as the representative for the History of Cartography interest group, I thought I would talk a bit about my own history with historical maps. I come at this not as an archivist or as a cultural historian, but as a working cartographer. Really, my first exposure to old maps was re-drawing some. This was for the Historical Atlas of Canada series of plates on "Exploration", authored by Dick Ruggles, and some colleagues, which re-produced a series of European explorers'/cartographers' views of the "New Found Land" of what is now Canada. (Yes, there are First Nations' maps in the Atlas as well, and a healthy recognition of who really kept these explorers from getting lost.) Some will remember Dick as one of "three wise men" of cartography at Queen's in the 1960s-90s (so-called by their students) who helped start up the CCA. Dick did much groundbreaking archival study of cartographic history, particularly in the Hudson's Bay Company archives in Winnipeg. What he didn't know about early exploration and mapping – well I won't say it wasn't worth knowing, but I will say it was pretty much impossible to find out. I remember him coming into our office at U of T, a grandfatherly figure even in the early 1980s, and consulting with my boss, Geoff Matthews, about the design of these six atlas plates, into which had to be compressed the essence of his vast knowledge about that history. Well, it wasn't a pretty sight. Like all cartographic design, choices had to be made, primarily about what to leave out – selection, generalization, transformation. And like all discussion between passionate proponents, there was blood on the floor – figuratively, of course. We ended up re-drawing the maps, and standardizing the symbol design and colour scheme - which made them more legible of course, but also removed much of the idiosyncrasies of design and drafting which gave them their charm, and in some cases, beauty. Fortunately, in the online version of the Historical Atlas, designed 20 years later, we were able to post both the re-drawn and the original versions. (http://www.historicalatlas.ca/website/hacolp/national_perspectives/exploration/)

So that was my first experience of historical maps as data – a rich vein of evidence which could be mined for the information it contained, and the historical context it provided. That is still my primary interest in historical maps, as opposed to viewing them as an artistic expression or as a cultural artefact. Seven or eight years later, however, I ended up going to Queen's to study, and was exposed to a more in-depth approach to the history of cartography. At this time Ruggles was reducing his teaching load and the new young professor, Anne Godlewska, was taking up the reins. She brought a fire and enthusiasm to the history of maps: learning about how far back in time maps have been created, getting a glimpse of what can be gleaned from the in-depth analysis of the media and materials with which they were made (eg. Google "laid paper"), understanding something of the way they represent the culture and civilization out of which they sprang, and how they reflected that people's understanding of geographic reality. This was all eye-opening.

Of course, the cultural and historical context of mapping, as well as the content, is still very relevant today. How do people view the mapping of history in the "Google Maps" era? As all readers of this column will know, the accessibility to historical maps provided by web sites such as the David Rumsey Map collection (http://www.davidrumsey.com) and by dedicated search engines like Old Maps Online (http://www.oldmapsonline.org) have completely changed the way historical maps can be found and utilized. How has this changed our relationship to the artefacts and to their use? It has certainly changed the way historical research is being done. The Spatial History Project based at Stanford (http://web.stanford.edu/group/spatialhistory), is one among many projects providing excellent examples of how the mapping archive can be integrated with many diverse data sources to further historical research. My own current interest is in helping create Canadian resources for doing Historical GIS (HGIS.) The recent book on HGIS Research in Canada (Bonnell and

Fortin, 2014, http://uofcpress.com/books/9781552387085 ) contains 13 chapters, and by my reckoning 10 of them use historical maps or surveys intensively for data and reference. Chapters on everything from exploring "Spatial history and Race in Victorian Victoria" to "A Reflection on Salt Marsh Evolution in the St. Lawrence Estuary" use historical maps as the underpinning for understanding the history of a people and their living space. Not just as backdrop, but as elements contributing to studying that history.

About a decade and a half after the "Historical Atlas of Canada Vol. I" came out in 1987, the popular historical author Derek Hayes came out with his own "Historical Atlas of Canada", one of his extensive and very popular series of books which feature many reproductions of old maps, and his historical interpretation. I must admit I was annoyed that he had appropriated the title (apparently you can't copyright a title) – instead of calling it something like "Historical Maps of Canada". To me, an historical atlas contains maps about history, historical geography expressed in maps, using the best and most modern technological and design tools available. Antique maps and the information they contain are the starting point, not the raison d'etre, for this kind of mapping of history. And a rich and vibrant resource they are.

## References:


Bonnell, Jennifer and Marcel Fortin, editors. *Historical GIS Research in Canada*. Calgary: University of Calgary Press, 2014.

Harris, R. Cole editor, Geoffrey Matthews, cartographer/designer. *Historical Atlas of Canada, Vol. I: From the Beginning to 1800*. Toronto: University of Toronto Press, 1987.

Hayes, Derek. *Historical Atlas of Canada: Canada's History Illustrated with Original Maps*. Vancouver: Douglas and McIntyre, 2002.



Example of original map reproduction and re-drawn map from the Historical Atlas of Canada Vol. I: The Delisle Map, 1752 (http://www.historicalatlas.ca/website/hacolp/national_perspectives/exploration/UNIT_06/U06_staticmap_delisle_1752.htm). Original map: Carte des nouvelles découvertes au nord de la mer du Sud tant à l'est de la Siberie et du Kamtchatka qu'à l'ouest de la Nouvelle France / dressée sur les mémoires de Mr. Del'Isle ... par Phillippe Buache.

Source: Library and Archives Canada/NMC 21056

FEATURE ARTICLE

**Majella-J. Gauthier**
**Université du Québec à Chicoutimi**

# Contribution to the territory cartography by First Nation Innu in Québec (Canada)

It is not usual to have access to representations of territory made by Native peoples showing their traditional activities of hunting, trapping, fishing, and picking. This was done in a recent research for which two elders were interviewed on that topic. A man and a woman, living in Mashteuiatsh (Lac-Saint-Jean area), have talked about their experiences when they were traveling in the bush (on their family territory) for many months (Figure 1).

The research was made in a context of cultural appropriation. The Innu First Nation (formerly Montagnais) has different manners to redefine its identity. Whether it is by lifestyle, equipment or intangible heritages, all are used to determine the membership of Innuatsh. In recent years, the Innu Pekuakamiulnuatsh began a journey of homecoming.

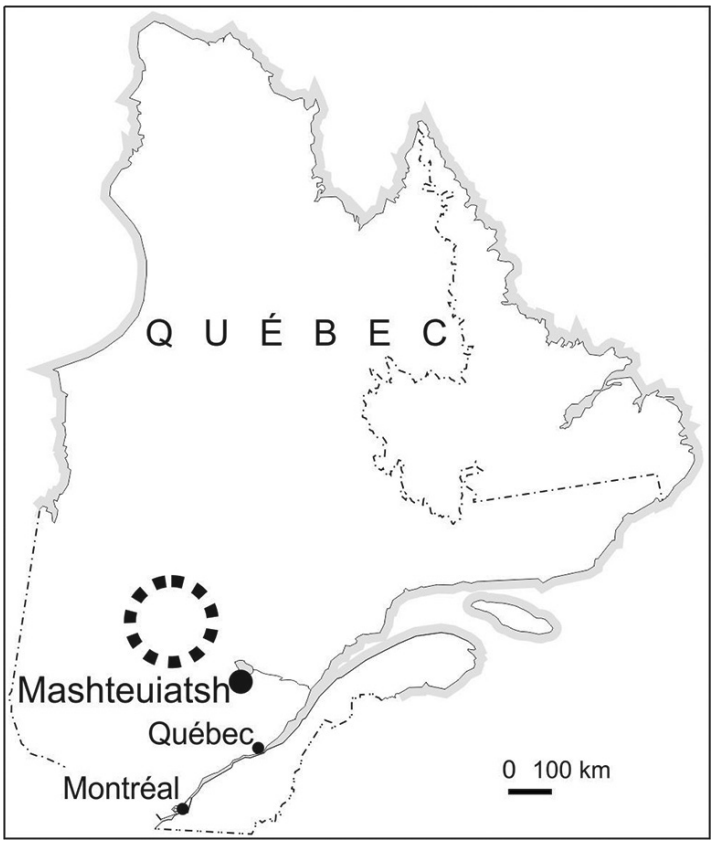



**Figure 1**

From the testimony of these people, it is possible to achieve a new form of mapping illustrating their journeys through the forest they inhabit. From the themes of the interviews, based on activities and on the animal world, we can establish a profile of the diet. The seasons of activities and the migration of families in the territory have greatly influenced the life of these nomads. Then, it is possible to find a description of the outline mainly based on hunted animals. Supported with notions of cultural geography, the study is already a reference for those who want to know more about the customs of Pekuakamiulnuatsh.

The author of the research, an Innu graduate of geography and also an artist (painter), has designed several maps from information gathered through the conversations she had with Gordon Moar and Thérèse Bégin. The following are two samples of her products. The first cartographic model (Figure 2) essentially shows not only the limits of their territory, but also important elements composing the set: camps, paths and moving patterns, zones of occupation, and landscape features (rivers, lakes, forest, etc). The overall extension of the set reaches over 400 km$^2$. The second cartographic model (Figure 3) focuses on animals, the "pantry" of the family. Again, there are important elements composing the cartographic model from which emerges sets combining large and small animals, and fish.

For more details, refer to the Atlas électronique du Saguenay-Lac-Saint-Jean (www.uqac.ca/atlas) and to the study itself: Katia KURTNESS, *Les saisons de la chasse: un homme et une femme ilnu de Mashteuiatsh (Québec, Canada) témoignent de leurs pratiques traditionnelles,* Université du Québec à Chicoutimi, GRIR, 175 p., 2014.

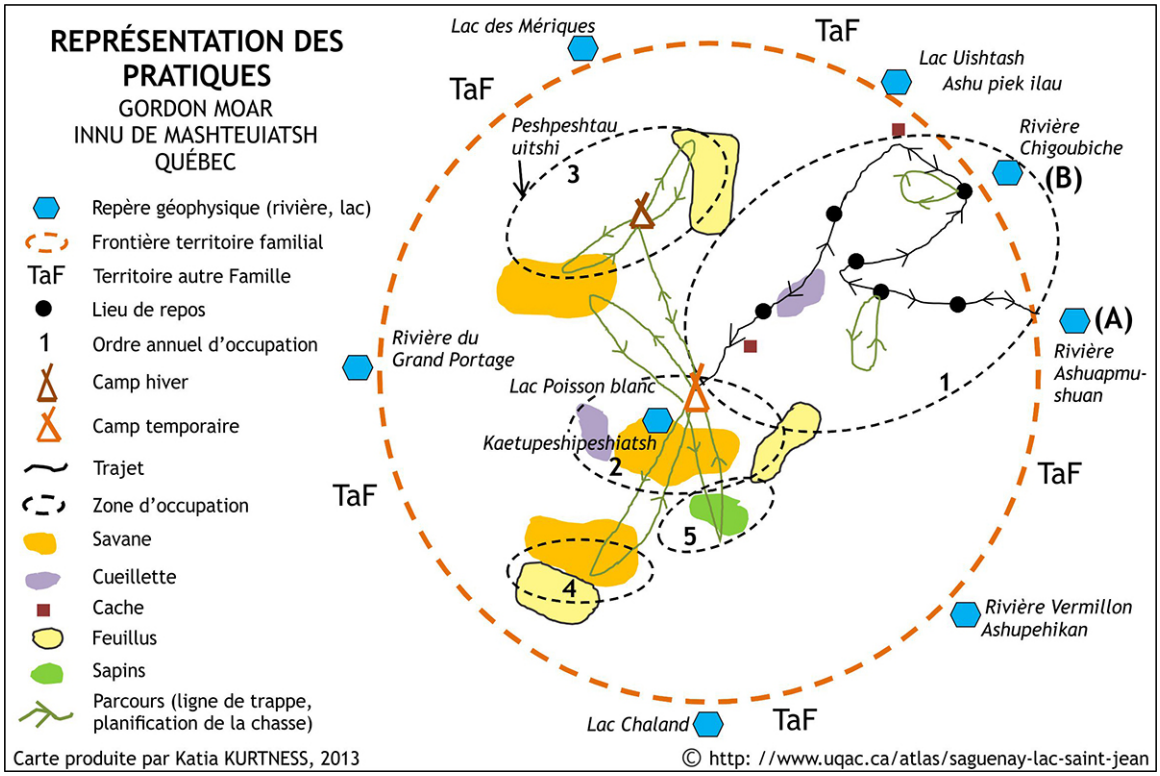



**Figure 2:** Representation of activities on the territory from Gordon Moar, Innu from Mashteuiatsh, Québec (Canada).

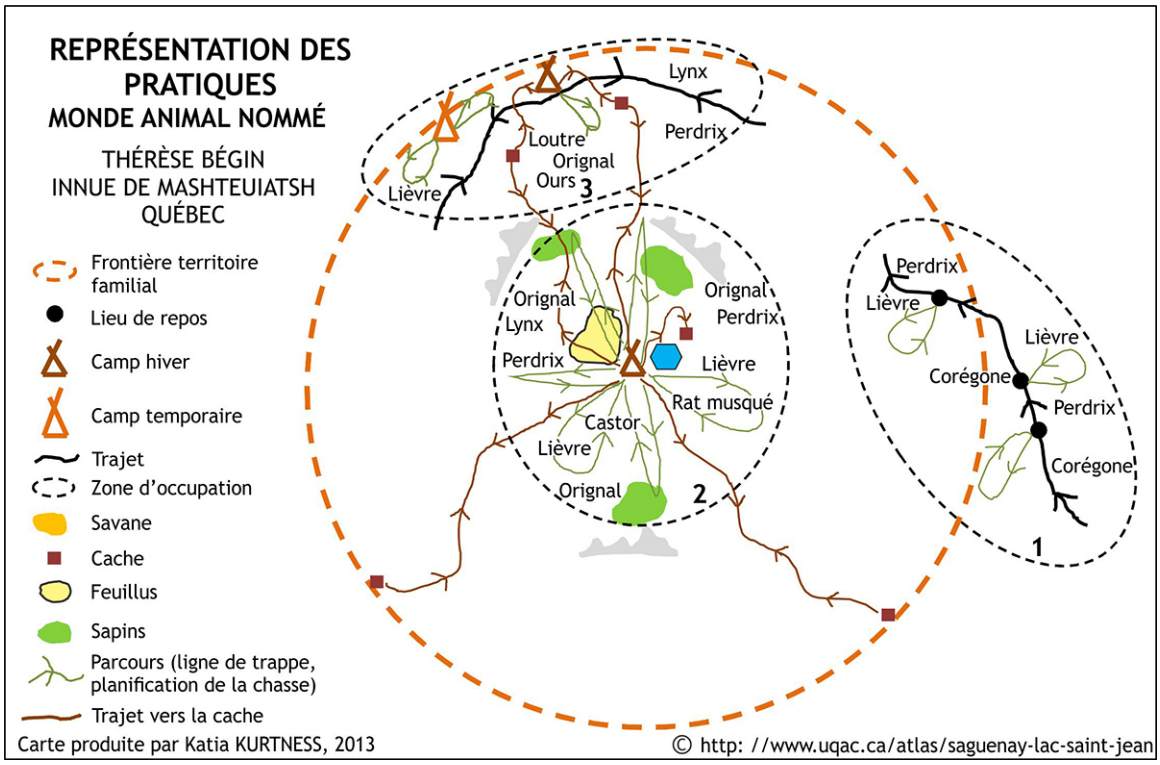



**Figure 3:** Representation of activities on animal group enumerated by Thérèse Bégin, Innu from Mashteuiatsh, Québec (Canada).

**Legend translation:**

*Repère géophysique (rivière, lac):* landmarks (river, lake)

*Frontière: territoire familial:* family territory boundary

*Territoire: autre famille:* territory: other family

*Lieux de repos:* resting place.

*Camp d'hiver:* winter camp

*Camp temporaire:* temporary camp.

*Trajet:* route/ journey/circuit/ itinary

*Zone d'occupation:* occupation zone

*Savane:* peatland

*Cache:* cache

*Feuillus:* deciduous trees

*Sapins:* fir trees

*Parcours (ligne de trappe, planification de la chasse):* journey (trap path, hunting path)

*Trajet vers la cache:* path (route, circuit) to the caches.

*Orignal:* moose

*Lynx:* bobcat

*Perdrix:* partridge

*Castor:* beaver

*Lièvre:* hare

*Rat musqué:* muskrat

*Loutre:* otter

*Ours:* bear

*Corégone:* whitefish

FEATURE ARTICLE

Xiaowei Xue and Emmanuel Stefanakis
University of New Brunswick

# Visualizing the geography of Canadian migration

Xiaowei Xue

Emmanuel Stefanakis

**Abstract.** This paper presents the data resources and some initial outcomes of a research project in progress at the University of New Brunswick on the examination of historical migration and immigration patterns in Canada and the development of enhanced visualizations using advanced geospatial methods and tools.

## Introduction

Migration of human populations is an application closely related to social studies. Various historical datasets describing the human migration are available and scientists with diverse backgrounds have analysed migration data for decades. The combination of the traditional statistical methods for analysing migration data with the modern methods for mapping and visualizing this data and the results of the analysis has been proven beneficial as it helps researchers to better understand the phenomenon.

A rich collection of human migration data is available for Canada dating back since 1851. Two series of special interest are: (a) Series A1-349, data from censuses, or data derived from censuses, published by Statistics Canada or its predecessors; and (b) Series A350-416, the official records of the Department of Employment and Immigration and its predecessors. These are valuable resources to interprovincial and international migration to Canada.

The scope of our ongoing research at UNB is twofold: (a) to develop enhanced interactive visualizations of human migration in Canada since 1851; and (b) to promote the dissemination of migration statistics and analytical processes through geospatial web services.

This paper summarizes some initial outcomes of our attempts to meet this scope. Specifically, it presents a pilot system developed to visualize the people movement for a fraction of migration datasets available in Statistics Canada.

## Datasets

Most of the data used in this study have been downloaded from Statistics Canada, section A: Population and Migration (http://www.statcan.gc.ca/pub/11-516-x/sectiona/4147436-eng.htm).

The population of Canada during 1851–1951 was derived from Table A2–14. This table contains a range of census data for the provincial population of Canada reported by 10-year intervals. The immigration rate of Canada by provinces during 1900–1945 was calculated using the annual immigration number to each Canadian province divided by 1,000 units of population. The data resource used in immigration flow map (see section 4) was derived from Table A125–163. It summarizes the census data on both population and ethnic origins. This data is organized in chronological order in 10-year intervals. As data was missing for certain years, some gaps appear during the 100 years. The year period considered in this study is from 1901 to 1951, which contained a relatively complete set of immigration data.

## System Architecture

The pilot system is being developed as a 3-tier application using the client-server architecture (Figure 1):

1. Client tier: A desktop client along with a web client occupies the top level. These client components display the results fetched from the application tier to end users in either the desktop application or the web browsers.
2. Application tier: The application tier processes users' commands, makes logical decisions and performs calculations. It receives the requests from the client tier, then processes the data from the data tier, and finally delivers the results back to the client tier.
3. Data tier: Information is stored in a database or file system for retrieval. The data is sent to the application tier upon

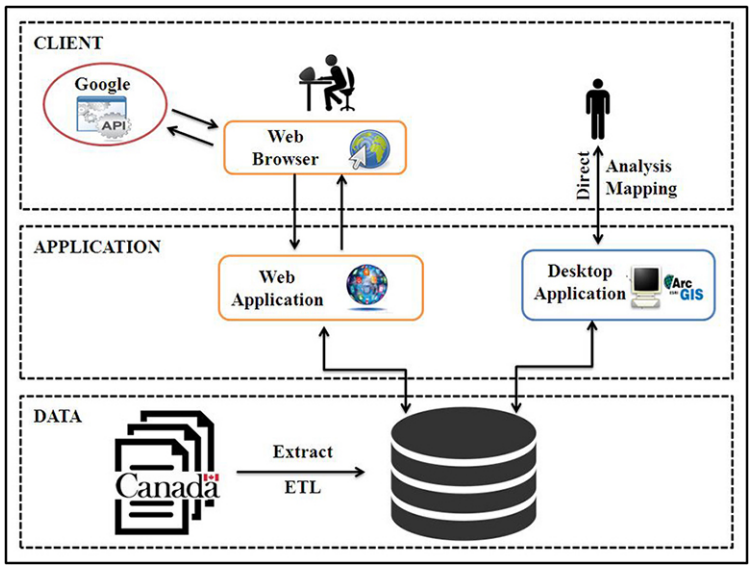



Figure 1: System architecture.

requests for processing, and then eventually back to clients. The data resources are Statistics Canada datasets described in Section 2.

## Implementation

The following software packages were used for the implementation of the system architecture described in the previous Section. ESRI ArcGIS was chosen in the role of the desktop client application. The ArcGIS Geodatabase was used as the main repository of the migration data acquired from Statistics Canada. Finally, HTML5 and Google Maps API JavaScript library was applied for the creation of the map mashups on top of Google Maps.

Figure 2 displays the three phases of the implementation process. Starting from Phase 1, raw data extracted from Statistics Canada is prepared and inserted into a Geodatabase in ArcGIS. Phase 2 includes data processing and analysis within ArcGIS for the purposes of the visualizations. Phase 3, involves the customization of the desktop GIS functionality to support the direct mapping in layouts and animated maps as well as the development of the web client application interface that mashes up the migration data on top of Google Maps in an interactive mode.

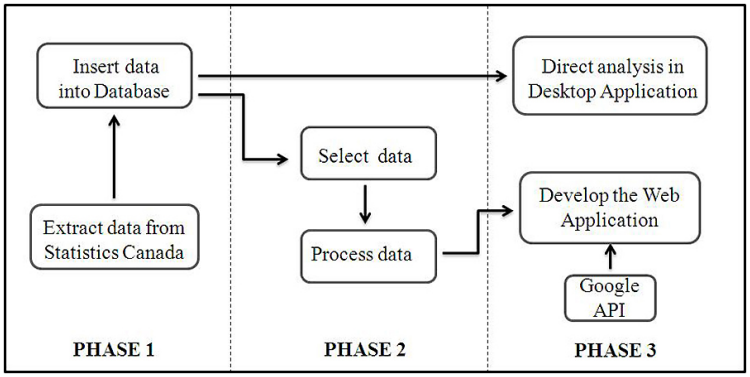



Figure 2: Flow diagram of the implementation.

Figure 3 shows three snapshots of an animated map representing the population density per province in 1871, 1911, and 1931; as generated by the desktop GIS. Figure 4 shows three screen shots of the web client application interface. Animated map symbols and have been used to represent the population, immigration rate, and immigration flow on top of Google Maps for various years, provinces, and countries.

## Conclusion

Statistics Canada maintains a rich collection of migration data for almost two centries. However, enhanced interactive visualizations of this data have been limited so far (only some scattered primitive visualizations are available from Statistics Canada). Lately, the evolution of Geospatial web technologies offers the tools to easily visualize the people movement and extract useful knowledge about the evolution of Canada as a nation.

This paper presents some initial outcomes of our attempts towards this direction. Currently, our research work is focused on (a) considering a larger dataset (including more provinces, countries; for longer periods); (b) enhancing the visualizations (by improving the map symbols and enriching the functionality of the interface); and (c) interacting with domain users (e.g., historians, demographers) and getting their feedback and comments for future improvements and extensions of this work.

## Acknowledgments

Thanks to the UNB Work Study program 2013-14 for funding this research.

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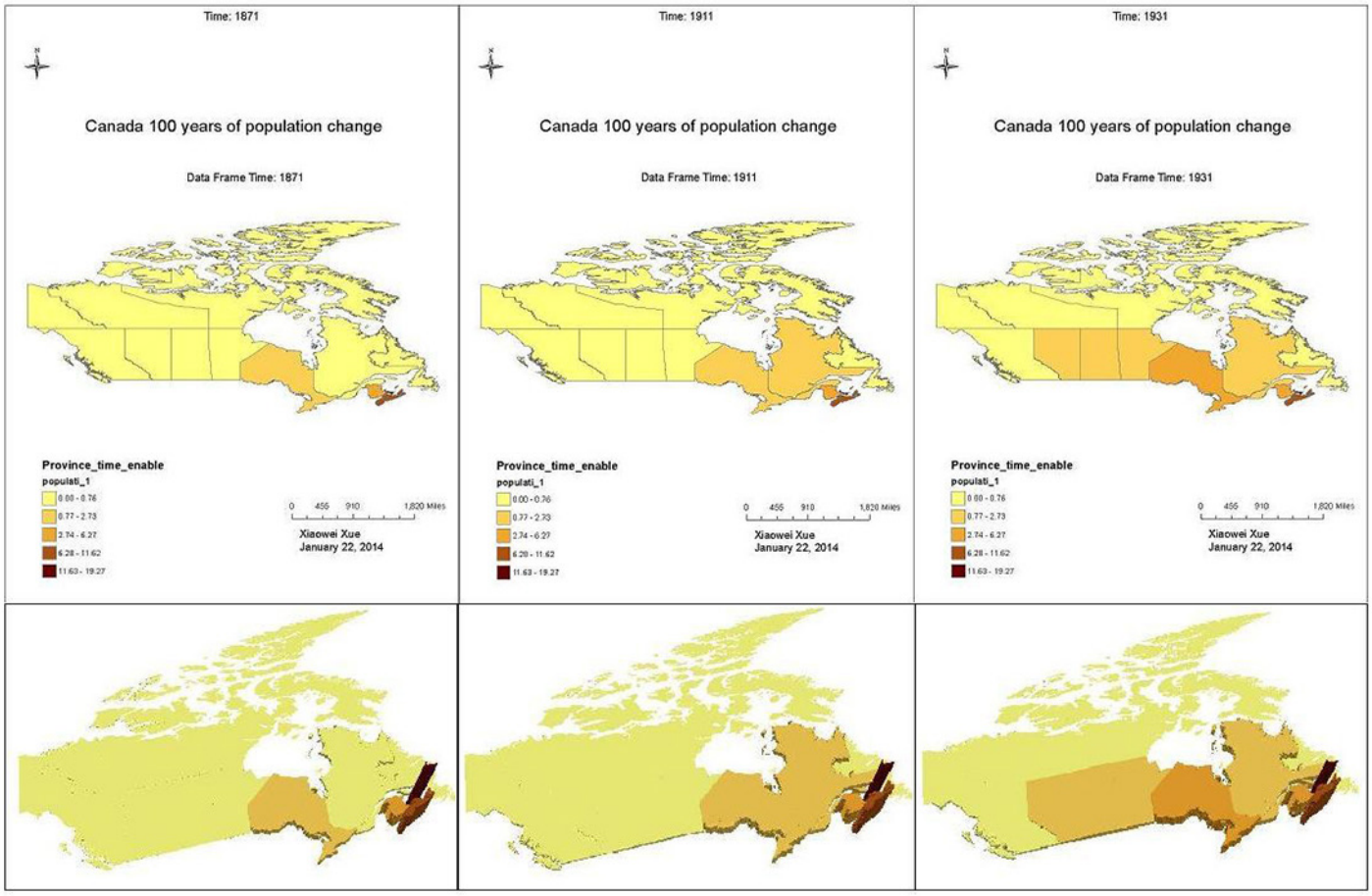
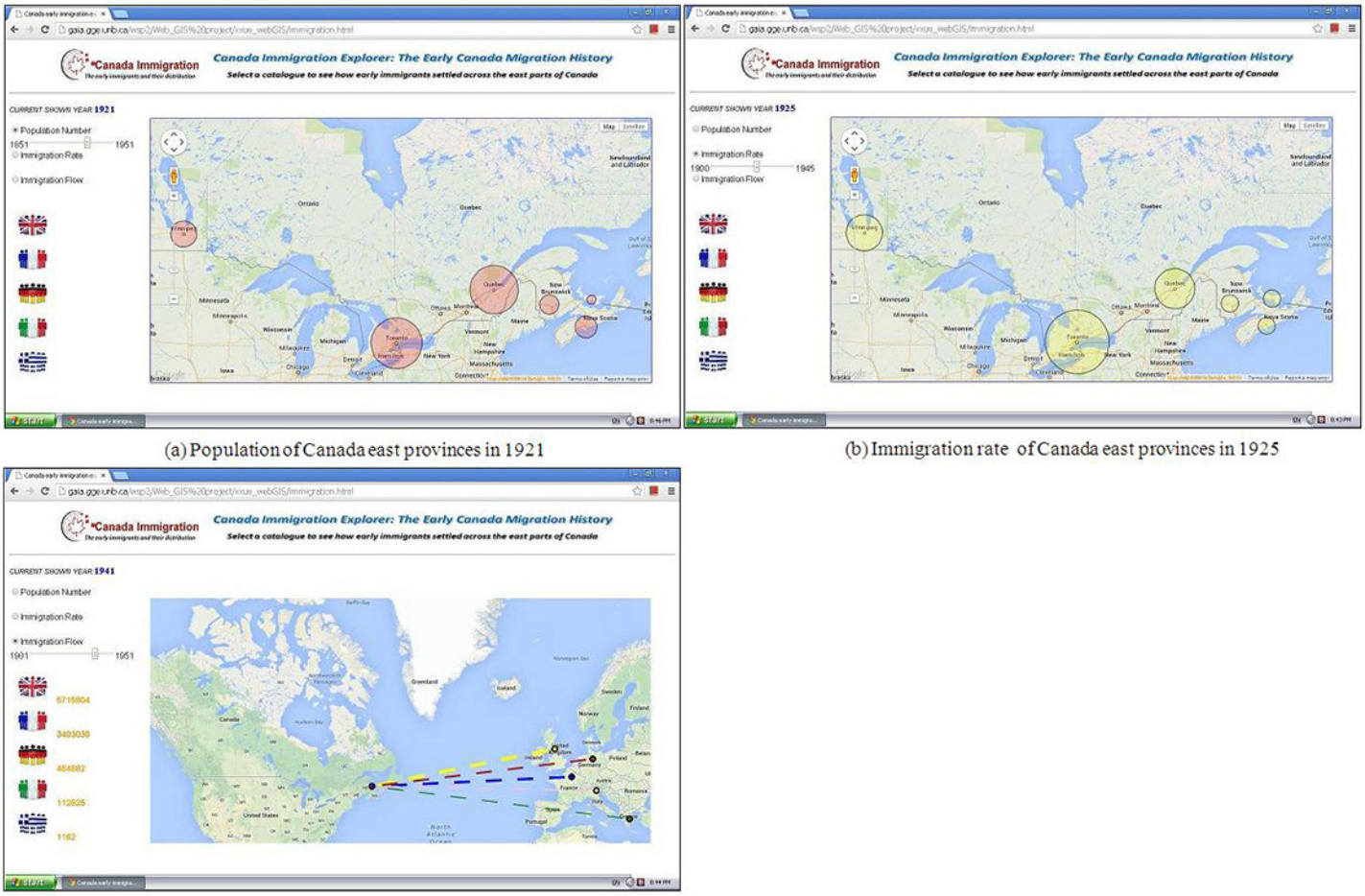



a) Population density in 1871

b) Population density in 1911

c) Population density in 1931

**Figure 3:** Animation and layout generated by ArcGIS (http://gaia.gge.unb.ca/wsp2/avi)




(a) Population of Canada east provinces in 1921

(b) Immigration rate of Canada east provinces in 1925

(c) Immigration flow of five European countries in 1941

**Figure 4:** Online visualization of Canada migration (http://gaia.gge.unb.ca/wsp2)

FEATURE ARTICLE

**Rasmus Grønfeldt Winther**
**University of California, Santa Cruz**

# World Navels

Powerful empires often believe themselves to be literally the center of the universe. Space and time, power and meaning are taken to flow from their single world navel. The following are three notable examples.

First, Rome was held to be the center of the world, from which distance itself was measured in radial lines. Rome contains the Umbilicus Urbis Romae, or "navel of the city of Rome" (Figure 1), as well as, within a few meters, a Milliarium Aureum, or "golden milestone," which was erected by Emperor Augustus ca. 20 BC (Murphy 2007, 44). While distances were supposed to be measured from the golden milestone, "in accordance with long-established tradition, actual distances were calculated… from the gates in the Republican wall" (Favro 1992, 77). Such measurement practices reflected the Romans' beliefs about their natural role as "masters of the *oikumene*" (Murphy 2007, 47). *Oikumene* is Greek for "inhabited world," and is also the word the geographer, mathematician, and astronomer Ptolemy of Alexandria of the second century CE used to denote the entire territory he was measuring and mapping.


**Figure 1.** Plaque attached to the structure of Rome's navel, as it stands today.

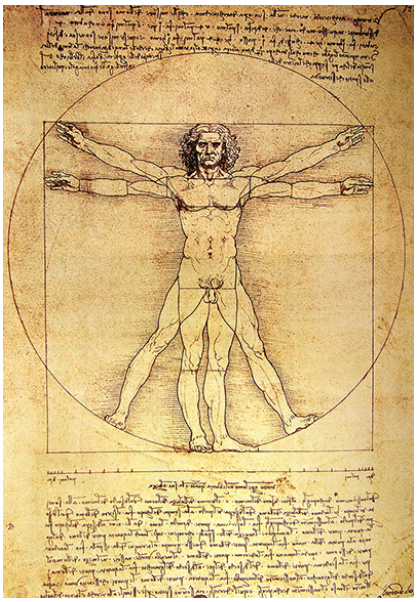


**Figure 2.** Da Vinci's Vitruvian Man.

The architect Vitruvius and the Peutinger Map (Figure 3) provide two examples of how the Romans held themselves to be both masters and center of the *oikumene*. In his well-known *De Architectura*, Vitruvius wrote, "it was the divine intelligence that set the city of the Roman people in a peerless and temperate country, in order that it might acquire the right to command the whole world" (ca. 15 BC, Book VI, Ch. I, §XI). Vitruvius, in his passages "on symmetry: in temples and in the human body" (Book III, Ch. I, §§2-3), took the "central point" of the body to be "naturally the navel" (§3). Leonardo Da Vinci used this work to draw his *Le proporzioni del corpo umano secondo Vitruvio* (ca. 1490), or "Vitruvian man" (Figure 2). Interestingly, Da Vinci's embedding of an ideal human body in a square, itself lined up with a circle according to Golden Ratio proportions, indicates the genitals rather than the navel as the body's (the universe's?) center.

Rome's centrality is also represented by the Peutinger Map (Figure 3), an "itinerarium" or road map of the Roman Empire's cursus publicus that is dated to the 12th or early 13th century CE and which "derives ultimately from a fourth-century archetype." Unsurprisingly, Rome is located roughly at

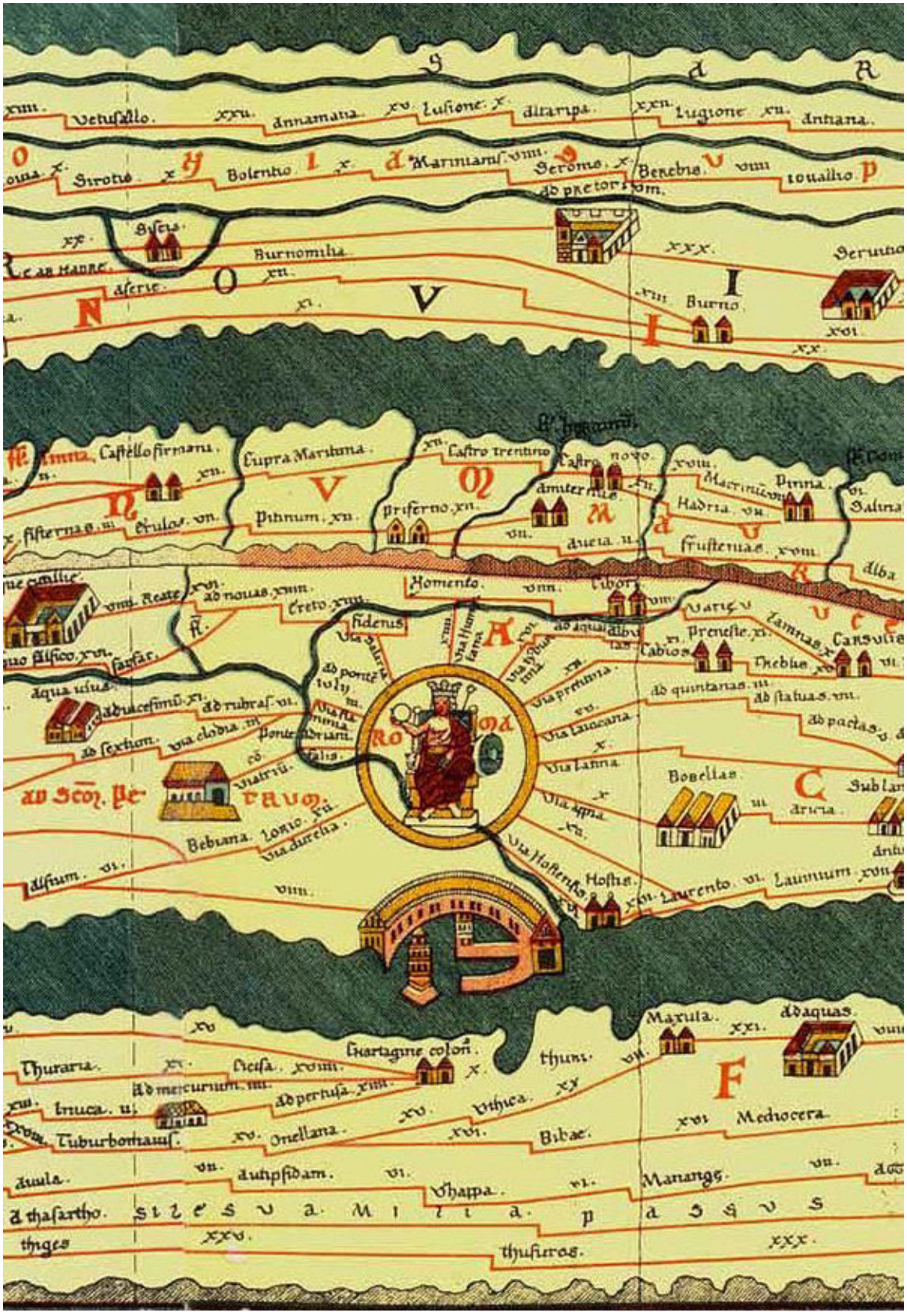



**Figure 3.** Inset of the Peutinger Map.

the map's center. This required twisting and transforming the Italian peninsula and—given the hint of China on the right-most edge of the map—the entire *oikumene*. While the literality of the empire as the center of the world was not disputed, the bodily metaphors used to signify that notion again varied. The Peutinger Map "personified [Rome] as an enthroned goddess holding a globe, a spear, and a shield" (Harley and Woodward 1987, plate 5; see "Figure Sources," Fig. 3). Recalling also that the symbol of Rome is a she-wolf with suckling twins, Romulus and Remus, might the world navel sometimes be more female than male? A navel signifies birth and, ultimately, the female matrix, the uterus.

Second, Jerusalem is identified as the center of the world in many medieval "T and O" maps, which position or orient Asia on top of a T inside a circle, with Europe and Africa on either side below, cut by the Mediterranean (Alexander 1999). For instance, the Ebstorf Map positions Jesus' head at its top and glorifies Jerusalem with an inset in its middle (Figure 4). An omphalos stone is found in Jerusalem's Chris-

**Figure 4.** The Ebstorf Map, a T and O mappamundi from the 13th century CE. Jerusalem is prominently displayed in the center.

tian Quarter, in the Church of the Holy Sepulchre, where many Christians believe Jesus is buried. In addition, Midrash Tanhuma identifies the Foundation Stone (Figure 5) at the very center of the nearby Dome of the Rock, widely believed to be the exact location of the ancient Temple of Solomon, as the navel of the world. As this latter shrine is also crucial to Islam (e.g., it is argued that Prophet Muhammad rose to the heavens from the Rock), Jerusalem is the world navel for three religions.

**Figure 5.** The Foundation Stone, as seen from the dome of the Dome of the Rock.

Finally, Madrid has also been viewed as the center of the world. Specifically, la Puerta del Sol indicates the "Kilómetro 0" (though the site predates the metric system; Figure 6). Approximately 50 kilometers from la Puerta del Sol, King Philip II ordered the construction of the complex of El Escorial, which took 21 years to complete (1563-84). The grid-like system of El Escorial's buildings and surrounding grounds vividly suggests a cartographic matrix spreading throughout the growing Spanish Empire (Figure 7). Edgerton writes, "Philip was also an admirer of Abraham Ortelius, the famous Dutch Mapmaker, and he must certainly have watched in fascination as more and more new lands found their places in the expanding web of Ptolemaic coordinates" (1987, 48). Following Edgerton (1987, 48-9), we can indeed imagine how King Phillip II "as he stood in his vast Escorial plaza, must surely have imagined himself standing at the umbilicus of the world."

In each of these examples, the empire's power is graphically represented through centered maps, and is made flesh through cosmological navels, typically a monument or a physical object such as a rock. This complex set of representational practices has been baptized the "omphalos syndrome" (Edgerton 1987, 12, 17, 26-27, 37-38; Harley 2001 [1998], 66; Wood, Kaiser, Abramms 2006, 88-92; Murphy


**Figure 6.** Photograph of the Kilómetro 0 plaque in Madrid, today.

2007, 43-48, 56-57; on "centre points" of maps, see Peters 1983, 24, 27, 63-64, 127-128). The original characterization of the omphalos syndrome is Edgerton's:

> The omphalos syndrome, where a people believe themselves divinely appointed to the center of the universe, shows its symptoms in the history of cartography as often as in ancient city planning. The oldest extant world map, inscribed on sun-dried brick from sixth-century B.C. Mesopotamia, illustrates a circular cosmos with Babylon in the middle. Both the early Christians and the Mohammedans placed their own holy shrines in the center of similarly circular charts of the cosmos. (1987, 26; footnote suppressed)

Murphy (2007) underscores the negative and limiting aspect of the omphalos syndrome:

> Something happens to imperial capitals, something psychological and, over time, corrosive and incapacitating. It happens when the conviction takes hold that the capital is the source and focal point of reality – that nothing is more important than what happens there, and that no ideas or perceptions are more important than those of its elites. This conviction saturated imperial Rome, as it saturates official Washington [Figure 8]. (43)

Imperial maps centered on a single navel encourage the universalizing, narrowing, and ontologizing of an empire's self-image. The map's individual and institutional users universalize by overgeneralizing the cartographic grid; narrow by insisting on one oversimplified map, with only one

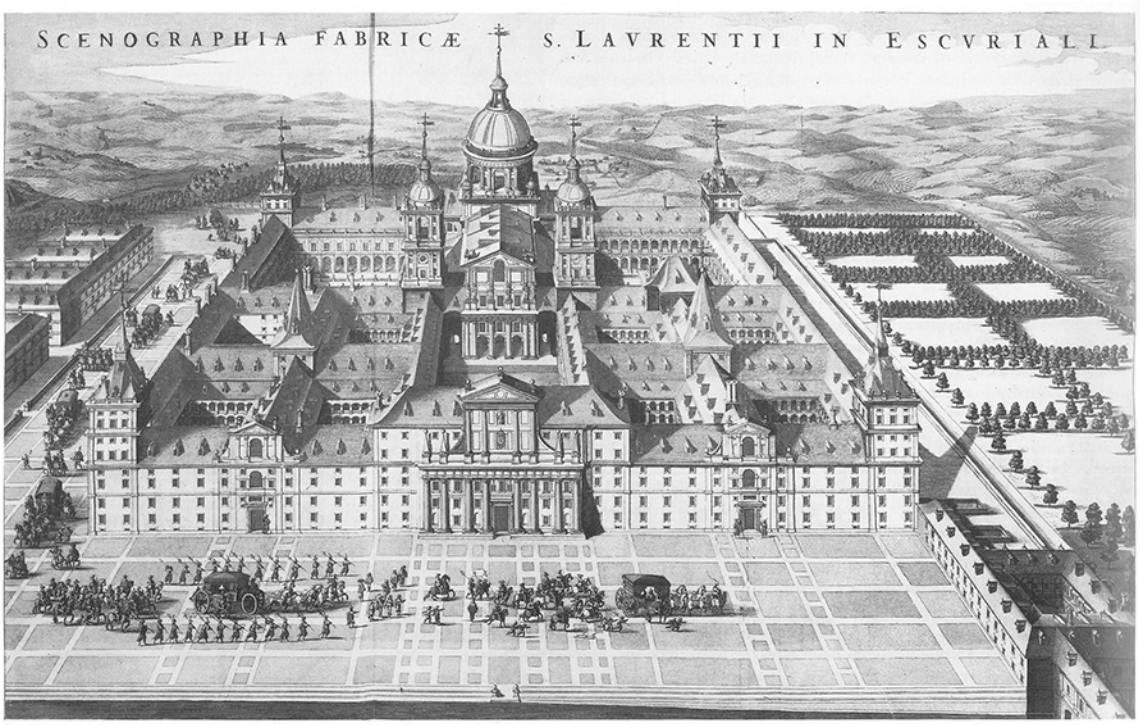



**Figure 7.** A view of El Escorial from the Dutch cartographer Joan Blaeu's *Atlas Maior* (1662).

possible internal imperial center (in contrast to denigrated "outlandish" or "provincial" areas); and ontologize by forgetting that the map is not the territory (Borges 1975 [1954]; Bateson 1999 [1972]; Korzybski 1933; Muehrcke 1974a, b; Muehrcke and Muehrcke 1998; Turnbull 1993; Wood 1992, 2010; Winther 2015, under contract). In short, the empire's maps and monuments declare that there is no other perspective and no other projection from which to draw and measure the universe. While fist, sword or missile violently impose an empire's will, its map enforces a rigid vision of the actual constitution of the world, and its physical navel reifies the literal center of the universe.

Non-Western examples of world navels also abound. For instance, the Templo Mayor in Tenõchtítlãn—Mexico City today—was treated as the center of the world, namely, the Aztec empire. Indeed, one likely meaning of the word "Mexico" is "navel of the moon," from Nahuatl, the Aztec (or Mexica) language (http://etimologias.dechile.net/?Mexico; http://en.wikipedia.org/wiki/Mexico#Etymology). Second, the UNESCO World Heritage site of San Bartolo in Guatemala contains the Mayan Pyramid of "Las Pinturas," the North Wall of which (Figure 9) depicts "mythical scenes that narrate the birth of the first men through a ritual that is conducted by the Maize God" (http://whc.unesco.org/en/tentativelists/5738/). As the recent re-discoverers of this site argue, "the placement of the five infants at the center and four corners of the San Bartolo birth scene suggests a cosmological plan of the four directions and world center" (Saturno et al. 2005, 12; see "Figure Sources," Fig. 9; cf. Saturno et al. 2006). Third, the Ming Dynasty map *Da Ming Hun Yi Tu* ("Amalgamated Map of the Great Ming Empire") places China in the center, portraying the empire fairly accurately but grossly distorting the Arabian peninsula, Africa, and Japan (Figure 10). This map likely stems from the late 14th century CE, during the rein of the Hongwu Emperor, founder of the Ming Dynasty. The Amalgamated Map is roughly contemporaneous with the construction of the Forbidden City by Hongwu's son, the Yongle Emperor. Nestled in the new capital of Beijing, the Forbidden City was taken to be the literal center of the universe (Yu 1984; Ebrey 2010).

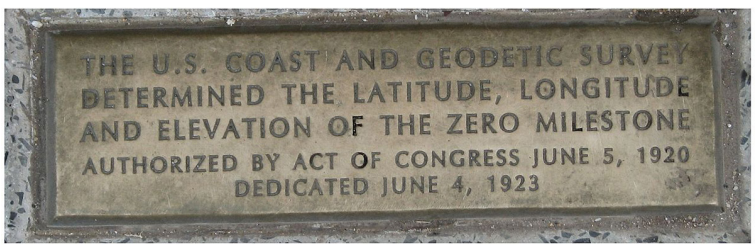



**Figure 8.** The Zero Milestone in Washington D.C.

**Figure 9.** Artistic rendering of the North Wall birth scene in the Las Pinturas pyramid, San Bartolo, Guatemala (detail of drawing by Heather Hurst).

**Figure 10.** *Da Ming Hun Yi Tu*.

The mapping practices associated with the omphalos syndrome demonstrate that "the habit of equating one's age with the apogee of civilization, one's town with the hub of the universe, one's horizons with the limits of human awareness, is paradoxically widespread" (Levin 1963, 268). Hegemonic empires in particular may be so strongly associated with the omphalos syndrome that the latter might be a mark or a definition of the former. Could one perhaps make an even stronger argument that all peoples exhibit the omphalos syndrome to some extent, thereby making ubiquitous world navels a signifier not just of empire, but of culture in general?

## Acknowledgments

Joseph Hendry, Mingui Hu, Cory Knudson, Carlos López Beltrán, Sergio Martínez, Lucas McGranahan, Andrea Noble, Nicoletta Orlandi, Carlos Pereda, Mette Smølz Skau, and Bøllemis Skau Winther provided instructive feedback on this article.

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**Fig. 2.** http://en.wikipedia.org/wiki/Vitruvian_Man; Stemp, R. 2006. *The Secret Language of the Renaissance: Decoding the Hidden Symbolism of Italian Art*. London: Duncan Baird.

**Fig. 3.** http://upload.wikimedia.org/wikipedia/commons/5/50/TabulaPeutingeriana.jpg (inset); Plate 5 of Harley, J.B., and Woodward, D., eds. 1987. *The History of Cartography: Cartography in Prehistoric, Ancient, and Medieval Europe and the Mediterranean, Vol. 1*. Chicago: University of Chicago Press.

**Fig. 4.** Figure 18.19, p. 310 of Woodward, David. 1987. "Medieval *Mappaemundi*." In *The History of Cartography: Cartography in Prehistoric, Ancient, and Medieval Europe and the Mediterranean, Vol. 1*, edited by Harley, J.B., and D. Woodward. 286-370. Chicago: University of Chicago Press.

**Fig. 5.** http://upload.wikimedia.org/wikipedia/commons/4/45/The_rock_of_the_Dome_of_the_Rock_Corrected.jpg

**Fig. 6.** http://upload.wikimedia.org/wikipedia/commons/f/ff/Km_cero.JPG

**Fig. 7.** Figure 11, p. 28, of Wilkinson-Zerner, C. 1993. *Juan de Herrera: Architect to Philip II of Spain*. New Haven, CT: Yale University Press; Blaeu, J. 2010 (1665). *Atlas maior*. Intro. by Peter Van der Krogt. TASCHEN.

**Fig. 8.** http://upload.wikimedia.org/wikipedia/commons/8/89/Zero_mile_dc.jpg

**Fig. 9.** Page 13 of Saturno, W.A., Taube, K.A., Stuart, D. 2005. "The Murals of San Bartolo, El Petén, Guatemala Part 1: The North Wall." *Ancient America 7*: 1-56; http://news.harvard.edu/gazette/2002/03.21/01-mayan.html

**Fig. 10.** http://upload.wikimedia.org/wikipedia/commons/c/cd/Da-ming-hun-yi-tu.jpg

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## 2014 ANNUAL MEETING RECAP

**Roger Wheate**
**University of Northern British Columbia**

# CCA Annual Meeting 2014, Brock University

We met in conjunction with the Canadian Association of Geographers (CAG) and the Environmental Studies Association of Canada (ESAC) at the large gathering known as 'Congress' (of the Humanities and Social Sciences) in St. Catharines, Ontario, May 27-30. The executive met on the preliminary day, starting with a whistle-whetting at Alphie's Trough (Alphie was General Brock's horse). This has to be the nicest dining physical setting in any Canadian campus amongst the splendid trees and trails on the Niagara Escarpment. The evening icebreaker took us to the Old Winery Restaurant in Niagara-on-the-Lake, where we met co-organisers Christine Earl and Lori Martin, assorted members and conference goers.

The first program day started with morning sessions on Applications and Development in GIScience, held with the CAG. These were followed in the afternoon by a special panel on a proposal for a Canadian Historical GIS network organised by Byron Moldofsky (see panel on adjacent page), and sessions on building Canadian Geospatial relationships, organised by Anna Jasiak.  and web-based mapping / volunteered geographic information.

The evening program saw the annual orienteering event, courtesy of a new campus map by Loris Gasparotto and course setting by Loris and Christine. This was followed by the first ever PetchaKucha Night, jointly sponsored by the CCA, ESAC and CAG. Seven speakers (four from the CCA: Chris Brackley, Michael Dorn, Roger Wheate and Jeff Wielke) presented their themes using 20 slides displayed for 20 seconds each (a total of 6 minutes 40 seconds for each speaker), interspersed with finger foods and trips to the bar. This format is thoroughly recommended for all future meetings (including the proximity of a licensed bar).

The second day started with Cartography sessions on data, applications and visualisation, with presentations by Chris Storie (U. Winnipeg), Roger Wheate (UNBC), Anna Jasiak (NRCan) and Jeff Wielki (TERA Env.), Julia Siemer (U.Regina), Menquiang Yang (Concordia), Colleen Beard (Brock) and Will van den Hoonaard (Saint Thomas U). Following the AGM over lunch, we participated in a group discussion on the role of the CCA in the 21st century, facilitated by the President and vice-president. The day and conference concluded with a banquet along with the CAG at the Ravine Vineyard. We are indebted to the work of Christine Earl and Lori Martin in organising the CCA component of the meeting - they discovered many additional challenges when coordinating with Congress, but generated a superb environment and program.

Thanks also to Colleen Beard for organising the special display in the map library featuring the work of Alun Hughes, a professor of Geography/Cartography at Brock 1969-2012, before he passed away in 2013. Alun was CCA president in 1993-94 and gave us many memorable presentations over the years. I must also commend Colleen on her outstanding talk on the War of 1812 in maps, an inspiring application of local history using a Google Earth environment.

CCA 2014 organisers Lori Martin (left) and Christine Earl. (photo: A. Wood)

# CCA Annual Meeting 2014 in pictures

Icebreaker at the Old Winery Restaurant in Niagara-on-the-Lake. (Photo: A. Wood)

Banquet overlooking grapevines at the Ravine Vineyard Restaurant. (Photo: A. Wood)

Hard at work during the special panel on a proposal for a Canadian Historical Geographic Information Network. (Photo: A. Wood)


A sampling of some of the President's Prize competition student maps. (Photo: A. Wood)

One of the many interesting sessions. (Photo: A. Wood)

## REPORT ON CONGRESS 2014

**Byron Moldofsky**
**University of Toronto**

# Special panel on a proposal for a Canadian Historical Geographic Information Network

This session was well attended with members of the CCA, the CAG and the Canadian Historical Association being represented. The meeting commenced with a short introduction from James Boxall, in which he spoke about how Canada was moving towards interoperability and collaboration in using GIS data, on a multitude of fronts. In this context, a network for Historical GIS can be seen as part of a wider evolution of spatial data infrastructure throughout the country.

Geographer, Don Lafreniere, from the Human Environments Analysis Laboratory at Western (and now at Michigan Technical University) made his presentation entitled "Towards a Canadian Historical Spatial Data Infrastructure." He discussed in some detail his experiences with urban historical GIS-based projects, especially in London, ON and Victoria BC. Don concluded with the questions of how to proceed towards a Canadian historical Spatial Data infrastructure, including some of the questions about data and funding that we had agreed to begin to explore.

Next on the agenda was historian Léon Robichaud. Léon first reported on the meetings which took place last February in Montreal as part of the Atelier-conférence canadien sur le SIG historique / Canadian Historical GIS conference-workshop. The website for this conference is accessible at http://plaque-tournante.uqam.ca/sigh2014. Following a brief run-through of the speakers and some of the issues brought up at that conference, Léon discussed work that he and his colleagues at the University of Sherbrooke have been doing related to building pilot-project versions of tools and resources specifically aimed at serving Historical GIS needs in Canada. They have been exploring alternatives for database construction and structuring, metadata standards, and a variety of ways of discovering and reviewing software tools and datasets useful for practitioners of historical GIS. The work of Léon and his team can be seen as establishing the context and laying the groundwork for further development of a proposal for Canadian Historical GIS network.

Finally, Byron Moldofsky presented a brief version of the exploration of the HGIS network idea first presented with Marcel Fortin, last year at the CCA/ACMLA meeting. The complete presentation may be accessed at: http://www.hgis-sigh.ca/Carto2013_presentation.html. The major addition to this was a table based on the chapters of the recent book publication Historical GIS Research in Canada, launched just the previous day at Congress 2014. The table summarizes the data used in each project/chapter described in this book, and attempts to show how each might make a valuable contribution to a data collection of Historical GIS resources for Canada. We hope that these contributions might form the beginnings of such a data resource.

Most attendees were enthusiastic about the prospects for a Canadian Historical GIS Network initiative to proceed, and several had suggestions of data sets they would be willing to contribute, or whose contribution they thought should be pursued. Given this reaction, we are encouraged and determined to follow up the initiative with further meetings and other community-building efforts as much as possible (including the upcoming CGC Round Table and ACMLA meetings,) and to come up with a proposed course of action (and a formal proposal for collaboration and funding) in the near future. Stay tuned!

For a more complete report, see:
http://www.hgis-sigh.ca/Special_panel_Congress2014_Report.html

# CCA AWARDS OF DISTINCTION

## Exceptional Scholarly Contributions to Cartography: Nigel Waters

(photo: George Mason University)

Nigel was formally appointed as Editor of Cartographica on January 1st 2011 and he immediately promoted new ways to enhance the journal and expand its readership. The cover concept Nigel introduced in Spring 2011 with v.46.1 gave the journal a refreshing new look. Under Nigel's watch, which ended in Spring 2014 with v.49.1, each journal cover highlighted a map or figure printed in the issue and was always accompanied by a great selection of papers. Of particular interest were special issues for the 25th and 26th Conference of the ICA in Paris July 2011 and Dresden, 2013. The peer reviewed papers in these two issues were forward looking and ready for distribution at both conferences, where the journal was well received and benefitted from the extra exposure enjoyed at these venues. Nigel successfully advanced the international perspective of the journal while maintaining a distinctly Canadian multi-faceted view of the world, and he carefully balanced selection of papers between those that honour past tradition and those that explore new horizons.

The Canadian Cartographic Association recognizes Nigel and the benefits of his contribution as Editor of Cartographica to both the journal and the Association by honouring him with this award of distinction.

## Exceptional Contributions to the CCA: Alberta Auringer Wood

(photo: courtesy A. Wood)

Since Alberta and Cliff Wood moved to Memorial University and Canada in 1978, Alberta initially as the Sciences Collection librarian and then Head of the Map Library, they were both supremely prominant members of the CCA.

In the first years, Alberta was more formally linked with other associations: the first female president of the American Congress on Surveying and Mapping (ACSM) 1987, President of the Association of Canadian Map Libraries and Archives (ACMLA) 1993, and Vice-President of the International Cartographic Association, 1999. Throughout the times with Cliff on the executive (most of the last three decades), Alberta used the wealth of her knowledge and experience with these other groups to benefit and advise the association and its members. We often refer to the CCA as a big family, and in this sense, Alberta has long been 'Mum'.

Saving the best till last, she joined the CCA executive in the new millenium, serving a double term as secretary, 2006-10, and playing a key role in organising the executive's activities. Alberta has an unmatched experience and memory store of CCA history. When I am asked for either advice or recollection of procedures, I can answer about 70% of queries, but for the extra 30%, I need to contact Alberta. It gives me great pleasure to present this award for exceptional contributions to the CCA in 2014 to Alberta Auringer Wood.

*Roger Wheate, UNBC*

# 2015 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 2015 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 2014/15 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 2015 are invited from all Canadian post-secondary students. All entries should be accompanied by an official entry form found on page 28 or on the CCA website (www.cca-acc.org). Deadline for submissions is **May 20, 2015.** 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 2015

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 2015 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 2014/15.

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 29 ou sur le site Web de l'ACC (www.cca-acc.org). La date limite de soumission est le **20 mai 2015**. 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

# 2015 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 2015 are invited from all Canadian post-secondary students. They should be accompanied by an official entry form found on page 28 or on the CCA website (www.cca-acc.org). Deadline for submissions is **May 20, 2015.** 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 2015

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 29 ou sur le site Web de l'ACC (www.cca-acc.org). La date limite de soumission est le **20 mai 2015** 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

# CCA Prizes entry form 2015

**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. Deadline for submissions is **May 20, 2014.** Send entries to:

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

# Formulaire de participation des Prix ACC 2015

**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:

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Pour être admissible, ce formulaire doit être soumis avec votre inscription. *La date limite de soumission est le* **20 mai 2014**.

Envoyer les soumissions à:
ACC, Prix du Président ou Prix Carto-Québec
a/s Dr. William Crumplin
A-250, Arts Building
Sudbury Campus
Laurentian University
935 Ramsey Lake Road
Sudbury ON P3E 2C6a

# 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:

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

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:

Claire Gosson
Secrétariat, Association canadienne de cartographie
38 Ridgeburn Gate
Ottawa ON K2B 4C3

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 2014
# RENOUVELLEMENT D'ADHESION 2014

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Donations may be made to the Nicholson Scholarship fund.

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

Address / Addresse:
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Please indicate relevant interest groups /
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- ☐ Design and Geovisualization / *Cartographie analytique et conception*
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- ☐ History of Cartography / *Histoire de la cartographie*
- ☐ Cartography 2.0 / *Cartographie 2.0*
- ☐ Mapping Technologies and Spatial Data / *Techniques de production des cartes*

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

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  Two names / *Nom des deux membres:*
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  _____
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www.cca-acc.org

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# CARTOGRAPHICA

**www.utpjournals.com/cartographica**

*Cartographica* is an international, interdisciplinary, peer-reviewed journal which publishes transformative research, education, and practice contributions to the social, political, technological, and historical aspects of cartography.

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**Editors-in-Chief –** Monica Wachowicz (University of New Brunswick) and Emmanuel Stefanakis (University of New Brunswick)

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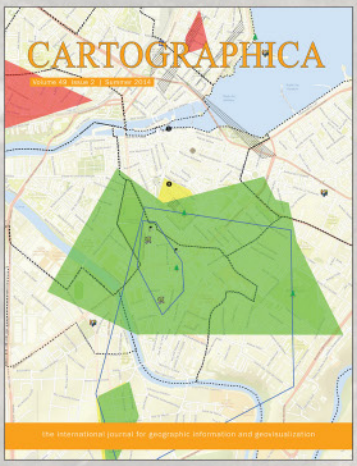


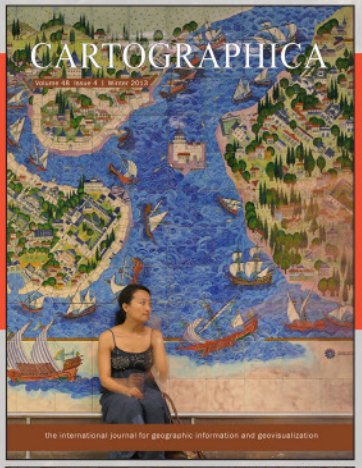


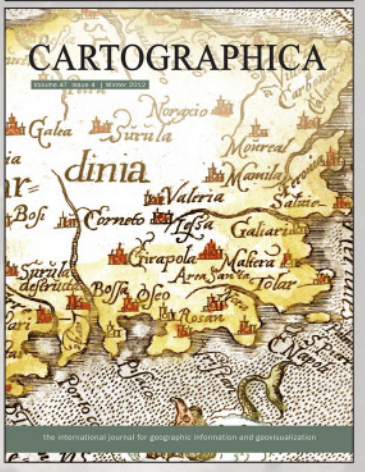


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**Internet Mapping: Selected Papers from the 25th Conference of the International Cartographic Association, Paris, 3–8 July 2011** (46.2, Summer 2011)

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