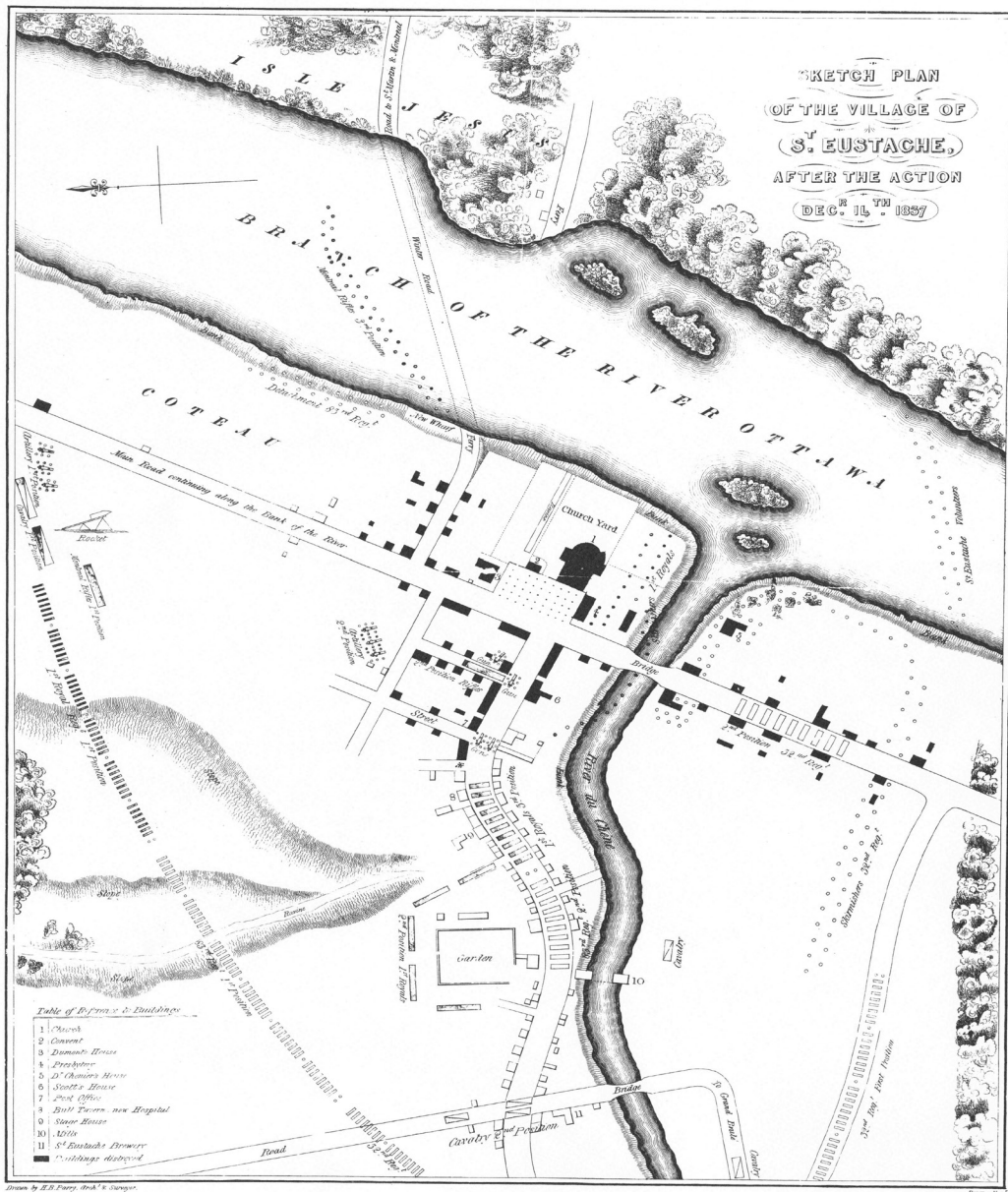


BULLETIN

ASSOCIATION DES CARTOTHÈQUES ET ARCHIVES CARTOGRAPHIQUES
DU CANADA



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Sketch Plan of the Village of St. Eustache,
After the Action Decr. 14th 1857.
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Les opinions exprimées dans le Bulletin sont celles des collaborateurs et ne correspondent pas nécessairement à celles de l'Association.

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Table of Contents

PRESIDENT'S MESSAGE - Rosa Orlandini	2
CARTO 2014 CONFERENCE REPORT, June 17-20, 2014	3
ACMLA ANNUAL GENERAL MEETING, June 19, 2014	28
SAMUEL DE CHAMPLAIN - MAPS AS TEXTS - Allison Smith	31
PRESERVING AND DISSEMINATING CARTOGRAPHIC KNOWLEDGE: THE ROLE OF ARCHIVES IN THE DIGITAL AGE - Jonathan Dorey	42
BULK PROCESSING UOTTAWA'S COLLECTION OF 1:63,360 TOPOGRAPHIC MAPS - Brian Bancroft and Sarah Simpkin	47
THE GREFFE DE L'ARPENTEUR GÉNÉRAL DU QUÉBEC ONLINE - Jean-François Boucher	49
COMPARISON OF SIX FREE ONLINE MAPPING TOOLS - Rebecca Bartlett and Joël Rivard	52
PRÉSENT ET AVENIR DE CARTOMUNDI – VALORISATION EN LIGNE DU PATRIMOINE CARTOGRAPHIQUE - Jean-Luc Arnaud	57
REVIEWS	
Making Spatial Decisions Using GIS and Remote Sensing: A Workbook - <i>Andrew Nicholson</i>	62
Sea Monsters: A Voyage around the World's Most Beguiling Map - <i>Francine Berish</i>	63
Historical GIS Research in Canada - <i>James Boxall</i>	64
GEOSPATIAL DATA AND SOFTWARE REVIEWS	67
OPEN DATA WATERLOO - <i>Eva Dodsworth</i>	
REGIONAL NEWS - Tom Anderson	69
NEW BOOKS AND ATLASES - Peter Genzinger	73
NEW MAPS - Cheryl Woods	75
GIS TRENDS - Courtney Lundrigan	77

ON THE COVER...

Sketch Plan of the Village of St. Eustache, After the Action Deer. 11th 1837
 H.B. Parry. [Montreal, 1837?]

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PRESIDENT'S MESSAGE

Carto 2014

This year marked the 48th Annual General Meeting and Conference of ACMLA and we met in beautiful Montréal. This successful conference was made possible through the cooperative efforts of the local arrangement committee folk from the Bibliothèque et archives nationale du Québec (BANQ) and the Université du Québec à Montréal (UQÀM). This year we had the privilege of meeting in the beautiful venues of both institutions, along with tours of BANQ facilities and a field trip of the Stewart Museum. Fortunately weather was on our side, our icebreaker was on a rooftop of a local restaurant and our banquet was in Park Lafontaine. The local arrangement committee also did an amazing job coordinating volunteers, hosting the conference website, translating content, arranging catering and much more. Our colleagues on the local arrangements committee this year were: Micheline Picard and Sylvie St-Pierre de l'UQÀM, and Jean-François Palomino and Jean-Bruno Giard de BANQ. I would like to extend a special thanks to Stephen Park and Guy Berthiaume for their kind opening remarks, Siobhan in her role as First Vice President, the IT team at UQÀM who hosted our website, and the volunteers who assisted with translation and registration.

The program committee facilitated and created an amazing program this year. The reoccurring theme was collaboration and cooperation in our field and beyond. In this issue of the *Bulletin* are presentation abstracts and selected feature papers from the conference. I would like to thank the members of our program committee who created this magnificent program: Erin Forward, Siobhan Hanratty (Chair), Sarah Simpkin, Deena Yanofsky and Jean-François Palomino.

Awards

This was a special conference for several individuals. During the banquet, David Jones received an Honours Award for his significant contribution to our association and our profession. We were graced by the presence of Yves Tessier who received the ACMLA Honourary Membership award. Both David and Yves speeches are published in this issue of the *Bulletin*. Allison Smith, a student from Carleton University received the Student Paper award for her online exhibit, "Champlain in the Anishinabe Aki, digital repository: Samuel de Champlain Maps as Text". The recipient of the Cathy Moulder Paper Award is Barbara Belyea for her article "A Map and Nine Makers", printed in 144, Spring/Summer 2013 issue of the *ACMLA Bulletin*.

By-Law

During the Annual General meeting the members of the Association approved the new By-Law for the Association. This new By-Law will come into effect during the summer of 2014. This was a very involved and complex process and Leanne Trimble and Courtney Lundgren worked hours to ensure that we had a sound legal document for our association. Kudos!

Board of Directors 2014-2015

We also elected our new board of directors for this upcoming year. Our new board of directors are: Rosa Orlandini (President), Siobhan Hanratty (VP 1), Deena Yanovsky (VP 2), Rebecca Bartlett (Treasurer), and Courtney Lundrigan (Secretary). I would like to extend a big thank you to Wenonah Fraser Van Heyst who has been our 2nd Vice-President since 2011-2012. Previous to that Wenonah was our Secretary. It is has been a great privilege to work with Wenonah and I wish her well in her future endeavors.

Next year's election will be in June 2015 and will reflect the new governing model of our by-law, which will include a Vice President of Advocacy and Communications, Vice President of Professional Development, President-Elect, President, Past-President, Secretary and Treasurer.

Without a further ado, enjoy this issue of the *Bulletin*!

- Rosa Orlandini



48th Annual Conference of the Association of Canadian Map Libraries and Archives (ACMLA)

June 17 - 20, 2014

While producers, distributors and users mobilize their efforts to update the mapping of the world, librarians and archivists emphasize the importance of keeping track of cartographic production throughout time. Cartographic sources are not only very useful for exploring the territories that surround us, but also to understand the world that preceded us. How can maps and other geographical sources help us understand the history of societies? What strategies are needed to preserve our paper and digital cartographic heritage, and to increase the producer's awareness of the historical significance of the data? In this era of technological change, what role can the map librarian or map archivist play in democratizing access to geospatial data?

Conference organized by Bibliothèque et Archives nationales du Québec, Université du Québec à Montréal, and the Association of Canadian Map Libraries and Archives

Program Committee

- Erin Forward, Queen's University
- Siobhan Hanratty, University of New-Brunswick
- Jean-François Palomino, Bibliothèque et Archives nationales du Québec
- Sarah Simpkin, Université d'Ottawa
- Deena Yanofsky, Université McGill

Organizing Committee

- Jean-Bruno Giard, Bibliothèque et Archives nationales du Québec
- Jean-François Palomino, Bibliothèque et Archives nationales du Québec
- Micheline Picard, Université du Québec à Montréal
- Sylvie St-Pierre, Université du Québec à Montréal

CARTO 2014 CONFERENCE REPORT

June 17th - June 20th, 2014

Tuesday June 11th : Pre-Conference Workshops

INTRODUCTION TO ARCMAP SCRIPTS AND TOOLS

Joël Rivard, Carleton University

Gerald Romme, University of Toronto

Summarized by Andrew Nicholson

On the first day of CARTO 2014, attendees had an opportunity to participate in a selection of preconference workshops. One of the morning workshops was entitled “Introduction to ArcMap Scripts and Tools” presented by Joël Rivard from Carlton University Library’s MADGIC and Gerald Romme from the University of Toronto Map & Data Library. Approximately, 25 CARTO attendees participated in this workshop.

Intended for GIS users, Joël and Gerald divided up their workshop into two sections. The first section led by Joël focused on the use of Model Builder as a visual-based programming tool for building complex geospatial queries in ArcGIS. After a short break, the workshop resumed with a second section lead by Gerald which focused on the use of the Python text-based programming language in ArcGIS, especially the use of scripts for performing complex tasks.

For both the Model Builder and Python sections, Joël and Gerald had the participants utilize the same datasets from the City of Toronto Open Data Website. These included the “Centreline”, “Greenspace”, “Schools”, and “Wards” shapefiles. For the ModelBuilder portion of the workshop, Joël walked the workshop participants through the steps of accessing the data and opening the ArcMap and Model Builder applications to first project the Wards layer and then select a particular Toronto Ward. The clipped layer was then put into a more complex Model Builder query, which had participants selecting and then clipping out the matching features found within the “Centreline”, and “Greenspace” shapefiles that were located inside the selected Toronto Ward. After building the model, participants then used the “Validate” and “Run” commands to process the selection and perform the clip. The Model Builder part of the workshop concluded by having participants use the “Iterate” function on the Toronto data allowing for batch clipping of shapefiles, based on multiple criteria, such as “collector” or “major arterial” roads in the “Centreline” file.

For the Python component of the workshop, Gerald first had the participants open the Python Command Window in ArcGIS, and enter some simple commands such as “print text” which saved the value of “text” as a variable. Participants were next inputting the import command for “arcpy” which tells the Python program that we now want to access ArcGIS commands to process GIS files. Participants then used Python commands to query the number of rows that were contained in the “Centreline” data layer, typing “arcpy.GetCount_management” and selecting “Centreline” which the program then told us containing 60415 rows. The participants next confirmed this as the correct number when they opened the “Centreline” attribute table in ArcMap. They then converted that number into a variable using the “print” command.

The Python workshop next turned to checking the Directory of shapefiles using the “arcpy.env.workspace” and the “fclist” commands. At this point Gerald had planned to steer the workshop participants to the “PythonWIN” application which would allow for easier Python scripts creation and saving. As it happened, PythonWIN was

unavailable in the lab, so Gerald improvised by taking the participants to another Python shell application known as IDLE which is essentially a Python GUI interface. From here the participants, ran through several Python scripts, which Gerald had pulled together for the workshop and allowed for the projecting of the Toronto Open Data files. Participants finished up the workshop by performing the Selection function using SQL Syntax saved from the previous Model Builder session and bringing into a Python script to perform the clipping process.

Model Builder vs Python Programming


Model Builder

- Visual-based programming language
- Models are tools in ArcGIS



Python Programming

- Text-based programming language
- Python scripts are tools in ArcGIS



```
import arcpy
from arcpy import env
env.workspace = "C:\data\workspace"
input_data = "C:\data\workspace\input_data"
output_data = "C:\data\workspace\output_data"
arcpy.Clip_analysis(input_data, "C:\data\workspace\clip_mask", output_data)
```

CATALOGUING MAPS IN RDA (BILINGUAL)

Karen Jensen, Concordia University Libraries
Emanuel Actarian, University of Ottawa

The workshop aimed to provide participants, through presentations and practical exercises, the basic knowledge and skills needed to describe and index cartographic materials in print and electronic form, according to RDA.

OPENSTREETMAP

Simon Mercier, Mapgears

Cet atelier sera l'occasion pour les participants d'en connaître davantage sur OpenStreetMap, une plate-forme de diffusion cartographique open source. Les participants apprendront comment contribuer à ce projet alimenté en crowdsourcing et comment, avec le logiciel libre QGIS, utiliser les données sources qui y sont diffusées.

Wednesday June 18th: Conference Presentations

PRESERVING AND DISSEMINATING CARTOGRAPHIC KNOWLEDGE IN THE DIGITAL AGE

Jonathan Dorey, School of Information Studies, McGill University

Full length paper printed on page 42

This year, the theme of the conference, preserving and disseminating geospatial knowledge, touches upon three overlapping questions: how do we preserve maps and other geographic sources regardless of format; how do we use this cartographic heritage to understand the past and its contemporary traces; and what is the role of the map librarian and archivist in democratizing access to geospatial data? These questions are not only asked in the cartographic realm: government and community archives, public and school libraries, documentation centres and museums, all memory institutions are facing the same challenges. Preservation through use is one possible avenue to answer these questions. The enemy is not technological obsolescence or a lack of understanding of the information, but rather the act of forgetting: no longer knowing how to read a map, not knowing the historical context of the map, no longer having access to historical data, etc. This presentation will address each of these three points—preservation, use and access—by reconciling the preservation role and the dissemination role of professionals as well as the access role of users.

TOUCH HISTORY : POUR QUE LA GÉOMATIQUE ET L'HISTOIRE SE CONJUGENT À L'ÈRE DU NUMÉRIQUE

Louis-Pascal Rousseau, McNeil Center for Early American Studies, University of Pennsylvania

Le projet Toucher l'histoire / Touch History vise à développer une plate-forme informatique intégrant les archives sur le patrimoine bâti (cartes anciennes, photographies d'époque, documents de recherche, etc.) des villes, de manière à pouvoir visualiser le développement de ces dernières en continu tout au long de son parcours historique. Résumé à sa plus simple expression, il s'agit de créer un modèle de carte urbain en 4D (c'est-à-dire intégrant la 3D ainsi que la dimension temporelle) qui pourra répondre à des besoins précis des villes en termes de conservation du patrimoine, d'aménagement du territoire et de gestion des archives.

Toucher l'histoire / Touch History est un outil technoculturel de pointe s'adressant à toutes les villes à caractère hautement historique et patrimonial qui désirent optimiser leurs décisions concernant l'aménagement de leurs territoires ainsi que la préservation et la mise en valeur de leur patrimoine. Il a aussi comme utilité de rendre accessibles les archives historiques d'une ville par le biais de la carte interactive 4D, qui fait office d'outil de recherche visuel et tactile pour permettre aux usagers d'aller sélectionner un document précis relatif à un bâtiment et une époque spécifique.

Ce projet fait l'objet d'un processus de réflexion qui pourrait mener à une collaboration entre la Ville de Québec et le réseau de recherche interuniversitaire en sciences humaines numériques SHANTI (Sciences, Humanities and Arts Network of Technological Initiatives). Cette communication sera faite par un représentant de chacun de ces milieux, de manière à mettre en relief ses potentiels techniques et historiques de ce projet.

ARCHIVAL MAPS, HGIS AND INDIGENOUS LANDSCAPES

Daniel Rueck, Department of History & Classical Studies, McGill University

What can be learned about Indigenous land practices from maps and survey data produced by government departments and officials who were determined to eliminate those practices? This paper presented my HGIS research on Indigenous environmental history on the Prairies and in the Montreal area. First, I discussed the maps, data, and diaries of land surveyor Otto Julius Klotz (Dominion Land Survey), and my HGIS analysis which reveals elements of the pre-railroad Prairies as well as the process by which Indigenous peoples were dispossessed and the land radically transformed. Second, I presented my HGIS work on the work of William McLea Walbank (Dept. of Indian Affairs) in Kahnawake (a Mohawk territory near Montreal), where he attempted a radical land redistribution in the 1880s. I also discussed some of the theoretical and practical problems associated with the use of HGIS for historical research on/with Indigenous peoples.

Full length paper will be made available in issue 148 of the ACMLA Bulletin

CARTOGRAPHIER LA GUERRE

Marcelle Cinq-Mars, Bibliothèque et Archives Canada

La Première Guerre mondiale fut une source d'innovations scientifiques et technologiques. Comme bien d'autres domaines, la cartographie s'est adaptée aux besoins spécifiques des militaires durant ce grand conflit mondial. Elle s'est non seulement adaptée au terrain, mais aussi aux stratégies nouvelles et au développement des besoins créés par le développement de l'armement.

Dans un premier temps, la présentation dressera l'historique de l'évolution de la cartographie durant la Première Guerre mondiale, à l'aide de nombreux exemples tirés de la vaste collection de Bibliothèque et Archives Canada. Ensuite, la présentation survolera les possibilités de recherches offertes par la collection, question au goût du jour en cette année de commémoration du Centenaire du début de la Grande Guerre.

CARTOGRAPHIC INTACTNESS AND THE THREE MILES TO ONE INCH SECTIONAL MAPS OF WESTERN CANADA

Larry Laliberté, GIS Librarian, University of Alberta

Brian Harley wrote that the blank spaces on a map are sometimes as beckoning as their densest line work. Echoing his statement, this presentation looked at the process of georeferencing and performing raster to vector conversions of the 3-miles to 1-inch sectional maps of Western Canada, to extract measures of line work density. These density measures or "Cartographic Intactness" could serve as a useful spatial metric when aggregated up to the Western Township grid for establishing thresholds of the early 20th Century human foot print on the West, and delineating areas undisturbed by the cartographer's pen.

GéoPhoto+: Toward a Collective Directory of Aerial Photographs!

Stéfano Biondo, Bibliothèque de l'Université Laval, carto-thécaire

The speaker presented the new interface for cartographic and textual research, GéoPhoto+, which will allow for the identification of all the collections of aerial photographs of the Centre GéoStat held by the Library of the Université Laval. This geographic information dissemination system enables remote consultation of the Centre's whole set of indexes of aerial photographs using one single, fast and user-friendly interface. It

displays—as a footprint—over 160,000 aerial photographs from the federal and provincial governments. GéoPhoto+ not only offers the option to print or send a command by email, it also provides access to each photo's metadata, such as the flight line number, the photograph's number, year, scale, season, emulsion, etc.

GéoPhoto+ was designed to easily integrate collections of aerial photographs from different institutions. Its decentralized management module allows each institution to easily index new additions of aerial photographs in the collective directory.

REVEALING OUR PAST: USING WEB GIS FOR DISSEMINATION OF HISTORICAL AIR PHOTOS AND TOPOGRAPHIC MAPS

Barbara Znamirovski, Trent University

As part of its Historical GIS (HGIS) initiatives Trent University Library's Maps, Data and Government Information Centre is developing a Regional Environmental History Atlas. The primary goals of the project are to create a discovery tool for current and historical information, encourage research and teaching that fosters new ways of understanding our region, and encourage interdisciplinary collaboration within the university and with regional partners and members of the public.

This talk reviewed the project, focusing on two main components: web dissemination of historical air photography and topographic maps. It included an overview of how we got started, key procedures, and lessons learned. Key technical (scanning, georeferencing, web development) and administrative components such as budgeting and management were also covered.

A demonstration of the project web site showed how ArcGIS for Server is being used for search and discovery and downloading of air photos and topographic maps.

The presentation highlighted functionality of the system and some of the key decisions we faced in designing a system that would respond to diverse researcher needs while meeting technical considerations such as storage and packaging of products for downloading.

CARTOMUNDI NEW DEVELOPEMENTS

Present and Future of CartoMundi – Online promotion of the Cartographic Heritage

Jean-Luc Arnaud Directeur de recherche au CNRS, Maison Méditerranéenne des sciences de l'homme, Aix-Marseille Université.

Full length paper printed (in French) on page 57

CartoMundi gathers a set of IT resources dedicated to the promotion of the cartographic Heritage. It is developed by the Mediterranean House for Social Sciences in Aix-en-Provence under the hospices of Aix-Marseille University.

CartoMundi presents two peculiarities

1. First of all, it's an international collective catalog opened to all the map libraries, independently of their size, their status or their location – the web site is trilingual: English, French and Spanish.
2. The *CartoMundi* interface is organized on the basis of an interactive planisphere that offers tools to research the documents by location. With only a few clicks, it allows users to search and select a document, to retrieve the locations where it is available and, if it has been reproduced, to display the reproduction in high resolution.

Under the public interface, *CartoMundi* also includes a collaborative platform. It provides partners with tools to manage their collections. This platform is already operational but a second step of development is in progress and is mainly dedicated to geomatics. Geomatics aspects become increasingly important for the management and dissemination of cartographic heritage. In this context, *CartoMundi* expects to facilitate the work of map librarians in this field. According to this goal, we explore, test and disseminate tools and methods that are more effective and less time consuming than the recording of the coordinates following the cataloguing standards. The four examples that follow are the first results of this work.

1. Generator of sheet indexes

This tool is already operational. It allows a map librarian who has no knowledge in the field of geomatics, to create quickly and easily digital georeferenced sheet indexes. Data produced by this generator can be used either directly in *CartoMundi* or in other systems from exported files. This generator is very useful for most of the series but it works only for sets which limits of sheets follow a grid of meridians and parallels. For other forms of cutting, it remains necessary to use the services of a GIS specialist.

2. Graphic process

For the series published before the 20th century it is common that the datum requested to build a sheet index according to the geomatics rules, are not available. In this case we favour a graphical method.

For each series, we start from its sheet index - on paper: original or drawn. After being scanned as a raster image, it is georeferenced from landmarks. On the basis of this document, we draw a vectorial sheet index. This one is stored in a shapefile (SHP) which can then be integrated into *CartoMundi*.

This method has several advantages. It is easy to implement - even by an inexperienced geomatician, it is very fast and it is applicable to any scales.

3. Large scale maps

Large scale maps - cadastral, Insurance... - have two peculiarities. They are not built according to geodetic basis and they do not bear coordinates. Otherwise, these maps often have perimeters that follow streets or roads.

To build the sheet indexes of these series, we need a base map that displays the roads network. Google Map and its drawing functionalities are a very helpful tool. For each document we trace the polygon that corresponds to its perimeter. When all the sheets have been drawn, the result is exported (from Google Map) in a KML format file. This file is transformed into a SHP format file that can be integrated into *CartoMundi* (see for example, the cadastral map of Cairo: <http://www.cartomundi.fr/site/E01.aspx?FC=48758>).

Currently this transformation is done by a geomatician, to avoid this step and simplify the process, we planned the development of drawing tools integrated into our system.

4. Integrated drawing tools

This feature is not yet developed. On the basis of a planisphere online, it will allow all the map librarians, without any particular training, to produce the polygon corresponding to the covered perimeter of any document.

Thus, in a single operation, the catalogers will be able to produce the textual description of a document and the corresponding polygon.

Conclusion

The catalogue of *CartoMundi* has been produced with a network of partners. The most important are the French National Library and the National Institute of Geography. Besides these two establishments, we have currently 15 active partners in France and in Europe.

Several Canadian map libraries take part in the directory of *CartoMundi*. Those who wish to be more deeply involved are welcome.

AUTOMATING THE ARCHIVE: BUILDING UOTTAWA'S HISTORICAL TOPOGRAPHIC MAP INDEX

Sarah Simpkin, Bibliothécaire spécialisée en SIG et géographie / GIS and Geography Librarian, Université d'Ottawa / University of Ottawa

Full length paper printed on page 47

In spring 2013, staff at the Geographic, Statistical and Government Information Centre (GSG) at the University of Ottawa embarked on a project to digitize a collection of 600+ Canadian topographic maps dating from 1907-1959. Our priorities were twofold: (1) to create a web index of our holdings to establish coverage; (2) to automate the process of georeferencing the maps in order to increase their versatility in future projects. This presentation provided an update on the project, an introduction to the tools we are using, and initiated a dialogue about similar initiatives across the country.

RE-IMAGINING PAPER MAP COLLECTIONS FOR THE 21ST CENTURY INFORMATION LANDSCAPE

Talia Olshefsky, McGill University
Deena Yanofsky, McGill University

In today's tight fiscal environment, budget cuts, staff reductions, and frequent branch closures more and more librarians find themselves having to re-evaluate the way they manage their collections. This is particularly true for map librarians; the proliferation of digital cartographic resources coupled with a reduced demand for print maps has forced many map libraries to find practical, cost-effective ways to manage a print map collection that best serves the needs of the 21st century user.

In 2012, the map and air photo collection at McGill University was moved across campus, from the former Walter Hirschfeld Geographic Information Centre to the centrally located Humanities and Social Sciences Library. After receiving over 60,000 largely uncatalogued sheet maps, a small team undertook the enormous task to inventory the collection, capture useful metadata, address storage and arrangement issues, and reimagine the ways in which this collection could be made visible, accessible, and useful to our community of users.

Following a brief review of the policies and practices that underlie traditional map collection management, this presentation shared our experiences, the challenges we faced, and the unique tools and solutions we developed based on existing literature and best practices.

ACCESSIBILITY AND THE MAP/DATA LIBRARY

Leanne Trimble, Ontario Council of University Libraries

The majority of academic libraries express their commitment to providing services equitably to all students, faculty and staff. In Ontario, this commitment is now legislated in the form of the Accessibility for Ontarians with Disabilities Act (AODA). The act is broad in scope and covers everything from the built environment, to customer service, to information and communications. When it comes to geographic information services and collections in our academic libraries, how accessible are we? How accessible could we be? This presentation took a hard look at our assumptions about how a disabled person would use the services of a map or data library, with a focus on our websites and discovery tools, particularly those involving web maps. We reviewed the work that has been done at Scholars Portal to assess and improve the accessibility of our Scholars GeoPortal service. Finally, we provided some concrete recommendations for improving the accessibility of map and data libraries to all of our users.

OPEN SOURCE MAP MAKING AND SHARING

Yves Baudouin, UQAM

Simon Ouellet, UQAM

Since computer assisted map making came into use in the 1960's in Canada, and up until the beginning of the 21st century, the wide range of software developed has been mostly commercial. With the Internet opening up to the civilian domain in the early 1990's, the variety of applications has been extended, as have the sharing and consultation tools. However, one can see that an Open source environment has always existed, responding to different mapping needs, and is now evolving in significant ways. Hence, map libraries must also take into account and reflect this parallel environment. Of course, the financial aspect is a key element in the choice of this environment, as is the user's desire for autonomy and knowledge-sharing. This phenomenon has grown worldwide; from North America to Europe, Africa and Asia, public institutions, organizations and businesses now turn to Open source software as an effective solution to their needs due to the level of maturity and stability of this environment. In fact, it is not uncommon for international (United Nations, World Bank, etc.) calls for tender to require that open source solutions be included in the propositions. In the following presentation, we will thereby demonstrate several Open source tools in an attempt to illustrate how this environment functions.

Thursday June 19th: Conference Presentations

OPTIONS FOR USING LIDAR, RADARSAT AND WORLDVIEW2 IMAGERY TO STUDY THE IMPACT OF FLOODING

Cynthia Dietz, University of Manitoba

Frequent and some severe flooding of Winnipeg, MB and surrounding areas involving the Red and Assiniboine Rivers and their tributaries has occurred in the last fifteen years. The U of Manitoba has teamed with the Provincial government and PCI Geomatics to study the persistence and frequency of flooding due to diverted flood waters and snow melt events in a region of the La Salle Basin. Change detection and wetland characterizations using recent and historical WorldView-2 imagery and LiDAR and RADARSAT-2 products will be used to study and analyze the changes over time involving small drains and ponds in frequently inundated agricultural areas.

ENTRE LE PAPIER ET LE POLYGONE : L'UTILISATION DE MAPWARTER DANS LE PROCESSUS DE DIFFUSION NUMÉRIQUE DES CARTES ANCIENNES

Léon Robichaud, Professeur agrégé, Département d'histoire, Université de Sherbrooke, co-directeur, Laboratoire d'histoire et de patrimoine de Montréal / Montréal, plaque tournante des échanges

La diffusion des cartes anciennes numérisées s'est généralisée depuis quelques années grâce aux nouveaux outils qui accélèrent le processus. Parmi ces outils, l'application gratuite et en ligne MapWarper se démarque par sa convivialité, par l'intégration du calcul de la marge d'erreur et par la possibilité d'exporter en plusieurs formats (GeoTiff, PNG, KML, WMS). Contrairement aux SIGs complets qui imposent une lourde courbe d'apprentissage et aux processus qui imposent une série d'étapes complexes, MapWarper est conçu spécifiquement pour géorectifier les cartes anciennes sur une plate-forme web qui est gratuite, collaborative et intuitive. Dans le cadre de cette communication, nous présenterons un projet en partenariat entre Montréal, plaque tournante des échanges et Bibliothèque et Archives nationales du Québec visant à géorectifier les plans d'assurance-incendie de Montréal au XXe siècle. Après avoir comparé MapWarper à d'autres outils semblables, nous présenterons notre processus et nous explorerons différentes options pour la diffusion des planches géorectifiées. Développé par Tim Waters (Geothings.net), MapWarper est utilisé par la New York Public Library pour la géorectification collaborative de cartes et plans de la ville de New York.

COMPARISON OF SIX FREE ONLINE MAPPING TOOLS

Rebecca Bartlett, GIS and Digital Resources Librarian, Carleton University

Joël Rivard, Cartographic Specialist, Carleton University

Full length paper printed on page 52

In an effort to explore and familiarize themselves with online mapping tools, Carleton Library GIS-trained staff members Rebecca and Joël held an online mapping tool competition during the 2014 Sochi Winter Olympics. Each challenger used three online mapping tools at random from the six tools that were selected, then proceeded to map the hometowns of Canadian Olympians who had won medals at the Games. The presentation compared and contrasted the free versions of the following online mapping tools:

- BatchGeo
- MangoMap
- GeoCommons
- CartoDB
- MapBox
- WorldMap

VOLUTION DE LA CARTOGRAPHIE À LA VILLE DE MONTRÉAL ET SA DOCUMENTATION

Richard Mongeau, Ville de Montréal

Suite aux récentes avancées des technologies et logiciels, les champs d'activités du mesurage et de la représentation du territoire sont maintenant praticables en 3D. De l'étape de la collecte des données jusqu'à la diffusion des plans, il n'est plus obligatoire de transposer notre environnement réel 3D sous forme 2D. De l'évolution de la cartographie de base jusqu'à la maquette numérique 3D du territoire, le cheminement parcouru par l'Équipe de la cartographie et des levés spéciaux de la Ville de Montréal est fortement tributaire de la pratique de la profession d'arpenteur-géomètre. À plusieurs reprises depuis les années 1960, cette équipe a innové dans l'application de la technique de la photogrammétrie: restitution numérique, réseaux de contrôle à référence spatiale et modélisation 3D selon la norme CityGML. Afin de protéger le public, l'arpenteur-géomètre est assujéti à une certaine responsabilité lors de la production de documents, plans et cartes. Il est soumis à des règles strictes d'exercice de sa profession. Une des prescriptions importantes est leur documentation. Avec l'ère numérique, les métadonnées et données descriptives sont devenues inhérentes aux processus de traitement des données géospatiales. L'adhésion aux principes de la Charte d'éthique de la 3D vient renforcer cette démarche dans le cas des représentations en 3D. Dans le cadre de ces activités de cartographie à la Ville de Montréal, la Division de la géomatique a mis en place des normes de pratique à ces égards.

ADVOCACY FOR A CARTOGRAPHIC DIGITIZATION REGISTRY & DISCUSSION

Léon Robichaud, University of Sherbrooke

Erin Forward, Queen's University

Cartographic digitization projects are sprouting up all across the country. As more and more collections of maps are digitized, the importance of keeping track of these maps and making sure they are widely accessible is becoming a greater challenge. This presentation provided an overview of several registry options including an overview of the registry work being done at the Université de Sherbrooke followed by a project proposal of how ACMLA can assist with the access to digitized, georeferenced, vectorized and HGIS projects from across the country.

BUILDING A PAN-CANADIAN GEOMATICS STRATEGY

Deena Yanofsky, McGill University

Colleen Beard, Brock University

It is an exciting time to be involved in the Geomatics sector in Canada. As groups from across the country are coming together to address the future of the industry, ACMLA has an opportunity to play a major role in the development of a Pan-Canadian Geomatics Strategy. Initiated by NRCan GeoConnections, Deena walked us through the development of the strategy that seems to be gaining much interest and

momentum. The Canadian Geomatics Community Round Table (CGCRT) - representatives from industry, academia, professional associations, NGOs, and federal, provincial and territorial governments – is focused on issues and concerns that affect professional practices and activities across the geomatics (geographic, geospatial, location information) domain. In order to facilitate a future “Team Canada” approach, the Round Table has elected a Steering Committee to develop a Pan-Canadian Geomatics Strategy. More interestingly, the government has taken a facilitating role that allows the private sector and citizen/community collaboration to take the lead in its design. The objective of the strategy is to “better meet the needs of, and enable the ever-growing Geospatial Community that depends on reliable, accurate and fit-for-purpose geospatial services and expertise” (Pan-Canadian Geomatics Strategy, 1st DRAFT, Jan. 2014).

The strategy is based on seven dimensions: identity; the market; business models; data sources; education and capacity building; legal and policy interoperability; and, leadership and governance. Deena is a member of the Steering Committee and was Task Team Co-Lead for the Education and Capacity Building dimension, that identified key issues regarding the skills and training required for a sustainable work force and a geospatially-enabled society. Going forward, working groups have been assigned to each of the dimensions to prioritize the objectives identified in each area, identify actions, and make recommendations. For example, one of the outcomes identified of the Education task team is to influence “curriculum changes in the K-12 school system and cross-disciplinary teaching in colleges and universities that enhances the Canadian public’s geospatial skills and develops capacity in geomatics”. The strategy strives to bring many groups together within the geospatial community to create a shared vision that will re-position the Canadian geomatics sector for future success. ACMLA is one of these groups!

Deena emphasized the influential role that ACMLA members can play in the development of the strategy. At the same time, one of the key points that she made was that the strategy can be equally influential for the association as a planning and decision-making tool, as it identifies priority tasks for our community. For example, the need for librarians to develop policy to help guide data producers towards open data standards and long-term data management practices. By becoming actively involved with the strategy, the association will be able to gain insight from the Round Table - a ‘hub’ of shared intelligence – and be part of the Canadian geomatics ‘story’.

Colleen continued on Deena’s theme of ‘What’s in it for ACMLA?’. After praising Deena for her efforts in taking a lead role in this initiative, with the interests of ACMLA and our profession at the helm, Colleen insisted that her own involvement in government policy is normally not one of enthusiasm. But this initiative is taking a different approach – the government is not dictating the outcome but rather taking a facilitating role and allowing the geospatial community as a whole to define its goals.

Acknowledging that there are real problems with the current geomatics industry in Canada, taking an active role is one that association members need to take part, especially with the education and data dimension objectives.

So how does one catch the interest of ACMLA members? Other than it directly relates to our #2 objective *“To encourage and support activities which further the awareness, use, and understanding of geographic information”*, consider our profession from these perspectives:

Do you think your job is sustainable without advocating geo-literacy on campus?

Most of what we do or should be doing is in the interests of advocating for literacy, which translates into “capacity building”, whether it’s hosting a GIS Day or influencing the curriculum with embedded course instruction and/or assignment design. A “build it, and they will come” strategy may not apply.

Do you get involved with the teacher students in your Faculty of Education geography courses?

The route to capacity building is indeed education. At Brock, we host over 200 geography teacher students a year with map appreciation, geography curriculum, and geospatial skills sessions. In the

past we have also hosted a GIS workshop for all the Niagara school board geography high school teachers. Ontario is the only school curriculum in Canada that has a Geography program, and yet some Ontario universities are considering omitting Geography from their teacher education programs.

Do you feel competent with your knowledge of search and retrieval of [quality] location-based information?

We are perceived by students and faculty as the ‘trusted bridge’: connecting users with accurate, authoritative, and accessible data. But how do we ensure that the data produced by the geomatics sector is AAA quality data? Nowhere in the strategy’s data dimension was data preservation or archiving initially mentioned. We are considered the leaders with data archiving and ACMLA must ensure geospatial data is included in the research data management process.

In general, do you think the average Canadian citizen is geo-literate and able to contribute to a reliable VGI?

Not likely! Certainly not an isolated incident, but if the Memorial University story is any indication, where many students were unable to locate the Atlantic ocean on a map, we surely have work to do. Perhaps the St. John’s Declaration is a start!

Although Deena will continue to represent ACMLA as the strategy unfolds, a Task Group should be formed to define the associations’ role and priorities.

The strategy can be located at www.cgcr.ca

INFORMATION SESSION REGARDING A POTENTIAL EDUCATION AGREEMENT FOR TERRASAR-X SATELLITE DATA

Larry Laliberté & Barbara Znamirowski

This session provided information regarding the status of discussions between Natural Resource Canada’s Canada Centre for Mapping and Earth Observation (CCMEO), Infoterra GmbH and Canadian universities towards an Education Agreement for TerraSAR-X satellite data. Information regarding the potential agreement and a draft of the license were presented.

A MULTI-DISCIPLINARY APPROACH TO THE SHERBROOKE PROJECT

Doris St-Jacques, Library and Archives Canada

In June of 2013, Library and Archives Canada (LAC) acquired the largest and most complete collection of War of 1812 documentation, including books, maps, manuscript reports and correspondence, among other unique items. This acquisition was made possible through a partnership between Library and Archives Canada and the future Canadian Museum of History, and with the support of the Department of Canadian Heritage and the Friends of Library and Archives Canada.

The collection once belonged to Sir John Coape Sherbrooke, former Governor of Nova Scotia from 1811 to 1816 and Governor in Chief of British North America until 1818. As both a statesman and a military leader during the War of 1812, Sherbrooke had a profound influence on the formation of Canada during the pre-Confederation period. These items from the War of 1812 era, have remained in the Sherbrooke family exclusively for the last 200 years and are considered an important addition to LAC’s collection.

The efforts of a multidisciplinary team at LAC have been essential throughout the Sherbrooke project. This approach has allowed the materials to be acquired, assessed, receive conservation treatment, be described, re-housed, digitized, placed in optimal storage conditions and made available to Canadians online, all within a tight timeframe. This paper provided a brief overview of the project with particular focus on the Conservation treatment, digitization, and the many challenges presented by the collection.

COMMENT PRENDRE SOIN D'UNE COLLECTION DE CARTES GÉOGRAPHIQUES – LES CONSEILS D'UNE RESTAURATRICE

Marie-Claude Rioux, restauratrice, Bibliothèque et Archives nationales du Québec

La restauratrice de Bibliothèque et Archives nationale du Québec se propose de répondre aux questions des membres de l'Association des cartothes et archives cartographiques du Canada en ce qui a trait à la préservation et à la conservation des collections de cartes et plans. Ainsi, les responsables de collections et les cartothes pourront obtenir des informations sur divers enjeux liés à la conservation préventive ou curative dont, notamment, la mise en réserve, la manipulation, la consultation, les fournitures de conservation et la restauration des cartes et plans. Ceux-ci seront invités, au cours des semaines précédant le colloque, à soumettre les problèmes auxquels ils sont confrontés dans la gestion de leurs collections, au quotidien. Ces cas de figure serviront de base à la présentation au cours de laquelle des démonstrations techniques et des échanges de procédés illustreront de manière concrète les enjeux, les risques et les solutions en matière de préservation des cartes géographiques.

LA GESTION DE L'INFORMATION GÉOGRAPHIQUE AU MINISTÈRE DES TRANSPORTS DU QUÉBEC

Marc Chikhani, Ministère des Transports du Québec

Gaétan Poulin, Ministère des Transports du Québec

La raréfaction de la main-d'œuvre spécialisée, les changements technologiques et les nouveaux paradigmes dans la communauté géomatique ont poussé la Division de la géomatique du ministère des Transports du Québec à rationaliser ses processus de stockage, d'accès et de diffusion de l'information géospatiale. Nous avons implanté un processus d'automatisation cartographique des quelques 1700 cartes produites en récurrence à des fins d'inventaire, d'exploitation et d'opération du réseau routier du Ministère pour remplacer le processus manuel qui s'étalait sur trois ans et nécessitait l'intervention de deux cartographes à temps plein. Nous avons également utilisé des logiciels libres et ouverts pour stocker et donner accès aux nombreux jeux de données. PostGres-PostGIS est utilisé comme source principale de données géospatiales au Ministère et le logiciel de catalogage Geonetwork permet de les visualiser, de consulter les métadonnées et de gérer les accès en téléchargeant tant pour les utilisateurs internes que pour les partenaires externes. Geonetwork est utilisé largement par les gouvernements et organismes pour la diffusion de leur information géospatiale. Le logiciel Geoserver qui lui est rattaché peut diffuser sous forme de service web du matériel cartographique en format matriciel (WMS) ou vectoriel (WFS). Le choix de ces solutions pour servir d'outils de base à l'équipe géomatique, afin d'en assurer l'interopérabilité future, repose sur l'adhésion à des normes internationales pour le stockage, la diffusion et la description, tel l'ISO 19139, le CSW et un ensemble de normes de l'Open Geospatial Consortium, auxquelles le Ministère se conforme en matière de données géospatiales.

TERRITOIRES , UN OUTIL RASSEMBLEUR POUR NAVIGUER DANS LE SAVOIR

Anne-Marie Plante, conseillère et chargée de projet en géomatique

Martin St-Hilaire, conseiller en aménagement du territoire

Trente ans de documents d'aménagement colligés en un seul site! C'est le défi qui a été lancé à la Direction de la géomatique et de la statistique du ministère des Affaires municipales, des Régions et de l'Occupation du territoire. Ainsi, par le lancement de l'application Territoires, l'année 2013 en aura été une décisive et enrichissante pour l'aménagement du territoire au Québec. Cette application se démarque comme

un outil indispensable pour obtenir non seulement un portrait de la planification actuelle du territoire, mais également pour reconstituer l'évolution de son occupation. Avec la mise en ligne de Territoires, le Ministère a revu la totalité de ses outils de consultation des documents d'aménagement du territoire pour donner un accès plus facile, convivial et moderne à plus de 100 000 documents, dont plusieurs n'étaient auparavant accessibles qu'en version papier. La présentation offrira un survol de l'application géomatique gouvernementale Territoires destiné au milieu municipal et régional en soutien à l'aménagement, au développement et à l'occupation du territoire.

Friday June 20th Conference Presentations

HOW CAN I USE THIS MAP IN MY ASSIGNMENT? A SIMULATED WORKSHOP

Rosa Orlandini, Map and GIS Librarian / Cartothécaire, York University Libraries / Université York

With the explosion of cartographic information, teachers and students are rediscovering that they can use maps as a primary source in their research papers and assignments. Taking this into account, the student is faced with several questions: (1) How do I interpret and understand this map? (2) Is this map appropriate for my research or assignment?

Recently the Map and GIS Librarian at York University conducted several upper-level undergraduate workshops in Anthropology, Communication Studies, and History that focus on the importance of evaluating maps as an information source for a given discipline. The students visit the Map Library and are given a tour of maps that are relevant to what they are learning in a course. The students break into 4-5 teams. Each team is given one print map that they have to interpret and evaluate using pre-established criteria. After they complete the evaluation, one student from each group reports back to the class and discusses their findings. The map evaluation criteria used in the workshop uses the ACRL Visual Literacy Competency guidelines and focus on the Purpose & Audience, Authority, Objectivity, Accuracy, Currency and Context of the maps.

This presentation introduced the workshop methodology and the evaluation criteria for maps. This was followed by a simulated version of the workshop. At the end of the session, participants were asked for input on the experience and how the evaluation criteria could be improved so that more librarians and teachers can use it in the classroom.

UN NOUVEL ALLIÉ POUR EXPLORER ET DÉCOUVRIR LES CONNAISSANCES GÉOSPATIALES DU GOUVERNEMENT DU QUÉBEC

Nathalie Michaud, Ministère des Ressources naturelles du Québec

Isabelle Desrosiers, Ministère des Ressources naturelles du Québec

Depuis 2004, le portail « Le Québec géographique » renseigne les internautes sur les différentes facettes de la géomatique et de l'information géographique (IG). Il expose et met en valeur l'expertise, les réalisations et les connaissances des ministères et organismes dans ce domaine.

Avec le temps, et grâce à la collaboration de ses partenaires, le contenu du portail « Le Québec géographique » s'est enrichi. Il est aujourd'hui un incontournable, tant pour les amateurs que pour les professionnels, pour rechercher des données géographiques ou pour rester à l'affût de l'actualité et des connaissances géospatiales issues du gouvernement.

Les dernières années ont été marquées par la démocratisation des technologies géospatiales. Les citoyens, plus que jamais, interagissent avec des cartes et utilisent l'IG dans leur quotidien. Pour répondre à cette nouvelle réalité, un outil de recherche et de découverte des connaissances géospatiales gouvernementales est actuellement en cours d'implantation, et l'objectif est de l'intégrer au portail au cours du printemps 2014. Cet outil, tout en renforçant le caractère géographique du portail, aura l'avantage de :

- faciliter l'accès aux connaissances géospatiales du gouvernement du Québec;
- améliorer l'adéquation aux besoins exprimés par la clientèle du portail;
- limiter la duplication de l'information à travers le portail;
- simplifier la mise à jour du contenu du portail par les partenaires.

La conférence fera d'abord état du contexte ayant mené à l'implantation de l'outil au sein du portail. Une présentation de ses principales fonctionnalités et une courte démonstration suivront. Enfin, des renseignements concernant l'évolution souhaitée pour le portail seront livrés.

LE GREFFE DE L'ARPENTEUR GÉNÉRAL DU QUÉBEC EN LIGNE

Jean-François Boucher, chef du Service des registres du domaine de l'État Ministère des Ressources naturelles

Full length paper printed on page 50

Le Greffe de l'arpenteur général du Québec est un registre public qui contient les documents préparés sous l'autorité de l'arpenteur général du Québec et selon ses instructions. Ces documents décrivent les travaux d'arpentage effectués sur les terres du domaine de l'État depuis la fin du régime français. Ils servent à représenter le morcellement des terres, à rétablir les arpentages dans les cantons (townships) et sur certaines portions de la frontière provinciale ou à décrire les limites de certains territoires administratifs ou à statuts juridiques particuliers. Dans les années 90, un système de gestion a été développé afin de rechercher l'information dans une base de données descriptives pour permettre la diffusion des documents. Afin d'assurer la pérennité du registre, d'optimiser sa gestion et d'améliorer la prestation de services à la clientèle, le Bureau de l'arpenteur général du Québec a entrepris de moderniser le système en passant à l'ère du numérique. La solution retenue a été de numériser les documents d'archives existants, d'introduire la signature numérique pour les documents préparés après juin 2013, d'utiliser la géomatique afin de référencer l'information et de conserver les documents numériques dans une application corporative de gestion électronique de documents. Dès avril 2014, une application Web permettra à la clientèle d'effectuer des recherches géolocalisées de documents, de consulter ces documents en ligne ou de les commander afin d'en obtenir une copie. Enfin, cette solution permet au Bureau de l'arpenteur général du Québec de respecter ses obligations légales en matière d'archives et de diffusion.

STUDENT PAPER AWARD WINNER : SAMUEL DE CHAMPLAIN – MAPS AS TEXTS

By Allison M. Smith

Full length paper printed on page 31

Allison made a presentation about an online exhibit that she created last year as part of the 400th anniversary commemoration of Samuel de Champlain's expedition to the Ottawa area in 1613. This exhibit explored the "language" of Champlain's maps, their shared authorship, and the way that this narrative has evolved and come to be presented as the modern maps of the commemoration.

BANQUET
Thursday June 19th
Espace La Fontaine



Photo courtesy of David Jones



Photos courtesy of Joan Winearls



Photo courtesy of David Jones



Photo courtesy of Joan Winearls



Photo courtesy of Joan Winearls

ACMLA Awards

The ACMLA Executive was honoured to recognize four individuals for their outstanding contributions to the Association of Canadian Map Library and Archives. Winners were announced and recognized during the Carto 2014 Banquet.

Honourary Member

The Association of Canadian Map Libraries and Archives (ACMLA) bestows an honorary life membership on a member who has made an outstanding contribution to the field of map librarianship or to a more significant understanding and appreciation of maps. To quote Heather McAdam (Honours Award recipient 2007), “these are individuals who have assumed leadership roles within the Association and have championed the Association beyond the confines of institutional walls.”

Award Recipient: Yves Tessier

Nominated by: Joan Winearls, Grace Welch and Stéfano Biondo

French version to follow

Nomination of Yves Tessier for Honorary Membership in ACMLA/ACACC

It is with great pleasure that we nominate Yves Tessier, for Honorary Membership in the Association of Canadian Map Libraries and Archives /Association des cartothèques et archives cartographiques du Canada. Yves was one of the great pioneer map librarians in Canada, and one of the four founding members of ACML/ACC in 1967. He had a profound effect on the shaping of the profession in Canada throughout his long career. It was Yves, at the very first conference who proposed proper French terminology for map librarianship coining the new terms “Cartothécaire”, and “Cartothéconomie” to complement the then recently established term “Cartothèque”.

From that first meeting, Yves was actively involved in all aspects of the Association. In 1969, he organized the third conference of the new association at Laval and arranged for the first joint session between ACML/ACC and the Special Libraries Association, Geography and Map Division. This meeting established a long tradition of joint sessions with related associations. In that same year, Yves, with Joan Winearls, compiled the first directory of Canadian map collections, an important initiative that promoted sharing of knowledge and expertise among map librarians across Canada. In 1973, Yves compiled the first directory of map libraries in Quebec (1973).

One of Yves particular interests was the evolving field of computer cataloguing for maps and the development of a National Union Catalogue for Maps (NUC). Yves became the NUC committee Chair in 1970. It was Yves' vision that the project include: the standardization of cataloguing rules; be automated from the beginning; and be administered by a national archival or library institution. This vision was realized when the rules were codified under the National Archives of Canada, and later, in cooperation with the National Library, the National Union Catalogue itself was finally achieved. In 1970-71, Yves developed a system of automated cataloguing of maps in the Laval collection, called CARTESS. CARTESS was one of the very earliest automated map cataloguing systems in Canada. In 1986 at a meeting of Quebec map libraries, Yves spoke about the use of microcomputers for the bibliographic control of collections, this at a time when few map libraries even had computers.

In addition to his NUC activities, Yves was also involved in other Association initiatives. He was a member of Directory Committee and the Map Microreproduction Committee; he functioned as the francophone coordinator for the Association and in the early 90's acted as Chair of the ACMLA-NAC Liaison Committee (1992). He was a contributing editor to the *Bulletin* for several years and the regional editor for Quebec in the late 1980s. Yves' extensive contributions to the Association were recognized when he received the ACMLA Honours Award for Outstanding Achievement in 1991.

Collaboration and cooperation were themes that defined Yves' career. His 1974 paper on cartographers

and their organizations called for increasing cooperation between the cartographic community and map librarians. In a 1978 *Bulletin* article he called for cooperation between map librarians and map archives and identified some areas of potential collaboration such as working toward a better understanding of historical sources. As Chair of the ACMLA-NAC Liaison Committee he organized several meetings with senior management of the NAC to explore ways in which the two organizations could work together to benefit the Canadian map user community, especially through enhanced access to Canadian maps and atlases.

This interest in collaboration is best illustrated by his work with Quebec map libraries. Yves was the doyen of map librarianship in Quebec, organizing Quebec map librarians so they had a forum for regularly meeting and sharing knowledge. He assisted colleagues in finding out what local maps were available and put pressure on provincial and local governments to distribute their mapping to Quebec map libraries. He even produced a map showing the size of Quebec university map collections, possibly the first visualization of map collections in Canada. He regularly reported on the state of government cartography in Quebec and also the state of Quebec university map collections. For many years he edited and published *Cartologica*, a useful aid for the Laval cartographic community and beyond.

Yves graduated with a B.A. in history from Laval in 1962, and in 1964 was hired as the first map librarian at Laval University. In 1969 he obtained a BLS from the University of Ottawa followed two years later by an M.A. in History (Laval). He also holds a Masters in Public Administration (1982).

Throughout his career, Yves willingly shared his knowledge and expertise through teaching (he lectured at Laval in education technology, geography and computer science), and presentations at conferences, meetings and workshops. Yves published extensively – besides papers in the *ACMLA Bulletin*, he also published in many cartographic and geographical journals (*The Cartographer*, *Cahiers de géographie de Québec*, *Revue de carto-Québec*, *Documentation et bibliothèques*). His range of topics is impressive: computer cataloguing, microreproduction for maps, (Laval's *CARTESS*, *Cartomatique* cataloguing systems, and the use of *MIRACODE* to reproduce the maps on microfilm), recommendations for selecting basic cartographic collections, access to government mapping, the cartographic community, early maps (acquisition, conservation, cataloguing, bibliography, microreproduction and facsimile publishing) and library orientation for maps. He compiled several bibliographies of maps and atlases including a union list of atlases in Quebec university libraries. One of his finest endeavours was the production in 1992 of a full-scale reproduction, meticulously printed on acid-free paper, of Champlain's magnum opus *Carte de la Nouvelle-France (1632)*.

The Association owes much to Yves Tessier. His career was defined by vision, leadership and collaboration with his colleagues across Canada and within Quebec which greatly helped to develop Canadian map librarianship.

Nomination d'Yves Tessier à titre de membre honoraire au sein de l'ACMLA/ACACC

C'est avec le plus grand plaisir que nous nommons Yves Tessier, à titre de membre honoraire au sein de l'Association of Canadian Map Libraries and Archives/Association des carto-thèques et archives cartographiques du Canada. Yves était l'un des grands pionniers des carto-thèques au Canada et l'un des quatre membres fondateurs de l'ACML/ACC en 1967. Durant sa longue carrière, il a grandement façonné la profession au Canada. À la toute première conférence, ce fut Yves qui a proposé une terminologie française adéquate pour le bibliothécaire cartographique concevant les nouveaux termes « Cartothécaire » et « Cartothéconomie » pour compléter le terme récemment établi alors de « Cartothèque ».

Dès cette première réunion, Yves a été activement impliqué dans tous les aspects de l'Association. En 1969, il a organisé la troisième conférence de la nouvelle Association à Laval et a géré la première session commune entre l'ACML/ACC et l'Association des bibliothèques spécialisées, division de géographie et cartographie. Cette réunion a déterminé une longue tradition de sessions communes avec les associations connexes. Dans la même année, Yves et Joan Winearls, ont compilé le premier répertoire de collections de cartes canadiennes, une importante initiative qui promouvait le partage de connaissances et d'expertise parmi les carto-thèques du Canada. En 1973, Yves a compilé le premier répertoire des carto-thèques du Québec (1973).

L'un des principaux intérêts d'Yves était le domaine en développement du catalogage informatique pour les cartes et l'élaboration d'un catalogue collectif national pour les cartes (NUC). Yves est devenu le président du comité NUC en 1970. C'était la vision d'Yves que ce projet comprenne : l'uniformisation des règles de catalogage, leur automatisation dès le début

et leur administration par une institution nationale d'archives ou de bibliothèques. Cette vision a été réalisée lorsque les règles ont été codifiées par les Archives nationales du Canada et plus tard, en collaboration avec la Bibliothèque nationale, le Catalogue collectif national a lui-même finalement été réalisé. En 1970-71, Yves a développé un système de catalogage automatisé des cartes dans la collection de Laval, appelé CARTESS. CARTESS était l'un des premiers systèmes de catalogage automatisé au Canada. En 1986, dans une réunion des cartothèques québécoises, Yves a parlé de l'utilisation de micro-ordinateurs pour le contrôle bibliographique des collections, ceci au moment où très peu de cartothèques possédaient des ordinateurs.

En plus de ses activités NUC, Yves était aussi impliqué dans d'autres initiatives de l'Association. Il était membre du Comité du répertoire et du Comité de microreproduction cartographique; il a agi à titre de coordonnateur francophone pour l'Association et au début des années 1990, a agi comme président du Comité de liaison de l'ACMLA/NAC (1992). Il a été le rédacteur participant au Bulletin pendant plusieurs années et le rédacteur régional pour le Québec à la fin des années 1980. Les grandes contributions d'Yves à l'Association ont été reconnues, lorsqu'il a reçu en 1991, la récompense honorifique de l'ACMLA pour réalisation extraordinaire.

La collaboration et la coopération étaient des thèmes qui ont défini la carrière d'Yves. Son document de 1974 sur les cartographes et leurs organisations a fait appel à une plus grande collaboration entre la communauté cartographique et les cartothèques. Dans un article du Bulletin de 1978, il a demandé la collaboration entre les cartothèques et les archives cartographiques, identifiant certains domaines possibles de collaboration, tel que travailler vers une meilleure compréhension des sources historiques. En tant que président du Comité de liaison ACMLA-NAC, il a organisé plusieurs réunions avec la haute direction de NAC, pour explorer les façons par lesquelles les deux organisations pourraient travailler ensemble, afin d'en faire profiter la communauté canadienne des utilisateurs de cartes, particulièrement par l'accès amélioré aux cartes et atlas canadiens.

Cet intérêt à collaborer est mieux démontré par son travail avec les cartothèques québécoises. Yves était le doyen de la cartothéconomie au Québec, organisant les cartothèques québécoises, pour qu'elles aient un forum pour se rencontrer fréquemment et partager des connaissances. Il a aidé des collègues à découvrir les cartes locales qui étaient disponibles et a mis une pression sur les gouvernements provinciaux et locaux, pour distribuer leurs cartographies aux cartothèques québécoises. Il a même produit une carte démontrant la taille des collections des cartes des universités québécoises, possiblement la première visualisation de collections de cartes au Canada. Il a régulièrement fait des rapports sur l'état de la cartographie gouvernementale au Québec et aussi sur l'état des collections de cartes des universités québécoises. Pendant plusieurs années, il a édité et publié *Cartologica*, une aide précieuse pour la communauté cartographique de Laval et au-delà.

Yves a obtenu un bac en histoire de Laval en 1962 et a été embauché en 1964, comme premier cartothécaire à l'Université Laval. En 1969, il a obtenu un B. Bibl. de l'Université d'Ottawa, suivi d'une maîtrise en histoire (Laval) deux ans plus tard. Il détient également une maîtrise en administration publique (1982).

Pendant toute sa carrière, Yves a volontairement partagé ses connaissances et son expertise par l'enseignement (il a donné des cours à Laval en technologie d'enseignement, géographie et science informatique), et des présentations à des conférences, réunions et ateliers. Yves a beaucoup publié – en plus de documents dans le *Bulletin* de l'ACMLA, il a aussi publié dans plusieurs revues cartographiques et géographiques (*The Cartographer*, *Cahiers de géographie de Québec*, *Revue de carto-Québec*, *Documentation et bibliothèques*). La gamme de ses sujets est impressionnante : catalogage informatique, micro reproduction pour les cartes (CARTESS de Laval, systèmes de catalogage Cartomatique et utilisation de MIRACODE, pour reproduire les cartes sur microfilm), recommandations pour choisir les collections cartographiques de base, l'accès aux cartographies gouvernementales, la communauté cartographique, les cartes anciennes (acquisition, conservation, catalogage, bibliographie, micro reproduction et la publication de reproduction) et l'orientation en bibliothèque pour les cartes. Il a compilé plusieurs bibliographies de cartes et atlas, y compris une liste collective des atlas dans les bibliothèques des universités québécoises. L'une de ses meilleures réalisations fut la production en 1992 d'une reproduction pleine échelle, méticuleusement imprimée sur papier désacidifié, du magnum opus de Champlain *Carte de la Nouvelle-France* (1632).

L'association doit beaucoup à Yves Tessier. Sa carrière a été définie par la vision, le leadership et la collaboration avec ses collègues dans tout le Canada et au Québec, ce qui a grandement aidé à développer la bibliothéconomie canadienne.

Nommé par
Joan Winearls, Grace Welch et Stéfano Biondo

Nomination de Yves Tessier comme membre honoraire :
Association des cartothèques et archives cartographiques du Canada/
Association of Canadian Map Libraries and Archives, Juin 2014
ADRESSE EN RÉPONSE À L'ASSOCIATION

Mesdames et Messieurs /Ladies and Gentlemen

Le président sortant de votre association, monsieur Danial Duda, m'a informé récemment de ma candidature pour devenir Membre honoraire de l'Association des cartothèques et archives cartographiques du Canada, the well known ACMLA. C'est avec une grande surprise que j'ai appris cette décision.

Cette marque d'appréciation a rappelé à ma mémoire un passé très riche en expériences professionnelles des plus stimulantes avec tous mes collègues québécois et canadiens.

This "breaking news" in my rather quiet life was particularly significant to me : this year is the fiftieth anniversary of my landing in the so promising meadow of map librarianship early June 1964 ! This was a discipline virtually being at that time.

I would like to take this opportunity to remind all of you of the sorts of challenges facing the new-comer in maps in the library world at that time. Simply stated: he or she had to design their own professional life nearly from scratch, to create their comfort level vis a vis their collections and services to the best of their knowledge, and much of that knowledge was still to be acquired and created if lacking.

À cette époque en 1964, les bibliothèques étaient encore très centrées sur le livre, comme en a témoigné longtemps l'expression « non-livre », le « non-book materials », pour désigner tous les supports documentaires autres que le livre. À la Bibliothèque de l'Université Laval par exemple, un seul autre service comportait le suffixe « -thèque », c'était la cinémathèque, une percée avant-gardiste pour l'époque. La cartothèque a suivi.

À ce moment, les professeurs de géographie de l'Université Laval ont fait des pressions sur la direction de l'université pour que la bibliothèque offre des services documentaires concernant aussi les cartes géographiques et anciennes, les atlas et les photographiques aériennes. Ils affirmaient que ces nouveaux médias serviraient non seulement aux géographes mais aussi à toute personne ayant besoin d'information géographique et cartographique. Ils ont fait don à la bibliothèque universitaire de leur collection pédagogique de cartes et d'atlas et ils ont recommandé très fortement l'engagement d'un de leur diplômé les plus prometteurs... Devinez qui ! Ainsi est née la Cartothèque de la Bibliothèque de l'Université Laval en 1964.

Fifty years ago, no academic formal training in map curatorship existed for new-comers in the field. They had to dive in the pool hoping for the best. By chance in 1966, the Geography and Map Division of the Special Libraries Association organized in Philadelphia a one-week seminar on map librarianship. This historic meeting was a delight to attend for me, not only for the basic professional knowledge to acquire, but also ... for meeting an elegant lady, Ms. Joan Winearls.

I was in league with her on many issues, like the organisation with two other persons of the first annual meeting of your association in 1967, the compilation of the first Directory of Canadian Map Collections in 1968, and the basic and sometimes crucial issues in the life of the association. I would like to acknowledge publicly her generous affability and long dedication to the association.

From these "good old days", your association went its way until today, gaining a solid maturity, if I judge by the issues treated in the programme for the present annual meeting.

I can see a very interesting balance between the technical/practical issues and the theoretical approaches in your professional preoccupations.

Prenons par exemple quelques éléments du programme du congrès de 2014 : les aspects techniques des outils géomatiques, le catalogage avancé, les institutions nationales. Ce sont tous des thèmes se rapportant à l'organisation pratique du travail.

Mais notons aussi : la préservation et la diffusion du savoir géographique à l'ère numérique, la démocratisation de l'accès aux données spatiales, les tendances de la cartographie moderne, la « géolittératie » (quel beau mot nouveau pour moi !), ce sont tous des sujets d'intérêt théorique et social.

Because of this meaningful balance between theory and practice in your approach to your profession and organizations, I strongly feel that your association has more than a professional status and a concern for map repositories; it has gained the solid status of a learned society in cartology/une société savante de cartologie.

Puis-je vous rappeler simplement que le Glossaire français de cartographie publié à Paris par le Comité français de cartographie a défini la cartologie comme étant la science de l'étude théorique et pratique des cartes.

Comme c'est une société savante de cartologie qui me fait l'insigne honneur de me conférer cette marque de reconnaissance de membre honoraire de votre association, je l'accepte avec ma plus grande considération et avec l'expression très sincère de mes meilleurs remerciements!

Votre association deviendra de nouveau...la mienne !
Your association is mine again...forever !

Yves Tessier
19 juin 2014
ytessier@megaquebec.net

The Unexpected Dream



*Grace, Joan, Stéfano, Yves
Photo Courtesy of Marie-Andrée Drouin*

*A common will to share
In esteem for a commitment
A collective way of expression
Bridging the Past and the Present
The company of friends more than colleagues
Retired but closer to his beloved profession
My most sincere thanks to all
For this memorable event
Affectionately*

Yves Tessier

Honours Award

The ACMLA Honours Award is awarded to a person who had made an outstanding contribution in the field of map/GIS librarianship. The contribution may either be for a specific activity or for general services and contributions such as continued membership in the Association with active participation either as an executive officer, committee chairperson, or committee member. Normally, membership in ACMLA is a prerequisite, however that does not preclude considering outstanding non-members.

Award Recipient : David Jones

Nominated by Danial Duda

The Association of Canadian Map Libraries and Archives (ACMLA) recognizes individuals who have made significant contributions to map librarianship at the local, regional, national, and international levels through their granting of the Honours Award for Outstanding Achievement. David Jones is one such individual who has done a great deal for map librarianship and the ACMLA since he became Map Librarian for the University of Alberta William C. Wonders Map Collection in the mid-1990s until his retirement. David served on the ACMLA Executive from 2000 to 2009 and within that time period he was president from 2005-2006.

David's career spans four decades of librarianship. While a doctorate candidate in Molecular Biology at McMaster in 1970, David decided to make a career change and received his MLIS at Western in 1971. His first professional position was with Humber College in Toronto where he worked for nine years from 1971-1980. He then made his move to Alberta where he became the Assistant Science Librarian at the University of Alberta. Over time, David became the Collections Coordinator for the Science and Technology Library and then another career shift entered David's life – the William C. Wonders Map Collection.

In the early 1990s the University of Alberta Library assumed the administration of the Map Library from the Geography Department. The one library building that had room for the largest academic map collection in the country was the Science and Technology Library which became the new home of the collection. Several librarians were tasked with administering the collection with one of them being David. Eventually, the several became only one – David. Shortly thereafter, David joined professional groups like the Western Association of Map Libraries (WAML), the Canadian Cartographic Association (CCA), and ACMLA, but gave the majority of his time to our organization. One of his major achievements as Map Librarian was to convert the map catalogue from 24 – 3 inch binders of hand-written entries into a keyword searchable database. This project lasted roughly a decade and was completed in 2006. Another highlight includes convening CARTO 2000 in Edmonton, one of the few times that brought ACMLA, CCA, and WAML together at a single conference.

David's passion for maps was always at the forefront with his service ethic. His interest in learning more and more about maps was always evident. This along with his enjoyment of meeting and helping people made him a dedicated reference librarian. As quoted in LISAA, the University of Alberta Library and Information Studies Alumni Association newsletter, "Everyday I learn something new, and most days I also meet someone new. Helping identify a client's spatial data needs and, in most cases, finding the appropriate map(s) in the WCWMC, or from other sources, is rewarding for both myself and the client."

David not only promoted his map collection at the local or national stages but took it overseas to the International Conference on the History of Cartography held in Budapest in 2005. Here David highlighted the Austro-Hungarian maps in the Collection, one of its treasures. Another of his projects to highlight interesting maps was to curate an exhibition titled – Journeys Beyond the Neat Line: Expanding the Boundaries of Cartography – an exhibit of two people who documented their personal journeys through text and maps. This exhibit was highly praised.

In the fall of 2013, David's career at the University of Alberta was further recognized with him being granted the title Librarian Emeritus. I believe that something needs to be kept in mind with David's achievements, those highlighted and the many unmentioned due to space - David completed these accomplishments being a half-time Map Librarian. The other half of David's time through most of his tenure as Map Librarian was still performing his duties as a Science Librarian. And, to top all of this off, David always had time to mentor people in the profession.

Many of us have received calls from David encouraging us to become involved with ACMLA or to encourage or support our careers. I can vouch for this at the local level since I am one of those people. And so it is a great honor for me to nominate David Jones for the ACMLA Honours Award.

Nominated – Danial Duda

Seconded – Andrew Nicholson and Larry Laliberte

David Jones' acceptance speech

It is a great honour to receive this ACMLA Honours Award. This award is very special to me. I have always appreciated ACMLA for its support of map libraries and in return have done what I could to support our Association

In the summer of 1995 I was given the responsibility for the William C Wonders Map Collection - as part of a group of 4 Librarians in the SciTech Library at the University of Alberta.

One of my 1st activities was to join ACMLA and to attend the 1995 annual conf - that year at UBC. This was where I first met my 'carto family'. Since then I attend all but 2 of our conferences and annual meetings

These conferences and meetings have been an annual highlight where I could 1) reconnect with colleagues & friends; 2) catch-up on activities in other map libraries and hear about innovative programs programs and initiatives; and 3) learn about both technological advances and changes in policy environments.

These always left me excited and recharged.

Work on and with the Executive in a variety of roles & position - conf convenor; VP, Pres, Past Pres., committee chair. and on various campaigns was always rewarding, both personally and in support of our goals as ACMLA.

I have had the pleasure of working with many Map Librarians - learning much from the 'old guard' - who were not so old then but had much more experience than me. I now see myself as part of our current 'old guard' - I remember filing catalogue cards. Now I am inspired by the energy, enthusiasm and technical prowess of our younger 'new guard' who bring their vitality to role of 'Map Librarian' - connecting the spatial data user to the appropriate resources - both print and digital. - and bringing new energy and focus to our Association.

ACMLA is wonderful organisation, and has been for almost 1/2 a century. Our new by-laws will position us well for the next 1/2 century. I encourage those of you who have not already gotten involved in ACMLA activities to do so - and thank and appreciate those of you who already are involved.

Again - my heartfelt thanks for this honour

David Jones
Map Librarian Emeritus
William C. Wonders Map Collection
University of Alberta
June 2014



Photo courtesy of Larry Laliberté



Photo courtesy of Larry Laliberté

Cathy Moulder Paper Award

The Cathy Moulder Paper Award is awarded to an individual who has researched, written and published a paper of significant value in the *ACMLA Bulletin*. The paper is considered for its solid contribution to map librarianship, curatorship or archiveship

Award Recipient : Barbara Belyea

Article Title : *A Map and Nine Makers*

ACMLA Bulletin Number: 144, Spring/Summer 2013

ACMLA Student Paper Award

The Student Paper Award is awarded to a student from Canada or studying in Canada currently enrolled in a post-secondary institution (college or university) who has written an original paper related to the interests of the ACMLA. Primary consideration for the award is given to the essay's originality and its contribution to new knowledge and insight in GIS or cartography. Other considerations include the author's demonstration of the relevance of the subject, the quality of the presentation and documentation, and the literary merits of the essay.

Award Recipient : Allison Smith

Allison's winning paper is printed on page 31

Association of Canadian Map Libraries and Archives /
Association des Cartothèques et Archives Cartographiques du Canada

ANNUAL GENERAL MEETING

Bibliothèque et Archives nationales du Québec

535 avenue Viger Est, Montréal

June 19, 2014

12:30-14:30

1.0 Establishment of Quorum; Call to Order

Quorum was established and the meeting was called to order at 12:46 PM. Courtney Lundrigan made a final call for submission of proxy forms.

2.0 Opening Remarks from the President, ACMLA

President Rosa Orlandini gave opening remarks and welcomed members to the AGM and Special Meeting.

3.0 Approval of Agenda

The agenda was approved (Moved: Andrew Nicholson; Seconded: Cynthia Dietz; Carried).

4.0 Approval of Minutes Annual General Meeting 2013

http://www.acmla-acacc.ca/docs/minutes/ACMLA_AGM_2013.pdf

The 2013 AGM minutes were approved (Moved: Virginia Pow; Seconded: David Jones; Carried).

5.0 Business Arising from the Annual General Meeting 2013

By-law Review Task Force – The work of the By-law Review Task Force will be discussed under new business and the proposed Special Resolution. RO thanked the members of the By-law Review Task Force for their work.

6.0 President's Report http://www.acmla-acacc.ca/docs/commrpts/president_report_14.pdf

Rosa Orlandini pointed members to the President's Report, which is available on the website. In March, Rosa attended a meeting with other information association leaders about advocacy issues. ACMLA has agreed to become involved, and will contribute resources and a regular representative. Rosa acknowledged Deena Yanofsky and her role in the Canadian Geomatics Community Round Table (CGCRT). In closing, Rosa thanked Second Vice President Wenonah van Heyst for all her hard work with the executive, as she will not be running for office again.

7.0 First Vice President's Report: http://www.acmla-acacc.ca/docs/commrpts/1stVP_report_14.pdf

Siobhan Hanratty highlighted her areas of responsibility, including a number of defunct committees. She hopes that if the association's new governance structure is accepted, we can consider new committees with renewed commitments to the association and our profession. The mentorship program has also been quiet – Colleen Beard is still interested in providing mentorship, so please contact her if you are interested in participating in any capacity. Membership numbers are down slightly, but it may be attributed to the free membership included in the conference registration fees. The Awards Committee report (http://www.acmla-acacc.ca/docs/commrpts/awards_report_14.pdf) and a Membership Report (http://www.acmla-acacc.ca/docs/commrpts/membership_report_14.pdf) are available on the website under the First Vice President's Report. Final main area of responsibility is the conference. Siobhan thanked the Local Arrangements and Program Committees for their work on this year's conference. The venue for the 2015 conference has not yet been finalized. The executive will keep the membership informed of any updates on next year's conference.

Jean-François Palomino asked about the possibility of having a 3-year timeline of conference venues. Siobhan responded that it was something we are working toward, but expressed concern that many institutions

would not be able to commit to hosting a conference 3 years in advance.

8.0 Second Vice President's Report: http://www.acmla-acacc.ca/docs/commrpts/2ndVP_report_14.pdf
Wenonah van Heyst pointed members to her report on the website, and the individual reports from committees in her portfolio. Wenonah thanked Eva Dodsworth for another year of success with the Bulletin, and also thanked contributors (see report at http://www.acmla-acacc.ca/docs/commrpts/bulletin_report_14.pdf). Our Historical Maps inventory and business are declining, and Wenonah recommended that members make purchases in the event that the program may be concluding (see report at http://www.acmla-acacc.ca/docs/commrpts/historical_maps_report_14.pdf). Larry Laliberté and Virginia Pow both handled our publications this year, and Wenonah thanked them for their service to the association (see report at http://www.acmla-acacc.ca/docs/commrpts/publications_report_14.pdf). Wenonah thanked members of the Web Committee for their work (see report at http://www.acmla-acacc.ca/docs/commrpts/web_report_14.pdf) and Siobhan Hanratty reminded the membership that our new domain is active and the old one will be going away in July.

Jean-François Palomino asked about the possibility of archiving the current conference site. Siobhan Hanratty suggested that going forward, we may want to consider hosting the conference website on our own domain. At the very least, we will be collecting the programme information, but hopefully also the presentation materials.

9.0 Treasurer's Report

Deena Yanofsky introduced three financial documents: our final budget for 2013, a proposed budget for 2014, and a summary of what we have spent to date in 2014. Erin Forward asked if there is a way to join and renew memberships, and update member contact information online. Leanne Trimble responded that the functionality is available in Membee, but has not been implemented. Deena is proposing a deficit budget again. Grace Welch provided an audit of our finances for 2011 and 2012. Deena can make it available to members, but will not be posting the report online, as it outlines our financial and accounting practices.

Peter Genzinger asked if we can be audited by one of our own members. Deena responded that we can, and that Grace was working with a set of guidelines. There was no conflict of interest.

Cynthia Dietz asked why there is no projected income. Deena responded that do not expect to profit from our activities as a not-for-profit organization. Barb Znamirowski asked for clarification about SSHRC cutting the travel funding and wondered if there are alternative sources of funding. Andrew Nicholson clarified that the alternatives provided by SSHRC were not in line with the association's goals and professional development activities.

Motion to accept the financial report: Stéfano Biondo; Seconded: Sarah Simpkin; Carried.

10.0 Past President's Report

Dan Duda reported that all those who requested travel funding for this year's conference will receive funds. Yves Tessier will receive an Honorary Membership, presented by Joan Winearls and Grace Welch at tonight's banquet.

Motion to accept the executive reports: Erin Forward; Seconded: David Jones; Carried.

11.0 New Business

a) Special Resolution: Continuing the association under the provisions of the Canada Not-For-Profit Corporations Act and authorizing the Directors to Apply for a Certificate of Continuance (includes proposed by-law changes)

Courtney Lundrigan introduced the Special Resolution (full text documents in both English and French available on the homepage at <http://www.acmla-acacc.ca/index.php>), and summarized the proposed changes to by-laws and Rules of Procedure document. Copies are also available from Courtney Lundrigan (courtney.lundrigan@utoronto.ca or secretary@acmla-acacc.ca) upon request.

Motion to pass the Special Resolution: Leanne Trimble; Seconded: Sarah Simpkin; Carried.

Daniel Brendle-Moczuk asked whether there were provisions in the proposed new by-law to elect executive members between annual meetings, should a vacancy arise. Courtney responded that the proposed new by-law contained a significantly reduced number of clauses to allow for maximum flexibility. The procedure for filling executive positions between annual meetings would remain the same (the remaining executive members would appoint someone to stand until the next annual meeting, when he/she would be able to run to continue in the position), and that this would now be covered in the Rules of Procedure document, which is much easier to amend than the by-law.

Votes in favour of passing the Special Resolution: Full – 31

Votes in favour of passing the Special Resolution: Associate - 1

12.0 Nominations Report

Dan Duda made 3 calls for nominations from the floor for each position. There was one nomination for each executive position:

President: Rosa Orlandini

Vice President 1: Siobhan Hanratty

Vice President 2: Deena Yanofsky

Secretary: Courtney Lundrigan

Treasurer: Rebecca Bartlett

Past President: Dan Duda (no election required)

All officers were acclaimed and Dan introduced the 2014-2015 executive.

13.0 Elections

See Point 12.0.

14.0 Any other business

Working Groups - Erin Forward proposed a working group to collaborate on creating an inventory and undertaking digitization of Canadian historical topographic maps. Erin encouraged members to think about whether we want to go bigger than topographic maps and include other HGIS projects.

Colleen Beard asked for clarification on the process of forming task forces. Courtney Lundrigan clarified that two members would need to propose a task force/working group to the executive, and one could be formed. Andrew Nicholson asked who would be responsible for drafting and carrying out the terms of reference. Courtney responded that when a proposal was made, the executive members would determine whose portfolio matched the proposed task force's mandate closest, and the group would report to the executive and membership through that executive member.

Erin Forward asked whether we could have space online to read about the progress of task force/working groups. Siobhan Hanratty responded that our current website allows for private space on the website that is not publicly visible, and encouraged members to make use of it.

15.0 Adjournment

Motion to adjourn: Colleen Beard

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SAMUEL DE CHAMPLAIN - MAPS AS TEXTS

Allison M. Smith
Carleton University
ACMLA Student Award Winner
Presented at CARTO 2014

An Online Exhibit : <http://champlain.graeworks.net/exhibits/show/samueldechamplainmapsastexts>

This exhibit explores the “language” of Champlain’s maps, their shared authorship, and the way that this narrative has evolved and come to be presented as the modern maps of the commemoration.

Abstract

This article, which was originally presented as an online exhibit, explores the “language” of Champlain’s maps, their shared authorship, and the way that this narrative has evolved and come to be presented as the modern maps of the 2013 commemoration of Champlain’s expedition to the Ottawa-Gatineau area.

Introduction

Samuel de Champlain is best remembered in Canada as an explorer of the North American east coast and the eastern Canadian watershed. But he was also an accomplished writer and mapmaker, producing numerous large-and small-scale maps, of which 23 survive today (Litalien, 372-374). This exhibit will examine four of his maps that relate to his 1613 expedition to the Ottawa River area. It is this expedition, this region, and people who lived here, that are the subjects of the recent 400th anniversary commemorations as well as the “Champlain in the Anishinabe Aki” colloquium. Accordingly, the exhibit will also consider the map at the 2013 “Canada’s First Tourist” exhibit at the City of Ottawa Archives. No digital image of the large wall-sized map from the Archives exhibit was available for this online exhibit but the Archives was able to provide a link to a modern online map that is similar in style from the Canadian-American Center at the University of Maine.

The maps by Champlain in this online exhibit include one from 1612, a year before his first trip up to the Ottawa River. It shows his conception of the area based on information from others and is the

most decorative of the three. The second map by Champlain was made in 1613, the year he made his first trip to the Ottawa River and is the focus of the recent commemoration. The third map is an incomplete work created by Champlain in 1616 and includes the discoveries of his 1616 trip to the Ottawa River area. The fourth map was made by Champlain in 1632 and is the most detailed of the four. This exhibit will use these four maps by Champlain as well as the modern maps as primary sources in an analysis that builds on five theoretical approaches.

There are varying theories about how Champlain learned his mapmaking skills. One is that it was while he was a young man working as a fourrier or junior officer reporting to the maréchaux des logis, the lodging master for the French army. In the late 16th century detailed maps of France were produced by this lodging service as they moved through the countryside, ahead of the army, finding and documenting towns and their respective facilities in which to accommodate the army. (Buisseret, 257-9) Another theory is that Champlain was a painter, who, in fact, made his first voyage to New France in 1603 as a passenger who came along to paint pictures of this previously unseen (by Europeans) land. (Buisseret, 256) The “painter” theory tends to imply that his technique was self-taught. But it has also been suggested that Champlain’s original maps were just rough sketches, accompanied by detailed descriptions that he provided to an engraver for formal production as maps (Litalien, 372). But regardless of how he came to make maps, one



Figure 1. Champlain's Map from 1612
 1612 Carte géographique de la Nouvelle France faictte par le sieur de Champlain Saint Tongois cappitaine ordinaire pour le Roy en la Marine.

work. British historical geographer Catherine Delano Smith says “a ‘map maker’ is rarely if ever a single person.” The idea that the person who holds the pen might actually be responding to his own experiences as well as those of others, as well as being under the influence of yet others “could provoke map historians into useful further thought on the notion of ‘whose map is it?’” (Smith, 199). We know from Champlain’s accounts that he was in regular contact with local native people and, as was pointed out earlier, that there was content on his maps that could only have come from non-Europeans. There are also strong indications that Champlain’s maps were a reflection of the engraver’s input. It is also possible that content of Champlain’s maps could have been influenced

by the King, who funded his exploration, by fellow expeditioners with whom he travelled, and even by the French public, who were intrigued by news of the “New World.” According to French historian Christian Jacob “The main task of the history of cartography is to interpret maps according to the categories of the culture which produced and used them” (Jacob, 196). If this is indeed the case, the Champlain maps present an interpretive challenge for us today, given the diversity of those who influenced him.

Champlain’s maps are further complicated by the multiplicity of symbols that they display and that should be read as the social constructs that they are. Harley quotes D. F. McKenzie saying “maps clearly

ACMLA Student Award Winner

qualify as texts inasmuch as they are ‘constructions employing a conventional sign system’” (Harley, Historical, 84-5). Five years after Harley’s death in 1991, Jacob expanded on Harley’s earlier statement saying: “According to Harley, the map is a semiological trap and a frightening ideological weapon; it gives an objective and natural appearance to what is mostly a cultural and social construction. It presents a seemingly objective and irrefutable appearance of factual and topographical information (the world as it is), but beyond this facade lies an elaborate rhetoric of power which organizes the iconography,

the social filtering and construction of the territory and the discourse of place names” (Jacob, 194). Champlain’s 1612 map depicts a sparsely populated landmass, inhabited by virtually naked and what will have appeared to be “uncivilized” people. The map tells of a land offering an exotic array of plants and an abundance of fish and fur-bearing animals. The rhetoric of this semiotic text calls out to Europeans like a present-day grocery store flyer offering all manner of goods for the interested buyer, and real estate for the deep-pocketed developer. Clearly these maps, with their rich artistic displays were also tools of communication.

Maps as Tools



Figure 2. Champlain's Map of his 1613 Expedition
 1613 Carte géographique de la Nouvelle France en son vray meridiem [document cartographique]
 Faicte par le Sr. Champlain, Cappine. por le Roy en la marine.

Champlain's 1613 map (*Figure 2*), which reflects the voyage that is the subject of the 2013 commemoration, labels numerous features, including people, such as the *Algonquins and Iroquois*, rivers, such as *Les Trois Rivieres*, and lakes, such as *Lac Champlain* and *Lac St. Louis*. But a key difference between the map of 1612 and this 1613 map is the inclusion of *Hudson's Bay* which had only been explored by Henry Hudson in the years 1610-1611. A map that included this newly explored bay was published in Amsterdam in 1612 referring to the area, in Latin, as "Recens investigati ab M. Henrico Hudsono Anglo" (Wroth, 85). Champlain's 1613 map reflects this newly discovered (by Europeans) bay. As well, like the 1612 map before it, it shows mountains across the entire region. But it has distinctive clusters of mountains blocking the pathway that Champlain hoped to use to get to Hudson's Bay. As a tool and a guide for future explorers, this map directs the viewer not to consider the Ottawa River as a way to get to Hudson's Bay. Did this information about the Ottawa River come from Champlain's own observation, or was he told by the Algonquins and Tessouat that there was no way through?

The mountains that are seemingly blocking the way to Hudson's Bay on this 1613 map are indicative of Harley's suggestion that "Our maps are always an argument" (Harley, Historical, 86). If we read Champlain's map as a text, his argument seems to be: there is no passage to Hudson's Bay by this route. However, while Harley, in 1989, stressed the need to read maps like texts, historian and visual anthropologist Elizabeth Edwards, in 2005, spoke of a "concern over the dominance of the semiotic, discourse around objects—and certainly images—[and how they have] been inflected through textual metaphors of "reading," of the signs and symbols to be decoded." But I will argue that as historians we need to be alert to both ways of reading images: we need to read maps critically as texts, but also allow them to speak to us on other sensory levels (Edwards, 37). Historian Jennifer Evans says "images do not passively mirror historical change but actively constitute claims to representation" (Evans, 433). Her comment echoes Harley's view, that maps make an argument.

However, we must also recall that in these "actively constituted claims" and "arguments" we are hearing the voices of multiple speakers. While texts have a lexicon of words, the speakers in these maps have a lexicon of representations or symbols. And where texts are understood by the meanings attached to the words, maps are understood by the meanings attached to the symbols. But words and symbols are social constructs. And misinterpretation of the meanings of words can most assuredly happen in a verbal dialogue between two peoples, say French Europeans and Algonquin people, who do not share the same spoken language. In the same way, there might be misinterpretations in the meanings of the symbols they sketch for each other in their mapmaking. But over time, these misinterpretations may be avoided when each group comes to better understand each other's language – both words and symbols – even if it takes 400 years to do it. But what is to be made of the silences in the conversation and on the map?

Maps as Silences and Approximations

Geographically, Champlain's 1616 map (*Figure 3*) extends westward from that which is shown on the 1613 map, to show all of Lake Ontario, which both maps refer to as Lac St. Louis. The 1616 map also includes Georgian Bay extending into Lake Huron, which together are referred to as "Mer douce" meaning sweet or fresh-water sea and possibly part of Lake Superior. Champlain also incorporated into this map other bodies of water and rivers that were not part of his own expedition. These additions were based on unattributed sources of geographical information and map sketches given to him by the *Petun*, *Ottawa*, and *Huron* peoples that were part of his expedition, or that he met along the way (Wroth, 86; Lewis, 7-9). But this map is also interesting because it is incomplete, and because it disappeared from public awareness until 1953. It is unclear why Champlain left it unfinished, but it reflects a somewhat different style to the other maps. Perhaps due to its incompleteness this map is also the least decorative, containing only a simple compass and none of the "tadpole" style lakes that appear on his other maps. Rather the lakes are drawn as small circles or irregularly shaped bodies



Figure 3. Champlain's Map from 1616

of water, based on Champlain's knowledge or the knowledge passed on to him by aboriginal people who knew the area. It also shows no mountains, villages, people, animals, or ships (Wroth, 85-6; Lewis, 7-9). Without these symbols the effect is to do what Harley calls "silencing" of the text or at least to make it quieter. But is there nevertheless something we can hear from these quiet maps – perhaps a subtle approximation of the truth?

Harley writes about the silences on maps...the bare places that seem to have no people, no hills, no animals, and no message. He says "Whether we want or not, the tendency of academic cartography is reductionist" (Harley, Historical, 87). In fact, throughout this article, Harley talks about the inability of maps to be objective and to represent the truth. It would seem self-evident that maps are

are just abstractions and models of the truth. But is this not also true of all texts? The words in texts are also models, approximating and maybe even coming close to reaching some ultimately unattainable idea of reality. Champlain's maps were just this: approximations, representations, interpretations, models. Their biggest failing was not that they were imperfect in the truth of their depiction, but that they failed to identify their sources, thus denying us the full richness of our interpretations. And in fact, it is Harley's argument that maps, when read as texts, can be read more effectively. If we approach maps as we would texts, we bring with us everything we know about reading critically. As Harley says "A textual approach alerts us to the shadows of other texts in the one we are reading" (Harley, Historical, 85). But Harley takes this idea a step further when he quotes D.P. Marsh

saying in his dissertation that “Indeed, it has been said of academic cartography that it produces ‘a language or a form of rhetoric in which all sentences are expository and declarative ... there is only one rhetorical device, and that is the formulaic transcription of an impoverished reality

using a vocabulary of only literal denotative meaning” (Harley, Historical, 86). Clearly, if there is a tendency for maps to be “expository,” and even if an innate limitation in maps is that they are “declarative,” then critical reading of maps as texts becomes all the more important. But who were the critical or non-critical readers of these maps?

Maps as Charters of Conquest



Figure 4. Champlain's Map from 1632

1632 Carte de la Nouvelle France [document cartographique] : augmentée depuis la dernière, servant a la navigation faite en son vray meridien.

What did Champlain’s maps mean when read as texts? And were the meanings different for Champlain, for the King of France, for the people of France and for the aboriginal people who would never have seen them in their final form? From the European side of the Atlantic, there was a keen interest in New France. The town of Brouages on the west coast of France is thought to have been

Champlain’s birthplace. It grew into a trading port to the world during Champlain’s lifetime, with a multilingual population that had much economic interest in the fur trade in New France (Litalien, 36-7, 53-4). But it was not just trade with the New World that interested France. French curiosity about the land across the ocean was substantial enough that it seeped into the national culture and arts.

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Throughout France during the early decades of the 17th century a dramatic and exotic dance form called *ballets de cour* came to include references to the Americas as well as aboriginal characters. Canada was first mentioned in one of these extravaganzas in a way that is simultaneously bizarre, erroneous and offensive, in the 1631 lines of one libretto: "The monkeys and the Canadois / Have a nice intelligence; / The savages their fingers use / to groom themselves to negligence // That is all we know of such / affairs of the New World, / Voyaging costs too much / We don't expect a responding word" (Litalien, 43-7). In this strange lyric, there is, for us today, both a cultural and a political message that reflects the view of at least the librettist and perhaps the audience too. The first message is that there was a great deal of ignorance adrift in the populace of 17th century France about Canada and aboriginal people. And the second message is that this same population thought New World exploration was costing France way too much.

Harley proposed that, when we make maps, we impose our agendas and ideologies on them. His discussion revolved around the mapping in the present of events in the past saying that in making maps "we have created a new proposition of the world as much linked to our present agendas and ideologies as to those of the past. (Harley, Historical, 85). For Champlain, his transference of agendas and ideologies was not temporal, from the present onto the past, but rather contemporaneously and culturally from the European onto the aboriginal North American. This idea is reflected in Jacob's words when he says "we can see maps, when used by those who exert power in society (whether military, administrative, fiscal or demographic and whether at home or in the colonies), as self-legitimizing devices" (Jacob, 194). But Harley adds that while maps can be used for social control they can also redirect that power dynamic back upon the map's originators. He says "The normal understanding is that we control the map: but through its internal power or logic the map also controls us. We are prisoners in its spatial matrix. ... in both cases a process of normalisation occurs. Standardisation is the golden calf of 'thematic' cartography: compilation, generalisation,

classification, formation into hierarchies must all be done according to standard principles. The result is a highly artificial image which limits our ability to engage in interpretative manoeuvre" (Harley, Historical, 85). But recall that Champlain was a mapmaker who was trained under unusual circumstances, and was a mapmaker whose style was different from his contemporaries. Accordingly he may have circumvented some of Harley's "standardization," and the associated tendency of the map to redirect power and control back on the mapmaker. However, Champlain operated in an unusual power domain in which there were many disconnected stakeholders. Three key stakeholders and controllers of power operating in his sphere were the King of France, who was keenly interested in Champlain's work, the First Nations people on whom he depended for information, and the engraver who made the final version of the map for publication. But Champlain, away from home and away from France, also had substantial practical power of his own to create his maps as he wished without any real oversight. This 1632 map is the most complete of the four Champlain maps shown here. It confirms the existence of some of the features of the 1612 and 1616 maps, including the large lakes to the west. As well, this map significantly increases the number of town names given, especially to the east, indicating the increasing European population of the area over the preceding twenty year period. The conquest by the French was clearly under way. In the end, of course, none of these wielders-of-power – not the King, not Champlain, and not the First Nations people – retained the control they held in the 1613. The First Nations people would lose their power gradually, and the French relatively suddenly in the 1759. But this brings us back to the 21st century and the 2013 commemoration of the events 400 years ago.

Maps as Visual Aids within Exhibitions

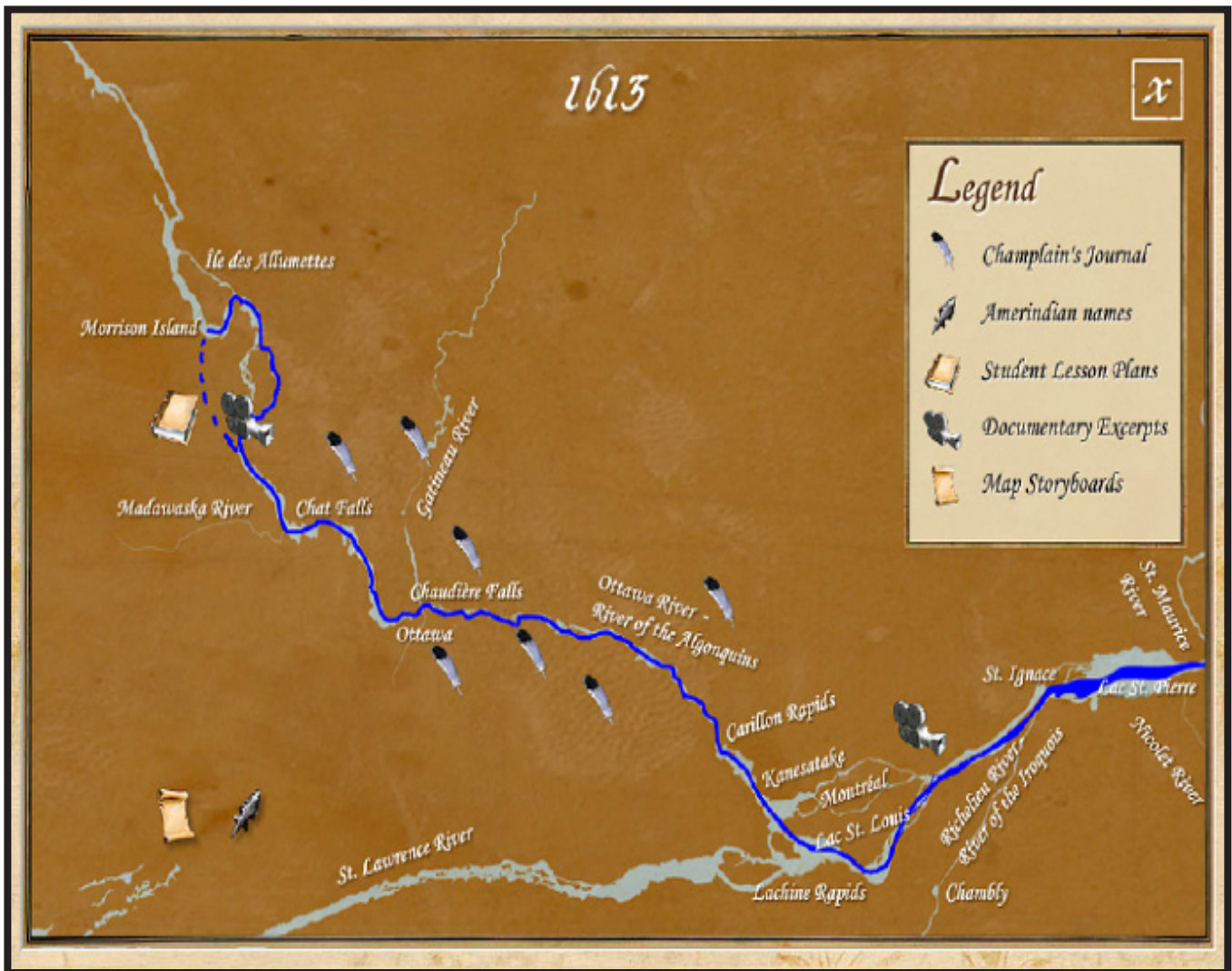


Figure 5. A Modern Map of Champlain's 1613 Expedition
 2008 They Would Not Take Me There: People, Places, and Stories from Champlain's Travels in Canada, 1603-1616

The 2013 Champlain commemoration used a massive modern wall-sized map to depict Champlain's route in 1613 in the exhibit called "Ottawa's First Tourist." The large map from the exhibit was unavailable for my project, but the one shown here is similar in style, giving the river unadorned by trees, people, mountains or animals. Also in a similar way to the map shown in Figure 5, the large exhibit map did not give the relative proximity of the

Ottawa River to the Atlantic Ocean or Hudson's Bay. In these ways these two modern maps are more barren and more focused. Re-playing Harley's words used earlier "Whether we want or not, the tendency of academic cartography is reductionist." But Harley goes on to say "It replaces the human entities of the past with its own graphic text, and redescribes them so that they take on a meaning which may be spatial but is not historical" (Harley, Historical, 87).

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But while the modern maps in this online exhibit strip the land of everything – trees, mountains, ... virtually all symbols – they reintroduce the different people that were a part of the narrative. The map shown here from an online exhibit created by the Canadian-American Center brings our contemporary interpretation of who we believe were the original players back into context of the narrative, using five unique icons. In a similar way, the large wall-sized map at the Champlain commemoration populated the terrain with text boxes about the Champlain expedition and the interactions between Champlain and the First Nations people. But both maps add a further narrative to their text that is not seen in Champlain's maps. Having what Harley would call "silent" spaces on either side of the river, they give a sense of the tunnel-vision that Champlain may have experienced going up the river and not knowing what was on either side of him except what he could see from the water. But is there more to the meaning of these silences?

It is interesting that Champlain, who knew little about the country around him, populated his maps thickly with symbolic people, plants, mountains and animals. While the modern map from the exhibit and the one shown here are both bare and blank. It is not clear why this is, but I will hazard a guess that Champlain's message would have been: "I know there are people, plants, mountains and animals out there on the land, but this is as specific as I can be." The modern mapmakers, on the other hand may have had a message like: "what is out there on the land is very complicated and attempting to place symbols would open up a huge debate, so we will focus our attention on what we believe to be true about Champlain's expedition and the original First Nations people who lived there." This seems to be what Harley was saying in another of his works on the history of cartography. He said that "The notion of 'silences' on maps is central to any argument about the influence of their hidden

political messages." He took this statement further saying "silences on maps may also be regarded as discrimination against native peoples" (Harley, New, 67). Harley's perspective about discrimination does not reflect well on the intended messages of the modern mapmakers that I am examining here. However the modern maps were not silent, they just used a different sort of symbol from Champlain.

The large wall-map at the "Canada's First Tourist" exhibit included numerous explanatory text boxes to describe the events of Champlain's expedition. As well, being a part of a larger exhibit, the wall map was accompanied by a film about the interactions between Champlain and the First Nations people. The exhibit also had both aboriginal and European artifacts, each with their own explanatory text, and the map helped to put all of this in context.

The modern map from the Canadian-American Center, a sample image of which is included above, gives a very limited sense of the broader application from which it came. This sample image also gives a very limited sense of wealth of digital technologies available to today's cartographers. Digital humanities scholar Paul Arthur describes a new form of technological integration called a "mashup" saying "'Mashups' are at the most experimental technical end of the digital history field. A mashup can be defined as 'a website or application that combines content from more than one source into an integrated experience'. Locations on maps, for example, can be linked with photographic archives that in turn can be linked with historical commentary" (Arthur). It is worth going to the link attached to this essay to explore the "mashup" from which the map shown here is taken. It connects to route animations, film clips, school lesson plans, excerpts from Champlain's diary, and "Amerindian" place names. The silences on this map are not so much silent as buzzing with digital content. And although no doubt

much debate could ensue from the content, there is always a risk of that in a public history presentation. Harley would likely have supported this digital undertaking since it was his view that we should “use [maps] more imaginatively so that they can mediate humanity rather than the statistical abstractions of the past” (Harley, Historical, 84).

Conclusion

Historical theorist John Tosh says “In the historian’s hierarchy of [primary] sources those that carry the most weight are the ones that arise directly from everyday business or social intercourse, leaving open the task of interpretation” (Tosh, 93). Champlain’s maps were, on one level, tools of everyday business. But they were also strategic forms of communication for the King, the French government, and French society. They may even have been a kind of advertising. Whatever their primary purpose they offer an interesting point of reference for analysis as a part of the 2013 commemoration.

Christian Jacob, speaking about *world* maps, says that “Mappaemundi in the Western Middle Ages were linked with a vision of God, looking at the world from God’s place and looking at God through the world he created” (Jacob, 194). Two hundred years after the end of the Middle Ages, Champlain drew maps not of the world but of New France. But he was not working alone. Reading these maps as texts, critically, we can see in these four 17th century maps, the hand of the native people, the engravers, and maybe even the King of France. We also see a vision of French exploration and expansionism. Four hundred years after Champlain we see in the modern maps a different vision, but it is one that has its own narrative and its own set of creators. The vision of the modern maps is one of *historical* exploration, but also one of unity, and as Harley would have hoped, one of mediation.

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Allison M. Smith is a student at Carleton University in the MA in Public History Program. Her primary focus is on Black history in Canada, but she has also done research on Black history in Haiti and the U.S. As well, she is interested in diverse modes of presenting and experiencing history. Accordingly, she has made a documentary film about Black slave Marie Joseph Angelique, in Montréal, and produced an online exhibit about Black history in Canada. She also recently composed music and lyrics for, and performed, a song about Black history in North America. She is presently working on a summer internship at Parks Canada in their Heritage Lighthouse Program and is beginning to work on research for her Master's Research Essay about nineteenth century Black newspaper editor and abolitionist Mary Ann Shadd Cary.

PRESERVING AND DISSEMINATING CARTOGRAPHIC KNOWLEDGE: THE ROLE OF ARCHIVES IN THE DIGITAL AGE

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Introduction

In their recent report to the Prime Minister on the public service, the Hon. Paul M. Tellier and David Emerson were quoted as saying that “A digital population cannot be well-served by an analog government.”¹ This quote was used in the proposal documentation to organize the Canadian Archives Summit, which was held in Toronto, Canada, on 17 January 2014. The goal of the Summit was to provide “the Canadian archival community an opportunity to consider its future and envision how Canada’s documentary heritage remains a valued part of Canada’s knowledge infrastructure.”² As we move forward in our current digital world, some may be abandoning paper records, printed publications and books by moving into the digital realm, but they are certainly not abandoning printed records altogether. An increasing number of people feel that library and archival collections should be accessible from their home computers. Perhaps a digital population cannot be well served by analogue archives any more than it can with analogue government. The report that came out of the Summit identifies a new vision and blueprint for the archival community, with challenges in the areas of leadership, new roles and responsibilities for archivists and archives, communications and outreach, community, and digital and financial sustainability. Four strategic priorities arose from the various discussions during the Summit regarding pan-Canadian strategies in 1) acquisition, 2) digital archives, 3) digital repositories, and 4) communications

and outreach. A fifth strategy, not included in the Summit report, was mentioned at Carto 2014 and applies more specifically to the Map Library and Archives community: a pan-Canadian geomatics strategy.

While the outcomes of the Summit addressed specifically archival challenges, these challenges are not only of concern to the archival community: libraries, museums, documentation centers, and information services all deal with digital material, using practices suited to their specific needs. Cartographic knowledge, including paper maps, digital maps and geomatics data, shares many of the features of archival records. It is no longer enough to provide services to our various user groups without knowing more about them. In today’s digital age, archives and archivists, the specialists in preservation, have an incredible opportunity to look at one specific element traditionally disregarded in archival science: users. Understanding users’ varied needs is a must in order to provide them with tools they can use and understand. We must also provide these tools if we want to remain relevant to them. Understanding users requires a good grasp of traditional archival theory and practice and a shift in focus from the records-centric approach to a focus on the user, the accessibility of records, and the use of technology. Dissemination and literacy efforts are key here and preservation *through* use instead of preservation *for* use is perhaps the best way not to fall in the digital obsolescence trap.

¹ Paul M. Tellier and David Emerson, Seventh Report of the Prime Minister’s Advisory Committee on the Public Service, <http://www.clerk.gc.ca/eng/feature.asp?pageId=314> (accessed 18 July 2014).

² For more information on the Canadian Archives Summit, its goals, Summit resources and the final interim report, please go to <http://archivists.ca/content/canadian-archives-summit>.

This article will first present the basic archival functions and fundamental theoretical principles that fuel archival science. Then the issues of understanding user needs and the challenges of access and dissemination in the digital age will be discussed. Finally, some relevant solutions will be presented.

Archives: Practice and Theory

Archivists are experts at preserving historical records through a number of activities entrenched in a set of practices: appraisal, arrangement, description, preservation management and access. These practices are grounded in fundamental principles of archival science: *provenance*, *respect des fonds* and context.

Appraisal is “the act of judging the primary and secondary value of records and establishing the length of time during which they retain this value, within a context that respects the essential link between a given institution (or person) and the records they created in the course of their activities.”³ In a Canadian context, arrangement “is essentially a process of identifying relationships”⁴ between records in an intellectual rather than physical way. This can be done using the fonds-based approach⁵ or the Australian series approach.⁶ Libraries, on the other hand, prefer the subject categorization or author approach. Description is “the recording

in a standardized form of information about the structure, function and content of records.”⁷ Archival description already complements the notion of author with those of creator, owner, rights holder, custodian, etc. Resource Description and Access (RDA)⁸, based on Function Requirements for Bibliographic Records (FRBR), supports the hierarchical relationships of items, manifestations, expressions and works each falling under the responsibility of various persons and/or corporate bodies who act as custodians. Both archival description standards and RDA have a potential for use with cartographic records. Preservation management “can be defined as the development and implementation of a systematic preservation plan encompassing all aspects of archives’ functions,” including conservation, the goal of which “is to produce a rational, cost effective preservation program which integrates preservation activities, where possible, into daily archival functions”.⁹ Finally, access refers to “the act of raising awareness, featuring, transmitting and/or making accessible the information contained in archival documents to known and potential users (persons and organizations) to meet their specific needs”.¹⁰ This practice includes activities such as reference,¹¹ creating physical and virtual exhibits, disseminating finding aids, and literacy programs. Before looking at how these practices shift in the digital world and what should be done differently, we must recognize the importance of our own set

³ Carol Couture, “Archival Appraisal: A Status Report,” *Archivaria* 59 (2005): 84.

⁴ Terry Eastwood, “Putting the Parts of the Whole Together: Systematic Arrangement of Archives,” *Archivaria* 50 (2000):93.

⁵ Terry Cook, “The Concept of the Archival Fonds in the Post-Custodial Era: Theory, Problems and Solutions,” *Archivaria* 35 (1993).

⁶ Chris Hurley, “The Australian (‘Series’) System: An Exposition,” in *The Records Continuum: Ian Maclean and the Australian Archives First Fifty Years*, ed. S. McKemmish and M. Piggott (Clayton, Australia, 1994).

⁷ Canadian Council of Archives. Canadian Committee on Archival Description, *Rules for Archival Description, Appendix D: Glossary* (Ottawa, ON, 2008): D-4.

⁸ For more information on RDA, please consult the Joint Steering Committee for Development of RDA at <http://www.rda-jsc.org/rdapropectus.html>.

⁹ Canadian Council of Archives, *Basic Conservation of Archival Materials*, Revised Edition (Ottawa, ON, 2003): 2.

¹⁰ Our translation of the original text: “l’action de faire connaître, de mettre en valeur, de transmettre et/ou de rendre accessible une ou des informations contenues dans des documents d’archives à des utilisateurs (personnes ou organismes) connus ou potentiels pour répondre à leurs besoins spécifiques” which can be found in Carol Couture, *Les fonctions de l’archivistique contemporaine* (Québec, QC, 1999): 22.

¹¹ The Archival Reference Knowledge framework details which types of information are required by the archivist to provide effective archival reference services. Wendy M. Duff, Elizabeth Yakel and Helen Tibbo, “Archival Reference Knowledge,” *The American Archivist* 76 (2013): 68-94.

of archival theories.

The three fundamental principles of archival science still hold true in the digital world. *Provenance* refers to “the origin or source of something”, “the information regarding the origins, custody and ownership of an item or collection”.¹² *Respect des fonds* is the related principle of not mixing together items or collections originating from various individuals or organizations, keeping them in their original order.¹³ Archival descriptions document the context of creation, context of curation, the custodial history, as well as the conditions of use and preservation of an item or collection. If these theoretical principles apply to paper records or audio-visual material, they remain valid for the preservation of electronic files and datasets.

The advent of competing and/or allied fields, depending on the point of view, is affecting how archivists perceive their role and how society perceives the role of archives and archivists. Whether we talk about digitization programs, records management, digital preservation efforts, digital libraries or even digital humanities, archivists bring to the table practices and theoretical principles together with professional commitment to long-term preservation. The recent popularization of terms such as ‘digital curation’, ‘data curation’ and ‘data stewardship’ can be seen as areas in which the traditional expertise of archivists is lacking, lagging or misunderstood. Yet it offers an opportunity to push the profession further. The challenges of archiving electronic records are well articulated in the work of Cloonan and Sanett and the research agenda of the InterPARES project.¹⁴ Archivists clearly have a role to play in big data, in data warehousing, in digital or information

architecture, and in trusted digital repositories. All these are based on effective records management, proper recordkeeping, and suitable policy development. Archival science must be a partner: the expertise of any field should not be outsourced to other fields but rather combined with the expertise and strengths of others to address complex problems. Addressing the challenges of preserving and disseminating cartographic knowledge can only be done in partnership: with librarians, with archivists, with museum curators, with educators, with IT.

Understanding the Needs of Users from Acquisition to Preservation to Dissemination

The Association of Colleges and Research Libraries (ACRL) identifies six standards to achieve information literacy: determine the information need, access the information, evaluate the information, incorporate the selection information, use information effectively, and understand the ethical and legal aspects of information use.¹⁵ A good understanding of these six standards allows the information professional to provide the right information, to the right user, at the right moment. It allows them to properly understand the needs of users.

But what do users need; what do they want; what can we give them to serve their needs? If we have a broader user base, we have a broader advocate base. We need to be able to design tools for them. Various libraries are moving away from traditional catalogues (online public access catalogues-OPAC) to discovery tools that provide increased user-centric functions. Similarly, finding aids and descriptive standards were largely designed by and for archivists, not for users. Users don’t really understand them.¹⁶

¹² Richard, Pearce-Moses, *A Glossary of Archival and Records Terminology* (Chicago, IL, 2005).

¹³ Ibid.

¹⁴ Michèle V. Cloonan and Shelby Sanett, “Preservation Strategies for electronic Records: Where We Are Now—Obliquity and Squint?,” *American Archivist* 65 (2002). For information on the InterPARES Project, see <http://www.interpares.org/> (accessed 18 July 2014).

¹⁵ Association of College and Research Libraries. Information Literacy Competency Standards for Higher Education. <http://www.ala.org/acrl/standards/informationliteracycompetency> (accessed 18 July 2014).

¹⁶ Elizabeth Yakel, “Listening to users,” *Archival Issues* 26 (2002): 111-127.

Finding aids are an access point to archival collections. What can we do to improve them and achieve user-friendly access? Are our users looking for historical artefacts for personal interest or for professional, scholarly research? Are we helping them to determine where to put their home fence by giving access to surveying records? Or trying to provide enough data to settle land claims or territorial disputes?

Access: Intellectual and Physical

In terms of description, electronic records, unlike analogue records, provide an opportunity for full-text indexing and automatic classification. In both cases, however, description serves as an intellectual access point to records and collections. Digitized analogue records provide a similar opportunity as long as the digitization is done using good optical character recognition software. Digitizing oversized maps may also pose a technological challenge, particularly for smaller libraries and archives. Full-text searching inside the records provides a new access point that complements the traditional contextual information provided in the description. Should we consider subject headings for archival descriptions? Or item-level descriptions generated through crowdsourced efforts? Cartographic records pose a fundamental descriptive problem: as images or illustrations, representation of reality, they often contain much more than words. A map of 16th century North America is just as good a representation of the continent as a contemporary map. While the 16th century representation may not adhere to the geographic reality, it still remains a valid representation of what was known and unknown at the time about this reality. Maps can also represent a stylized, yet valid, version of reality (see Figure 1). Proper contextual descriptions help improve our understanding of these records.

Physical access includes the ability to consult, use and handle an original copy or a facsimile of the

original. Remote access includes the ability to consult an original scan or born-digital file or even a working copy of the file. Physical and intellectual access are intimately tied: information that would tell us what is known about the object, its context of creation and of custody, and the conditions attached to its use. Those conditions could be enacted through a donor agreement to protect the privacy of people, to protect the physical integrity of the record, or in accordance with privacy, copyright, trade secrets, or access to information legislations.

Digital Solutions

One possible solution to address intellectual access issues is the electronic reading room, where people access collections not in physical reading rooms, but rather on dedicated online space. This space, which could take the form of secured VPN access, would require users to log on, and would fall under the same privacy and confidentiality requirements as physical reading rooms. Emory University¹⁷ created a virtual space on a physical computer in which Salman Rushdie's files are accessible. This computer is only accessible *in situ*, yet with a controlled virtual room it could very well be available online. Another digital solution to descriptive issues could be crowdsourcing. Crowdsourcing, calling upon the general public's interest to volunteer knowledge and expertise, or community sourcing, calling upon a specific community to volunteer skills and expertise, fosters greater interaction with the records. The crowd or community can supply descriptions, for example, of items which would never be described by professionals due to lack of time or resources. The role of the professional archivist, librarian or information specialist in this case is to provide a framework that ensures the quality, authenticity and integrity of the data that is supplied by the crowd or community. Historypin¹⁸ is one example where people can pin historical photographs

¹⁷ Mary J. Loftus, "The author's desktop," *Emory Magazine*, http://www.emory.edu/EMORY_MAGAZINE/2010/winter/authors.html (accessed 26 April 2014).

¹⁸ For more information about historypin, its projects and tours and collections, go to <http://www.historypin.com/>.



Figure 1: A subway-style representation of Canadian national parks with their approximate locations

to a map to contextualize the current space. The use of social tagging, allow people to tag various images in order to provide more contextual information is another example. The open data movement calls upon volunteers to use datasets to provide new and innovative applications for the public. *The Plan métropolitain d'aménagement et de développement*¹⁹ [Metropolitan Management and Development Plan] for the Greater Montréal Area and the open data portal of the City of Montréal²⁰ are two of myriad of examples public bodies are now offering around the world.

Conclusion

In summary, from virtual reading rooms and virtual private networks (VPN), to social media and

crowdsourcing to name a few, archivists have a multitude of options available to them to tackle preservation and dissemination for digital records. In an age where people are increasingly using smartphones and tablets to go online²¹, giving access to records on mobile technology appears to be the next step. Our professional identity stems from a set of practices and theories. Refocusing our outlook on users, access, and technology will ensure our continued relevance to society. It will ensure we are equipped to talk to those people who already focus on users and technology, but lack in understanding what we are experts in: preserving records of enduring value for the use of current and future generations.

¹⁹ For more information about the *Plan métropolitain d'aménagement et de développement*, go to <http://pmad.ca> (in French only).

²⁰ For more information about the open data portal of the City of Montréal, go to <http://donnees.ville.montreal.qc.ca> (in French only).

²¹ Statistics Canada reports that between 2010 and 2012, Canadians' use of wireless handheld devices to access the Internet increased from 35% to 59%. Statistics Canada, "Canadian Internet Use Survey, 2012", <http://www.statcan.gc.ca/daily-quotidien/131126/dq131126d-eng.htm> (accessed 18 July 2014).

BULK PROCESSING UOTTAWA'S COLLECTION OF 1:63,360 TOPOGRAPHIC MAPS

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Background and motivation

In winter 2013, staff at the University of Ottawa's Geographic, Statistical and Governmental (GSG) Information Centre began a project to digitize our collection of Canadian topographic maps dating from 1905 to 1963. These maps, covering many editions, are a subset of the one inch to one mile (1:63,360) scale maps produced by, variously, the Department of Militia and Defence and the Department of Mines and Resources. Since then, we've created an ArcGIS tool which automates the georeferencing of all cropped maps, displays and organizes the maps for download through a public-facing web map using ArcGIS Online (<http://bit.ly/uottawatopos>), and are working on finding a means of displaying these maps directly through a tiling service.

The digitization portion was initiated in spring 2013 under the guidance of Nancy Lemay, and carried out by Brechin Group, Inc., an Ottawa-based company whose staff have worked on a broad range of digitization projects, encompassing works of art, rare books, slides, and newspapers. Brechin staff photographed the maps off-site at their own facility. The maps were initially saved in TIFF format, with JPEG derivatives produced from the initial images. Brechin staff also generated three variants of each map image: an as-is archival copy, a copy with white backgrounds (edited to remove yellowing), and a border-free copy cropped to the edges of the map itself.

When the digital files were received by the GSG Centre, they were located within a series of directories listed by their National Topographic System number – a nomenclature which, without reference materials, is not necessarily intuitive for students and

the public. As a result, we elected to produce a series of digital footprint files to load into a web map showing the extent of our collection.

Our motivation for building the tool was to automate a particularly time-consuming job – georeferencing the images and creating footprints, a task which can take up to 20 minutes per sheet. Since we had a full set of borderless images, whose corners corresponded to known coordinates, we began to wonder whether we could automate this part of the process. Cutting down the time spent on manual tasks would free up staff to work on more engaging projects.

Digitization specifications

1. Format: TIFF with JPEG derivatives (12:1 compression ratio) for web use
2. Resolution: 300 ppi TIFFs, resampled to 400 ppi for JPEGs
3. Embedded quality matrix in the file (stamp states the resolution and original file format)
4. Image levels adjusted on one version of the maps to produce a set with white backgrounds
5. One version of the maps has both white backgrounds and cropped edges (to the edge of the map) for quick tiling and georeferencing
6. Maps were photographed using a high-resolution digital camera on a copy stand (not scanned)
7. Encapsulated maps remained encapsulated – photo technicians adjusted those images for glare
8. File names contain details about each sheet (for example, 11E-7W_1939_C for a cropped version of sheet 11E-7W from 1939). Whitened maps were labeled with "W" at the end, archival copies with "A".

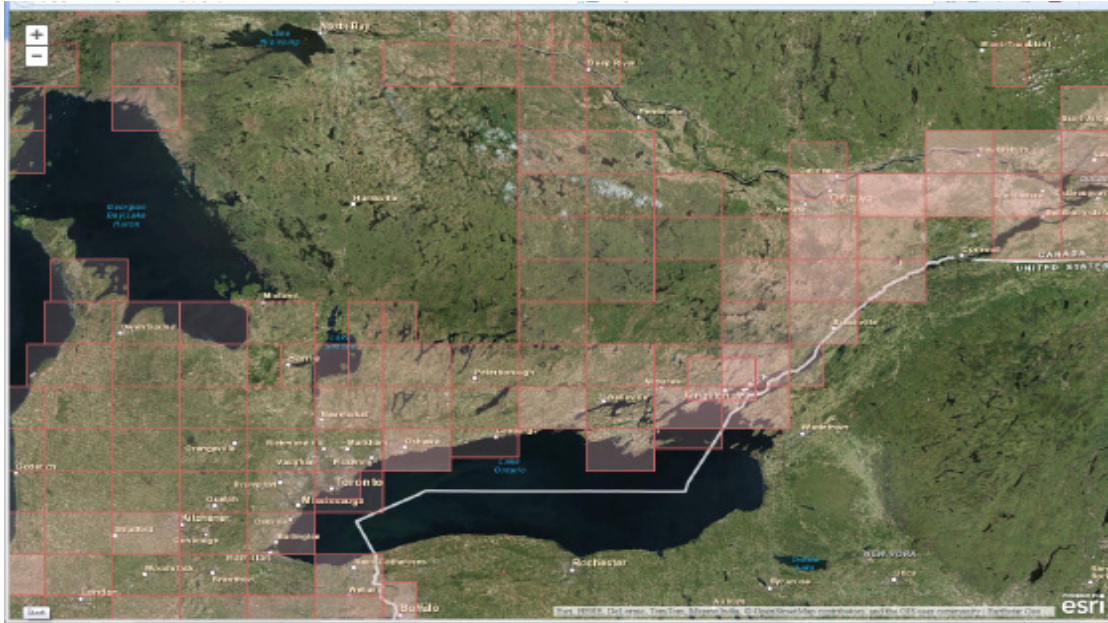


Figure 1: ArcGIS Online index showing footprints generated using the tool.

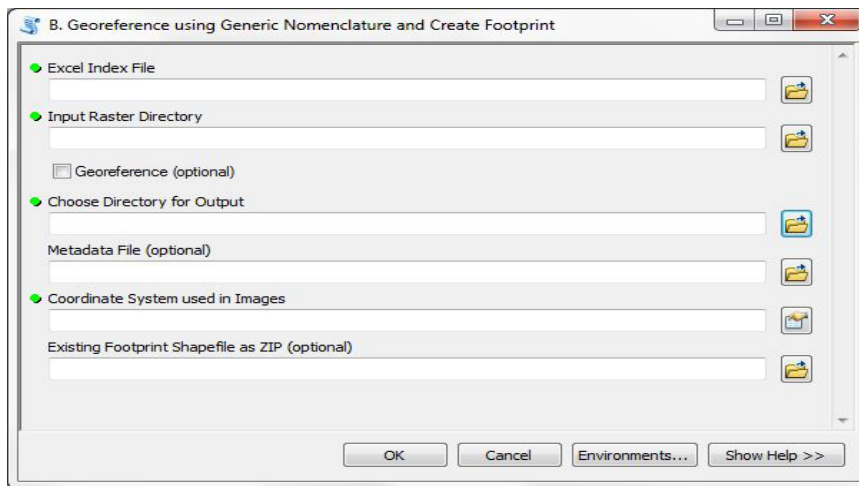


Figure 2: Selection dialog box for loading data into the georeferencing/footprint creation script.

File	Map_title	Map_Subtitle	Grid_type	Scale	Provinc	Bounding	SE_LAT	SE_LON	SW_Lat	SW_Lon	NW_Lat	NW_Lon	NE_Lat	NE_Long
83F-2W_1945_A.tif	Sterco	West of Fifth Meridia 5 Minute Grid	1:63,360	Alberta	Rectangular	53	-116.75	53	-117	53.25	-117	53.25	-116.75	
83F-3E_1945_A.tif	Coalspur	West of Fifth Meridia 5 Minute Grid	1:63,360	Alberta	Rectangular	53	-117	53	-117.25	53.25	-117.25	53.25	-117.5	
83F-5E_1945_A.tif	Entrance	West of Fifth Meridia 5 Minute Grid	1:63,360	Alberta	Rectangular	53.25	-117.5	53.25	-117.75	53.5	-117.75	53.5	-117.5	
83F-5W_1945_A.tif	Brûlé	West of Fifth Meridia 5 Minute Grid	1:63,360	Alberta	Rectangular	53.25	-117.75	53.25	-118	53.5	-118	53.5	-117.75	
83F-6E_1945_A.tif	White Creek	West of Fifth Meridia 5 Minute Grid	1:63,360	Alberta	Rectangular	53.25	-117	53.25	-117.25	53.5	-117.25	53.5	-117	
83F-6W_1945_A.tif	Pedley	West of Fifth Meridia 5 Minute Grid	1:63,360	Alberta	Rectangular	53.25	-117.25	53.25	-117.5	53.5	-117.5	53.5	-117.25	

Figure 3: Spreadsheet showing the data input stage.

The tool

The tool was created by Brian Bancroft in winter 2014, with assistance from Alexandre Billard, a Geography student who also worked in the GSG Centre. The tool itself was created in Python using the ArcPy package, xlwt and xlrd libraries, and requires the use of Microsoft Excel and ArcGIS 10.1 or higher. The tool's inputs include a spreadsheet containing attributes for each sheet (including the coordinates of the four corners), the coordinate system used by the maps, and the directory which contains the maps in TIFF format.

With this information, the tool takes the corner coordinates of each map and georeferences the sheet using the warp tool in ArcGIS through a first-order polynomial transformation. Concurrently, it creates and appends a spatial footprint feature class which contains information about the map passed in by the Excel spreadsheet. Finally, it creates a file structure of zipped files containing the georeferenced image, as well as any optional metadata. The tool also allows for the creation of packaged TIFFs without georeferencing, while creating the spatial index feature class, and also can update existing spatial indexes as opposed to creating new ones for each ingested batch of maps.

The tool also enables staff to save time bundling the maps with their associated metadata into ZIP files for easy downloading. URLs for each file bundle are included on the resulting spreadsheet, allowing the rapid creation of a web map that provides a downloading capability.

In spite of the time efficiencies gained by the tool, staff must still populate the spreadsheet with data before running the scripts. In this project, information such as the year, the title, subtitle, corner coordinates and grid type was verified on the map by eye. As this is time-consuming and repetitive, further analysis using optical character recognition may be warranted in the future. These tasks are increasing in popularity, and libraries which focus on OCR already exist in Python.

Current status and an invitation

We are continuing to make use of the tool, both to georeference and index some errant topographic maps that were missed in our previous round of digitization, and to create footprint files for our recently-digitized collection of Ottawa-Gatineau air photos dating from 1928. Coordinates received from the National Air Photo Library allowed us to quickly generate a digital index of the extents of each photo. We are exploring ways of making these scans available for users to download.

And now, an invitation. If you or someone on your team has the desire to modify or build on the tool, please feel free to download the source code. We are eager to expand the tool to work with more file types (currently, it is configured to work with TIFFs), and to make it more flexible for use in other contexts. Please visit <https://github.com/brian2073/MassGeorefAndWebPrepare> to download the scripts.

We are also seeking contributors who are interested in exploring the possibility of using OCR to automatically read information from maps using MatLab or Python, as well as institutions seeking to digitize their own collections using the tool. Please feel free to contact us for more information.

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THE GREFFE DE L'ARPENTEUR GÉNÉRAL DU QUÉBEC ONLINE

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The Surveyor-General of Québec: 250 years of history

The role of the Surveyor-General of Québec was instituted shortly after the province of Québec was created with the signing of the Treaty of Paris in 1763. In fact, on March 6, 1764, Major Samuel Holland was named Surveyor-General of the province by King George III. He was put in charge of all survey work in the province of Québec and in the American colonies, until the United States achieved independence.

From the end of New France until today, the Bureau de l'arpenteur général du Québec has contributed to the informed management of Québec's land holdings and to many actions intended to ensure sustainable development that benefits the community. But what exactly does the Bureau do?

In his capacity as Surveyor-General of Québec, the Minister of Energy and Natural Resources of Québec is responsible for:

- surveying government-owned lands and Québec's borders
- establishing the limits of administrative territories and borders of territories with specific legal statuses, in cases that fall under his authority
- maintaining public registers of government-owned property, that is, the Greffe de l'arpenteur général du Québec and the Register of the domain of the State
- applying the Act respecting land survey

Survey work: a valuable source of information

The land surveyor charged with surveying lands in the domain of the State, or those affecting its borders, on private land in cases established by law, or lands subject to mining rights, must conduct his work in compliance with instructions from the Surveyor-General of Québec. The same is true when he must delineate the borders of an administrative

or a territory with particular legal status (First Nations territory, wildlife areas, regional parks, etc.). Furthermore, all survey work conducted in a township must be done in compliance with the provisions of the Act respecting land survey.

The Greffe de l'arpenteur général du Québec: a public registry

All documents resulting from survey work are filed with the Greffe de l'arpenteur général du Québec. The Greffe is a public registry containing the documents prepared by land surveyors, under the authority of the Surveyor-General and according to his instructions. More than 170,000 documents (reports, field notes, minutes, territory descriptions, etc.), including 68,000 plans, are filed at this registry office.

These documents describe the survey work conducted on State-owned lands. They are used to indicate the official parcellation of lands and the limits of the domain of the State, to re-establish surveys in the townships and on some portions of the provincial border, or to set the borders of some administrative territories or those with a particular legal status.

On route to digital services

Well before computers arrived, documents had to be consulted at our service counter, and research was based on territorial divisions (townships, seigneuries, basins, parishes, municipalities, etc.). A summary of each document could be found in a cardex (a filing system) where each division had its record. Users had to read the summaries on the records in order to find documents.

In the mid-1990s, the management system for the Greffe de l'arpenteur général du Québec (GGA) was developed to facilitate searching for documents in a descriptive database based on territorial entity

(i.e. township, range, lot). While this system helped to refine searches, users still had to know which territorial entity they were searching for in order to find documents. The obsolescence of the computer system that supported the registry office's management, and demographic trends such as retirements and a lack of specialized workers, among other things, were factors that pushed the Bureau de l'arpenteur général du Québec to innovate its methods in order to maintain high-quality customer services.

To ensure that the register would last, and to optimize its management with geomatics and improve customer service, the Bureau de l'arpenteur général du Québec modernized its systems by moving into the digital era. The chosen solution was to digitize the documents already in the archive, to introduce a digital signature for documents prepared after June 2013, to use geomatics to reference information, to store digital documents in the department's electronic document management application, and to disseminate these documents online.

Phase 1 – Digitizing the archives

In 2009, work began to digitize the documents stored in the Bureau de l'arpenteur général du Québec archives. The main objectives for this phase were to ensure that information contained in these documents lasted, to conserve its legal value, to recover the space occupied by these documents and the service counter, and to send source documents to the Bibliothèque et Archives nationales du Québec.

Over three years, the entire project team worked to purge, prepare, index, transport, digitize, control and archive documents. The digitized documents are stored in the department's electronic document management (EDM) application.

Phase II – Digital survey requests

To complete this phase, the Bureau de l'arpenteur général du Québec published a new edition of its Instructions générales d'arpentage [General Instructions for Surveyors] in April 2013. This edition introduced new production methods for surveyors conducting work on lands in the domain of the State. All survey documents, such as plans, log books,

descriptions of territory and minutes of boundary determination prepared by these land surveyors are now produced solely in digital form (PDF/A-1b) and bear the surveyors' digital signatures.

Phase III – Redesigning the Greffe's management system

The third phase of this project involved an innovative system-wide solution, using geomatics, geometric representation, and geographic locations. The Greffe's survey documents are now required to be indexed in a descriptive and geometrical manner (spatial envelope). When indexation of a survey document is finished, it is filed in the department's electronic document management (EDM) application.

As of April 1, 2014, the documents in the Greffe de l'arpenteur général du Québec are available only online. They can be viewed free of charge through an interactive map. This map allows users to search by geolocation or descriptive criteria. This website was developed using service-oriented architecture. Based on Geocortex and HTML5 technology, it can be consulted using the major browsers and several platforms (workstation, tablet and mobile). It's fun for users! One visit is worth a thousand words: <https://gagq.mrn.gouv.qc.ca>.

Conclusion

The solution implemented by the Bureau de l'arpenteur général du Québec allows it to meet its legal obligations with respect to archives and dissemination. Its clients have free access to information. Furthermore, access is faster than ever, since the delays associated with conventional registry management have been eliminated.

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COMPARISON OF SIX FREE ONLINE MAPPING TOOLS

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In January 2014, Rebecca Bartlett and Joël Rivard – GIS and Digital Resources Librarian and Cartographic Specialist at Carleton University, respectively – found that they were frequently asked by students about options for creating interactive online maps. While they each had some experience using a few of the many tools available, they decided to perform a methodological comparison of six online mapping tools with a consistent point dataset in February 2014. They compared the free versions of BatchGeo, CartoDB, GeoCommons, MangoMap, Mapbox, and WorldMap using a dataset of the hometowns of Canadian Olympic medalists at Sochi 2014. For the free version of each tool they looked at:

- import file types
- in-tool geocoding (getting latitude-longitude coordinates for addresses)
- basemap options
- ease of updating the data once it was uploaded in the tool
- symbology options
- information windows
- time series capabilities
- map publishing options
- export file types

A spreadsheet was used to track all the details and a copy can be found on Google Drive with all the information that was compiled: <http://bit.ly/1jIj1zD>. It was the data gathered for this spreadsheet as well as other notes taken that comprise the six tool summaries in this paper.

BatchGeo – <http://batchgeo.com/>

BatchGeo is an online mapping tool that allows users to make a map from a list of multiple locations

such as addresses, postal codes or coordinates. This online mapping tool is unique in that it doesn't require an account and it only allows as its input copy and pasted comma-separated values into their online form. Users wanting to update the map can simply re-copy and paste the data in this form. There is no need to use specific column headers for their data to be displayed and users can choose which data in the spreadsheet to display in the information window. The information window isn't customizable but is pleasant looking and practical as it allows the viewing of images and links. In addition, when multiple points are at the same location, users can toggle through the information window to gain access to information from all of the points. However, BatchGeo is limited to using only 3 types of symbols and only 7 colour options and the free version allows users to publish their maps for 60 days, but if the link is visited, the link stays active. BatchGeo is an easy-to-use tool and allows users to quickly geocode data and create custom maps from data points.

Recap:

- Create map from addresses, postal codes or coordinates
- Allows multiple points at the same location (toggle through information window)
- Information window allows links and images
- Limited symbology & limited colours

CartoDB – <http://cartodb.com/>

CartoDB is a highly customizable option for creating a free online map, and the free version is limited to 5 data tables, 50 MB of data, and 10 000 map views. Data needs to be geocoded (latitude and longitude coordinates) prior to uploading to CartoDB in one of several formats, including CSV or KML. Once uploaded,

the data is viewable in either table or map format and both the table and map interfaces provide easy editing options, including adding and moving data points in the map view or manually altering the lat-long coordinates in the table. It was noted that multiple points in the same location can be obscured in the final map as only the point that appears first in the data table is visible, so the ability to move points in the map view was utilized. There are multiple symbolization options (eight for point datasets) or the symbols can be coded using CartoCSS. The information windows are highly customizable and can be manually coded with HTML if the user chooses, and SQL queries can be performed. Over a dozen basemap options are provided and the help and tutorials provided are thorough and informative. Overall, as a free tool for creating attractive and customized online maps, CartoDB can suit both the novice and more advanced user with its ease of use.

Recap:

- Create a map from data with coordinates only
- Symbology and information windows are easily customized
- Multiple points in the same location (lat-long) may be obscured but it is easy to move them
- Substantial help and tutorials on website, including <http://academy.cartodb.com/>

Geocommons – <http://geocommons.com/>

Geocommons is a tool that allows everyone to find, use and share geographic data and maps. This tool requires users to create an account and allows users to upload data from multiple formats and then create maps. This two-step process is guided by easy-to-follow onscreen instructions and allows users to geocode locations by address or coordinates. Once the data is mapped, the tool offers a choice of multiple colours and symbols for features, but symbolizing by attributes is limited to using a numeric field. The attributes in the numeric field in turn is used as the information that is displayed when hovering over the points on the map. Users can define which attributes to display in the information window as well as customize the information window by changing the font, colour and size. Users can also toggle between

information windows for multiple points at the same location, however it doesn't allow links or images to be displayed within them. Once the map building process is complete, users can share a stable link to their map for others to explore. The process to upload and create a map is straightforward but can get lengthy if users aren't using the proper web browser. To avoid extreme slowness and user frustration, ensure that the latest internet browser is installed on your computer. It will save you loads of headaches.

Recap:

- Upload data and create a map from address or coordinates
- Information windows can be easily customized
- Can't embed links or images in the information window
- Can be slow at times if not using the proper browser

MangoMap – <https://mangomap.com>

MangoMap is a tool that allows users to create interactive web maps from latitude and longitude coordinate-based datasets only. This tool requires users to create an account before allowing them to upload their data in multiple formats and creating maps. Custom colours as well as over 30 predefined symbols can be defined for the features. The information window doesn't allow users to toggle between information windows for multiple points at the same location but does allow users to embed links. After contacting customer support, we were also able to embed images in the information window. Because of this inquiry, we discovered that the customer support at MangoMap is very responsive to questions and suggestions for improvements, even from clients using the free version. However, the online mapping tool does continuously remind users about the availability of the premium paid version when users try to access tools that aren't part of the free version. As long as users ignore these messages, MangoMap is straightforward and allows users to quickly create and customize maps that can be shared through a link.

Recap:

- Create a map from coordinates only
- Allows for custom colours and over 30 predefined symbols

- Technical support is responsive to questions and suggestions for improvements
- Tool continuously encourages users to purchase the paid version.

Mapbox – <https://www.mapbox.com/>

Mapbox is a “freemium” online mapping tool that provides some limited and time-consuming customization options for free. (It should be noted that the open source software TileMill is a tool created to work with Mapbox and which uses CartoCSS to design highly customized maps, but was not used in this analysis.) Mapbox provides no in-tool geocoding and acceptable file formats are limited to CSV, GEOJSON, GPX and KML. It is not possible to update the dataset once it has been uploaded, nor is it possible to include more than one attribute in the information window by default. However, the information window can be customized using HTML code but does not permit pulling data from the attribute table and therefore must be hard-coded into the information window for each individual point in the dataset. Point symbology is limited to a library of 150+ symbols (including letters and numbers) but hexadecimal codes for colours (e.g.: #FFFFFF for white) are able to be added on a point-by-point basis. The latitudes and longitudes of each point are also able to be edited. There is only one basemap option but the colours can be altered to suit the user’s needs, and data export options are limited to KML and GEOJSON.

Recap:

- No in-tool geocoding
- Time-consuming to customize symbology and information window
- Unable to edit dataset once it has been uploaded
- Using TileMill in conjunction with Mapbox appears to be far more effective if know CartoCSS

WorldMap – <http://worldmap.harvard.edu/>

WorldMap is a free open source tool for creating online maps and which is built for collaboration. WorldMap performs no in-tool geocoding and accepted formats are limited to shapefiles (SHP) and

GeoTIFFs. An emphasis is placed on metadata with an extensive form to fill out upon uploading, at which time usage permissions are given. There are many symbology options – graduated symbols, choropleth, etc. – and it is possible to symbolize points based on attribute information, but the interface is clunky and not very intuitive. The information windows are particularly unattractive and not very customizable, certainly not in any instinctive manner: the Help link goes to a 50-page PDF document and some potentially helpful videos located on the About page (accessed only from an About button on the WorldMap homepage) were not found until weeks after completing the test map. WorldMap had the highest number of data export formats at 11, including CSV, KML, and PDF. While WorldMap is designed for collaborating on visualizing geospatial data and has potential, the interface is not one for a GIS novice.

Recap:

- No in-tool geocoding
- Non-intuitive symbology customization
- Unattractive information window
- 11 export file types

Overall comparison of the tools

- In-tool geocoding

Several of the tools offer in-tool geocoding, which enables users to have a list of cities, street addresses, or latitude-longitude coordinates and the tool will place the points in the correct location. BatchGeo and GeoCommons are the only ones that can geocode lat-long, city name, and street address, and CartoDB and MangoMap can only geocode with lat-long coordinates. Neither Mapbox nor WorldMap provide in-tool geocoding.

- Input and Output File Types

Between the six free online mapping tools there are 15 different input file types (CSV and KML are most common) and 12 different output file types (KML is the most common). Overall, if the data to be mapped is in a spreadsheet (XLS or CSV) then it is in good shape to be uploaded. WorldMap is the only tool that requires data to be uploaded in shapefile format.

For output file types, to export the data all but MangoMap export in Google Earth (KML) format. MangoMap does not provide a data export option. Every one of the tools provide stable links to the final map produced and all but GeoCommons provide an embed code.

Tool	Lat/Long	City name	Street address
BatchGeo	✓	✓	✓
CartoDB	✓	✗	✗
GeoCommons	✓	✓	✓
MangoMap	✓	✗	✗
Mapbox	✗	✗	✗
WorldMap	✗	✗	✗

Figure 1 : In-tool geocoding

BatchGeo	CartoDB	GeoCommons	MangoMap	MapBox	WorldMap
Input	Input	Input	Input	Input	Input
Comma-Separated Values (.csv)	Comma-Separated Values (.csv) Google Earth (.kml) GPS Exchange (.gps) Excel (.xls) Google Drive, DropBox	Comma-Separated Values (.csv) Google Earth (.kml) Esri Shapefile (.shp) GeoRSS	Comma-Separated Values (.csv) Google Earth (.kml) Esri Shapefile (.shp) GeoJSON MapInfo File Geodatabase	Comma-Separated Values (.csv) Google Earth (.kml) Esri Shapefile (.shp) GeoJSON GeoTIFF Postgis SQLite	GeoTiff Esri Shapefile (.shp)
Output	Output	Output	Output	Output	Output
Stable link Google Earth (.kml)	Stable link Embed in website Google Earth (.kml) Esri Shapefile (.shp) Comma-Separated Values (.csv) GeoJSON, API Scalable Vector Graphic (.svg)	Stable link Google Earth (.kml) Comma-Separated Values (.csv) Esri Shapefile	Stable link Embed in website	Stable link Embed in website Google Earth (.kml) GeoJSON	Stable link Google Earth (.kml) Esri Shapefile (.shp) Comma-Separated Values (.csv) Excel (.xls) GeoJSON GML GeoTIFF, JPG, PNG, PDF

Figure 2 : In-tool geocoding

(Full size: <https://www.library.carleton.ca/sites/default/files/help/gis/Input-output.jpg>)

CartoDB		WorldMap				GeoCommons		
Symbology		Symbology		Info window		Symbology		Infowindow
Custom colours	Graduated symbols	Custom colours	Choropleth	Graduated symbols	Enable links from attribute data	Choropleth	Graduated symbols	Customizable
Symbols based on attribute data	Choropleth	Opacity adjustment				Opacity adjustment		Enable links from attribute data
		Symbols based on attribute data		Opacity adjustment				
Info Window		MangoMap		Mapbox		BatchGeo		
Symbology		Symbology		Symbology		Info window		
Enable links from attribute data	Embed image	Custom colours	Choropleth	Enable links from attribute data	Embed image	Code HTML	Enable links from attribute data	
Code HTML	Customizable	Opacity adjustment	Graduated symbols	Embed image				
					Infowindow		Embed image	
					Custom colours			

Figure 3: Customizing symbology and Information Windows

(Full size: <https://www.library.carleton.ca/sites/default/files/help/gis/TreeMap.jpg>)

These graphics and an overview of the online tools can be found at:

<https://www.library.carleton.ca/help/online-mapping-toolsonline-mapping-tools>

- Customizing Symbology and Information windows
There is a wide variety of customization capabilities. When it comes to symbology all but BatchGeo and GeoCommons permitted customizing the colour of the point symbols, and four of the six tools provide options for graduated and choropleth symbols as well as opacity adjustments. For information windows (the boxes that appear when a point is clicked), all but Mapbox permitted live links from the data table and four of the tools allow for embedding images in the information window from a link in the data table.

Conclusion

The best choice for a user depends on factors such as what kind of data is being used (spreadsheet or shapefile; points or lines; etc.), what kind of functionality is desired in the final map, and what the user’s technical comfort is with GIS in general and HTML or CartoCSS. Taking that into consideration, our general recommendations are:

- To easily map a point dataset with just addresses and/or latitude and longitude coordinates, we recommend BatchGeo.
- For more customization of symbols and information windows with a dataset that already has lat-long coordinates, try CartoDB.
- For lots of customization and the ability to take time to learn or already know CartoCSS (custom cartography using cascading style sheets), look into using Mapbox with TileMill.

PRÉSENT ET AVENIR DE CARTOMUNDI – VALORISATION EN LIGNE DU PATRIMOINE CARTOGRAPHIQUE

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CartoMundi est un ensemble de moyens informatiques dédiés à la valorisation du patrimoine cartographique, il est développé par l'Université d'Aix-Marseille, au sein de la Maison méditerranéenne des sciences de l'homme – MMSH – à Aix-en-Provence.

Depuis quelques années, plusieurs sites web, catalogues ou interfaces de visualisation signalent et/ou exposent des documents cartographiques. Dans cet ensemble, *CartoMundi* se distingue par au moins deux particularités. C'est tout d'abord un catalogue collectif international ouvert à tous les établissements qui conservent des documents cartographiques, quelle que soit l'importance de leur collection, quelle que soit leur localisation dans le monde : le site web est trilingue – Français, Anglais et Espagnol. Ensuite, l'interface de *CartoMundi* est organisée à partir d'un planisphère interactif qui propose deux fonctionnalités principales : un

outil de recherche par localisation géographique et la possibilité de visualiser la zone du monde effectivement représentée par chaque document cartographique. Qu'il s'agisse du plan cadastral d'une ville ou d'une carte topographique à petite échelle. En quelques clics seulement, *CartoMundi* permet de rechercher et de sélectionner un document, de savoir où il est conservé et, s'il est reproduit, de le visualiser en haute définition.

Mais *CartoMundi* est construit comme un iceberg. En-dessous de sa partie visible – l'interface publique – sa partie immergée est une plateforme collaborative réservée aux cartothonnaires. A partir d'une entrée personnalisée et sécurisée, chaque partenaire, en fonction de ses droits et de son statut, accède à des outils de gestion et de traitement qui se regroupent en deux catégories principales.



Figure 1 : *CartoMundi*, une structure d'iceberg, dessin : Juliette Dumont, 2014

1. Outils d'ajout de données, par saisie directe dans des formulaires ou bien par chargement de fichiers: tables, fichiers de formes - SHP, images raster.

2. Outils de récupération des données par exportation de fichiers tabulés, de fichiers de formes - SHP ou bien de fichiers PDF pour les tableaux d'assemblage qui figurent les états de collection. Les données ainsi récupérées peuvent ensuite être intégrées dans les catalogues locaux.

A ce titre, *CartoMundi* est aussi une plateforme de mutualisation et d'échanges de données au sein de la communauté des établissements partenaires. Dans la mesure où chaque document est décrit une seule fois, il permet de faire d'importantes économies d'échelle.

Une seconde phase de développement est en cours, elle porte sur trois aspects principaux.

1. Monographies

Actuellement, *CartoMundi* prend en charge seulement les séries cartographiques car ces documents sont les plus mal traités par les catalogues classiques. Dans sa prochaine version, il permettra aussi de décrire des monographies et des ensembles tels que des atlas ou bien des recueils.

2. Portail des reproductions

Actuellement le site web public est tout d'abord un catalogue collectif. Lorsque les documents sont reproduits, l'interface permet de les consulter en ligne et de naviguer dans la série ; mais c'est alors un cul-de-sac. Une entrée particulière du site web - Cartothèque numérique - permet d'accéder directement aux reproductions. Mais compte tenu de l'intérêt de ces documents pour le grand public, nous envisageons de créer un portail particulier, pour les mettre en valeur. Organisé autour d'une interface simplifiée, il permettra d'accéder rapidement aux documents et de rebondir vers d'autres images qui représentent le même espace. En d'autres termes, *CartoMundi* proposera deux portails : le catalogue collectif pour les professionnels et le monde académique, une cartothèque numérique pour le grand public.

3. Géomatique

Les aspects géomatiques deviennent de plus en plus importants pour la gestion et la diffusion du patrimoine cartographique. Or, les carto-thécaires ne sont pas géomaticiens et encore peu de cartothèques comportent un service de géomatique. Dans ce contexte, *CartoMundi* se propose de faciliter le travail des carto-thécaires en la matière. C'est suivant cet objectif que nous explorons, testons et diffusons des outils et des méthodes qui sont à la fois plus efficaces et moins chronophages que la saisie de coordonnées suivant la norme de catalogage. Les quatre présentations qui suivent constituent les premiers résultats de ces travaux.

31. Générateur de tableau d'assemblage intégré

Cet outil est d'ores et déjà opérationnel. Il permet à un carto-thécaire qui ne dispose d'aucune connaissance dans le domaine de la géomatique de créer des tableaux d'assemblage numérique de manière simple et rapide. Les données produites à partir de ce générateur peuvent être exploitées soit directement dans *CartoMundi*, soit dans d'autres systèmes à partir de fichiers exportés sous forme de listes de coordonnées (suivant la norme) ou bien sous forme de fichiers SHP.

Suivant la norme, chaque feuille doit être décrite par quatre coordonnées géographiques. Soit, pour une série de 100 feuilles - un tableau d'assemblage de 10 x 10 cases -, 400 coordonnées. Pour le même tableau, le générateur de *CartoMundi* nécessite une seule saisie de chaque valeur de longitude et de latitude, soit 22 coordonnées seulement.

Ce générateur exploite des coordonnées exprimées dans plusieurs formats (DMS, degrés décimaux ou grades), depuis n'importe quel méridien d'origine. Par contre, il ne permet pas de paramétrer les *datum* tels que l'ellipsoïde ou le mode de projection. Il utilise toujours les mêmes *datum* : ceux du WGS84. Ainsi, pour les documents qui ont été produits suivant d'autres systèmes (ils sont abondants), les résultats proposés par le générateur présentent des imprécisions. Mais les données de *CartoMundi* ne

servent ni à faire la guerre – tirer des obus – ni même à tracer des lignes de chemin de fer à grande vitesse. Plusieurs tests montrent que pour les documents à des échelles inférieures au 1 :25 000, les imprécisions induites par le générateur sont acceptables.

Mais ce générateur fonctionne seulement pour les séries dont les limites des feuilles sont appuyées sur une grille de méridiens et de parallèles (celles dont les coordonnées des angles sont exprimées en unités de mesures angulaires). Il n'est pas opératoire pour les séries découpées sur la base d'une grille plane (celles dont les coordonnées des angles sont exprimées en unités de mesures linéaires). Pour ces séries – plus fréquentes dans la production européenne que dans le Nouveau monde – il reste nécessaire de recourir aux services d'un géomaticien.

32. Procédé graphique

Pour les séries cartographiques antérieures à 1920, il est fréquent que les datum nécessaires à une construction géomatique suivant les règles de l'art ne soient pas disponibles. Dans ce cas on privilégie une méthode graphique qui s'apparente parfois à du bricolage. Le rappel d'une règle simple permet de comprendre le sens de cette expression.

- Plus une série est ancienne
- Moins on dispose d'informations sur son mode de fabrication
- Plus il est nécessaire de bricoler pour en restituer le tableau d'assemblage

Pour chaque série, on part de son tableau d'assemblage sur papier - original ou bien restitué. Après avoir été numérisé sous forme d'image raster, il est géoréférencé à partir de points de repère. Sur la base du document géoréférencé (déformé), on dessine un tableau d'assemblage vectoriel. Ce nouveau tableau est enregistré dans un fichier de forme (SHP) qui peut ensuite être intégré à *CartoMundi*. Cette méthode, présente un double intérêt, elle est facile à mettre en œuvre – même par un géomaticien peu expérimenté – et elle est très rapide. Par ailleurs, cette méthode est applicable à toutes les échelles. C'est seulement la nature des points de repère qui change. Ainsi, pour une carte de Norvège au 1:400 000, on a utilisé les croisements de la grille des méridiens et des parallèles, pour d'autres tableaux on a préféré les points qui figurent les villes. Enfin, pour la vue très détaillée de Paris (<http://www.cartomundi.fr/site/E01.aspx?FC=44519>), on a utilisé les monuments et les angles des rues.

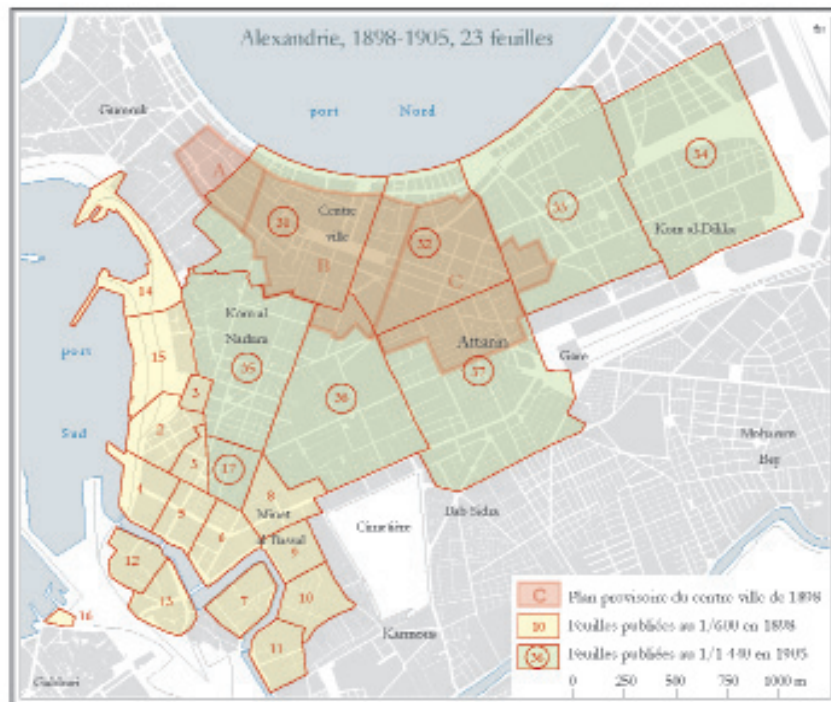


Figure 2 : Tableau d'assemblage des plans d'assurance de la ville d'Alexandrie. Dessin Juliette Dumont, 2014

33. Traitement des plans à grande échelle

Les plans à grande échelle – parcellaires, cadastraux, assurances... – présentent deux particularités. Ils ne sont pas construits sur une base géodésique et ne comportent pas de coordonnées. Pour dresser ces documents, compte tenu de la faible étendue géographique des espaces représentés, les auteurs considèrent en général que la terre est plate. Par ailleurs, ces plans ont souvent des périmètres complexes qui suivent le réseau des rues et des routes.

Pour construire les tableaux d'assemblage de telles séries, il est nécessaire de disposer d'un fond de plan qui comporte au moins le tracé des voies de

communication. Google map et ses fonctionnalités de dessin en ligne constituent un outil satisfaisant. Il présente l'avantage d'être gratuit et facile à utiliser. Pour chaque document, on dessine le polygone qui correspond à son périmètre. Lorsque toutes les feuilles de la série sont traitées, le résultat est exporté au format KML. Le fichier KML est transformé en fichier SHP avant d'être intégré à CartoMundi ; voir par exemple le cadastre du Caire (<http://www.cartomundi.fr/site/E01.aspx?FC=48758>). Actuellement cette opération est assurée par un géomaticien, la prochaine phase prévoit le développement d'un outil intégré de dessin qui permettra de simplifier ce processus.

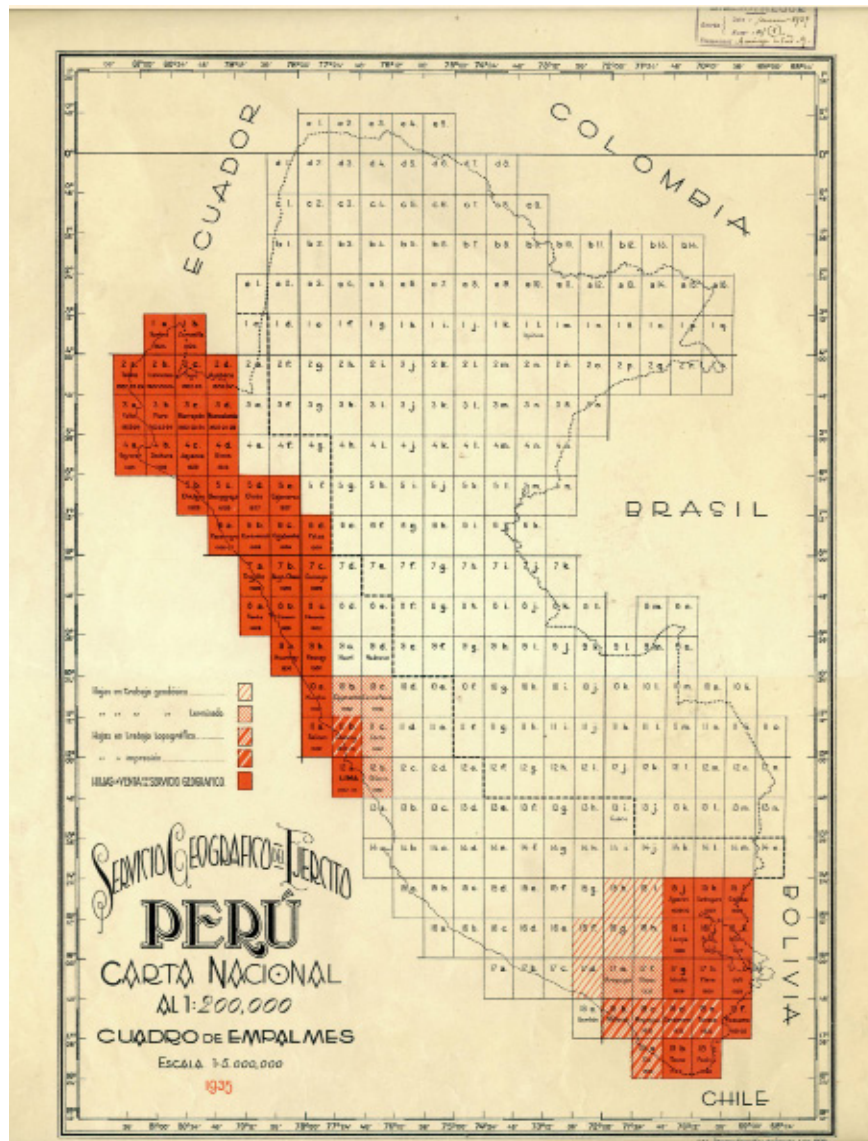


Figure 3 : Tableau d'assemblage de la série Pérou au 1:200 000, 1935.

34. Interface intégrée de dessin

Dans le cadre de la prise en charge des documents monographiques, *CartoMundi* proposera non seulement un outil de catalogage mais aussi une interface de dessin. Sur la base d'un planisphère, il permettra de définir la zone effectivement représentée par chaque document.

Ainsi, en une seule opération et une seule manipulation, les catalogueurs pourront produire à la fois la description textuelle et le polygone correspondant à chaque document, cela sans formation particulière en matière de géomatique. La construction du polygone ne prendra pas plus de temps que le remplissage des champs de coordonnées tel qu'il est pratiqué actuellement. Le résultat en sera plus précis et les champs de coordonnées (formatés suivant la norme) seront générés automatiquement par le système.

Pour conclure

L'université d'Aix-Marseille conserve seulement une petite collection de documents cartographiques. Ainsi, le catalogue des documents référencés dans *CartoMundi* a été construit sur la base de partenariats. Le principal contributeur est l'Institut National de l'information géographique et forestière – IGN - qui, sur la base de sa collection d'un million de documents, a fourni une grande part des notices et des reproductions actuellement signalées dans *CartoMundi*. La bibliothèque nationale de France - avec une collection de taille équivalente – contribue aussi à l'alimentation de la base de données. Outre ces deux partenaires principaux *CartoMundi* compte actuellement une quinzaine de partenaires actifs, en France et en Europe. Dans la plus grande part des établissements, les séries cartographiques ne sont pas cataloguées à la feuille suivant les règles de l'art. Elles ne sont donc pas signalées dans les catalogues. Dans ce contexte, les partenaires de *CartoMundi* ont adopté un mode de fonctionnement qui leur permet de signaler leurs états de collection tout en évitant de procéder à un catalogue normalisé. Ils signalent chaque série

à travers une fiche d'ensemble (fiche mère) dans leur catalogue général et ils utilisent *CartoMundi* pour rendre compte des détails de l'état de leur collection. Un renvoi depuis le catalogue général, qui pointe vers une URL pérenne de *CartoMundi*, permet d'établir le lien entre les deux systèmes.

Plusieurs bibliothèques canadiennes participent d'ores et déjà à l'annuaire de *CartoMundi*. Celles qui souhaitent contribuer de manière plus active aux bases de données sont bien entendu les bienvenues. La cartographie du Canada compte assez peu de séries mais, compte tenu de leur volume, il n'existe pas de liste complète des feuilles de chaque série. C'est la même chose en France et dans la plupart des pays d'Europe. Pour la France, avec la collaboration du réseau des bibliothécaires universitaires – Géo-réseau – et des établissements producteurs (IGN, BRGM...) nous sommes en train d'établir de telles listes. Plusieurs initiatives, présentées au congrès *Carto2014* semblent aller dans le même sens au Canada, c'est de toute évidence une bonne nouvelle.

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REVIEWS

Compiled by Sarah Simpkin

Making Spatial Decisions Using GIS and Remote Sensing: A Workbook

Reviewed by Andrew Nicholson

Keranen, Kathryn and Kolvoord, Robert. *Making Spatial Decisions Using GIS and Remote Sensing: A Workbook*. Redlands, California: ESRI Press, 2014. 263p. \$80.00 US. ISBN 0-521-81528-2.

Interpreting and performing any kind of analysis on aerial imagery is one of the most complex aspects of using a GIS. This can be especially daunting for librarians who may be entering the area of GIS librarianship for the first time or who are asked to answer reference questions pertaining to aerial and satellite imagery.

Fortunately, this new workbook from Esri Press can be a significant help in understanding the use of remote sensing imagery, especially in their wider application with GIS technology. In the preface, the authors indicate their hopes that this text will “provide a bridge between the classroom and the centers of government, business, NGOs and other entities that rely on remote sensing and GIS data to make important decisions.”

Broken up over ten easy to read scenario-based modules, the authors walk the reader through the types of imagery that are commonly used for study and how they can be applied in particular land-based research. Noting that some readers may be coming at the workbook with limited knowledge of GIS, they provide an extensive description of what a GIS project workflow process should look like and how they expect readers to approach it. These include:

- Defining the problem
- Identifying the deliverables
- Identifying, collecting, organizing, and examining the data needed to address the problem
- Documenting your work

- Preparing the data
- Creating base maps
- Performing the analysis
- Producing the deliverables, drawing conclusions, and presenting the results.

Inside each module are different scenarios, which the reader then walks through using the same GIS workflow format described above, and in some cases, looking at the same geographic location, most notably Chesapeake Bay or Las Vegas. Each scenario provides a step-by-step explanation of how to address the problem with remote sensing data and GIS techniques. At the end of each module, an “on your own” scenario is then presented in which the reader must explore and provide solutions using the skillsets learned in that particular module.

The first module starts with the basics of remote sensing and its general application to land science. This includes how to go about enhancing images, noting procedures for image improvements to help interpretation, discussing different bands found in Landsat imagery, highlighting the “Pixel Inspector” function in ArcGIS, as well as the steps required to create histograms based on the raster data.

The next module covers composite images, which includes opportunities to create multispectral imagery and learn about colour interpretation. This is followed by spectral signatures and what they mean in the third module.

One of the most important datasets garnered from remote sensing is landcover information, and this is covered in module four.

The next three modules cover classification, including both unsupervised and supervised classification, and determining classification accuracy during a post-processing clean-up of Landsat imagery. Verifying data and generating error matrices are also discussed in this module.

The final three modules look at specific applications of remote sensing analysis including the measurement of urban change, measuring water drought, as well as lake temperatures using thermal infrared imagery, and finally calculating a Normalized Difference Vegetation Index (NDVI). For someone looking to develop or even refresh their analysis skills around the use of remote sensing imagery, these modules provide some valuable lessons in imagery processing and interpretation.

Especially useful was the highlighting of ArcGIS tools for working with raster imagery. Not surprisingly, the reader may come away with new knowledge about what ArcGIS can do and how it can potentially help students who are working on remote sensing projects. Well worth purchasing for professional development purposes, as well as your own general library collection.

As an interactive workbook intended for readers new to Remote Sensing and GIS, the publication includes a 6 month trial copy of ArcGIS 10.1 and a CD-ROM of datasets and remote sensing images for use in the modules.

Andrew Nicholson
GIS/Data Librarian
University of Toronto Mississauga
Mississauga, Ontario

Sea Monsters: A Voyage around the World's Most Beguiling Map

Reviewed by Francine Berish

Nigg, Joseph. *Sea Monsters: A Voyage around the World's Most Beguiling Map*. Chicago and London: The University of Chicago Press, 2013. 168p. \$40.00 US. ISBN 978-0-226-92516-5.

Joseph Nigg, author of *How to Raise and Keep a Dragon* has published an academic approach to sea monsters focussing on the lore and mythologies surrounding them. In 1539, when Olaus Magnus' *Carta Marina* was printed in Venice, it represented the most detailed and accurate map of Northern Europe. Many of the marine creatures depicted are described in the

map's key, rather than being represented in a purely decorative fashion, making this map particularly prolific. In addition to describing the contents of the map in detail, Nigg tracks the influence of the *Carta Marina* on the collective understanding of these sea creatures over time using maps and histories produced by various authors in several countries.

Marine voyages in the sixteenth century were perilous given the whirlpools, vortexes, sea monsters, and confusion inflicted by large whales being mistaken for islands and narwhals with unicorns. From Magnus' perspective, the *Carta Marina* represents the dangers implicit in traveling the seas and identifies the particular creatures and features one might encounter along the way. In this work, Nigg bridges the gap between the monsters depicted on the *Carta Marina* and their eventual identification in established natural histories.

Nigg explores the dominant classical belief that all land animals had marine counterparts and dedicates a chapter to each sea monster represented on the map. Nigg cites the Oxford English Dictionary, in which there is an entire category of sea/land animals in common usage from the sixteenth to nineteenth centuries. The description of each creature is accompanied by personal accounts, documenting mariners' terrifying encounters with the sea monsters charted on the map.

The book is printed in a coffee table format conducive to showcasing the beautiful map. The *Carta Marina* is cropped and presented in different scales, allowing the reader to fully appreciate both the fine detail and overall picture of the map. This book is unique in that the jacket unfolds into a beautiful colour reproduction roughly half the size of the original *Carta Marina*. This helps readers get a full impression of the original wood-block map which measured four feet high by five feet wide and was comprised of nine folio sheets. Do not let the coffee-table book format fool you, this book reads more like a well-written thesis.

Despite being filled with beautiful maps and illustrations, this book would not be the ideal tool for researching Olaus Magnus' maps in the context of historical mapping, since the book focuses more on the sea monsters than the *Carta Marina* itself.

However, if a researcher were interested in learning about the interplay between legend, lore, and early attempts at writing a natural history through the lens of sixteenth century mapmaking, this book would be the ideal companion. This book is thoroughly entertaining for a reader aware of the proportion of our oceans that remain widely unexplored to this day--and the sea monsters yet to be discovered.

Francine Berish
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George Brown College
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Historical GIS Research in Canada

Reviewed by James Boxall

Bonnell, Jennifer and Fortin, Marcel (Editors). *Historical GIS Research in Canada*. Calgary: University of Calgary Press, 2014. 344p. \$39.95. ISBN 978-1-55238-708-5

It may sound like an odd thing to think about as one begins to read a wonderful new, and highly unique book on Historical GIS Research in Canada (HGIS-C), but I could not help but ponder the "tree in the forest" parable. If we don't see it, or know it's there, did it make a sound? If we don't know of the map, or see it, does it really exist?

That thought actually came to mind not as I opened the text, but as I sat in the joint Canadian Cartographic Association – Canadian Association of Geographers session on HGIS at the recent conference at Brock University. It dawned on me then, as it does now reflecting back upon the chapters in HGIS-C, that we have reached a time when the 'silence' of the maps hidden away (preserved, archived, protected, underused and/or unknown) need not be. The true value of HGIS (and the HGIS-C text) is that it shines a light on and brings voice to the power of maps, or more broadly of cartographic materials of all forms. Perhaps it may disappoint some people and the contributors to the text because the space and time constraints do not allow for a complete review of each and every chapter. I do make note of the variety of topics covered and that they really do touch upon all the major themes of HGIS, while also looking at a tremendous variety

of projects from nearly every region of the country.

I am reminded of the very Canadian phrase that we have "too little history and too much geography" after reading the book. This created a personal problem for reviewing this text. In considering the nature and timing of this work, and the recent efforts on developing and growing the community of HGIS in Canada, I felt this review was an opportunity to mix both a positive endorsement of the text, and a chance to highlight the greater contribution of this work towards the vision being created today for the HGIS community in Canada, and the need to integrate and support that through related, collegial efforts amongst the cartographic and geographic communities writ large.

I saw it more as a chance to express a viewpoint on the need for more HGIS than merely an expression of how well the text is written crafted and why it is essential for everyone to spend more than a few moments gazing at the images and pondering the impact of the research. This is a time when we are faced with multiple efforts that are, in a positive way, overlapping and providing a foundation for the next phase of empowering people with maps and geography. This book will do much in establishing one of the building blocks in creating that Canadian community of the 'geographically minded'. It bodes well for our profession to reach for new goals as capacity increases because of new communities coming together.

More formally, let me congratulate an obvious major effort that Jennifer Bonnell and Marcel Fortin committed to editing this much needed review of current work in HGIS. This is, as stated in the editors' introduction, a text designed so we can "better understand the historical geography of Canada's past." To accomplish this they have collected reviews from a variety of authors from across the country, and from a variety of disciplines and areas of expertise. These are not just historians contemplating GIS or trying to come to appreciate the subtitles of geography as expressed through imagery. These are passionate people who bring together information science, GIS, geography, planning, architecture, history and environmental sciences to form a core group that accomplishes the most important task in my view – proving

the interdisciplinary nature and value of HGIS.

A few things about the text itself, and the publishing house that produced it. I appreciate hardbound books, but I also like the soft cover because it is easier to carry, and it is functional when one wishes to scan the pages quickly to show a colleague the most amazing image of a fire insurance plan or overlay of the Welland Canal. Certainly a coffee table version in hard cover would have been nice to receive, but then that would have ignored a fundamental goal of this text – to make it as useable as a textbook, reference and work item that does not gather dust, or show friends that you collect either old books or books about old things.

Also, I am impressed by the layout, fonts, and imagery within the text. The publishers and editors obviously must have had many meetings to deal with the physical nature of how the book was presented. This would also have been critical as the University of Calgary Press has also allowed the text to be downloaded as a PDF file. This clearly indicates both a belief in the openness of knowledge and a desire to have the text used within classrooms as the discipline of HGIS continues to grow formally and in the public domain. Kudos for that bold move and thank you on behalf of all students and researchers!

I am certain as well that the above was made possible due to the wide support this text received by way of grants from several agencies (Alberta Media Fund, Canada Book Fund, Canada Council for the Arts, and NiCHE – the Network in Canadian History & Environment). Such broad support is not the norm, and to garner such interest and contributions indicates that there is a broader recognition that this emerging field of HGIS in Canada should be supported.

The support for its growth and expansion was also a topic of discussion during the HGIS event at Brock, and I believe the next stages of development of research, teaching and applications development in Canada will be more possible and successful in large part due to the publishing of Historical GIS Research in Canada. A debt is owed to the authors and editors not simply for the wonderful text which expresses the nature of Canada's historical geography admirably.

It is also a time to say thank you for carrying us forward into a time when we can appreciate the value of the intersection of historical cartographic materials with geographic information systems.

Clearly, one could recommend this book on its own merits, and suggest people download chapters from the University of Calgary Press. No. I suggest people purchase this text and consider it for use in classrooms at the secondary and post secondary levels. What course? Well, considering the breadth of contributions, I would think this could be used in more than the arts and social sciences. I would consider using this, or some chapters, within a variety of courses.

This is much more than a history or geography text. This is an example of the very nature of how multiple disciplines can create new knowledge and ideas, new insights and solutions, new experiences, and plant the seed for another generation to come to know Canada as it was, is and shall be. It isn't about the past either. The 'historical' moniker should not make people think this is about describing the past. On the contrary, this is about appreciating how our country developed, changed, and adapted (for good or ill), and it gives direction as to where we may wish to go, or what to avoid. If one were to suggest this text is about encapsulating the images of the past, one would be wrong. This is about releasing them into public domain, and sparking our spatial and temporal senses to generate a more complete appreciation for the power of the map and the awesomeness of this country.

James Boxall FRGS FRCGS

*Co-Chair, Canadian Roundtable on Geomatics
Governor, Royal Canadian Geographical Society*

From the Reviews Editor:

Thanks to those who submitted book reviews and to all who have expressed interest in reviewing! I'll continue to request review copies from publishers - but please let me know if you have read a book of interest to the ACMLA and would like to submit a review, and if you have any suggestions for titles/sources. Here are the review guidelines:

ACMLA Bulletin Book Review Guidelines

Review Format

1. Bibliographic Citation

This should include: author, title, edition, place of publication, publisher, date, number of pages, price (if known) and ISBN. Example:

Bussey, Ben and Spudis, Paul D. *The Clementine Atlas of the Moon*. Cambridge: Cambridge University Press, 2004. 316p. \$80.00 US. ISBN 0-521-81528-2.

2. Content

The review should describe and critically evaluate the work. Typical review elements include: scope, purpose and content of the work; intended audience; writing style; background and authority of the author; how the work compares with other titles on the same subject; its usefulness as a research tool; any unique features; and its suitability for library collections.

The length of the review is at the reviewer's discretion, but should normally reflect the importance of the work. A typical review is about 500 words.

3. Your name, title, institutional affiliation, city and province/state

Editorial Policy

Opinions expressed in reviews are those of the reviewer, not of the ACMLA. The Reviews Editor may make minor edits, without communicating with the reviewer. Should the Editor determine that a major revision is required, she will contact the reviewer for discussion.

Sarah Simpkin
Reviews Editor

GEOSPATIAL DATA SOFTWARE REVIEWS

Compiled by Andrew Nicholson

City of Waterloo. Open Data Waterloo

<http://www.waterloo.ca/en/opendata/>

Reviewed by Eva Dodsworth

The City of Waterloo joined the open data movement in December, 2012 when it launched its Open Data portal, providing citizens, developers and researchers a direct access to city produced data. The project is the result of extensive collaboration with a number of stakeholders such as the Open Data Waterloo Region Community Group, the University of Waterloo and Communitech.

that include topics like land use and planning, recreation and culture, as well as transportation and event data. Layers are typical of a municipal open data site, including address points, bicycle lanes, heritage buildings, parks, points of interests, roads, and so forth. The files are available in a variety of spatial formats such as Shapefile, KML, Excel and CSV. Before downloading the files, users are able to view the attribute information in Data View Mode (Figure 1), as well as in Map Mode (Figure 2).

Description

There are over twenty individual geospatial layers

Layer ID	Layer Name	Category	Format	Download	View
101	Maple Street	City Features	Line/Point	Download	View
102	Huron Street	City Features	Line/Point	Download	View
103	Cassidy Street	City Features	Line/Point	Download	View
104	Consolidated Church	Heritage Buildings	Point	Download	View
105	Waterloo Park	Parks	Point	Download	View
106	Waterloo City Hall	City Features	Point	Download	View
107	Waterloo Region	City Features	Point	Download	View
108	Waterloo Region	City Features	Point	Download	View

Figure 1 : Data View Mode

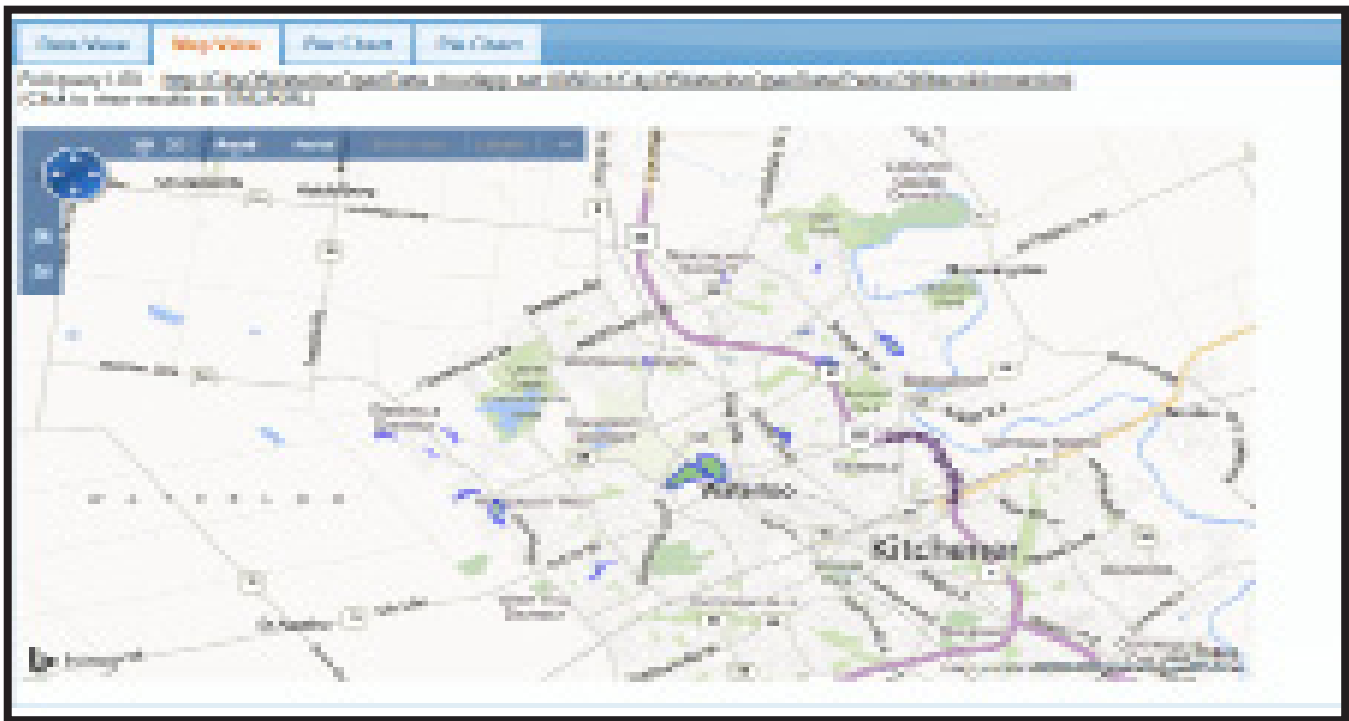


Figure 2 : Map Mode

The attribute information is fairly detailed. When analyzing the Parks file, the attribute information contains several useful park features for visitors including playgrounds, bridges, benches, garbage cans, tennis courts, ball diamonds, basketball courts, cricket pitch, toboggan runs, and water service to name a few. A query builder is available on the website allowing users to search for specific attribute strings. The results of the query search can then be exported, thereby offering a ‘clip and ship’ type of service.

Technical Aspects

The catalogue lists datasets alphabetically by name with Category type and date listed in separate columns. Users must click on the name of the dataset to access the dataset’s page which ultimately leads to the data download. All of the datasets cover the extent of the City of Waterloo boundary. A fully-functional API is also available, allowing programmatic access to the data. It serves up data using a number of different formats such as XML (oData/ATOM), KML, JSON, and JSONP that can be queried by variety of technologies & software. Every dataset offers a “developers” language/environment view, producing the code for the selected language (C#/ASP.NET, C#/Silverlight, Flex, JavaScript, PHP, Python, and Ruby).

The projection used is not apparent. After thoroughly

searching the website there was no mention of the projection, however after downloading a sample Shapefile and examining it, it appears as though at least one of the datasets is in UTM, NAD83.

Metadata & Licensing

Metadata is available for each dataset and typically includes release date, last update, a description and keywords. As mentioned above, there is no projection information included. The City of Waterloo is using an adapted version of Dublin Core metadata international standard and where applicable, uses a variation of North American Profile of ISO 19115 – Geographic Information – Metadata.

Although licensing information is available on the website, users do not need to read it or even see it in order to download the products.

Resources

Open Data Waterloo invites individuals and communities to make suggestions on datasets they would like to see included online. Users publicly post their ideas in a ‘social networking style’ where the public can rate, rank and ‘like’ the suggestion by voting. Similarly, the datasets themselves can also be rated by users. The website also has a “what’s trending” section, posting most rated and most used data files.

REGIONAL NEWS

Compiled by Tom Anderson

Alberta

University of Alberta
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A new Edmonton Map Society. In the 1990s Edmonton had an active map society which unfortunately withered. Now David Jones, Map Librarian Emeritus from University of Alberta's William C. Wonders Map Collection is attempting to create a 21st Century version. The as yet un-named group, temporarily referred to as Edmonton Map Group, has met twice this spring. Michael Fisher reported on the ICA Mountain Cartography Workshop held in Banff; Dave Cruden introduced a new publication of Dr. John Allan's photographs; and Gerald Stark discussed a new map of Alberta being developed by the Alberta Dept of Agriculture and Rural Development.

Further meetings are planned for the the fall. Please contact david.jones@ualberta.ca for more details.

University of Calgary
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Spatial and Numeric Data Services (SANDS) is facing the task of moving the map and air photo collection to offsite storage. Because of space constraints, this will mean downsizing the map collection by about 75%. We have started to digitize our historic maps, and we are considering the various methods of providing access. In June Sue McKee attended the University of Victoria's Digital Humanities Summer Institute, and Peter

Peller attended the IASSIST Conference in Toronto. Also in June we said goodbye to Gisela Engels, the University of Calgary's statistical consultant, who retired after a long and productive career. SANDS (formerly MADGIC) has worked closely with her for many years and she will be missed.

University of Lethbridge
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Maxine Tedesco has officially retired from the University of Lethbridge Library on June 30, 2014 after 20+ years of service. Her main subject responsibilities were for Geography/GIS, Government Documents and Spatial/Numeric Data. Maxine will definitely be missed by all colleagues and students she came in contact with in Lethbridge as well as those from further afield. She had her Library retirement event in May, 2014 receiving a token of appreciation from several members of the Department of Geography. New subject contacts at the University of Lethbridge: Leona Jacobs (Geography); Rhys Stevens (GIS, Government Documents & Spatial/Numeric Data).

Ontario

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In the run-up to July's centennial anniversary of the commencement of the First World War, there has been a lot of activity associated with our digital and paper collections of WWI trench maps, aerial photos and other special sets. Gord Beck has

been in high demand from media outlets (local to national), to provide insight, interpretation and material for a number of news stories on the importance of maps to campaigns in Europe, and to individuals interested in rebuilding the histories of family members that served in the war. Gord provided regular correspondence for the Toronto Star's "Walking the Front" series, and was featured in an article (<http://on.thestar.com/1kdLWL9>) that told the story of how McMaster's map collection helped a grand-nephew locate the final resting place of his great uncle who died in combat.

As a result of launching our set of 3,000 digitized WWII topos online, we were approached by the production team for Brad Pitt's latest movie "Fury" to use our map of Hannover, Germany in the 1:250,000 Central Europe series. This was followed by a request for a map of Kirchohsen, Germany at 1:25,000 which we don't have, but was kindly and quickly supplied by Larry Laliberte, GIS Librarian at the University of Alberta (many thanks to Larry). The U of A map actually appears in the official trailer for the movie.

Our focus remains on building our digital collections through digitizing, cataloging and uploading items to our digital repository (<http://digitalarchive.mcmaster.ca/>). We're in the process of uploading over 900 images in our Peter Chasseaud collection, which should be completed by the fall. Additionally, our digital archive collections are now shared with a Creative Commons (BY-NC) license, which we hope will further the use and reuse of these materials.

University of Ottawa
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It's been a busy winter and spring at the GSG Centre.

In January, the GSG bid farewell to Erin Forward

who accepted a position with Queens University. As a result of this change, we welcomed René Duplain to the GSG Centre team as our new Data Analyst. René holds undergraduate and Master's degrees in Biology from the University of Ottawa, and also holds a Graduate Certificate in GIS from Algonquin College. He joins us most recently from Fisheries and Oceans Canada, where he worked as a GIS Analyst. René is excited to contribute to the growth of GIS at uOttawa and is eager to help students explore the potential of working with geospatial technologies.

Over the winter semester, recent University of Ottawa Geomatics and Physics graduate, Brian Bancroft, worked with us to create an ArcGIS tool for batch indexing and georeferencing our recently-digitized collection of approximately 700 topographic maps of Canada (1:63,360). The tool, available at (<https://github.com/brian2073/MassGeorefAndWebPrepare>), uses a spreadsheet containing the corner coordinates of each map to generate footprint polygons. The tool can also be used to georeference images of scanned maps, provided those maps have been cropped to remove their borders.

Keeping up the momentum from last summer's digitization projects, we are currently working with a local company to scan our collection of Ottawa-Gatineau air photos from 1928. Pierre Leblanc, our Cartographic and GIS Support Specialist, has created an index of the extents of these photos, and we are exploring ways of making these scans available for download.

Work continues to publish numeric data (Statistics Canada, DLI, and Leger) with French-language metadata on Odesi. We have also launched three new projects for restricted, local access to data. First, a pilot subscription to the Real-Time Remote Access service of Statistics Canada, for data users to be able to run their own analyses on confidential

data sets. Two further projects are: campus-wide access to the Canadian DLI postal code products, and restricted Eurostat microdata access in partnership with Central Computing Services at the University.

In April 2014, Catherine McGoveran began her preliminary appointment as Government Information Librarian. Catherine has led the development of a registry of Canadian government publication digitization projects, available at (<http://bit.ly/gov-docs>). This project seeks to enable institutions to share information concerning whether a collection has been digitized, to identify complementary collections, and to locate potential partners for collaboration.

Another important project in the works is a 2014 edition of Government Information Day. Last year, Government Information Day was held at the University of Toronto and, to continue last year's valuable discussion, the University of Ottawa Library will be hosting the 2014 edition of the event this coming fall. The broad theme will be focused around collaboration, with presentations and panels organized around two proposed subthemes: (i) preservation and access and (ii) open government. Stay tuned for more details, including the event date!

University of Waterloo
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The Geospatial Centre has been busy digitizing many collections. With a new digital repository promised for next year we will be able to finally offer online access to most of our GIS and digital resources. We spent most of last term creating metadata in Dublin Core for all of our historical air photos. These will be searchable and retrievable in the new repository by place name, geographic coordinates, or by year. We have also recently purchased a large format 42" Colortrac high speed scanner, a purchase that we have hoped for for many years now. This feed-through scanner is being used primarily for our historical digitation project, but also by patrons who wish

to scan personal maps. Our casual staff are scanning every day, currently the 1955 photomap mosaics of Southern Ontario. The project consists of scanning 3,700 historical maps from our inventory for archival purposes as well as for online access. The Centre has recently completed a historical map inventory which details the individual maps and their sizes. Since 98% of our maps are 44 inches or smaller, we were able to save a little bit on a slightly smaller scanner. This project will take approximately one year to complete. Every year after that, we will focus on other maps in the collection that will either be in the public domain or have received permission to scan.

The staff are busy creating new workshops this term as well. We hope to offer informal GIS certificates to our students once they have completed all three GIS workshops - Introductory, Intermediate and Advanced. The staff are also taking some time for professional development this summer. Our GIS Specialist went to the Esri UserEd Conference in July. I plan to attend the International Geographic Union Conference (IGU) in Krakow, Poland in August.

Lastly, I am pleased to announce that Larry Laliberte (University of Alberta), and I have just published a book on historical maps. "Discovering and Using Historical Geographic Resources on the Web" is available in print and in Kindle version from Amazon.com as well as from the publisher's website (Rowman & Littlefield).

Western University
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Even though we moved to our new location in mid-September 2013, the finishing touches have been made for our official opening on July 10. About 100 attendees, from across campus and the London area were present. Check out our new floor plan at: http://www.lib.uwo.ca/files/madgic/mapanddata_floorplan_2014.pdf

In recent acquisitions, Serge Sauer, former Map Librarian here, donated 85 original maps, mostly of Russia, from his private collection. These maps are dated between 1654 and 1890. They will provide researchers with additional historic cartographic sources. Through the \$150K funding, the Map and Data Centre acquired RMSI Global's 3D Building Data Package for London, Ontario. The package consists of the following geospatial datasets for use in Geographic Information Systems (GIS), or Computer-Aided Design (CAD) software programs:

3D Building Height Data

Outline of built-up structures (buildings, houses) with above-ground height values, measured at the top of the roof.

Digital Terrain Model (DTM)

The Digital Terrain Model (DTM) includes elevations of land and water.

Land Usage (Clutter)

Land within London, Ontario classified into seven (7) categories – buildings high, buildings medium, buildings low, parks, vegetation, open, and water.

Satellite Updated Vectors

Boundaries for nine (9) land use features: highways, main roads, other roads, streets, railways, airstrip, lake, river, and coastline.

Places

Points of interest (educational, commercial, industrial, public spaces, etc.) within London.

The Map and Data Centre has been busy improving its online presence. One project, the 1926 Geodetic Survey of London (first federal topographic mapping set) is now available to view on our website. The viewer allows users to zoom in for more in-depth detail.

We are in the process of georeferencing our digital collection of aerial photos of London. Currently, the 1960 and 1955 files have been converted to GeoTIFF format for immediate use in GIS-based software. Stay tuned as we add more georeferenced aerial photos from older years to this list. These are now downloadable from our website. All of the aerial photos held by the Map and Data Centre are now searchable in the Shared Library Catalogue and in Summon. Searching for keywords "aerial photographs" with the location (e.g. "Hamilton and aerial photographs") will bring up some of the 246 records representing nearly 60,000 print air photos of London and Southern Ontario from 1922-2001. For more information about the collection of aerial photos, see our website.

Since February, a statistical consultant service has been provided (10 hours/week) within the Map and Data Centre. This service employs the skills of a Statistical specialist who provides guidance on approaches to methodologies with respect to data analysis. Consultations are by appointment and the response from faculty and grad students has been very good.

NEW BOOKS AND ATLASES

Compiled by Peter Genzinger

- Arrouays, Dominique, Neil McKenzie, John Hempel, Anne Richer de Forges, and Alex B. McBratney (eds.). 2014. *GlobalSoilMap: basis of the global spatial soil information system*. Boca Raton: CRC Press. 494 P. \$203.85 CDN.
- Ballas, Dimitris, Danny Dorling and Benjamin Hennig. 2014. *Social atlas of Europe*. Bristol: Policy Press. 211 p. \$48.29 CDN. ISBN: 9781447313533. ISBN: 9781138001190.
- Barrie, David. 2014. *Sextant: a young man's daring sea voyage and the men who mapped the world's oceans*. New York: William Morrow. 340 p. \$31.99 CDN. ISBN: 9780062279347.
- Blanding, Michael. 2014. *Map thief: the gripping story of an esteemed rare-map dealer who made millions stealing priceless maps*. New York: Gotham Books. 300 p. \$32.00 CDN. ISBN: 9781592408177.
- Bonnett, Alastair. 2014. *Off the map: lost spaces, invisible cities, forgotten island, feral places, and what they tell us about the world*. London: Aurum. 310 p. \$18.05 CDN. ISBN: 9781781312575.
- Bray, Hiawatha. 2014. *You are here: from the compass to GPS, the history and future of how we find ourselves*. New York: Basic Books. 272 p. \$31.99 CDN. ISBN: 9780465032853.
- Brooke, Timothy. 2014. *Mr Selden's map of China: decoding the secrets of a vanished cartographer*. New York: Bloomsbury. 256 p. \$25.00 USD. ISBN: 9781620401439.
- Dartnall, Herbert J. G. 2014. *Lost in the mists: Leslie Russell Blake, Mawson's cartographer and hero of Pozières*. North Melbourne: Australian Scholarly Publishing. 382 p. \$48.18 USD. ISBN: 9781925003185.
- De Buitleir, Muiris. 2013. *Portrait of Dublin in maps: history, geography, people, society*. Dublin: Gill & MacMillan. 199p. \$56.83 CDN. ISBN: 9780717156160.
- Dessers, Ezra. 2014. *Spatial data infrastructures at work: analysing the spatial enablement of public sector processes*. Leuven: Leuven University Press. 254 p. \$76.12 CDN. ISBN: 9789058679376.
- Esri Press. 2014. *Mapping the nation: supporting decisions that govern a people*. Redlands, CA: ESRI Press. 135 p. \$19.95 CDN. ISBN: 9781589483477.
- Esri Press. 2014. *Sub-Saharan Africa map book*. Redlands, CA: ESRI Press. 88 p. \$24.95 CDN. ISBN: 9781589483385.
- Fox, Edward A. 2014. *Digital libraries applications: CBIR, education, social networks, escience/simulation, and GIS*. San Rafael, CA: Morgan & Claypool. 175 p. \$47.50 CDN. ISBN: 9781627050326.
- Gregory, Ian N., Niall A. Cunningham, Paul S. Ell, and Christopher D. Lloyd. 2014. *Troubled geographies: a spatial history of religion and society in Ireland*. Bloomington, IN: Indiana University Press. 243 p. \$45.00 CDN. ISBN: 9780253009739.
- Goodman, Steven M. and Marie Jeanne Raheirilalao (eds.). 2014. *Atlas d'une selection de vertebres terrestres de Madagascar / Atlas of selected land vertebrates of Madagascar*. Antananarivo: Association Vahatra. 308 p. \$125 CDN. ISBN: 9782953892352.
- Karimi, Hassan A. (ed.) 2014. *Big data: techniques and technologies in geoinformatics*. Boca Raton: CRC Press. 298 p. \$139.46 CDN. ISBN: 9781466586512.
- Konecny, Gottfried. 2014. *Geoinformation: remote sensing, photogrammetry, and geographic information systems*. 2nd ed. \$107.27 CDN. 436 p. ISBN: 9781420068566.

Lloyd, Christopher D. 2014. Exploring spatial scale in geography. Oxford: Wiley-Blackwell. 253 p. \$135.95 CDN. ISBN: 9781119971351.

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Tupin, Florence, Inglada, Jordi and Jean-Marie Nicolas (eds.). 2014. Remote sensing imagery. Hoboken: John Wiley. 351 p. \$171.00 CDN. ISBN: 9781848215085.

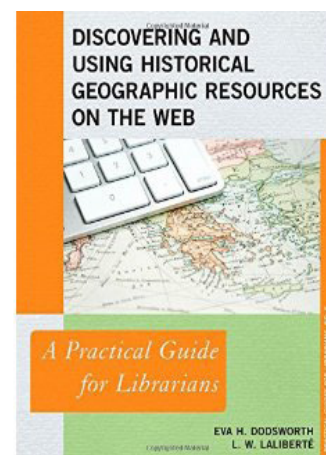
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Featured Book



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NEW MAPS

Compiled by Cheryl Woods

Anzio Landings: Operation Shingle and the Battle for Rome
Scale: 1:100,000
Publisher: Edizioni Multigraphic
Year of Publication: [2014]

Sarawak (Malaysia-Borneo)
Scale: 1:800,000
Publisher: Odyssey Publications
Year of Publication: 2014

Vietnam, Laos, and Cambodia Geographic Map
Scale: 1:1,400,000
Publisher: Gizi Map
Year of Publication: 2014

Nova Scotia Fast Track
Scale: NA
Publisher: Canadian Cartographics Corporation
Year of Publication: 2015

Ontario Fast Track
Scale: NA
Publisher: Canadian Cartographics Corporation
Year of Publication: 2015

Alberta & British Columbia Road Map
Scale: NA
Publisher: Canadian Cartographics Corporation
Year of Publication: 2014

Manitoba Road Map
Scale: NA
Publisher: Canadian Cartographics Corporation
Year of Publication: 2014

New Brunswick Road Map
Scale: NA
Publisher: Canadian Cartographics Corporation
Year of Publication: 2014

Mississauga Street Map
Scale: NA
Publisher: Canadian Cartographics Corporation
Year of Publication: 2014

Kawartha Road Map
Scale: NA
Publisher: Canadian Cartographics Corporation
Year of Publication: 2014

Kitchener, Waterloo, Cambridge Fast Track
Scale: NA
Publisher: Canadian Cartographics Corporation
Year of Publication: 2014

Guelph Street Map
Scale: NA
Publisher: Canadian Cartographics Corporation
Year of Publication: 2015

Montreal Street Map
Scale: NA
Publisher: Canadian Cartographics Corporation
Year of Publication: 2014

Moncton Street Map
Scale: NA
Publisher: Canadian Cartographics Corporation
Year of Publication: 2014

St. John's Street Map
Scale: NA
Publisher: Canadian Cartographics Corporation
Year of Publication: 2014

Greater Victoria Street
Scale: NA
Publisher: Canadian Cartographics Corporation
Year of Publication: 2014

innipeg Street Map Scale: NA Publisher: Canadian Cartographics Corporation Year of Publication: 2014	Year of Publication: 2014 Southwest USA, 15th ed. Scale: 1:3,000,000 Publisher: Borch Map Year of Publication: 2014
Toronto Street Map Scale: NA Publisher: Canadian Cartographics Corporation Year of Publication: 2015	Northeast USA, 12th ed. Scale: 1:3,000,000 Publisher: Borch Map Year of Publication: 2014
Western Canada Scale: NA Publisher: Canadian Cartographics Corporation Year of Publication: 2014	Southeast USA, 13th ed. Scale: 1:3,000,000 Publisher: Borch Map Year of Publication: 2014
World Wall Map with index (folded) Scale: NA Publisher: Canadian Cartographics Corporation Year of Publication: 2014	Yucatan, 7th ed. Scale: 1:1,000,000 Publisher: Borch Map Year of Publication: 2014
Halifax Street Map Scale: NA Publisher: Canadian Cartographics Corporation Year of Publication: 2014	California, 11th ed. Scale: 1:1,200,000 Publisher: Borch Map Year of Publication: 2014
Alberta Wall Map Scale: NA Publisher: Canadian Cartographics Corporation Year of Publication: 2014	Peru, 12th ed. Scale: 1:1,750,000 Publisher: Borch Map Year of Publication: 2014
Vancouver Island Fast Track Scale: NA Publisher: Canadian Cartographics Corporation Year of Publication: 2014	Switzerland, 7th ed. Scale: 1:400,000 Publisher: Borch Map Year of Publication: 2014
Phuket, Phang Nga, Khao Lak Scale: 1:125,000 Publisher: PN Map Year of Publication: 2014	Sri Lanka, 3rd ed. Scale: NA Publisher: Periplus Editors Year of Publication: 2014
Bangkok 22 Nearby Provinces Scale: 1:100,000-1:350,000 Publisher: ASEAN Year of Publication: 2014	
Northwest USA, 14th ed. Scale: 1:3,000,000 Publisher: Borch Map	

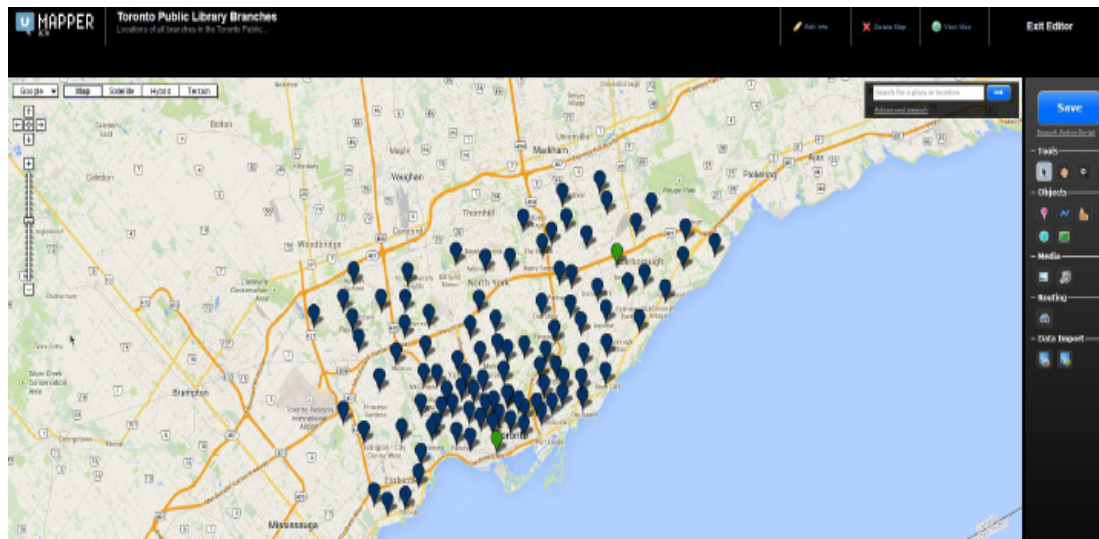
GIS TRENDS

ON THE MAP : THE MAP TREND LOCATOR

Courtney Lundrigan

UMapper

<http://www.umapper.com/>



About

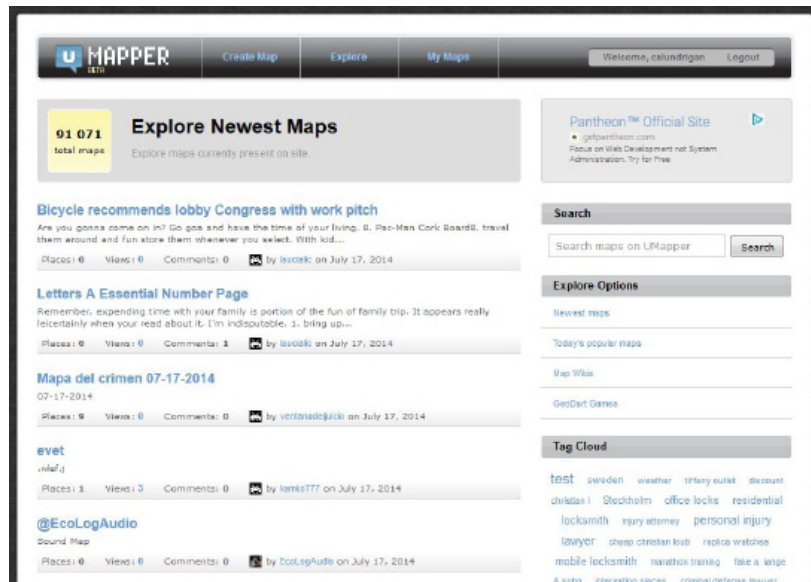
UMapper is an online mapping tool that uses Adobe Flash. Its main purpose is for users to create maps to be shared or embedded online. UMapper also enables users to create mapping games. Like many free online mapping tools, UMapper has paid subscription options that allows for additional functionality, such as creating custom map templates.

Scope

UMapper claims to be 'universal' and supports a number of map providers: Google, Yahoo, Open Street Map, Bing, CloudMade, and CloudMade Stamen. Users are able to import some formats into UMapper, but the tool is limited to .kml, .gpx, and GeoRSS. While many geographies, topics, and languages are represented on UMapper, it does not appear to have a lot of historical maps.

Strengths

- Focus on sharing and embedding maps: in addition to sharing via social media, UMapper provides the code required to embed your map, and also the map's URL
- Option to generate a .kml file
- Multiple search options to explore content created and shared by other UMapper users: keyword search, filters (including Newest Maps, Today's Popular Maps, Map Wikis, and GeoDart Games), and a tag cloud
- Provides number of map views, as well as the number of places represented on each map



Limitations

- No option to remove layers and datasets
- Due to the use of Flash, a number of searching and importing features are slow and there is no way to cancel the commands once they have been initiated
- The use of Flash also adds obstacles to creating accessible maps
- Frequently get kicked out of account
- No extensive help tool
- No option to add a legend or scale

Features

- Ability to switch between base map providers (although this is not reliable for certain geographical areas)
- Ability to create GeoDart games, which could be a useful tool in teaching geospatial literacy skills
- Ability to attach audio and image files to maps

Connected?

- Yes, UMapper appears to have both Facebook and Twitter accounts, although neither appears to be active
- There are options to share your maps via Twitter and/or Facebook
- Other users can leave comments on your map if you make them publicly available

Recommended for Users?

For end users, there are other online mapping tools that are easier to use and still meet the majority of user needs. GIS educators might consider the use of GeoDart games in the classroom, or as a way to promote services and/or collections online or at events, such as GIS Day. Beyond that, UMapper may not be the most suitable tool for academic use.

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