ASSOCIATION OF CANADIAN MAP LIBRARIES AND ARCHIVES

BULLETIN

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Bolognino Zaltieri, Venise, 1566. Cette carte apparut dans *Tavole Moderna di Geografia de la Maggior Parte del Mondo...* d'Antonio Lafreri, Rome, [1542-1572]. Reproduite à partir d'un original de la Collection nationale de cartes et plans, Archives publiques du Canada, dans la Série de cartes fac-similés de l'ACC, carte No. 26 (ISSN 0827-8024). (ISSN 0827-8024).

PRESIDENT'S MESSAGE

Fall already!! How the summer has flown. It seems only yesterday so many of us were enjoying Ottawa's warm sunny skies, and occasional showers, at GeoTec. The conference, reported in depth in this issue, was a great success and one of our best attended. The opportunity to meet so many other geo-spatial types, to celebrate the centennial of the Atlas of Canada, to network and socialize with new and established colleagues and friends made it the highlight of my summer.

Thanks and congratulations are due to all our speakers and session conveners for the stimulating presentations and discussions. Also, special thanks to Marc Cockburn, Susan Mowers, Heather McAdam and all the others who assisted in the planning and execution of the many and varied events.

Our panel discussion on the future of the National Topographic System printed maps was very well attended, not only by ACMLA members but also by members of other GeoTec associations. The presentations by Colleen Beard (ACMLA), James Boxall (CCA), Juliet Atha (Regional Distribution Centres) and Prashant Shukle (NRCan) gave us all much to think about.

The future of the paper topographic map is a key issue for ACMLA. In many ways, we are the front-line interface between the map producers and the general public. Just as we transmit spatial information from the map producers to map users we must also provide feedback to those producers regarding the needs of the map users, the types and quality of products required. The impending cessation of the production and distribution of printed maps by NRCan, and the substitution of lower quality, more costly, plotted-on-demand products, is a major concern.

During the summer the ACMLA Executive has taken steps to bring this issue the attention which it deserves:

- A letter (see text below) expressing our concerns has been sent to Gary Lunn, Minister of Natural Resources.
- ACMLA's Map Users' Advisory Committee (MUAC) has a mandate to focus on such issues. The MUAC has been repopulated with Heather McAdam as chair and Marcel Fortin, Susan Mowers and Grace Welch among its members.
- ACMLA has supported the establishment of an independent website to coordinate public concern regarding the future of topographic maps in Canada.
- Members are being urged to share with map users the knowledge and concern about the demise of printed topographic maps.

As I mentioned above, the Map Users' Advisory Committee is taking an active role in this issue. Heather McAdam, MUAC chair, has prepared comments which are printed below (MUAC report section). The future of topographic maps in Canada is an important issue, and we must voice the needs of Canadian map users, both of the general public and of the sophisticated researcher.

David Jones
ACMLA President

Text of letter to Minister Lunn

Dear Minister Lunn:

As you are aware Natural Resources Canada will soon discontinue the printing of paper

(continued on page 41)

DAVID THOMPSON'S MAPPING OF THE INTERNATIONAL BOUNDARY, 1816-1826

Frances Pollitt
Maine Historical Society

Paper presented at the joint ACMLA and CCA conferences, GeoTec Event 2006, Ottawa, June 19, 2006.

Abstract

David Thompson (1770-1857) was responsible for the early mapping of large areas of Canada and the Oregon territory in the late 18th and early 19th centuries. He created the *Map of the North-west Territory of the Province of Canada* in 1814. He served as one of the surveyors for the Boundary Commission under the 6th and 7th Articles of the Treaty of Ghent between 1817-1825. The Maine Historical Society in Portland, Maine has his correspondence to and from the commissioners, finished and sketch maps drawn by him and his son Samuel, his Jan - April 1817 diary, and other documents related to his work mapping the boundary in the vicinity of the Great Lakes from St. Regis, NY and Cornwall, Ontario to Lake of the Woods.

> "We flatter ourselves we have paid that attention to the Countries we have surveyed, as will enable us to produce Maps of those Countries satisfactory to your Honorable Board."
>
> -David Thompson, 1824 Oct. 25 to Anthony Barclay, British Commissioner

Short Biography

David Thompson was born in England in 1770 and enrolled in the Grey Coat School in London where he learned to read and write. He was hired to work for the Hudson's Bay Company as an apprentice clerk in 1783. A few years after beginning his fur trade work, an accident resulting in a broken leg provided him an opportunity to learn surveying and the advanced use of astronomical instruments from Philip Turnor, the Hudson's Bay Company's inland surveyor.

During the years between 1790-1814 while working for three great fur trading companies: the Hudson's Bay Company, the Nor'westers, and the North West Company, he created surveys and maps while also engaged in trade with the native Americans. Two recent publications: Jack Nisbet's *The Mapmaker's Eye* and D'arcy Jenish's *Epic Wanderer: David Thompson and the Mapping of the Canadian West* tell the story of Thompson's life and lay out in detail these early years of work. In 1814 Thompson delivered his "Great Map" to the North West Company's William McGillivray. It was Thompson's extensive experience with surveying and mapmaking during this time that caused him to be the natural choice as surveyor for work along the international boundary.

Figure 1. This detail of an Andrew Talcott survey watercolor executed by P. Harry in1841 and provided courtesy of U.S. National Archives and Records Administration gives a glimpse of how boundary survey work was conducted twenty years after Thompson's surveys of the Great Lakes region.

While Thompson was exploring and mapping the Canadian west the British and American governments were preparing to determine the boundary between the two countries, following the 4th, 5th, 6th and 7th Articles of the Treaty of Ghent, 1814. The 4th and 5th Articles dealt with the boundary between Nova Scotia, New Brunswick, Quebec and New Hampshire, Vermont and Maine. The 6th and 7th Articles dealt with the boundary between St. Regis, New York and Cornwall, Ontario along the St. Lawrence River to Lake of the Woods.

The British commissioner for the 4th and 5th articles was Thomas Barclay, a Loyalist who maintained his family residence in New York before and after the American Revolution and worked tirelessly on many commissions and assignments involving issues arising between England and the new American republic. Work for the 6th and 7th Articles of the Treaty of Ghent was led by British Commissioner John Ogilvy (who died during his commission and was replaced by Anthony Barclay, Thomas Barclay's son) and American Commissioner Peter B. Porter.

Boundary Commission Work

International boundary surveys were conducted in a formal manner at the highest levels. Both governments chose Commissioners and the Commissioners were given specific assignments according to articles in whichever treaty was being observed, and in the case of David Thompson's work, the Treaty of Ghent, 1814. The Commissioners then would choose their surveyors, boatmen and support personnel. The chosen surveyors for the two sides were David Thompson for the British and William Bird and others for the Americans whose job it was to survey the line westerly from St. Regis, NY and Cornwall, Ontario on the St. Lawrence River across the Great Lakes as far as Lake of the Woods.

A schedule would be created for the survey teams to follow, and meetings between the Commissioners arranged to go over each section of the survey. After review, the Commissioners would either agree to a boundary line, or send the surveyors back into the country to redo a section.

Generally, both the American and British survey teams would strike out together to survey a certain area. They would camp near each other and work along the same line. Each team worked independently, but the grueling nature of some of the country, and inexperience or illness, would often cause the opposing teams to join forces.

In this letter (Figure 2) dated May 29, 1919 the British Commissioner John Ogilvy instructs his surveyor, David Thompson about the survey on Lake Ontario:

Cap Isle Tonty 29 May 1819

Sir

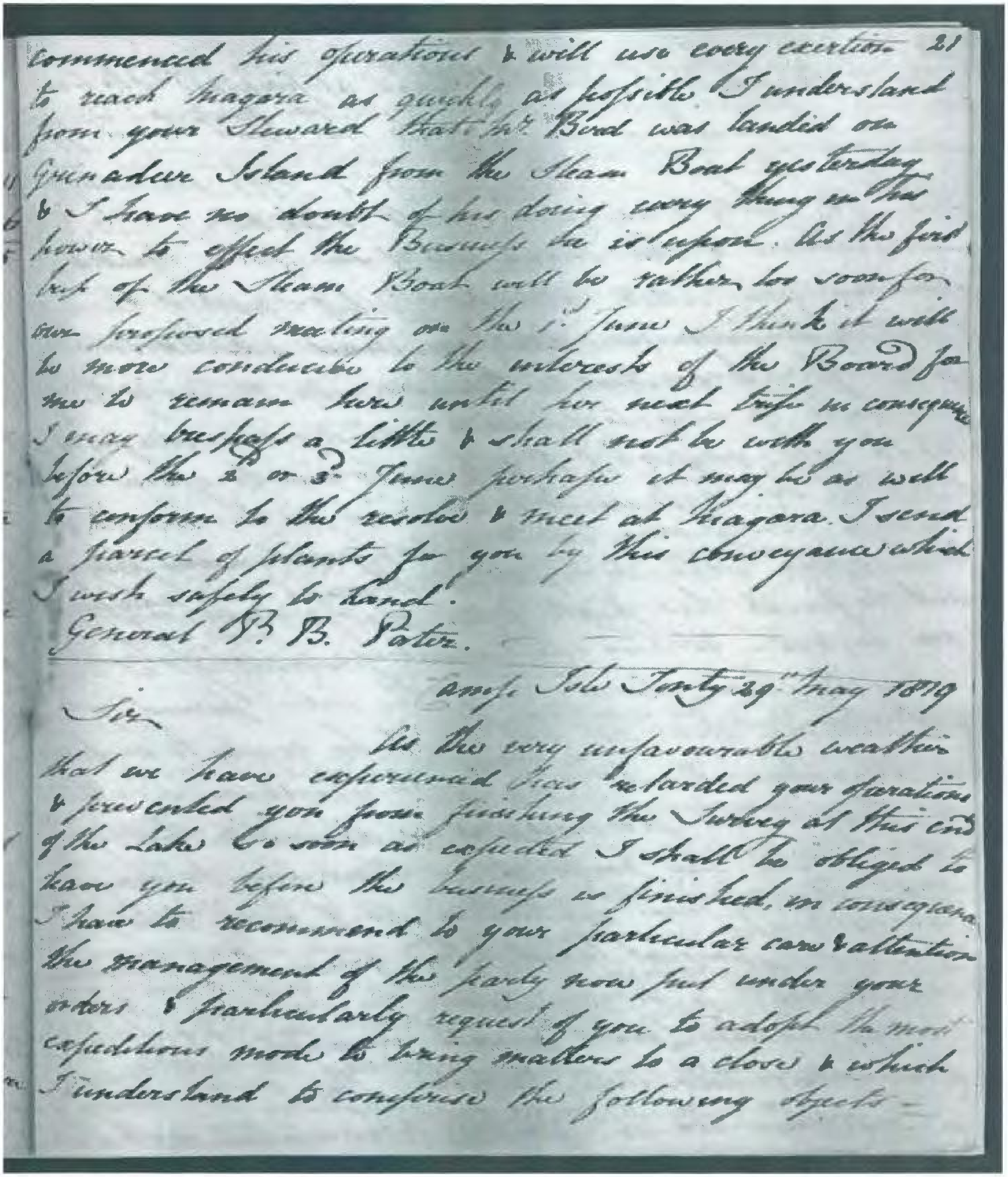
As the very unfavourable weather that we have experienced has retarded your operations & prevented you from finishing the Survey at this end of the Lake so soon as expected I shall be obliged to leave you before the business is finished, in consequence I have to recommend to your particular care & attention the management of the party now put under your orders & particularly request of you to adopt the most expeditious mode to bring matters to a close & which I understand to comprise the following objects

[next page]

The North shore from last years uppermost station on the point at the Gap to the head land opposite the false Ducks (unnecessary to penetrate into the bay)
The Isle Tonty & adjacent small islands.
The Position of the Ducks also of the false ducks
And as you have already effected a part of the Survey of the division that you had allotted to yourself I hope that in the common course of things you will be able to finish your division in a few days which once completed I then wish you to assist & hurry on Mr. Wyss in his division on the inside of the isle Tonty who has already made some progress & I expect will be enabled through your additional aid to finish his part before the 9th June when I am anxious to have the whole proceedings at this end of the Lake closed, being the latest period you can remain here as you must be ready to embark in the Steam boat to sail from Kingston on the 10th June in the morning, it is desirable that you should see the party off on their way to Niagara before leaving them as they ought to reach that place by the 15th June at latest. The green barge & bateau are the craft to be sent round the Lake & as they will be lightly loaded & well manned I have no doubt but they will perform the voyage in five or six days. As Mr. Gray is acquainted with the

[next page]

I think
Lake & you do not require his further assistance ^ he had better accompany Mr. Wyss of course I shall leave to


commenced his operations & will use every exertion 21
to reach Niagara as quickly as possible. I understand
from your Steward that Mr Bird was landed on
Grenadier Island from the Steam Boat yesterday
& I have no doubt of his doing every thing in his
power to effect the Business he is upon. As the first
trip of the Steam Boat will be rather too soon for
our proposed meeting on the 1st June I think it will
be more conducive to the interests of the Board for
me to remain here until her next trip in consequence
I may trespass a little & shall not be with you
before the 2d or 3d June perhaps it may be as well
to conform to the resolve & meet at Niagara. I send
a parcel of plants for you by this conveyance which
I wish safely to hand.
General P. B. Porter.

Camp Isle Forty 29th May 1819

Sir

As the very unfavourable weather
that we have experienced has retarded your operations
& prevented you from finishing the Survey at this end
of the Lake so soon as expected I shall be obliged to
leave you before the business is finished, in consequence
I have to recommend to your particular care & attention
the management of the party now put under your
orders & particularly request of you to adopt the most
expeditious mode to bring matters to a close & which
I understand to comprise the following objects —

Figure 2. Ogilvy's instructions to Thompson.

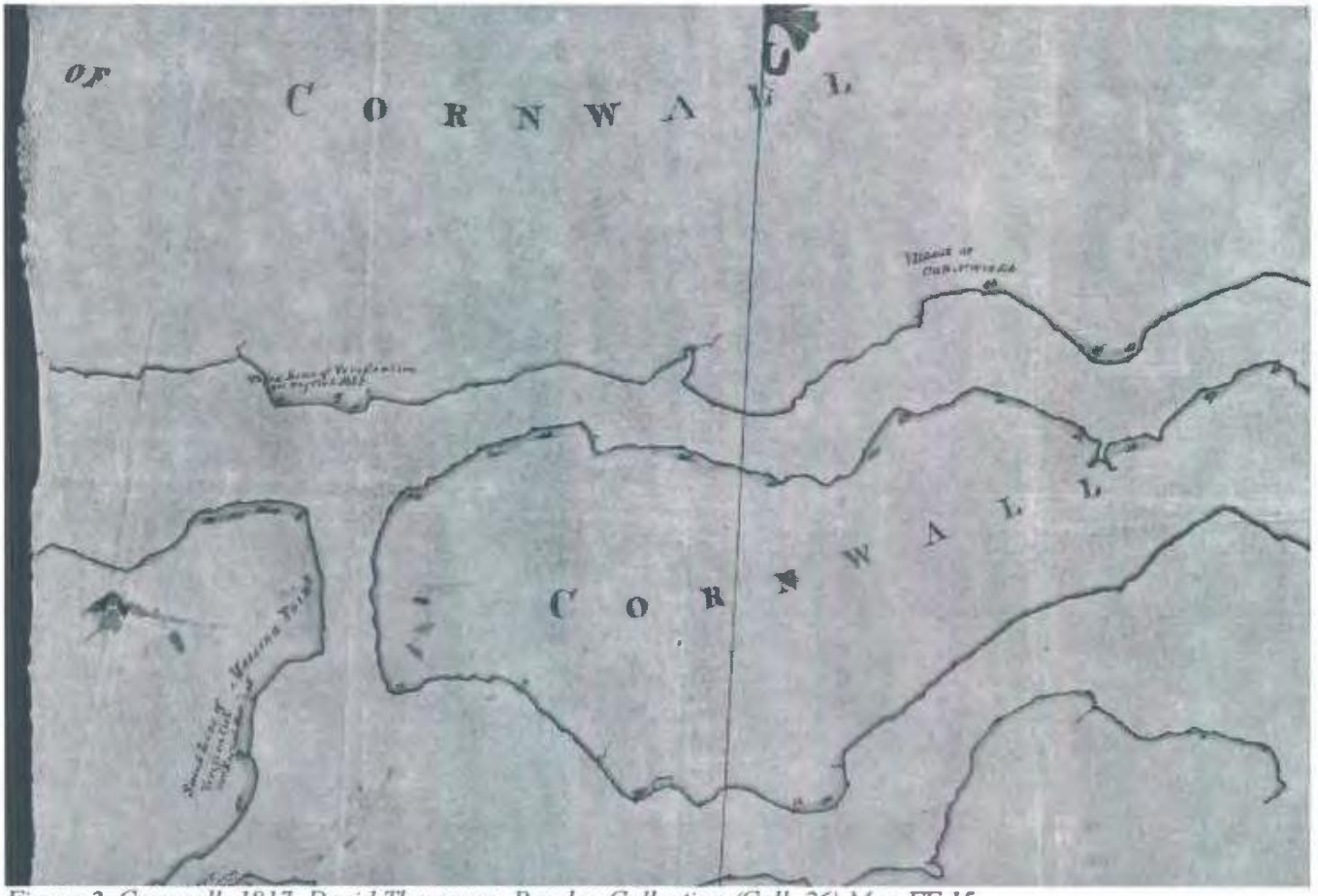


Figure 3. Cornwall, 1817, David Thompson. Barclay Collection (Coll. 26) Map FF 15.

you to furnish these gentlemen with instructions for their guidance. The skiff you will bring with yourself to Niagara & she will answer to take you & your baggage to Kingston & I rely on your being able to hire hands to work her down without intruding on the crews of the Barge & Bateau as that might retard them. Agreably [sic] to your ~~desires~~ opinion I shall take Mr. Gibbs along with myself Niagra. I annex last of men employed. Peter Smith Esqr. will be desired to furnish you with whatever may be wanted for the service.

David Thompson Esqr.

Written documentation was kept in the form of journals, diaries, and letters giving status reports on the work. Often letters to and from the surveyors dealt with supplies, transportation and logistical matters. Also, logs were kept with the astronomical observations. Sketch maps were generated (for example Figure 3) and, in Thompson's case, native Americans were consulted and their observations of the terrain, waterways and routes sketched. Of particular note here is a map taken from Chief Wasp of the Vermillion Lake region in western Ontario (see Figure 6).

After the surveys were completed for the year, the surveyors would retire to more comfortable surroundings and produce their maps. Then, maps in hand, the Commissioners would meet and agree or not about the line of the boundary. Sometimes, surveys would have to be repeated.

David Thompson's Survey Work

David Thompson was a prolific journal and letter writer. He kept daily journals, survey reports with the astronomical readings, and a weekly running correspondence with the Commissioners. Thompson's inclinations to careful observation of the country explored give researchers much material to study (for example Figure 4). The Maine Historical Society collection of his works includes over 100 letters he penned to British Commissioner Anthony Barclay, and copies of letters written to him from the British Commissioner, John Ogilvy.

David Thompson included his son, Samuel, age 16, on his team at some point during his tenure. Samuel's name first appears on the finished maps

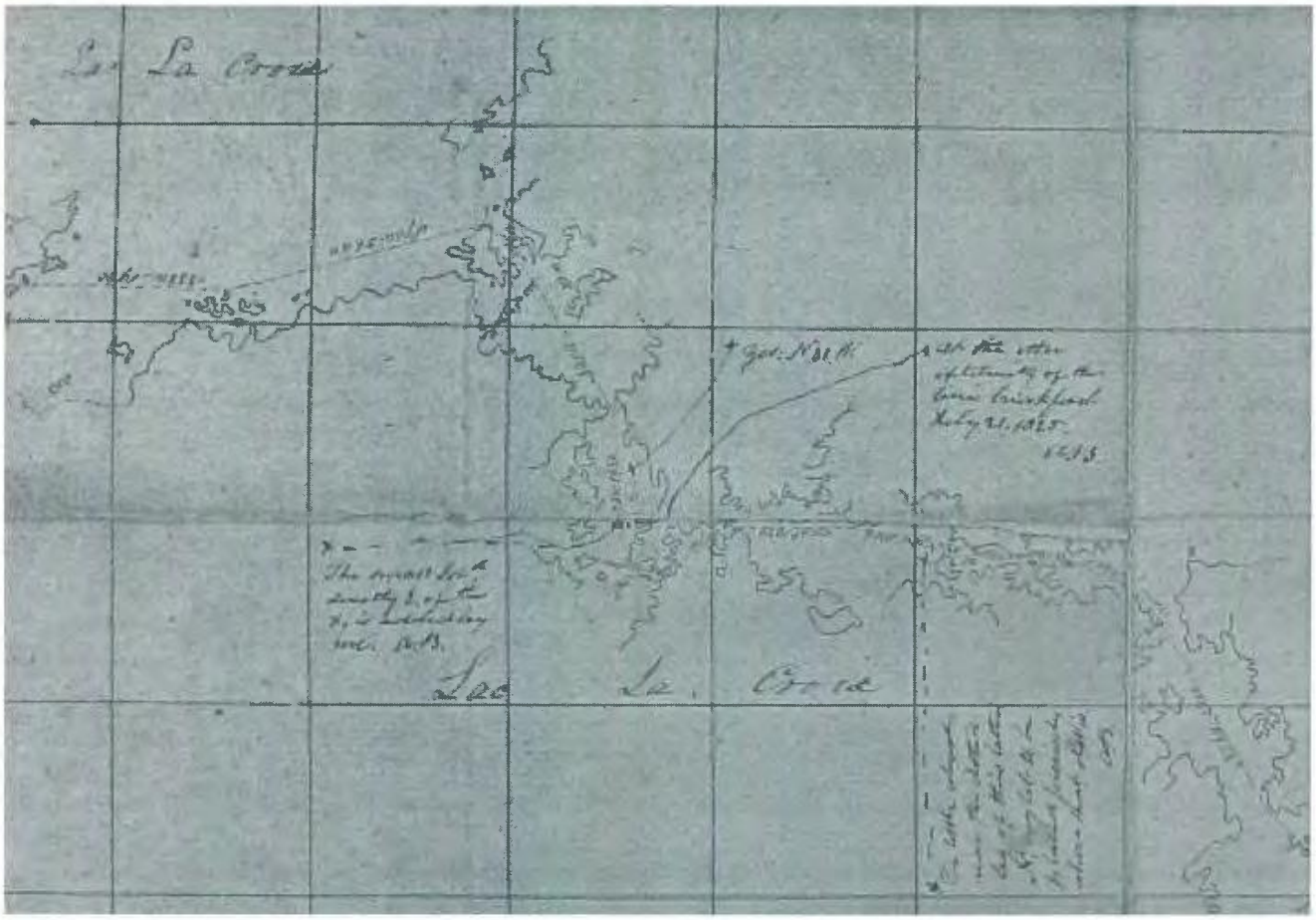


Figure 4. Lac La Croix, [182-], David Thompson. Barclay Collection (Coll. 26) Map F 7.

of Lake Huron, 1820 and on many of the finished maps westerly to Lake of the Woods (for example Figure 5).

David's experiences in the fur trade with managing bateaux, canoes, rough terrain, and survey work made him an invaluable member of both the British and American teams. He worked for the entire tenure of that Commission 1818-1826, whereas the American surveyors changed almost yearly and they were much less experienced than Thompson.

Archives of Ontario Holdings

"The Archives of Ontario holds the largest collection of Thompson's original writings, including his journals dated from 1789-1864 and his map of the North-west Territories Territory of the Province of Canada, also commonly known as the "Great Map." Included are records created by David Thompson that document his career as a fur trader, explorer, astronomer and mapmaker including Thompson's notebooks and journals, fieldbooks, correspondence and maps.

Thompson's notebooks and journals span most of his life, from his arrival in Canada until a few years prior to his death. The fieldbooks record Thompson's survey work on the boundary between British North America and the United States in fulfillment of the Treaty of Ghent. The majority of the maps are also of the boundary survey. *Correspondence is sparse and concentrates almost exclusively on boundary issues with the United States in the 1830's.*" [italics by Pollitt]

- Quoted from the Archives of Ontario website

Maine Historical Society Holdings

Two British/Canadian-related collections concerning the International Boundary Commissions' work came to the Maine Historical Society in the late 19th century: The Thomas Barclay papers related to the boundary, and the Ward Chipman papers. The former were presented by Barclay's grandson; the latter were retrieved from a Boston pier on the way to being destroyed, after the dismantling of the Chipman mansion in St. John, New Brunswick. These two collections, the Barclay and Chipman papers, were intermingled

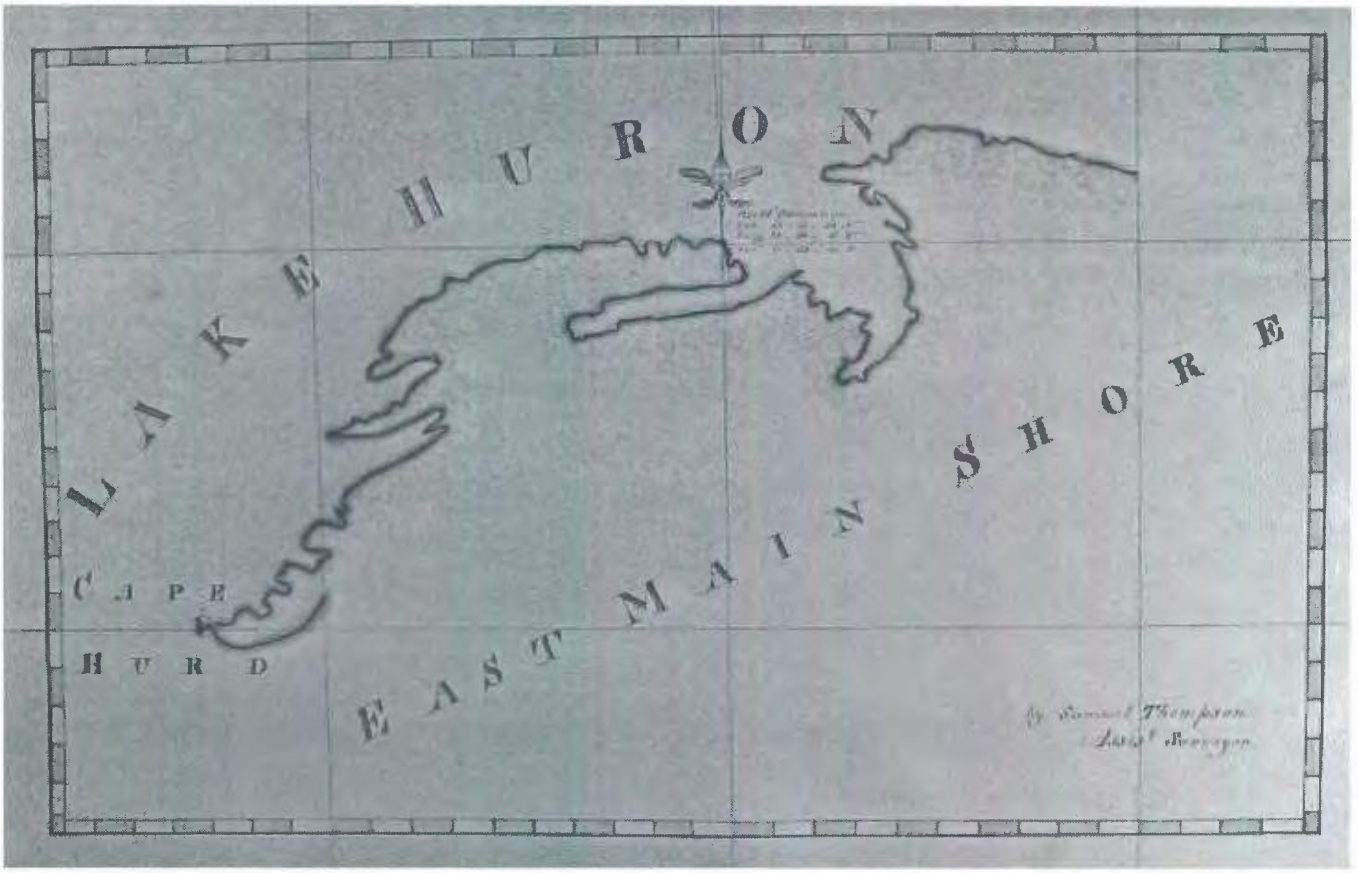


Figure 5. Lake Huron East Main Shore, 1819, Samuel Thompson. Barclay Collection (Coll. 26) Map F 27.

at some time and were titled the Barclay Collection (Coll. 26).

Thomas Barclay - Anthony Barclay - David Thompson

Thomas Barclay's papers include all of his boundary work for the Treaties of Paris, 1763, the Jay Treaty, 1794, the Treaty of Ghent, 1814 and the Treaty of Washington, 1842. For the articles of the Treaty of Ghent, 1814 related to the boundary running west from Cornwall, Ontario and St. Regis, New York, the chosen British commissioner was John Ogilvy. Ogilvy died in 1819 while on the survey. Anthony Barclay was appointed Commissioner to take Ogilvy's place. Anthony Barclay's papers were included with his father's, Thomas's, in the collection given to Maine Historical Society and in these records we find the original David Thompson materials. The records directly associated with David Thompson are:

- John Ogilvy's letterbooks, 1818 Nov. 1 - 1819 Jul. 10, which contain Ogilvy's correspondence and instructions to David Thompson.

- Dated correspondence from David Thompson to Anthony Barclay, 1820 Jun. 20-1827 Jun. 5 numbering approx. 100.

- Other original manuscript material of David Thompson's relating to the Boundary work.
-David Thompson, Diary, 1817
-Survey Reports, 1817-1826

- Approximately 60 maps created under the responsibility of David Thompson. Many of the maps of Lake Huron westerly to Lake of the Woods area were drawn by Samuel Thompson, David's son. Of special note is a pencil map attributed to Chief Wasp of the Vermillion Lake region in western Ontario (Figure 6).

Conclusion

With the advent of the David Thompson Bicentennials Initiative beginning in 2007 and the publication of two biographies and more

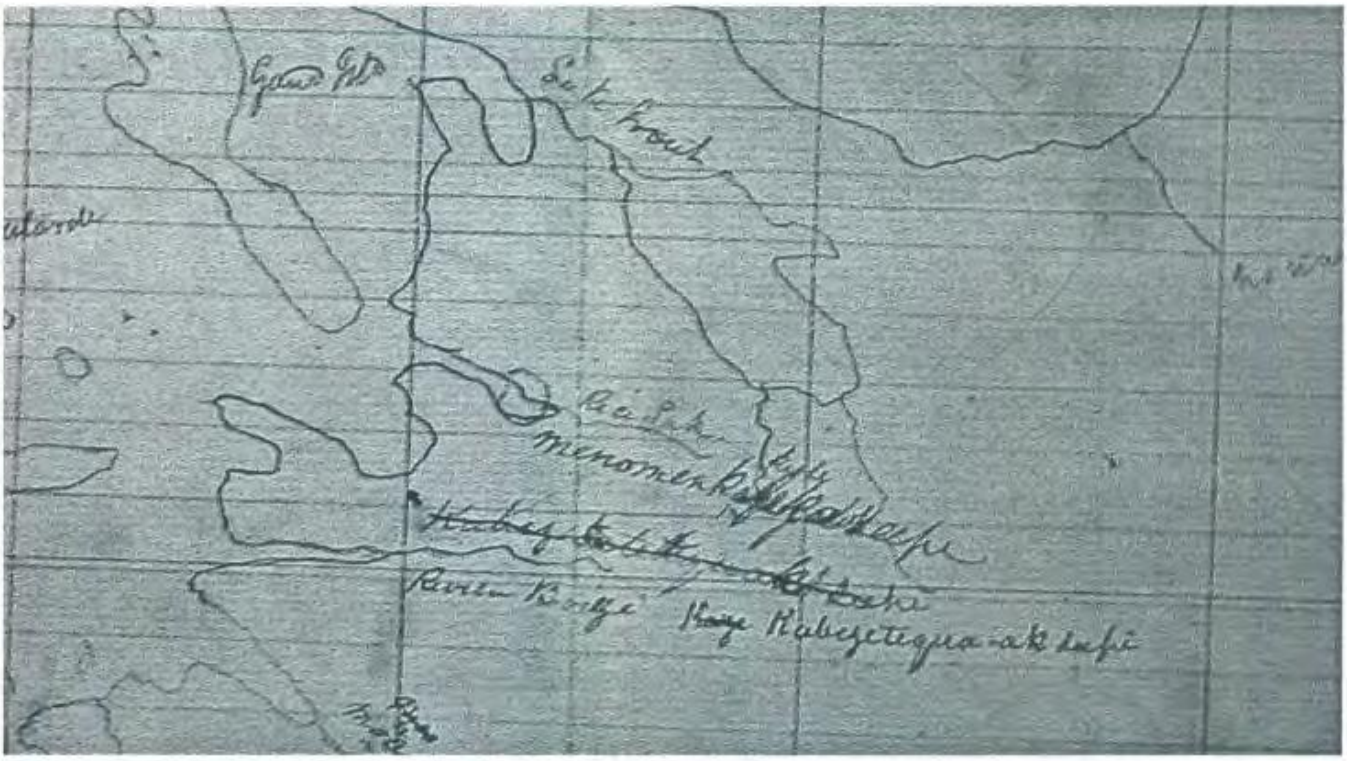


Figure 6. Lake Vermillion Region, Chief Wasp, [1825]. Barclay Collection (Coll. 26) Map F 23.

publications to come, it is timely to address David Thompson's work on the International Boundary as learned from his own writings and maps. Because the location of these materials is not in the obvious places, neither the Archives of Ontario nor the Library and Archives Canada, but in the United States at the Maine Historical Society, this article and further presentations during the upcoming years will attempt to assist interested persons in locating and researching these materials. Microfilm of the Barclay Collection may be found at the Harriet Irving Library, University of New Brunswick.

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North American David Thompson Bicentennials
http://www.davidthompson200.ca/cms/

THE NIAGARA FALLS CEMETERY GIS PROJECT

Steve Zuppa
Serge A. Sauer Map Library
University of Western Ontario

A major component of the Post-Graduate GIS program at Niagara College Glendale is a professional thesis project. The thesis project provides hands-on experience at GIS management and analysis for clients in the business world. In the 2004 school year, my partner and I were selected by the City of Niagara Falls to develop a Cemetery GIS to ultimately organize and spatially represent every burial within the city boundary.

Because of the magnitude of point and attribute data collection involved, this realistically could not be completed in the time allotted to us. Thus, our goal was essentially to develop the framework for the GIS by thoroughly completing a pilot area within one cemetery. This would allow for a future GIS team to simply collect the rest of the data and enter it in to our system, if the project was deemed worthwhile by the City GIS manager.

Cemetery GIS Project Background

Geographic Information Systems (GIS) provide a convenient and logical way to model and organize varying quantities of spatial data. Since GIS can be very far reaching in applications, it is only natural that GIS can augment the organization of burial locations.

Traditionally, municipal cemeteries have been maintained using simple record keeping in one form or another. Ideally, standard information for each burial is recorded in a database and contains some sort of location code indicating the burial plot. Providing a real world x, y coordinate for each individual burial allows for a very accurate burial map and creates a link between attribute data and spatial data. Ideally, a GIS of a cemetery should include: x, y points joined to an existing cemetery database to represent each burial, points for water taps, and polygons representing the burial sections, burial plots, pathways and other cemetery elements (roads, parking lots, buildings, unused portions, etc.)

The main beneficiaries of a Cemetery GIS are the cemetery administration staff, the public of the City of Niagara Falls, and even genealogists worldwide if published on the web. For the administration staff, a GIS allows for easier management of the cemetery's burial sites within a simple graphical user interface. A quick query of the database allows the staff to pinpoint burial locations, plots still available for purchase, water tap locations etc. For the public, it can be a very beneficial tool for genealogic researchers by offering names, dates and exact locations of the deceased. Not only could researchers find exactly where a person was buried, they can also query to find surrounding family burials, all burials with the same name, etc. By adding the project to the City's pre-existing Manifold Internet Map Server (IMS), the GIS can provide instant access to the data worldwide.

The Pilot Project: Fairview Cemetery, Section A

There are approximately sixteen burial areas in the City of Niagara Falls, ranging in size from small burial plots to very large cemeteries. It was determined through meetings with the City of Niagara Falls GIS manager and the Fairview Cemetery administrator that the pilot area should consist of the original burial section of the Fairview Cemetery, the largest of all of the cemeteries in the city. The pilot section, called *Section A*, contained 223 family plots representing nearly 700 burials, the majority of which took place between 1880 and 1940.

At the time, the Fairview Cemetery was operating with paper maps and a simple database software package called Cemetery 2000. The original map for Section A was hand-drawn on a very thick,

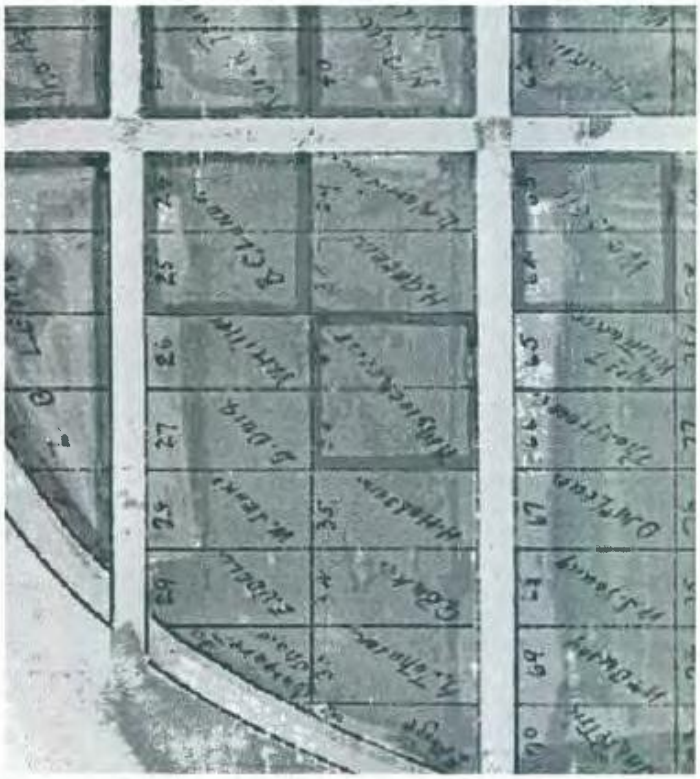

Figure 1. Small portion of the scanned Section A map

cloth-backed paper with the plot numbers and the names of the plot owners handwritten over their respective plots (see Figure 1). Over the course of the life of the map, the purchased plots were coloured in an unbefitting dark orange, making the information hard to see. Fortunately, the map was carefully drawn to scale so it was useful for us to georeference it and digitize the plot boundaries.

In addition to the original Section A map and a copy of the Fairview Cemetery database, the City GIS staff provided us the following data to help us complete the task: 2002 colour digital orthoimagery (DOI) of the Fairview Cemetery and immediate surrounding area (20 cm pixel resolution), survey control point locations and city parcel shapefiles. Although Section A was the logical starting point for the project, it would also prove to be the most challenging since the database was devoid of a great deal of burial information. For example, the vast majority of existing records were missing birth and death dates, which can be vital information for a genealogist. Approximately fifty per cent of Section A burials were never entered into the database. To help gather information to add to the database, the cemetery administration also lent us a book containing the names and dates of many of the deceased in the older sections of Fairview, compiled in 1982 by a local genealogist. This would prove to be a great asset in deciphering information from faded and weather-beaten tombstones.

Data Collection

After consultation with the City and a field check of the pilot area, we were ready to move into the data collection portion of the project. The first phase of the project consisted of gathering point location data for all monuments, grave markers and water taps in Section A. To be clear, the section consists of mainly family plots, typically with one large monument representing the entire family and small markers (vertical like common headstones or flat rectangular stones) representing individual family members. One plot may contain up to six burials when divided into sub-plots (Figure 2). Very often families would purchase several adjacent plots in order to accommodate many burials. In capturing x, y coordinates for each burial marker each point could be then linked to its respective database record.

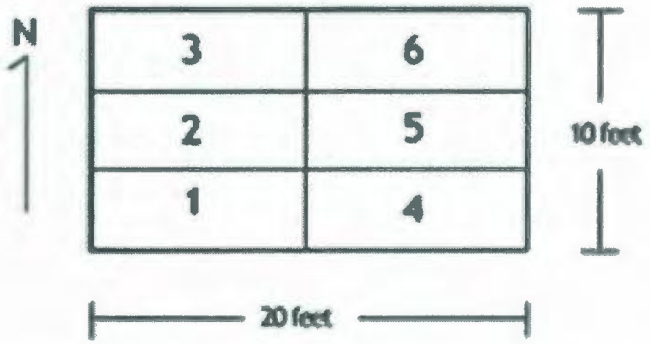

Figure 2. Typical Plot Layout in Section A, with 6 sub-plots.

Accuracy was the most important concern in point data collection. The project demanded sub-metre accuracy for each x, y point as the markers and monuments were often very close together in their respective plots. Originally, when the City of Niagara Falls GIS staff had drafted the Terms of Reference for the project, they had assumed that a handheld GPS device could be used to gather point data. However, the GPS devices available to us at the time were only accurate up

to three metres (tree cover in the area would have thrown off distances even further, thus another method of surveying was deemed necessary. The best option available to us was a Pentax R-127 total station owned by Niagara College. Although, it is a very time consuming method of ground surveying, the ground accuracy of the points could be within centimeters.

After a crash course in total station surveying and walkie-talkie etiquette in November, we were ready to gather our cemetery point data. The data collection plan was simple: the team member holding the prism (the reflector of the laser beam from the total station) at each monument, marker and water tap was also responsible for copying down all visible information from each. The other team member would simply line up the total station, capture the data, record the point number and give the signal to move on to the next point. We planned to finish the data collection phase of the project within two weeks.

Unfortunately there were several unanticipated hindrances to our plan. To begin the survey, the location of the total station set-up point needed to be determined, ideally over a surveying benchmark or control point where the exact real-world x, y coordinates are known. Of the two control points that were near the Fairview Cemetery, one was fenced off in a construction zone and the other was in the middle of a very busy street intersection. Not wanting to dodge cars or angry construction workers, we were forced to fake a starting point of 100m, 100m and 100m (for the northing, easting and elevation) and the exact locations of the benchmarks needed to be factored in after the survey had been completed. In hindsight this sounds very simple; yet this was a rather crushing blow to the student team.

Because of the faux starting point, we felt that the total station should always be set up in the exact same spot when collecting the data points (which we carefully marked on the ground). This created a visibility problem in some instances when tall monuments would disrupt the line-of-sight from the total station to the prism. The prism would then have to be offset and the points had to be corrected when entered into the GIS. This was not a major problem but was still extra, unanticipated work.

Finally, the weather was not as cooperative as originally hoped. The total station training session (a Niagara College requirement for borrowing the equipment) was delayed for at least a month from when it was originally scheduled in mid-October. This gave us only a minimal amount of time in late November to survey Section A, before weather became a factor. Unfortunately, the snowfall came earlier than usual for the Niagara Region and the point collection was called off, halfway complete. To finish the survey, we would have to wait until the snow melted in spring (nearly every March morning began with panic over the fresh snowfall). For the purposes of correcting the database over the winter, all information from each monument and marker was copied down for the entire Section in December, frozen hands and all.

Database Management

The database required a hefty amount of clean-up, since many fields were not standardized into one method of entry. A standard entry format, including masks, needed to be developed for names, birth and death dates, plots, subplots, and so forth. Furthermore, many fields contained information that conflicted with our field observations. Using the genealogy book as a cross-reference, burial records were corrected and completed as accurately as possible. Some pieces of information were impossible to ascertain, as several of the burial markers only displayed first names or even relationships, such as "Mother" or "Only Son". On several occasions records in the database had no markers or monuments in the field, so these were left in the database, but without a point in the GIS.

Each burial was been assigned a unique ID field according to their location in the cemetery. The cemetery, section, plot and sub lot were used to make up the burial ID (ex. FA_101_1 represents *Fairview, Section A, plot 101 and sub lot 1*). The unique ID allows each burial record to be matched up with a spatial location in the GIS and can be used for all future points collected in all Niagara Falls Cemeteries.

As one of the last steps, after the snow melted, digital photographs were taken of each monument in the section to be added to the

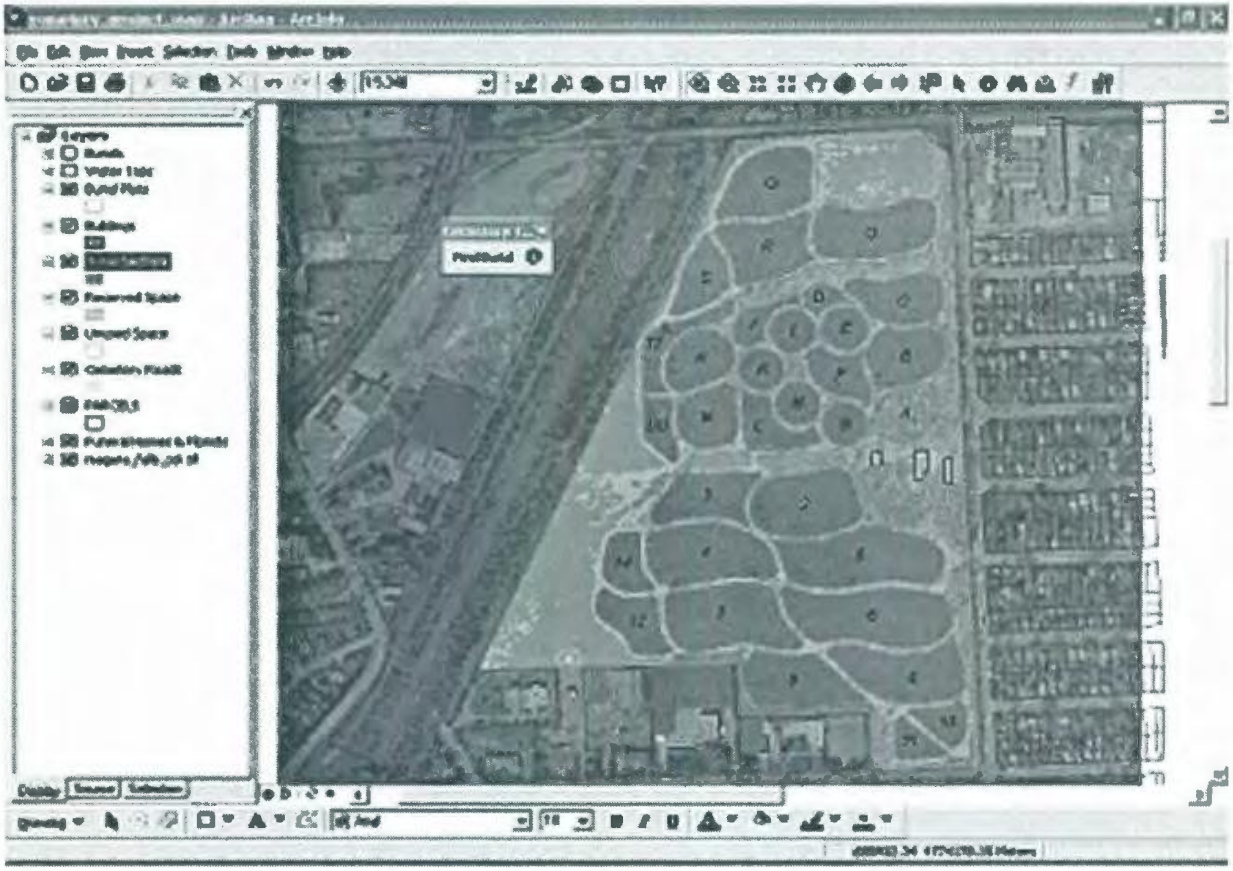

Figure 3. Digitized Cemetery Elements over the DOI.

database as embedded objects (OLE field). The photographs would help provide an important visual reference of the burials on the web.

Map Creation

During the winter months, when further ground survey was impossible, all pertinent cemetery elements were digitized as separate shapefiles using the Niagara Region's 2002 DOI. Included were the cemetery burial sections, administrative and maintenance buildings, all green space (reserved areas), unused areas and the cemetery road network (Figure 3). The boundary of the Fairview Cemetery, which was provided by the City of Niagara Falls as an AutoCAD drawing, was imported into the map created in ArcGIS 9.0. All digitized shapefiles were clipped to fit in the Cemetery Boundary shapefile to ensure that the digitized areas did not extend beyond the official borders of the Fairview Cemetery. This would allow for a seamless transition into the City's Manifold IMS.

For the pilot project, the original paper map of Section A was scanned at a high resolution and georeferenced in order to digitize all plot boundaries within the section. The plot boundaries provided visual organization to the map, as they indicated where family burial plots begin and end, separating them from the burials of the neighbouring plots.

Using the Pentax DataLink software, all captured monument, marker and water tap coordinates were downloaded directly from the total station onboard computer in a tabular format and then converted into a MS Access database. The record entries for the monuments and markers were corrected and separated from the water taps (water taps were put into a separate table). The x, y data was then imported into ArcMap to create a point shapefile containing all markers and monuments. The attribute table for the shapefile was edited to contain a unique 'Burial ID' using the same coding as the cemetery database, which would allow for each burial record in the Cemetery database to be linked to its corresponding marker. A field named 'Class' was also added to the attribute table to indicate whether the point was a marker or a monument. This allowed for the points to be represented by

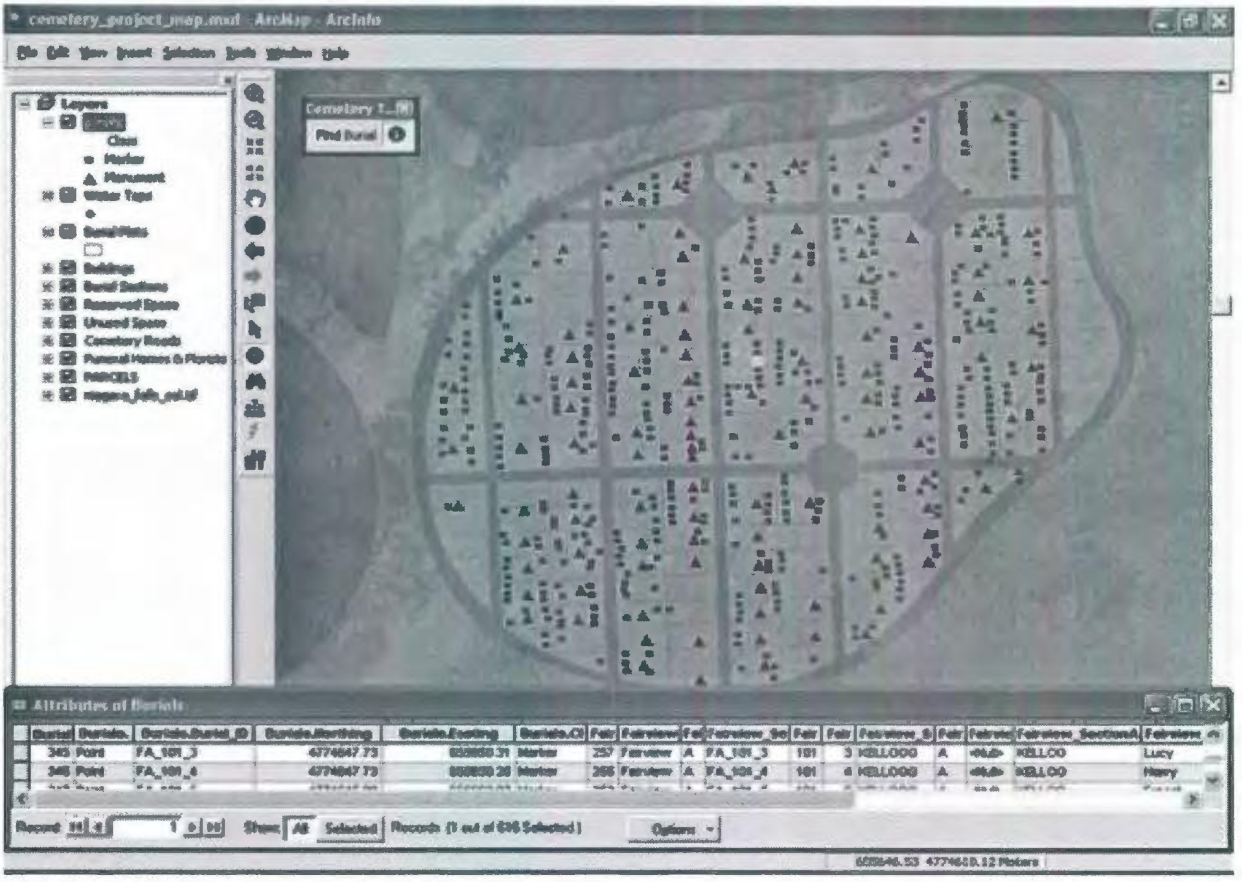

Figure 4. Section A, showing burial locations and plots.

different symbols; the monuments are shown as triangles and the markers as squares (Figure 4). Surprisingly, nearly all data points captured fell within their respective plot boundary on the map, indicating that the surveying and the Section A map were done as accurately as possible.

When burial records had no matching tombstone, the extra names were given the regular Burial IDs with and additional code at the end of them to indicate that the exact burial location of that particular person is "Unknown" (ex. FA_010_U1).

Finally, several GIS analysis tasks were undertaken to fulfill the obligations set by Niagara College for GIS thesis projects. A tree root damage analysis was done for the monuments and markers of Section A, as well as a land use analysis for the entire cemetery to help staff maximize usage. These analyses were merely a sample of what could have been done with the newly created cemetery data. Also a Visual Basic for Applications (VBA) search tool was developed to demonstrate the "searchability" of the database in ArcGIS when not actively linked to an IMS.

After presenting our findings to both Niagara College and the City of Niagara Falls, it was determined by the GIS manager that the project should be continued and eventually uploaded to the City's IMS. To see what the Niagara Falls Cemetery GIS Project has become, check http://www.niagarafalls.ca/city_hall/departments/parks_recreation_and_culture/cemetery/genealogy/index.asp. To see the pilot area, simply search Fairview Cemetery Section A and select a record. Notice that the search tool outputs two images highlighting the searched point and only monument location points have been used while individual burial markers were disregarded. Also, birth dates and death dates have not yet been released to the public through the IMS.

RE-ENVISIONING THE MAP DISPLAY CASE: LIBRARIES, CARTOGRAPHIC RESOURCES AND GOOGLE EARTH

Larry Laliberté
University of Manitoba

Paper presented at the joint ACMLA and CCA conferences, GeoTec Event 2006, Ottawa, June 19, 2006.

While much has been written about Google Earth in the media, it has been predominantly from two angles. Stories have dealt either with the wow factor of surfing a virtual globe, to more sensationalistic tones relating to potential security threats as a result of easy access to high resolution satellite images. Somewhere between these points of view, however, librarians are realizing that they are in a great position to harness the visualizing power of Google Earth, *to promote, while providing a portal to*, their institution's unique cartographic holdings.

The aim of "Re-envisioning the Map Display Case: Libraries, Cartographic Resources and Google Earth" is to highlight a working example of the power of combining GIS data, published first-hand accounts, paintings and photos, websites and other media formats such as video within the Google Earth (GE) authoring environment, in order to re-visualize a portion of an exceptional 1870 map entitled "*Map Shewing the Line of Route Between Lake Superior and the Red River Settlement*".

Folded Treasure

Old maps are found in the most interesting places. In the case of the 1870 map, showing the route taken by the Red River Expedition, it was folded up at the back of a 135 year old report in the University of Manitoba Archives & Special Collections. The map was uncovered as a result of research related to an Internet history project, serving as a spatial backdrop for a theme entitled Red River Rebellion. In order to liberate the folded treasure, it was carefully spread out and scanned, at which point its digital life began (Figure 1).

Visually, the map is a cartographic gem, meshing landscape greens with annotated reds to artistically represent the geographic knowledge of northwestern Ontario and southern Manitoba region in 1870. The map also serves as an historical

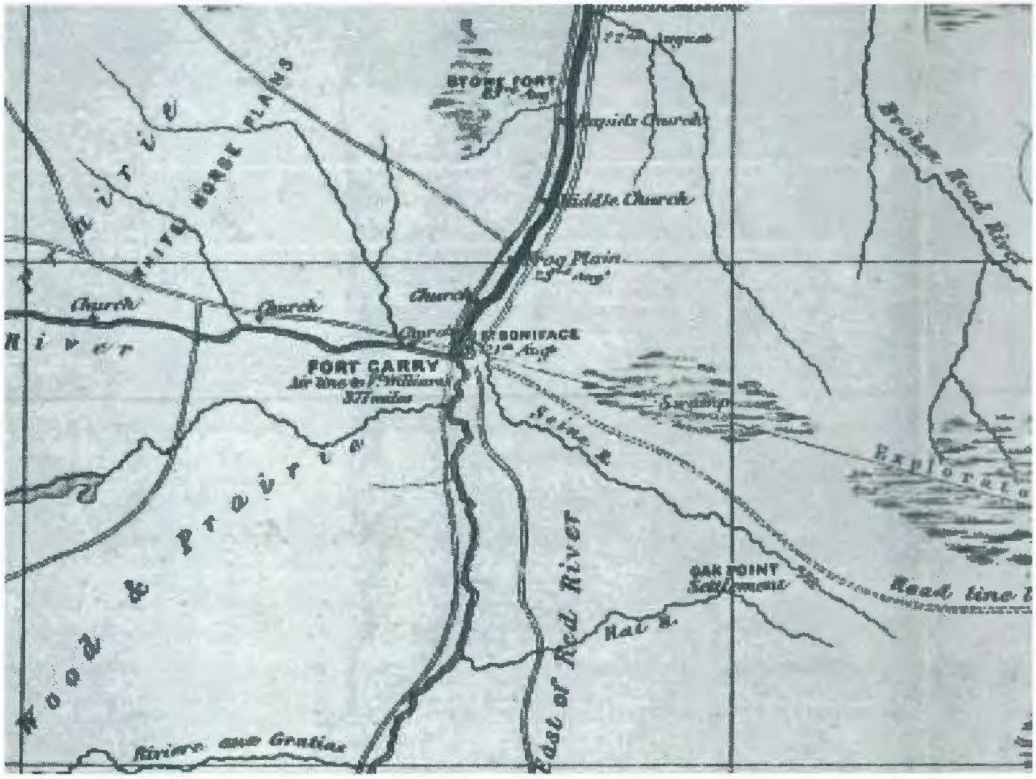

Figure 1. Portion of the 1870 Map showing the Fort Gary (Winnipeg) area.

snapshot of the movements, including date of arrival at each place, of over 1,400 men in the Red River Expeditionary Force, under the command of Colonel Garnet Wolseley. By combining the map's cartographic information with other primary sources, first-hand accounts, official reports, paintings, sketches and other maps and adding other data formats including audio, video, websites and Geographic Information Systems (GIS) data, all possible within the authoring environment of Google Earth (GE), the 1870 map serves as a spatial portal to, as well as a representation of, certain elements of the Red River Expedition.

Dawson's Road

The first stage of re-visioning the 1870 map in GE has been the recreation of the original route of Dawson's Road, which ran from Prince Arthur's Landing (Thunder Bay) to Shebandowan Lake. This portion was selected because the transportation of men and materials over the road, with many sections in disarray and others not even completed, occupied approximately 60% of the Expedition's time (Figure 2). Ideally, the recreation of the route of Dawson's Road would involve the simple overlay of the scanned 1870 map onto GE's satellite image data for the area and then tracing the route. However, since the original surveying methods are over a hundred years old, the route marked on the 1870 map does not line up correctly, regardless of how many times it is resized, stretched and/or rotated. Since the current highways approximate the course of the 1870 route, a GIS road data set, available through DMTI, was selected and imported into GE to serve as the base to recreate the original road.

Once the route of the 1870 road was integrated within GE's landscape of digital elevation data and satellite images, other attributes were added. For example, a first-hand account of the state of Dawson's Road when Colonel Wolseley arrived at Prince Arthur's Landing on May 25th 1870, was incorporated from a book published in 1871, by Captain G.L. Huyshe entitled *The Red River Expedition*. In his book, Huyshe breaks down the route of the road into five segments, including the length of each segment in miles. By measuring and annotating these segments, GE users can click on a portion of the route and read Huyshe's description (Figure 3).

Embedding Digital Information

Any information that has a known location can be

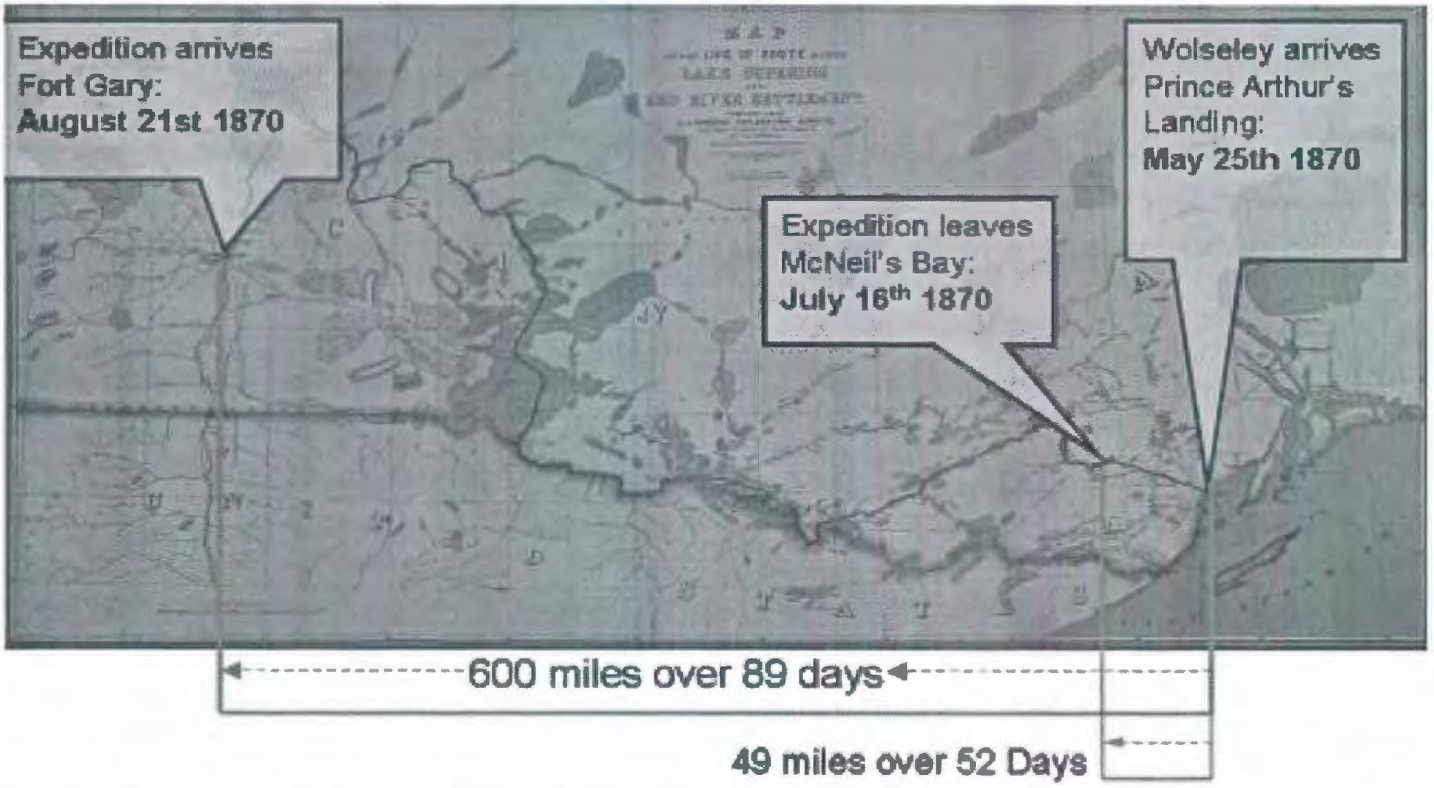

Figure 2. Expedition's time spent on Dawson's Road.

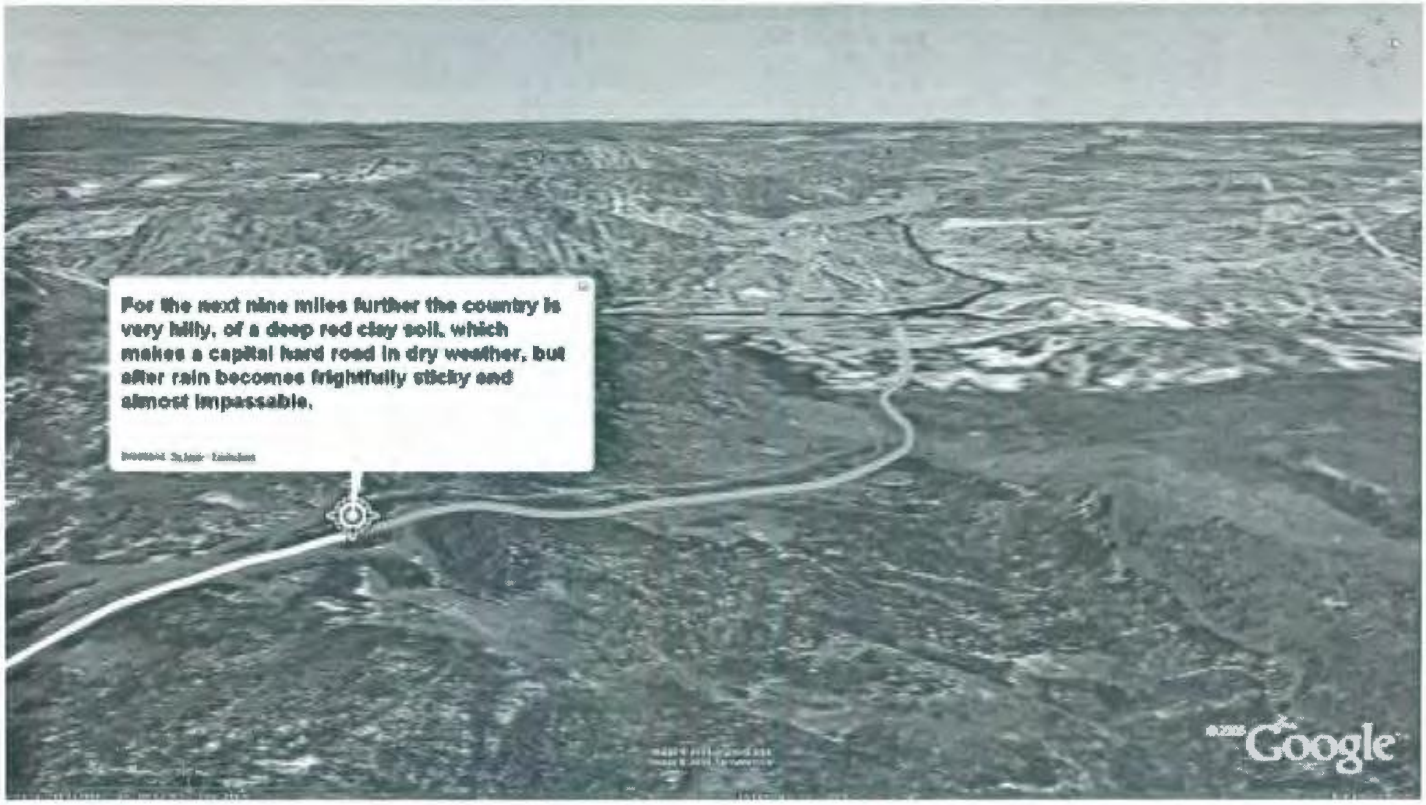

Figure 3. Dawson's Road heading west towards the Matawin River as described by Captain Huyshe.

easily added as a place mark in GE. In virtually recreating the landscape of the 1870 map, icons have been added that link to the paintings of the Red River Expedition by William Armstrong. With a simple piece of HTML code, Armstrong's paintings, that are available on the Internet, can be pulled into a popup balloon that is displayed when a place mark is clicked. By setting the viewing angle, a powerful feature of GE, you can simulate Armstrong's view when he painted Thunder Cape and Colonel Wolseley's expedition camped at Prince Arthur's Landing (Figure 4). These place mark techniques can also be applied to other formats, including video, for example showing the power of natural features like Kakabeka Falls, or even an audio file reminding our ears of the annoying ferocity of the mosquito.

The most promising thing about GE is the pace of development. As each month passes web sites and web blogs announce new and innovative ways to add and display information geographically. For example, further refinements of Dawson's Road, along known sections that exist today only as trails, are possible through the use of a Global Positioning System (GPS) receiver. To delineate a trail section, you would simply hike the route while a GPS collects a series of data points. Afterwards, the GPS data can be imported into GE and displayed as a new line segment, updating the original 1870 route. Google Sketch-Up is a free 3D modeling program that has been made available. With it users can design buildings and landscape features that can be imported to their real world locations in GE. For example, using William Armstrong's painting of Wolseley's camp at Prince Arthur's Landing, along with a map by Huyshe showing the outlines of the camp, one could generate a 3D rendering showing the tents, barrels, redoubt, flag, and even soldiers.

Navigating the Dawson's Road File

Once the Dawson's Road 1870 Google Earth file has been downloaded you can begin exploring the information associated with the file by clicking on the various folders found under the Dawson's Road file title. Like managing files on your hard drive, care should be taken to arrange the folders in a manner that allows for ease of use and understanding.

The following is a list of the contents of each folder:

Legend – Just like a traditional map the Legend explains the meaning of the symbols. However, unlike a paper map these icons can be clicked on to

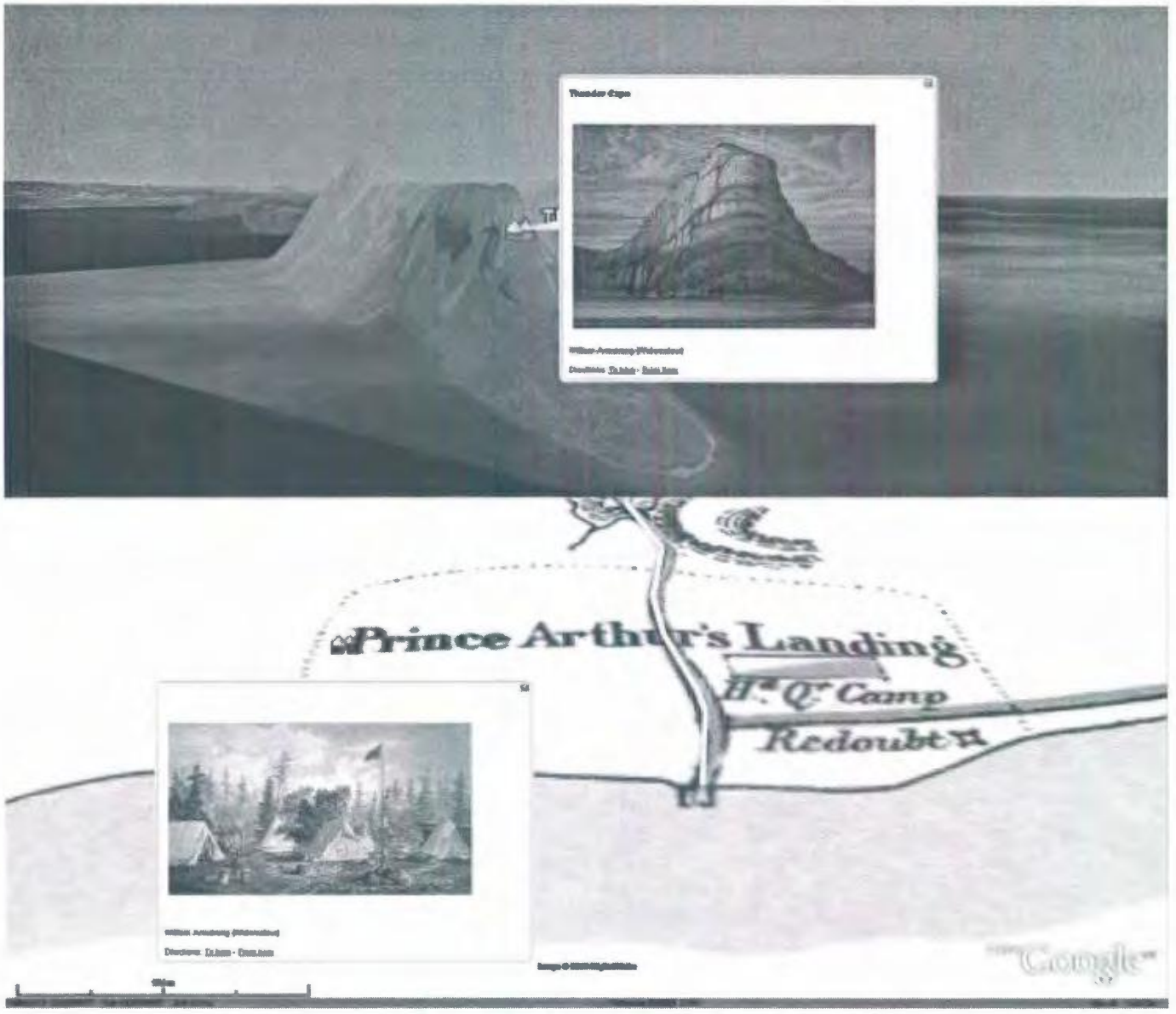

Figure 4. Paintings by William Armstrong showing Thunder Cape (top) and Wolseley's camp (bottom).

display more information. For the 1870 Dawson's Road map the legend icons represent depots, bridges, shanties and under the "i" or information icon users can access a detailed bibliography of additional resources available at the University of Manitoba Libraries.

Map Overlays – These are various printed maps from 1870 that were used to reconstruct the route of the road and include a section of the main 1870 map by S.J. Dawson along with various maps by Captain Huyshe that show building footprints of the river depots and encampments. It is important to note that these overlays can not be matched exactly on the modern landscape and as such are for illustrations only.

Paintings – This folder contains the images of paintings by William Armstrong and others that are available online. The images have been added to the pop-up balloons and set at the approximate angle of view at which they were painted in order to visualize the landscape today alongside the paintings from 1870.

Dawson's Road – This folder consists of 5 road segments that are broken down according to Captain Huyshe's description of the road as it was when Colonel Wolseley arrived at Prince Arthur's Landing May 25th 1870.

Map Elements – This folder is made up of place marks that highlight depots, bridges, mile markers

and other important features found on the 1870 map and in various first-hand accounts. Where possible, the place marks have been annotated with the accounts.

GIS Data (Rivers) – This Folder highlights the important rivers that had to be crossed by Dawson's road and navigated when moving supplies up to the various depots.

Video – Serves as a depository for video clips that highlight some of the natural features of the area, in this case a 2004 video clip, hosted on YouTube, of Kakabeka Falls.

3D Elements – The folder will eventually house any 3D models that might be added to the file, included reconstructed depots showing buildings and other aspects of Wolseley's encampment.

Providing Portals to Promote Unique Cartographic Materials

Recently a member of the Carta-L listserv noted that once librarians are done playing around with the Google Earth software, they will have to start finding practical uses for it. The revisualization of Dawson's Road serves as one example of incorporating digital objects including text, images, GIS data, audio/video and related websites, into the GE authoring environment in order to tell one of the many stories relating to Colonel Wolseley's 1870 Expedition. In addition to telling a story, librarians can also employ the visualization power of GE in order to share their collections with the Internet community and in doing so, increase the geographical literacy of our local regions by promoting, while providing a portal to, our unique cartographic collections, whatever they may be!

Notes

- Portions of this Article appeared in *Manitoba History* Number 52, June 2006.

- A copy of the Dawson's Road GE file can found at: http://www.mhs.mb.ca/data/maps/huyshe/dawsonroad.kmz

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JOINT ACMLA AND GEOTEC CONFERENCE 2006 REPORT
JUNE 17 – 21, 2006
OTTAWA CONGRESS CENTRE, OTTAWA, ONTARIO

Compiled by Diane Boyd, University of Guelph

Contributions by Colleen Beard, Trudy Bodak, Wenonah Fraser, Susan Greaves, Cathy Moulder, Richard Pinnell, Gerald Romme, Lori Sugden, Alberta Auringer Wood and Cheryl Woods.

Saturday June 17

The conference was preceded by two workshops held at the University of Ottawa and Carleton University.

In response to the positive feedback received from the Map Cataloguing Workshop held at Ryerson University in February 2006, the Bibliographic Control Committee of ACMLA organized a one day geospatial data cataloguing workshop for cataloguers who wanted to learn about cataloguing electronic cartographic materials. The purpose of this introductory workshop was to focus on the MARC21 fields for cartographic materials in electronic form. Two well known and experienced instructors (Mary Larsgaard, Assistant Head, Map and Imagery Laboratory, Alexandria Digital Library/ Davidson Library, University of California, Santa Barbara, and Frank Williams, Cataloguing Services' Authorities Librarian at the University of Ottawa Library) presented an intensive and informative training session. Their teaching was supplemented with handouts and cataloguing examples.

The response to this workshop was overwhelming. In fact, the workshop registration had to be capped at 35 people. The workshop raised some awareness amongst the participants and led to stimulating discussions. On their evaluation forms most people responded positively about the workshop, and indicated they would like to attend a future workshop. The Bibliographic Control Committee will be considering a metadata workshop as its next training session. (TB)

Sunday June 18

On Sunday Heather McAdam from Carleton University and Susan Mowers from the University of Ottawa hosted a full day workshop at Carleton University Library. The workshop was an opportunity for GIS reference specialists to learn from each other and share experiences. Prior to the workshop, Heather and Susan sent a survey, *GIS Reference Survey for Academic Libraries,* to all participants. In the introductory session the preliminary survey results were shared with the group. It was interesting to note that prior to 1995 under 30% of respondents had established a GIS data service but between 1996 and 2005 70% had. These figures emphasize how new GIS library service is. Complete survey results will be made available to ACMLA members. Questions and responses around geospatial data storage, metadata creation and other technologies indicate the future challenges we will be confronting. After coffee the participants divided into groups and tackled a challenging set of GIS reference questions. By the

The Wizards of the Demystifying Geospatial Data Cataloguing session: left to right, Trudy Bodak, Frank Williams and Mary Larsgaard. (Photo courtesy of Cathy Moulder)

Snapshots from the GIS Reference Services workshop, Carleton University, Sunday June 16th. Top left: Playing the reference query game. Below right: Picnic lunch. Below left: Find Your House exercise. Bottom right: Workshop organizers Susan Mowers, Joel Rivard, Heather McAdam, Beth Ray. (Workshop photos courtesy of Heather McAdam)

time everyone had worked through these we were all ready for a hearty lunch. Heather did not disappoint. A delicious picnic was served outside along the Rideau Canal. In the afternoon all of us had a chance to play with MrSID images using LizardTec's GeoExpress View. A hands-on session gave participants an opportunity to *Find Your House* using a custom ArcGIS map project. Heather developed this project to promote and advertise the use of GIS technologies on GIS Day at Carleton University. All files and custom applications from this workshop were provided on DVD. Thank you, Heather and Susan, for a fun and informative day at Carleton.

On Sunday evening ACMLA and Canadian Cartographic Association (CCA) delegates had a chance to relax, reminisce with colleagues, enjoy a glass of wine and share some delicious appetizers at a joint Icebreaker. Prizes were presented for the hotly contested orienteering event held on Saturday evening. The centrepiece of the evening was a map display of new Canadian maps, including two international award winners.

CCA President Dave Gray (left) and ACMLA President David Jones (right) welcome everyone to the Icebreaker. (Photo courtesy of Cathy Moulder)

Monday June 19

The GeoTec conference officially opened on Monday, June 19th in the Ottawa Congress Centre. Introductory remarks were made by Ian Wilson, Librarian and Archivist of Canada and Elizabeth Wong, Manager, Stamp Design and Production, Canada Post. Wilson noted that this year is the 100th anniversary of the National Atlas of Canada. It was launched, he said, at a time of boundless optimism as evidenced by a map of Moose Jaw showing suburbs named Brooklyn and Manhattan. One hundred years later these are still farmland. Elizabeth Wong unveiled a commemorative stamp of Canada to capture, promote and celebrate Canada and the history of its National Atlas.

Elizabeth Wong from Canada Post unveils a new stamp to commemorate the National Atlas of Canada's 100th anniversary. (Photo courtesy of Cathy Moulder)

The GeoTec Opening Keynote address, "Ambient Findability: Mapping the Future Present", was given by Peter Morville, President, Semantic Studios, author of the book *Ambient Findability* and Professor, University of Michigan Ann Arbor, School of Information. In today's world where ubiquitous computing and the Internet surround us, "we have the ability to find anyone or anything from anywhere at anytime." Morville's area of exploration is the realm of Information Architecture - the art and science of structuring and classifying websites; the structural design of information space to facilitate task completion and intuitive access to content; combinations of organizing, labeling and navigating schemes. One of the key factors he stressed is the multiple ways to find the same information. In fact, findability becomes a key quality of the user experience in this world. Findability defines value, credibility, how we learn, and how we make decisions. At the present time, users are taking control of the "information haystack" by creating wayfinders to define aboutness – folksonomies, tagging, social software - so that less time will be spent lost in cyberspace. Reminding us that we are still in the early days of exploration in this information space, and hence we are still childish and experimental, Morville asked "How will we make it better? How will we

cut the 'stones' to build the 'cathedral'?" He suggests that while creating the next generation of search tools, maps can inspire us by telling their stories, connecting to the past, providing a centre, setting a path toward the future. (SG)

Following the coffee break, the *National Atlases: Now and in the Future* session was moderated by Cameron Wilson, Project Manager, Atlas of Canada, Natural Resources Canada. The panellists included Bill Carswell, Acting Director, National Geospatial Data, U.S. Geological Survey; Alex Miller, President, ESRI Canada; Fraser Taylor, Director, Geomatics and Cartographic Research Centre, Carleton University; and Irwin Itzkovitch, Assistant Deputy Minister, Earth Sciences Sector, Natural Resources Canada. Dr. Carswell began by giving some background on the U.S. National Atlas and went on to describe current online options, such as the Map Maker with which one can design, display, and print custom maps. They partner with other government agencies now and for future activities.

Mr. Miller, who is also the chair of GIAC (Geomatics Industry Association of Canada), gave his views on atlases and cartography in the Internet age, advocating geographic information for everyone. With society becoming so geodata rich, a filter is needed to provide what the more spatially literate society desires. He felt that atlases will have a role to play in providing views and analysis to bring it all together. According to him, standardized data models, as well as authoritative content on a national, provincial, regional and municipal level are needed. He noted the need to extend GIS for cartographic finishing and integration of human artistry, mentioning the introduction of "Sketch-Up" to allow freehand drawing. He sees eventual integration of time into a GIS.

Dr. Taylor, a past president of the International Cartographic Association, spoke about "National Atlases - Back to the Future", emphasizing factors of importance such as vision and leadership, as exemplified by James White in 1906, policy and fiscal support by the government and innovation. He addressed some questions to consider for the year 2056, such as taking steps to stop digital data loss which is occurring faster than creation. He stated that more than 90% of digital maps created in the last 30 years are gone, and governments need to take a major role in this area. He noted that Natural Resources Canada could provide structure and frame, but needed information and input from others. In terms of innovation, he mentioned wikis, new partners, and open source utilizing Web 2.0. He felt there was a need for support of a policy, and the necessity of financial contributions from the private sector and academia, in addition to Natural Resources Canada which cannot be expected to provide the entire budget for a continuing national atlas program.

Mr. Itzkovitch spoke on the "why, who, and how of national atlases". Particularly interesting was his explanation of why each of the Canadian national atlases was done. In 1906 the purpose of the atlas was to help entice European investment and immigration; in 1974 to show the complexity and diversity of the country; and currently to show topics most important to Canada and to provide an online window. In the national atlas of the future, the content will be revolutionized by technology. He indicated that most knowledge mapping will come from governments. He mentioned some applications of a cross-country nature, such as the Canadian Communities Atlas project, and prophesied an exciting future with lots of opportunities.

The presentations were followed by a discussion session that raised a number of interesting points primarily focussing on tools and data. It was noted that someone must pay for the data, either the user or the taxpayer, but it was also stated that taxpayer collected data has had significant fees associated with further dissemination of it. It was suggested that all visual tools available should be used, and that the concept of the atlas has to change. (AAW)

At a parallel session, *Geospatial Technology Outlook*, a panel discussed the current and future state of GIS — including developments such as the geospatial web and the interest generated by Google Earth, data vs. actionable information, and directions for research and development.

Main themes were: need to continue development of services and standards such as open source; developments in delivery of map information and derived information products; opportunities provided by the advent of big corporate players, with competition leading to better technology; difference between raw data and actionable knowledge; importance of data validation and accountability, including the people, purpose and logic behind the

information. There was discussion of historical developments from 2D to 3D, and now 4D (i.e. including time). Translation of data into information needed for intelligent decisions was seen as essential, but increasingly performed in the background; the gatekeeper aspects to data are decreasing, with a potential evolution from 'data mechanics' to skilled guides; there will be more GIS practitioners, but they won't know it!

To address the gaps between information management and the requirements to support the technology, we need focused funding to solve problems. In the U.S., competition is presumed to lead to development, while in Canada's centres of excellence, networking and sharing are used for development. There is also a need for open, interdisciplinary exchanges and ways to link with user communities and departments. This could be fostered by involving students in applications, less emphasis on pure research, and a reward system that helps to make research and development self-sustainable. It was a lively discussion, ending in encouragement for the conference delegates to make active use of the opportunities provided by meeting together. (LS)

On Monday afternoon Betty Kidd moderated a session on the *History of Cartography*. The first presenter, Frances Pollitt from the Maine Historical Society, spoke about David Thompson's Mapping of the International Boundary, 1816-1826. She spoke enthusiastically about maps that she was surprised to find within the Thomas Barclay collection pertaining to the International Boundary Commission after the Treaty of Ghent. She mentioned that David Thompson had many journals and diaries making reference to areas that he surveyed during this time – Lake Ontario, Lake Erie, Lake St. Clair and Lake Huron. The Maine Historical Society collection has 50 maps and 100 letters. As well, references are made to Samuel Thompson (David's son) who assisted with the 1826 survey of Lake Superior. Frances encouraged the audience to look at the website celebrating the North American David Thompson Bicentennials (www.davidthompson200.org) where, in the introduction, it states *David Thompson explored and mapped more of this continent than any other trader and mapmaker. Arguably, the greatest land geographer of all time, David Thompson is truly a figure of continental significance.*

Alun Hughes, Associate Professor, Department of Geography, Brock University spoke next on "Putting 'Niagara' [Falls/River/Peninsula/Escarpment] on the Map". Alun explained that the name Niagara has native origin, likely Mohawk or Neutral meaning "at the neck joining the head to the body". Niagara Falls appears but is not named on Champlain's 1632 map. However, he named the falls Ongiara Sault on his 1656 map. Bressani (1657) and de Creux (1660) used the same spelling. It was on maps by Franquelin (1684) and Coronelli (1688) that the current spelling is in Saut de Niagara. Hennepin is the first to use Niagara with reference

Participants in the History of Cartography session: left to right, Alun Hughes, Frances Pollitt, Betty Kidd (moderator) and Larry Laliberté. (Photo courtesy of Cathy Moulder)

to the falls in a 1697 depiction. Maps by Moll (1715) and Mitchell (1782) use the name Great Fall of Niagara rather than Niagara Falls. Niagara River is really a strait and not a river, according to Alun. Onguiaahra is the earliest spelling of this in 1683. Alun also states that Niagara Peninsula is not a peninsula, but an isthmus. Blackwood's Magazine in 1826 refers to this. In material written about the War of 1812 there are many references to Niagara River and Niagara Falls but not to Niagara Peninsula. Niagara Escarpment is the most recent of this Niagara-naming history. The geographical term "escarpment" was not used until 1815. Prior to this it was referred to as a mountain, hill or ridge. Munro's map of the Welland Canal in 1872 is the first map to have the name Niagara Escarpment.

The final speaker, Larry Laliberté, GIS Librarian, University of Manitoba, talked about "Re-envisioning the Map Display Case: Libraries, Historic Maps and Google Earth". Larry discussed how librarians are in opportunistic positions to harness the visualizing power of Google Earth to promote and provide a portal to their institution's unique cartographic holdings. He showed a working example of combining GIS data, published first hand historical accounts, paintings and photos, websites and other media formats such as audio and video within the Google Earth environment, to re-visualize a portion of an exceptional 1870 map housed at the University of Manitoba Archives and Special Collections entitled *Map Shewing the Line of Route Between Lake Superior and the Red River Settlement*. Larry talked about how the screen size of the image may allow for zooming even though there are physical constraints of the original map [as he experienced with the 1870 map measuring 4' x 2.5']. He emphasized how maps tell a story and can be depicted in very interesting ways. (CW)

The Gala Dinner was held at the wonderful Museum of Civilization in their grand hall in front of two-storey tall windows, totem poles, and other west coast structural treasures. Throngs of conference attendees gathered at one end for pre-dinner drinks before settling at round tables to enjoy the meal of green salad, chicken, potatoes, asparagus, mixed vegetables, and a delicious three layer white cake with marzipan icing. Following this repast, the group was entertained by an after dinner elocution by Rex Murphy, noted Newfoundland radio, newspaper and TV personality. It was true to his style, but concentrated on topics to do with atlases and maps to coordinate with the conference commemorating the 100th anniversary of the Atlas of Canada. It was quite apparent that he was enamored of cartographic materials as well as with the English language. While some of his stories may have been a bit long-winded and included some less than obvious digressions, they were very entertaining. It was a delightful treat, especially for those with connections to his province of birth!

Gala Dinner Keynote speaker Rex Murphy gave an elocution lession at the Museum of Civilization. (Photo courtesy of Cathy Moulder)

Tuesday June 20

Tuesday morning started with the *Archiving I* session, moderated by Anna Jasiak (Atlas of Canada). Dr. Fraser Taylor (Carleton University) began his presentation, called "Archiving and Preserving Geospatial Data: Some Challenges", by likening the last quarter of the 20th century to the Dark Ages, in the sense that 90% of geospatial digital data has disappeared or become inaccessible over the last 30 years (for example, the BBC Doomesday project and the Canada Land Inventory). He suggested that improvements in storage technology have given a false sense of security. Data archiving is not the same as data preservation, in that some data is only of value in context. All data should be judged worth keeping based on its usefulness to other researchers or to the government. Dr. Taylor noted that there have been repeated calls for data task forces and funding to get archiving initiatives started. The creation and use of geospatial data has tended to develop in isolation, but to meet the challenge of archiving in an age of rapidly emerging multimedia and multimodal data projects, these must become an integral part of the general challenge to manage all digital data.

Participants in the Archiving I session: left to right, Dr. Fraser Taylor, Tracey Lauriault, Anna Jasiak (moderator) and Evelyn Peters McLellan. (Photo courtesy of Cathy Moulder)

The second presentation of the morning was entitled "Do Data Access Portals, Repositories and Catalogues Preserve or Archive Geospatial and Science Data?", presented by Tracey Lauriault (Carleton University). This session reported findings of the InterPARES 2 (International Research on Permanent Authentic Records in Electronic Systems) project which sampled and compared descriptions from 72 sources of data records (portals, repositories, archives and libraries). In the field of geomatics, sampled data sources included Canadian Geospatial Data Infrastructure (CGDI), National Geophysical Data Center (NGDC), Statistics Canada and Canadian Institute for Health Information (CIHI). Lauriault reported that most repositories are government-run with university collaborators and government funding; almost all have some public access; all are clear on use rights; and most stated quality standards. No one particular metadata standard is adhered to. Very few had a statement related to archiving or preservation. Lauriault concluded by emphasizing the need for archiving of geospatial data for the sake of future scientific discoveries, and the importance of the InterPARES project in establishing benchmarks.

The final paper of the morning was presented by another InterPARES participant, Evelyn Peters McLellan (Insurance Corporation of British Columbia). In a session entitled "Case Study in Building a Preservation Environment for a GIS", McLellan described the archiving strategies associated with the VanMap cross-corporate GIS system for centralized municipal data sharing. It is important to preserve municipal VanMap data for purposes such as legal decision-making, political and civic accountability, planning history and even for uses by researchers in unforecasted ways. The VanMap project has adopted an archival strategy called data grid technology in collaboration with the San Diego Supercomputing Center. McLellan stressed the importance of a paradigm shift to involve archiving at the point of data creation (rather than after death). National standards are needed to aid data producers with technical details and to encourage an automatic commitment to metadata creation and archival planning as a part of data creation. (CM)

The *Archiving II* session was moderated by David Brown, Library and Archives Canada. Randy Preston, a Research Assistant from the University of British Columbia, outlined the results of a survey of GIS archaeologists worldwide, which focused specifically on their digital record-keeping practices. It showed that although the archaeologists have increasing awareness of digital record-keeping and preservation issues, there were many idiosyncratic solutions employed in which people "hope for the best". Most respondents indicated that they prepared documentation to accompany their data, but only a small number were using a standardized naming system for files. Documentation styles tended to evolve from one project to the next. Forty-two

Participants in the Archiving II session: left to right, Karen McEwen, Randy Preston and David Brown (moderator). (Photo courtesy of Cathy Moulder)

percent (of the 157 who responded to the survey) had no long-term digital preservation strategy; many of the rest relied on an *ad hoc* strategy. Only a quarter of those surveyed made any documentation of their digital preservation strategies. Unless consistent comprehensive file management and preservation methods are followed, in the future the world may need "digital archaeologists" to search out lost digital data.

Karen McEwen, a Geomatics Specialist with Natural Resources Canada who works at the National Air-Photo Library (NAPL), described the current state of their digital photo library system, "NAPL On-line". It is a working tool that enables staff and the public to search, retrieve, visualise and access contents of the NAPL in a digital format. After a brief demonstration, she outlined the goals, challenges, and progress thus far in implementing these web-based services. The NAPL has more than six million aerial photographs, of which thirty-one thousand are presently on-line. Scanning and georeferencing of the NAPL collection is being done in-house, with precision and quality assurance based on guidelines from Libraries and Archives Canada (LAC). Since TIFF image files are being generated at 800 dpi for paper and at 2000 dpi for film-based photos, the sheer number of images has created a challenge. It corresponds to terabytes, even petabytes, of data storage requirements. The two institutions are working together to preserve the NAPL contents and manage the logistics of transferring and accessing the digital data. Thus far, the NAPL has prioritized its collection and is continuing to geoereference photos and prepare additional metadata. It is implementing quality control procedures, upgrading the on-line interface, working with LAC to transfer the data and maintain access to the digital and physical records, and, as an ISO compliant organization, is preparing a record of their cooperative process. Partnering with other federal government departments has helped NAPL to accomplish more of its goals even though funding continues to be tight. Anyone who would like to have a look at the NAPL On-Line can find it on the web at http://airphotos.nrcan.gc.ca/index_e.php. (WF)

The ACMLA Annual General Meeting was held at 12:30-1:30 on Tuesday, June 20.

The interest and concern for the *Future of Topographic Mapping in Canada* was evident from the full meeting room for this panel session, featuring representatives from ACMLA, the Canadian Cartographic Association, vendors and map distributors, and Natural Resources Canada. The discussion was lively and empassioned, following a recent announcement from NRCan that production of paper topographic maps will be

discontinued in January 2007.

Colleen Beard, Map Librarian from Brock University, represented the ACMLA perspective, which is that access to information and the protection of the interests of all users are our concerns. Lack of communication in the planning process, the quality of the replacement CanVec and print-on-demand products and the need for paper products for teaching were all mentioned as issues. The CCA perspective was presented by James Boxall, GIS Centre, Dalhousie University, who said that "free" is not great if the products are not cartographically sound. He criticized the "delete and refresh" mentality which does not value older materials. Cartographers are concerned with the technological and aesthetic implications and the skill set required for creating maps from a geospatial database. Juliet Atha from Federal Maps Inc. represented the commercial map distributors' point of view, which is that many map buyers do not have computer expertise, internet access or broadband capability. The paper topographic map is consistent in appearance, authority, production standards, copyright, price and source – while the digital products are still an unknown. Remote communities will inevitably have to pay more for the same products.

The NRCan representative, newly-appointed Prashant Shukle, was on the hot seat to defend NRCan's planned discontinuation of topographic maps. He indicated that the Ministry recognizes the continued need for paper maps and will maintain an inhouse capacity to generate maps for government and Depository Services Program requirements, but there is still a digital imperative. The ability to print older topographic maps will be provided through an ftp server and raster files. The CanVec product will be for specialists and GIS users. Citing his very recent acceptance of the position, he was unable to answer further on specifics of quality, production or time-frame for the new products.

In a parallel session, Edith Punt (ESRI, Redlands CA) gave a presentation entitled "Smarter Symbols, Smarter Maps". This presentation was aimed at demonstrating the new cartographic enhancements which will be available in ArcGIS 9.2. The enhancements available will be for symbolizing area, line and point symbols.

With ArcGIS 9.2, rules for drawing symbols can be developed for geospatial features. From these rules, a feature class can be represented with cartographic enhancements and stored in a geodatabase so that these symbols can be called when needed. Presently when drawing lines in ArcMap, there is a vertice

Participants in the panel discussion on the Future of Topographic Mapping: front row, left to right, Sylvie Jodouin, Colleen Beard (moderator), Juliet Atha; back row, left to right, James Boxall, Prashant Shukle, David Jones. (Photo courtesy of Cathy Moulder)

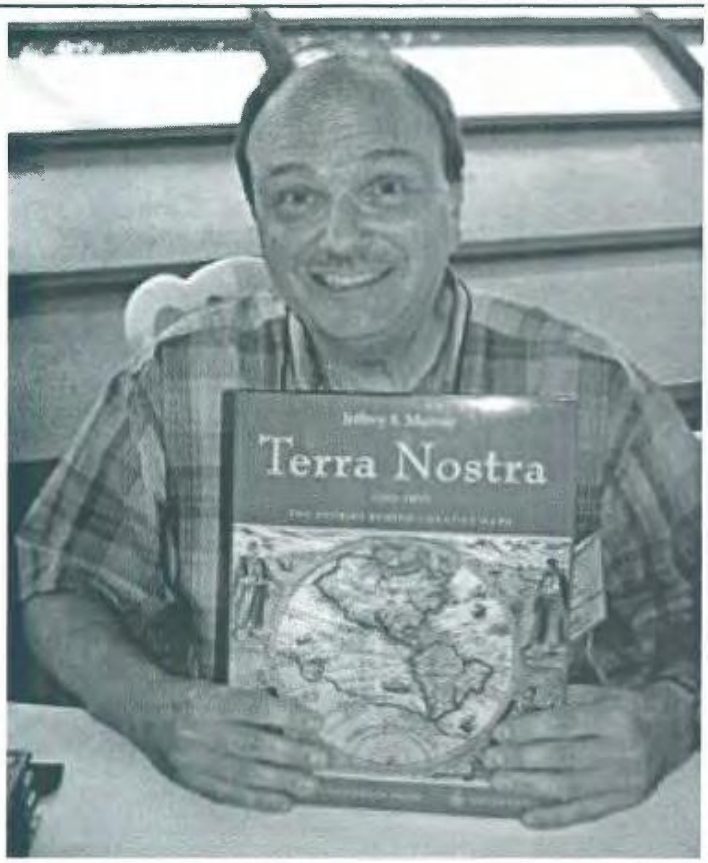
for every turn in direction that the arc takes. This can make the arcs look somewhat blocky at times depending on the scale and accuracy of the data. With the new representations, these arcs will be smoothed out to make the lines more aesthetically pleasing from a cartographic standpoint. However it will only be the output that will change and not the actual data behind the cartographic enhancement. When drawing lines along provincial or international borders, quite often there will be a line intersecting at the border and it will intersect where there is a gap. With ArcGIS 9.2, a rule can be made so that the intersecting line will not hit the gap in the line symbol but the dash instead. Many area symbols are based on bitmaps and end up filling an area so that the symbology gets cut off. This will be corrected in the new release of ArcGIS. Area symbols are generally all at one angle. In ArcGIS 9.2, the user will be able to state what angle the symbol will be, so that the symbol will be able to be parallel to the area no matter what orientation the area feature has to the map. Point symbols will be able to be put at positions that will be more cartographically correct of the area on the ground and not just a static point.

After listening to the presentation I felt that the cartographic enhancements that will be available in ArcGIS 9.2 are similar to the Maplex extension where a set of rules can be made for annotating maps but in this case the set of rules will be for symbolizing point, line and area symbols making the final output of a map very cartographically pleasing. (GR)

At the end of a long day members of ACMLA and CCA were invited by Library and Archives Canada to a reception to help celebrate the book launch of *Terra Nostra: The Stories Behind Canada's Maps, 1550-1950*. Written by Jeffrey Murray, it was published in 2006 to coincide with the 100th anniversary of Canada's first national atlas. *Terra Nostra* highlights not only the national atlas but also 400 years of mapmaking in Canada. It should be noted that all of the presenters at this year's conference received a copy of this book. What a beautiful and appropriate gift!

Wednesday June 21

On Wednesday morning Colleen Beard (Brock University) was moderator for a session called *Planning for the Future*. There were three



Jeffrey Murray proudly displays his work at the official book launch. (Photo courtesy of Cathy Moulder)

presentations: James Boxall (Dalhousie University), Stéfano Biondo and Pierre Racine (Université Laval), and Susan Haigh (Library and Archives Canada).

James Boxall, Director, GIS Centre, Dalhousie University, entitled his presentation, "When a Library Morphs into a Centre: Geographic Information Management Issues". James reviewed the history and development of Dalhousie's GIS Centre and described it as an "overnight 10-year success". He and his two full-time staff members (one of whom is Assistant Director/Cartographer and the other, a GIS Analyst/Server Manager) plus up to eight students provide a range of GIS services, which include data access and packaging, thesis consultation, assistance with GIS-related papers and presentations, project design and analysis, cartography, and teaching. James strives to establish close working contacts with government agencies, faculty, university administration, software providers (e.g. ESRI), and hardware providers (e.g. Hewlett Packard). Currently seeking a research chair (MSc in GIS Science) and actively pushing for the extension of the Centre's courses in other faculties (such as School of Planning and School of Information Management Research), James

Snapshots from the Book Launch. (Top two photos courtesy of Heather McAdam. Bottom two photos courtesy of Alberta Auringer Wood)

James Boxall explains how they do things at Dalhousie in the session on Planning for the Future. (Photo courtesy of Cathy Moulder)

believes projects are the key to dollars and increasing the Centre's profile.

For the future, James wants more: more students, more staff, more dollars. He wants deeper services (e.g. web based). He wants GIS to become synonymous with the Centre; so he wants to "brand everything GIS". He wants more partners, more media attention, more theses, more GIS Days! James was candid about things that were done poorly in the beginning. For example, he didn't ask for enough money, didn't provide enough support for his staff, didn't establish enough buy-in from Computing Services, and didn't involve the librarians to the extent that he should have. During the discussion period, James mentioned that he has had problems getting statistics on the amount of usage due to the decentralized distribution of ArcGIS software installations on campus. He has decided, with administrative support, to measure time spent on providing assistance rather than on numbers. He supports open source software because of the high cost associated with commercial software. For example, he uses PostGreSQL rather than Oracle. He has limited contact with the staff providing the numeric data service.

Stéfano Biondo and Pierre Racine entitled their joint presentation "GéoIndex: un novel accès aux données géographique et statistique de la Bibliothèque de l'Université Laval". In fact, GéoIndex is one of a suite of software programs from GéoWebSuite 1.1, developed by Pierre Racine, a graduate student in Geography at Laval, in consultation with Stéfano. This software product was recently featured in the ACMLA *Bulletin*, number 125 (Winter 2006), pp. 10-17. The GéoConverter provides for batch file conversions, GéoIndex is the map server and search interface, and GéoAccess provides for automatic update of the geographic indexes. This last module is a Microsoft Access application. Quoting from a one-page handout distributed by Stéfano during the presentation: "The GéoIndex is an online mapping tool developed with ArcIMS giving access to georeferenced files. The website allows one to select and download files like electronic map sheets by means of several layers of cartographic indexes. These indexes overlap a geographical map of the target area for easy file identification. GéoIndex is linked to a database allowing user authentication, gathering of download statistics and monitoring of abusive usages." During the discussion period, Stéfano noted that Laval's geospatial data is held in a tree-structured database. For those who would like to have a closer look at the interface, the URL for GéoIndex is http://geo-index.bibl.ulaval.ca/viewer/index.html.

Susan Haigh, Senior Advisor, Transformation, Library and Archives Canada/Bibliothèque et Archives Canada presented "Toward a Canadian Digital Information Strategy". Susan indicated that LAC wants to mainstream digital which means setting up a robust infrastructure for digitization. LAC wants to strengthen its national role and to assist communities by establishing standards. She made reference to an LAC publication, available on the web, entitled *Toward a Canadian Digital Information Strategy: Mapping the Current Situation in Canada* by John McDonald and Kathleen Shearer, version 2.0, January 2006 (http://www.collectionscanada.ca/cdis/012033-700-e.html). This publication points out that there is no current mechanism in place to address digital information issues at the national, multi-sectoral level and that there is need for a national strategy now. Digital content is rising dramatically; there is substantial accrued experience with digitization; costs are down; users are increasingly expecting digital, and our existing digital information is at risk of loss. Managing the nation's access to digital information will support a stronger research environment and democratic (i.e. more universal) access and will support communities. The strategy should be an overarching framework consisting of

a set of strategies and multiple initiatives that will likely be collaborative, decentralized, and multi-jurisdictional.

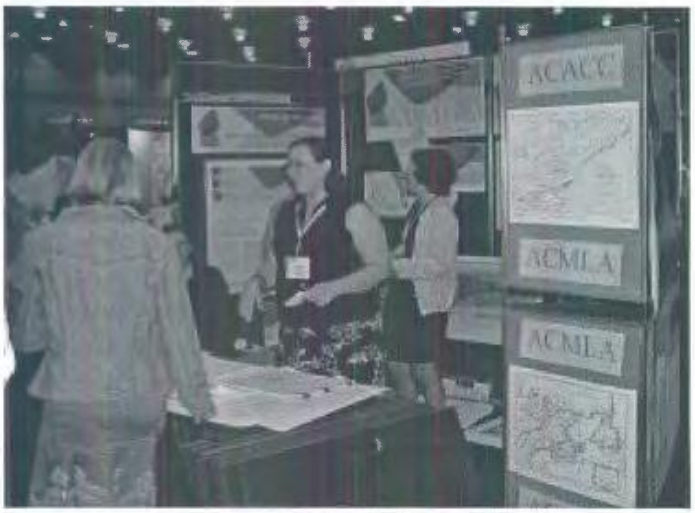
Outcomes of a national strategy would result in access to a vast body of Canadian digital content that is findable, useable, and of high quality. The strategy would provide for long term access to our digital heritage, as much free or open access as possible, and a reduction of other barriers. Susan described a series of forthcoming consultative meetings to be held across Canada in Toronto, Calgary and elsewhere to discuss optimizing born-digital content, fostering access and use within a rights framework, and improving the national interoperability of systems. She mentioned the concept of a network of certifiable Trusted Digital Repositories for ensuring digital preservation. Susan also mentioned CARL's AlouetteCanada Open Digitization Initiative. During these consultative meetings thought will be given to establishing objectives and agenda for a National Summit to be held in November 2006.

During the discussion Susan mentioned that geomatics will be included in legal deposit in the new year. She also mentioned that there is a need to ensure there is no overlap in our efforts to preserve our cartographic collections and that we might want to federate access (i.e. the digital images would remain local). She talked about the need for a digital registry (e.g. for books we have AMICUS). AlouetteCanada was suggested as a host for an image registry. (RP)

Thursday June 22

The ACMLA /GeoTec conference completed its formal sessions on Wednesday and most delegates headed home. About 20 of the delegates who stayed until Thursday attended a morning tour of the spectacular and innovative Gatineau Preservation Centre of the Library and Archives Canada. We were guided primarily by a very knowledgeable Dale Cameron. ACMLA members Jeffrey Murray (author of the just published *Terra Nostra: The Stories Behind Canada's Maps, 1550-1950*) and Bruce Weedmark (past Membership person for ACMLA) were also on hand in one lab to show some interesting maps and illustrate application of conservation treatments. It was noted that the facility is a building within a building, including 48 vaults on three floors and providing storage for materials formerly in 17 other buildings. The mechanical apparatus is located in a separate building. The facility opened in 1997. About 80 people work in the building, but it is not designed to serve as a readers' facility. While it contains some cartographic materials, 75% of these continue to be stored in Renfrew. We were taken through several stack areas and saw the various means used to store the great variety of materials such as maps in cabinets, on compact, moveable shelving, framed works of art on giant, moveable hanging pegboards, and globes on shelves. The fire suppression system is water based; humidity is kept low, and everything is closely monitored. A tracker system utilizing bar codes is used to manage locations of all the items. The facility also holds their map digitizing operation including a 300 dpi digital back scanner with photo optics. Generally, staff use it for materials up to 38 x 28 inches. There is a bigger and more sensitive scanner in Renfrew. Images are saved as TIFs using Apple computers. In the near future, the format will change to JPEG 2000. While this report mentions primarily cartographic materials, many other media are stored in the facility, and it includes an impressive video presentation room. (AAW)

This report focuses primarily on the ACMLA sessions but delegates also had the opportunity to attend many of the GeoTec sessions and visit the vendors in the Exhibit Hall. ACMLA's booth was a great success, selling many facsimile maps and drawing attention the the Association's goal of promoting our Canadian cartographic heritage.



ACMLA's booth in the Exhibit Hall did a brisk business selling facsimile maps, thanks to many dedicated volunteers. (Photo courtesy of Heather McAdam)

Snapshots from the Gatineau Preservation Centre tour: Top left, Building with two "skins", tour group between them. Below right, Hanging storage area of moveable pegboards. Below left, Small globe storage on shelves. Bottom right, Conservation staff lab work areas. (All tour photos courtesy of Alberta Auringer Wood)

ACMLA HONOURS AWARD 2006
TRUDY BODAK

As presented at the Annual General Meeting,
June 20, 2006, Ottawa, Ontario

In honouring Trudy Bodak today, the Association of Canadian Map Libraries and Archives celebrates an area of excellence for ACMLA. In the welcoming address of the first annual conference of the Association of Canadian Map Libraries in 1967, Dr. W. Kaye Lamb, the Dominion Archivist and National Librarian, said that the item of utmost importance was the creation of a union catalogue of maps –and that to move forward, the greatest problem would be the establishment of a "uniform code" to ensure that results would be properly merged.

Trudy Bodak, well deserved recipient of the ACMLA Honours Award for 2006. (Photo courtesy of Cathy Moulder)

The union catalogue and descriptive standards has been referred to as the most significant issue that ACMLA has addressed since its inception. Trudy Bodak has put her mark on the continued excellence of the contribution of the Association to bibliographic standards and has helped members of the Association understand how we can all contribute to this common goal.

Trudy received her undergraduate degree at Queen's University in 1967 with a major in geography, and went to complete her library science degree at the University of Toronto in 1968. Trudy gives credit for her understanding of the importance of the catalogue to one of her mentors at the University of Alberta, Yvonne Fenton, then Head of Cataloguing. Trudy moved to Ontario after three years in Alberta, and was hired in 1971 to work as a cataloguer at York University. By 1980, Trudy had become the Head of Cataloguing at York. At the end of the next decade, Trudy was seconded to be Acting Head of the Map Library, attended her first ACMLA conference – and was hooked. She was appointed as Head of the Map Library, and threw herself enthusiastically into the world of maps, GIS and all the disciplines that come with this world.

As she has said, there is never a dull moment in our field and we are always facing one challenge or another. In her own words,

> I think what I have loved most is the challenge and the opportunity to make things happen. There is so much to learn and to contribute to this field. It is amazing! We will never be stagnating. The people in our profession are really something else. Their passion, enthusiasm and support are driving forces that make you proud of who and what you are.

Trudy's commitment to the Association and her very capable chairmanship of the Bibliographic Control Committee have been impressive. As a Chair she has been a strong leader, bringing to fruition a number of significant achievements: several cataloguing workshops – in Winnipeg, Toronto and Ottawa – to encourage and support the description of our collections; the development of a strong cataloguing presence on ACMLA web site; raising the profile of metadata through an ACMLA conference panel; a survey of map cataloguing practice and needs of ACMLA members to ensure that BCC focused on members' need.

Trudy has always been an excellent spokesperson for ACMLA members, representing our requirements to the staff in the Union Catalogue to ensure the continued development and vitality of the national union catalogue of maps in AMICUS. She has brought enthusiasm, commitment and organizational skills to help our members and communities understand the importance of cataloguing and the sharing of our collective knowledge and collections.

In Lou Sebert's closing remarks in preparation for an ACMLA interview, he said,

> Map librarians are only interested in the data outside the neat line; Surveyors are only interested in the data inside the neat line.

Trudy would tell him that one cannot exist without the other – and she'd tell him exactly why – with wisdom, passion and respect.

(Read at the Award presentation by Cheryl Woods, on behalf of the ACMLA Awards Committee)

Cyber-Cartography in College

A new paper from Educause, the higher-education technology group, explores the value of "mapping mash-ups" – adaptations of online mapping services that display customized points of interest. A number of colleges have already used maps generated by Google and Yahoo to display information on where incoming students hail from and where off-campus housing is available. And now a growing number of professors are finding educational uses for the mash-ups, according to Educause. Professors of geology, history, and political science could all benefit from mapping mash-ups, the paper argues, because the tools let students navigate on their own: "Joining subject matter to a mapping tool provides an educational experience unlike simply reading about a place and then finding it on a map." – Brock Read

(http://chronicle.com/wiredcampus/index.php?id=1485, posted to CARTA by Grace Welch)

New Book, Tribute to Old Friend

"In Loving Memory. This book is a tribute to the memory of Tom Nagy, known as Tamás in the book. It is his story, too. I dedicate it to his parents János and Ica, his wife Gaby, and his children Matthew, David, and Corina. I know Tom would have loved sharing this last great adventure with me. Those were exciting days, weren't they, Tom?"

This tribute was written by Bobbie Kalman, award-winning Canadian children's author, in her new book of memoir called *Refugee Child*, the compelling story of her family's experiences during the 1956 Hungarian Revolution and their nighttime escape from Hungary, when Bobbie was only nine years old. It also describes their weeks spent in Austria as refugees, before they immigrated to Canada. Written from the perspective of a child, the book is for ages ten to adult and is now available through Crabtree Publishing in St. Catharines, Ontario, in time for the 50th anniversary of the Revolution on October 23, 2006. Bobbie and Tom were neighbours and close friends in Budapest.
(www.bobbiekalmanrefugeechild.com)

Submitted by Louis Cardinal, Library and Archives Canada / Bibliotheque et Archives Canada

REGIONAL NEWS / NOUVELLES REGIONALES

Compiled by Andrew Nicholson

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Spring and summer 2006 have seen a number of new developments at the William C. Wonders Map Collection.

The major celebration was the completion of the conversion of the handwritten catalogue binders into the William C. Wonders Database [http://maps.library.ualberta.ca] This news was announced on the Carta listserv on July 7th:

> "On June 30th 2006, eleven years after its inception, the project to convert the manual catalogue records for the William C. Wonders Map Collection to an online, searchable database has been completed.
>
> In 1995 when the University of Alberta Libraries took over responsibility for the William C. Wonders Map Collection it acquired a rich and massive collection of maps and other cartographic materials.
>
> It was quickly recognized that the value of this collection was impaired by the limited bibliographic access to its contents. The collection was indexed only in a handwritten classified catalogue housed in 26 three-ring binders. The brief records in this catalogue did not meet standards required for incorporation into the library's online catalogue. Up-grading or re-cataloguing the records would be too labour-intensive. Instead it was decided to provide improved access to the maps through the conversion of the hand-written catalogue to a key-word searchable database. Also, currently acquired pre-1995 maps would also be added to the this databases while items from 1995 onwards would receive full cataloguing and be entered into the Library's online catalogue...
>
> While the 'Binders' project is now complete the database continues to grow as more pre-1995 items are added. To date the database contains over 31,000 records representing over 450,000 map sheets. This database has become a valuable tool not only for U of A scholars, but also for map users worldwide who access it through the Internet."

Another access enhancement has been the development of a Resource Guide listing many websites containing cartographic/spatial information relating to Alberta. This guide is linked from the William C. Wonders Map Collection web page [http://www.library. ualberta.ca/subject/maps/index.cfm]. The content of this guide has been prepared by Karen Mah, a student at the U of A School of Library and Information Studies, as part of a practicum study with the Map Collection. Design and formatting are by Veronica Smyth of the SciTech Library.

A "Cartographic Resources - User Survey" is underway in the Map Collection and the Data Library to help us understand better the needs and interests of individuals using the cartographic and geospatial resources. The 10 question, voluntary, anonymous, questionnaire covers such topics as how the users learned of our resources, the purpose of the visit, preferred format of information and some demographics. The survey will collect data for 2 months in the summer and 2 months of fall semester.

We have been collaborating with the CAPMAP project [http://capmap.fanweb.ca/home.htm], a community based online mapping project of the Alberta Capital Region. This summer a layer containing the digitized images of the township maps from the late 1800s and early 1900s is being created. We have provided the original maps

and will be receiving copies of the digital files as a bonus.

In another community related activity, the W.C.W. Map Collections is loaning the Art Gallery of Alberta (formerly the Edmonton Art Gallery) three maps to be displayed as part of a Resource Centre which will compliment Baroque Masterworks from the National Gallery of Canada, a traveling exhibition that will be on display at the AGA from September 22nd to November 26th, 2006 [http://www.artgalleryalberta.ca/exhibitions/upcoming/BaroqueMaster.htm]. The items selected are: The Schedel World, 1493 (CartArt edition, 2003); Nova tabula Americae (de Sandrart, 169?); and Nova totius terrarum orbis geographica ac hydrographica tabula (Hondius, 1573).

Newfoundland & Labrador

Memorial University of Newfoundland
Danial Duda
dduda@mun.ca

The weather has been incredible here this summer, hardly any fog and few days of overcast/rain but many days of sunshine and the temperature ranging from 18-25.

The big news for this issue is the move of the Map Collection from the fifth floor of Queen Elizabeth II Library down to the second level where the reference collection and Commons are located. The move is part of a larger plan for renovations/changes taking place over several years and the maps move is one of the first major projects towards this goal.

All 97 map cabinets have been moved, along with the 8 filing cabinets of air photos and 5 filing cabinets of our "map file" collection. By the end of August, the map reference collection, atlas collection, wall maps, and the staff area will be set in their new home. The move of the cabinets went very smoothly. With a number of meetings over the winter to plan out the process, the whole move is going well and on time thus far. A local moving company, Household Movers, was excellent to work with. Their representatives met with us several times to listen to my concerns and experience in moving a map collection. They then went and designed a prototype cart, brought it to the library to test it, and once all the kinks were ironed out, made two more such carts. A crew of six did the whole job in 2 ½ days.

Of course, Murphy's Law raised its frustrating head. Doing reference with a collection split between two floors has been entertaining at times. Indexes are with the collection on the second, but the gazetteers and computer stations are still on the fifth. Oh well, it's just another version of "library participaction".

In the next issue, I'll describe the rest of the move and how the new "digs" feel. Till then, enjoy the rest of your summer.

Ontario

McMaster University
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As a result of the Learning Commons construction project on the floor above, we were obliged to move out of the Map Collection for six weeks during May and June. Staff were relocated to an adjacent electronic classroom and were escorted in to retrieve maps and atlases from under the protective tarps once a day. The wearing of a hard hat was a new work experience for Gord and me! The wet drilling through our ceiling for the installation of wiring and ethernet was completed right on time and with no damage to the collection. Public service was certainly disrupted, but researchers and students in the inter-session courses were very patient about the delay in retrieving material and the awkward spaces provided for their work.

Good-natured students work on map assignments in cramped quarters during Map Collection closure.

While we were unable to access the Map Collection, we were forced to turn our attention to work that was easily portable and so we made great progress on some digital projects. One of our goals this summer was to convert our rare map webpages from static html to a searchable database. Huyen Dam, our summer student, completed all the data entry and authority work necessary for the web-based database, and our new search engine is accessible from the same URL as the old webpage (http://library.mcmaster.ca/maps/rchome.htm). We presently have about 900 rare maps described in the database, but still have many more to complete in our Europe and Hamilton collections. The database has been designed to allow future inclusion of maps in rare books and maps in atlases from McMaster's very fine collection of 18th century material. To see an example of what these records will look like, do a search for "France" and look for the icons that identify these formats. We have incorporated our existing jpg images and are experimenting with the creation of similar images using a digital camera instead of professional photography. We are also looking at linking some MrSID images from these descriptions.

Several other projects are underway this summer. Gord is experimenting with Zoomify software, with the goal of adding a large collection of air photos to our webpages for World War I military mapping. We are also converting our paper air photo indexes into a web-based format using Google Maps. Huyen is shifting a large part of the map collection to incorporate some newly-acquired cabinets and to re-distribute expansion space to needed areas.

And while the others have been busy with these interesting projects, I have been putting in time on various committees! McMaster University Libraries has participated in the LibQual survey for the first time this year, and I have attempted to become proficient in the reading of radar charts. I have also chaired a group who has investigated the provision of scanning service in the new Learning Commons. One of the most interesting outcomes of this has been the information provided by McMaster's newly hired Copyright Officer on the distinction between copyright regarding scanning and photocopying. For a valuable summary document prepared by the Copyright Officer, see http://library.mcmaster.ca/maps/Scanning_copyright.pdf.

The Map Collection will be hiring our first GIS student assistant this fall, to assist with data preparation and webpage updates. We are hoping that this will speed the process of creation of geospatial data catalogue records, as many of our webpages are outdated and this is hindering the creation of MARC records. Two McMaster cataloguers (Rhonda Moore and Wade Wyclief) attended the "Demystifying Geospatial Data Cataloguing" workshop in Ottawa in June, and we are poised to continue with our cataloguing efforts as the webpages are updated.

University of Guelph
Diane Boyd
dboyd@uoguelph.ca

The Data Resource Centre (DRC) at the University has a new home on the main floor of the Library. Our DRC team is happy to leave our cramped quarters in the basement of the Library where our users has a difficult time finding us for the new visible and accessible space. Users of GIS and statistical/numerical data will now be able to work in a large area equipped with seven computers. Students will be able to work individually or in groups. The increased wall space and map table will display maps and help guides. Users can also book appointments and meet with DRC staff to discuss their data needs.

University of Ottawa
Geographic, Statistical and Government Information Centre
(GSG - formerly Map Library and Data Services)
Susan Mowers
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This covers GSG highlights from the Fall 2005 to the present. We held our official launch as a new library service on GIS Day 2005 during which we welcomed government information into the fold. The event was attended by Library, departmental, and other colleagues.

2006 has seen excellent personnel developments in GSG. We welcomed Erin Forward as our Cartographic Metadata Analyst in January. Pierre Leblanc, an experienced Map Library team member, was appointed Acting Data Support

Specialist this May. Just recently, after extensive studies and commuting between U of Ottawa and McGill's Graduate School of Library and Information Studies, we are delighted Nancy Lemay has been appointed GIS and Geography Librarian. At the end of this August, Tea Rokolj will join us as Government Information Librarian. In addition to Government Information liaison, Tea has responsibility for Political Science and Economics.

GSG has participated in a collections transfer project this Winter / Spring in which we identified serials and monographs in our subject areas as well as map-related materials, to be moved to an offsite storage facility. As suggested by colleagues at Carleton, we were able to link sample thumbnail images for two topographic map series, which are now housed off-site from our Millennium catalogue, for browsing purposes. In the process of transferring collections, GSG study space has been increased, and we are looking forward to offering a modest computer lab to our users this Fall.

GSG participated in local arrangements for ACMLA/GeoTec and in an ACMLA workshop this year. Susan Mowers has taken on the ACMLA Treasurer role and Nancy has taken on several new roles, as ACMLA BCC member, OCUL-Map Group representative and Chair of OCUL-Map Group's GeoSpatial Data Access Subcommittee.

This summer, the team of Erin Forward, Nancy Lemay and student, Jan Sandink, have developed a proposal for a geospatial metadata profile for the University of Ottawa, which will be taken forward to our Library administration and for discussions with colleagues. In parallel, the team, with Denis Lacelle, have created metadata for major geospatial datasets, which we will link to our interactive maps (SVG's) on the Web. Thanks to our summer student, our online index to our Geological Survey of Canada maps is now complete. We will move on to automating our provincial geological map series indexes next. For further information, please contact Nancy Lemay, nlemay@uottawa.ca.

Welcome!
New ACMLA Members

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Dianne Nicholson (Full member)
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Irene Kumar (Full member)
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NEW BOOKS AND ATLASES

Compiled by Eva Dodsworth

Abrams, Janet and Peter Hall. 2006. *Else/where: mapping new cartographies of networks and territories.* Minneapolis, MN: University of Minnesota Press. 320 p. $49.95 US. ISBN 0972969624.

Althea, Douglas. 2006. *Genealogy, geography, and maps: using atlases and gazetteers to find your family.* Toronto: Ontario Geological Society. 184 p. $39.95 CDN. ISBN 0777921618.

Aronoff, Stan. 2005. *Remote sensing for GIS managers.* Redlands, CA: ESRI Press. 524 p. $69.95 US. ISBN 1589480813.

Clark, John. 2005. *100 maps: the science, art and politics of cartography throughout history.* New York: Sterling Publishing. 256 p. $24.95 US. ISBN 1402728859.

Clawson, David. 2006. *Latin America and the Caribbean: lands and peoples.* 4th ed. Boston: McGraw-Hill. 464 p. $90.00 US. ISBN 0072826940.

Collins atlas of the night sky. 2005. New York: Harper Collins. 224 p. $29.95 US. ISBN 0007172230.

Committee on the Restoration and Protection of Coastal Louisiana. 2006. *Drawing Louisiana's new map: addressing land loss in coastal Louisiana.* Washington, DC: National Academic Press. 204 p. $39.00 US. ISBN 0309100542.

De Blij, Harm. 2006. *Atlas of the United States.* New York: Oxford University Press. 208 p. $50.00. ISBN 9780195220445.

Geographic atlas of New Zealand. 2005. Nelson, NZ: Craig Potton Publishing. 340 p.; 264 maps. $79.99 NZD. ISBN 1877333204.

Guthridge, Suzie. 2006. *The little green data book 2006.* Washington, DC: The World Bank. 240 p. Free pdf from http://siteresources.worldbank.org/INTEEI/936214-1146251511077/20916989/LGDB2006.pdf.

Halman, Loek, et al. 2005. *Atlas of European values.* Leiden, Netherlands: Tilburg University. 140 p.; 200 maps. $199 US. ISBN 9004144609.

Kent, Robert. 2005. *Latin America: regions and people.* New York: Guilford Press. 424 p. $95.00 US. ISBN 159385269.

Koch, Tom. 2005. *Cartographies of disease: maps, mapping, and medicine.* Redlands, CA: ESRI Press. 408 p. $44.95. ISBN 1589481208.

National Research Council, Committee to Review the Lake Ontario-St. Lawrence River Studies. 2006. *Review of the Lake Ontario-St. Lawrence River studies.* Washington, DC: National Academic Press. 162 p. $35.75 US. ISBN 0309100682.

Nicholson-Lord, David. 2006. *Planet Earth: the making of an epic series.* London: BBC Books. 128 p. £9.99. ISBN 0563493585.

Nisbet, Jack. 2005. *The mapmaker's eye: David Thompson on the Columbia Plateau.* Pullman, WA: Washington State University Press. 232 p. $29.95 US. ISBN 0874222850.

Nova Scotia atlas. 2006. Halifax, NS: Formac Pub.; Province of Nova Scotia. 144 p. $29.95 CDN. ISBN 0887807070.

Okabe, Atsuyuki. 2006. *GIS-based studies in the humanities and social sciences.* Boca Raton, FL: CRC/Taylor and Francis. 344 p. $89.95 US. ISBN 084932713X.

Rumney, Thomas. 2005. *The study of agricultural geography.* Lanham, MD: Scarecrow Press. 816 p. $95.00 US. ISBN 0810857022.

For more information about each item, please visit
http://www.lib.uwaterloo.ca/locations/umd/acmla.html

Schluter, Thomas. 2006. *Geological atlas of Africa: with notes on stratigraphy, tectonics, economic geology, geohazards and geosites of each country.* New York: Springer. 272 p.; 249 illus, plus CD-ROM. £100.00. ISBN 354029144X.

Taylor, D.R.F. 2005. *Cybercartography: theory and practice.* Boston: Elsevier. 594 p.; 1 CD-ROM. $180 US. ISBN 0444516298.

Terkenli, Theano and Anne-Marie d'Hauteserre. 2006. *Landscapes of a new cultural economy of space.* New York: Springer. 245 p. $129.00 US. ISBN 1402040954.

Thiry, Christopher. 2006. *Guide to U.S. map resources: map and geography round table (MAGERT) of the American Library Association.* 3rd ed. Lanham, MD: Scarecrow Press. 520 p. $80.00 US. ISBN 0810852683.

Times atlas of the world. Desktop edition. 2006. London: Harper Collins. 240 p. £16.99. ISBN 0007222963.

Wisner, Ben, et al. 2005. *Towards a new map of Africa.* London: Earthscan. 336 p. Paper: £16.99. ISBN 184407093X. Cloth: £60.00. ISBN 1844070921.

World deepwater atlas. 4th ed. 2005? Ledbury, UK: Oilfield Publications Ltd. 72 p. $390 US. ISBN 1902157655.

Zurick, David and Julsun Pacheco. 2006. *Illustrated atlas of the Himalaya.* Lexington, KY: University Press of Kentucky. 240 p.; 135 maps. $50.00 US. ISBN 01813123887.

President's Message *(continued from page 2)*

topographic maps and will close the Canada Map Office effective January 2007. Maps will be available in digital format through the Internet. Government at all levels will remain the major customer of geospatial technology. However, this new policy will not meet the requirements of the general public and will effectively remove access to topographic maps from most Canadians and their families especially those not in major centres.

Canada has a distinguished history in map making and is a world leader in geomatics. Since its inception Canada has placed a high priority on the development and archiving of topographic maps. Indeed, Canada was the second country in the world to develop a national atlas in 1906. Our country is currently world renowned for its innovative geospatial technology grounded in what is probably the country's original occupation: land exploration. National topographic maps and the Atlas of Canada promote our country's sovereignty and educate Canadians by developing geographic literacy.

ACMLA's understanding is that the government maps for government, industry and Canadians needing maps for hiking, kayaking, fishing and other recreational activities.

The Association of Canadian Map Libraries and Archives (ACMLA) commends the Government of Canada's policies of fiscal responsibility and accountability. We support Natural Resources Canada's Geobase Initiative, in which provincial, territorial, and federal mapping agencies share in the collection, maintenance and distribution of geospatial information. Technical customers are better served with digital databases but for ordinary Canadians paper is superior at the present time. However, it is not one or the other; both free digital Geobase data and paper maps are needed. Geobase data cannot be compared to high-quality printed paper maps. Geobase provides digital spatial data files ideal for sophisticated computer analysis, manipulation and customized presentation. Printed topographic maps provide standardized, fixed cartographic images, accessible to all but the visually impaired, and requiring no 'hardware' for their use.

The shift in policy toward digital topographic maps was made without effective consultation with user groups. Miscommunications have also been made by the Ministry as to the consequences of the policy change. The current digital prototypes are light

(continued on page 50)

NEW MAPS

Compiled by Danial Duda

The ancient landscape around Glastonbury: energy centres, ancient remains, ley alignments, coasts & islands. 2nd rev. ed.
Scale: not given
Published: Glastonbury: Gothic Image Publications, 2005.
Description: 1 map: col.
ISBN: 0906362660
Note: Extensive text on verso. Relief shown by layer colour.

Athabasca basin mining & exploration activity: Saskatchewan and Alberta, Canada. Produced by Mineral Information Maps, a division of Intierra Ltd.
Scale: [ca. 1:765 000]
Published: [S.l.] : Northern Miner, 2005.

Brown's tidal streams in twelve charts: for each hour of the tide at Dover: showing how the tide is running at any hour around the whole of the British Coasts, Ireland and the North Sea. 18th ed., rev.
Scale: not given
Published: Glasgow: Brown, Son & Ferguson, Ltd., 2005.
ISBN: 0851747264

Budapest city map. 9. kiad.
Scale: 1:30,000
Published: Budapest: DIMAP Bt., c2005.
Description: 1 map: col.; 86 x 119 cm. folded to 23 x 12 cm.
Note: Relief shown by spot heights. Also shows wards. Includes index of city districts, 3 insets, and col. ill. Street index on verso. Panel title and legend in Hungarian, German, English, French, and Italian.
ISBN: 9630025191

Cambridge in 1885 and 1886: a portfolio containing the sixty sheets of the map which was published by the Ordnance Survey in 1886 and 1888 at the scale of 1:500 and is here reprinted at the reduced scale of 1:1260.
Scale: 1:1,260
Published: Cambridgeshire Records Society, 2005.
Description: 1 portfolio (1 map on 60 sheets), 33 x 45 cm.
Note: Includes a graphic index and an introductary leaflet.
ISBN: 0904323196

Central Asia, topographical map.
Scale: 1:500,000
Published: Haulfryn, Cilycwm, UK: Factpass Ltd. t/a EWP; Goring, Reading, UK: West Col Productions [distributor], c2005.
Description: < > maps: col.; 45 x 51 cm. or smaller folded to 18 x 13 cm.
Note: Relief shown by contours, shading, and spot heights. Depths shown by contours and soundings. Name of jurisdictions covered by sheet appears in upper margin at right, e.g.: Kazakhstan, Kyrgyzstan-Tadjikistan, Turkmenistan, Uzbekistan; China, Kyrgyzstan, Uzbekistan. Also shows lines of magnetic declination (isogons)."The original mapping ... was made during the Soviet era and all names ... were given in Russian." Areal coverage complete in 11 sheets. Includes notes, coverage map, glossary, and publisher's advertisement. Place-names in romanized Russian.
ISBN: 090622781X (Almaty); 0906227828 (Bishkek); 0906227844 (Dushanbe); 0906227852 (Karakol);
0906227879 (Osh); 0906227887 (Pamir East); 0906227895 (Pamir West); 0906227798 (Tashkent).

Coiled tubing activity chart.
Scale: not shown
Published: Calgary: Oilweek, Oil & Gas Inquirer, 2005.
Description: 1 map: col.; 37 x 50 cm. on sheet 69 x 99 cm.
Note: Supplement to Oilweek, Oil & Gas Inquirer, December 2005. Includes lists of contractor well types and top 20 operators in southern Saskatchewan, Alberta and northern British Columbia.

Columbus Avenue Business Improvement District, map & guide. Map design & production by Barbara Adler, June 2005. 7th ed. June 2005.
Scale: not given
Published: [New York]: Columbus Avenue Business Improvement District, [2005].

Description: 1 map: col.; 22 x 57 cm. folded to 22 x 10 cm.
Note: Covers area in Manhattan bounded by Central Park West, W. 64th St., Amsterdam Avenue, and W. 83rd St. Shows businesses/buildings within the BID boundary and major buildings outside the BID. Oriented with north toward the lower left. Includes col. ill. and advertisements. Classified business directory and advertisements on verso.

Energy map of Nigeria. Designed, produced, and distributed by the Petroleum Economist Ltd. in association with the Nigerian National Petroleum Corporation ; produced, designed and researched by K. Fuller and P. Bush.
Scale: not given
Published: London: Petroleum Economist Ltd., c2005.
Description: 1 map: col.; 88 x 112 cm. folded to 31 x 22 cm.
Note: Relief shown by gradient tints. Shows oil and gas fields, oil and gas pipelines, import and export terminals, refineries with minimum and maximum refining capacities, and tanker terminals with capacities. "Produced for 18th World Petroleum Congress, South Africa, 2005." Insets: Joint Development Zone; Offshore Escravos Area; Offshore Qua Iboe Area; Nigerian Deepwater Infrastructure. Includes table of "Nigerian statistics" with general demographics, economic indicators, etc., 4 insets, table of "Nigerian LNG industry," table of "Export Facilities" with "Existing FPSO ... vessels," table of "Nigeria 2005 bid round," list of Sources, and notes.
ISBN: 1861862407

Energy map of the Caribbean. [Designed by K. Fuller and P. Bush].
Scale: 1:3,800,000
Published: London: Petroleum Economist for Schools in association with National Gas Company of Trinidad and Tobago Limited, 2005.
Description: 1 map: col.; 90 x 140 cm.folded to 29 x 21 cm.
Note: Inset map of Trinidad and Tobago. Shows oil and gas fields; oil and gas pipelines; tanker terminals and oil refineries. Includes text, charts, tables and graphs. English, French and Spanish.
ISBN: 1861861893

EURES, Euopean Employment Services: a network to help workers cross borders.
Scale: 1:3,536,040
Published: Luxembourg: European Communities, c2005.
Description: 1 map: col.; 65 x 75 cm.
Note: Member countries shown in bright yellow. Includes ancillary maps of non-continental and overseas territories of member states, and col. ill. of the EU flag and the EURES logo. English, French and German. Place names in the home country's language.

Gas processing plant capacities.
Scale: not shown
Published: Calgary: Oilweek Magazine, 2006.
Description: 1 map: col.; 41 x 22 cm. on sheet 69 x 99 cm.
Note: Supplement to OIlweek magazine January 2006. Inset map of northern British Columbia, chart, and list of plants in British Columbia, Alberta and Saskatchewan, with NGL fractionation plants and straddle plants. Shows all plants in operation or physically completed October 2005.

Geological map, Haughton impact structure, Devon Island, Nunavut, Canada. By G.R. Osinski.
Scale: 1:25,000
Published: [Fayetteville, Ark.?]: Meteoritics & Planetary Science [distributor], [2005].
Description: 1 map: col.; 92 x 100 cm., on sheet 101 x 141 cm. folded to 21 x 26 cm.
Note: "Supplement to 'Meteoritics & Planetary Science', 40(12)." [Dec. 2005]. Map compiled on parts of sheets 58 H/6 and 58 H/7.

Geological map of the Himalaya. Compiled by J. Roychowdhury.
Scale: 1:1,000,000
Published: Kolkata: The Survey, c2005.
Description: 3 maps on 4 sheets: col.; 51 x 100 cm. folded to 28 x 40 cm. or smaller 100 x 83 folded to 26 x 28 cm.
Note: "Published under the direction of the Director General, Geological Survey of India, Kolkata." "Based upon the map of Western Himalaya compiled by the Northern Region (NR), G.S.I., partially modified by representatives of NR, G.S.I. and different meetings and through correspondence." Includes geological cross section. Includes legend and correlation of rock units on sheet 4.
Accompanied by text: Explanatory brochure on the Himalaya: geological map of Himalaya / Geological Survey of India. 16 p.; 28 cm. Includes bibliographical references (p. 15-16).

Korea and vicinity. Compiled in 2005 by the National Geographic Information Institute (NGI), Ministry of Construction & Transportation, Republic of Korea.
Scale: 1:3,000,000
Published: Korea: Korean Overseas Information Service, 2005.
Description: 1 map: col.; 74 x 104 cm.
Note: Relief shown by hypsometric tints and spot heights. Shows political boundaries; transportation; cities, towns and villages; population key; glossary.

The London County Council bomb damage maps 1939-1945.
Scale: not given
Series: LTS publication; no. 164.
Published: London: London Topographical Society and London Metropolitan Archives, 2005.
Description: ill., maps; 38cm.
ISBN: 0902087517

[Map of Palestine].
Scale: not given
Published: [Binfield, England]: [Jonathan Ross & Co.], 2005.
Description: 1 map; 58 x 43cm.
Note: Original copper plate eighteenth century, ca. 1740, believed to be from Venice. Original lacks title (cartouche is blank) or any other identification. Restrike of an unfinished map of the Holy Land, taken from a copper plate found in 2004. Latin.

Maps of the D-Day landing beaches: Sword, Juno, Gold, Omaha, Utah: showing in minute detail , the ground situation in April 1944.
Scale: 1:12,500
Published: Taunton: Hydrographic Office, 2005.
Description: 1 portfolio (5 maps): col. maps; 33cm.
ISBN: 0707715180

Natural wonders of New Zealand.
Scale: not given
Published: Auckland, N.Z.: David Bateman Ltd., c2005.
Description: 1 map: col.; on sheet 83 x 62 cm.
Note: Relief shown by shading. Includes descriptive index and col. ill.
ISBN: 186953607X

Ross Island, Antarctica. Map design [by]Gateway Antarctica, Centre for Antarctic Studies and Research, University of Canterbury, Christchurch, New Zealand ; cartography [by] Paul Barr, Gateway Antarctica ; editors: Paul Barr and Michelle Rogan-Finnemore, Gateway Antarctica.
Scale: 1:100,000
Published: Christchurch, N.Z.: Gateway Antarctica, c2005.
Description: 1 map: col.; 94 x 81 cm. folded to 27 x 14 cm.
Note: Relief shown by contours, shading, and spot heights. Includes notes, projection data, and location map (inset). Text, 1:15,000-scale map of Hut Point Peninsula, "Timeline" chronology, and ill. (some col.) on verso.
ISBN: 0473100193

Water resources map of India, 2005.
Scale: 1:5,000,000
Series: India. Central Board of Irrigation and Power. C.B.I. & P. map; no. 25.
Published: New Delhi: Central Board of Irrigation and Power, c2005.
Description: 1 map: col.; 70x 96 cm. folded to 30 x 23 cm.
Note: "Based upon Survey of India map with the permission of the Surveyor General of India." Includes legend, col. ill., list of important major projects and medium projects (Hill states). Includes graphs showing "Development of irrigation potential (cumulative) through plan periods; Plan-wise proliferation of projects (major); Plan-wise proliferation of projects (medium); Basin wise flow & storage potential in India; Basin wise distribution of hydro power potential; Live storage capacity of reserviors (Billion cubic meters); Irrigation potential-status (End of IX plan); Culturable command area (Million hectares); Source wise net irrigated area."

Weather risk. [Produced by] Euromoney in association with Reactions ; ABN AMRO.
Scale: not given
Published: [London] : Euromoney, [2005].

Wheat midge forecast 2005: [Saskatchewan].
Scale: not given
Published: [Regina]: Canada-Saskatchewan Crop Insurance, [2005].
Description: 1 map: col.; on sheet 28 x 22 cm.
Note: Insurance administered jointly by Agriculture and Agri-Food Canada and Saskatchewan Agriculture, Food, and Rural Revitalization.

REVIEWS

Compiled by Michele Shular

Reader's Digest and Canadian Geographic. ***The Canadian Atlas: Our Nation, Environment and People***. Montreal: Reader's Digest, 2004. 192 p. $69.95 CDN. ISBN: 1553650824.

The *Canadian Atlas: Our Nation, Environment and People* is a timely and well received reference work culminating from the collaborative endeavour of Canadian Geographic and Reader's Digest. This atlas is an attractive, educational and easy to use tool that is arranged into the following sections: thematic overview, maps and finding aids.

The thematic overviews are arranged into two page spreads rich in text, photographs, satellite images, charts, statistics, diagrams and sidebars. With an emphasis on sustainability and diversity, topics include natural regions, natural resources, human past, changes in social values and urban centres.

The cartographic section boasts over 70 regional and downtown core maps of major cities. The regional maps range in scale from 1:450,000 to1:5,500,000, while there is no scale or distance provided for the city maps. The choice of colour, symbology and font make the maps very easy to read and each of the regional maps is supplemented with sidebars highlighting facts and points of interest.

Finding aids include a map key that refers users to the appropriate page for the region that interests them with information regarding scale. The key map also provides the symbols legend and reference to geographical name sources for both French and English. There is a thematic subject index dedicated to the thematic overview section and a locational gazetteer that provides access to over 33,000 populated places, physical features and points of interest by way of map plate number and map coordinates. The gazetteer also includes a list of abbreviations used such as (AB – Alberta, RNP – réserve naturelle provinciale, et cetera).

Facts and figures are not supported by references to specific data sets; however, the Credits and Acknowledgements page indicates that Statistics Canada and the Canada Base Map Series, Natural Resources Canada and other governmental agencies are the sources of this information. The maps were produced by Canadian company Map Media, and several other private and governmental agencies.

This atlas would be an excellent addition to any intermediate and high school library where Canada is part of the curriculum. It would also be appropriate in the general reference collection of academic libraries that support Canadian studies.

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Litalien, Raymonde and Denis Vaugeois. ***Champlain: the Birth of French America.*** Montréal: McGill-Queen's University Press, 2004. 412p. $89.00 CDN. ISBN: 0773528504.

Samuel de Champlain (ca. 1570-1635) is an amazing historical figure, even by today's standards. He was an explorer, colonizer, diplomat, city–builder, capable cartographer, and an astute observer of the world around him. In honour of the four-hundredth anniversary (2004) of the first permanent French settlement in Canada, this book is a compilation of scholarly articles covering not only Champlain's life and work, but also his impact on the period in French, American and world histories. His explorations, dealings with Native Americans and Europeans, promotion of the New World, and his meticulous journals, maps and drawings, provide rich material for the authors on a variety of subjects. More than 30 authors contributed to this book, including archaeologists, art historians, archivists, historians, and museum curators, among others.

Early in 1603, Samuel de Champlain began the first of 21 voyages between France and New France. This alone is an accomplishment because in between these many voyages, he was busy exploring inland,

making contacts and agreements with various Native American tribal groups, keeping detailed journals, making drawings and maps, and performing other services in the name of France, while still having time to spend in France in between voyages.

Through a series of articles, this book demonstrates why Champlain is justly called the "Father of New France". The book is both a biography of the man (including chapters on his early years), and a documentary on the French world of the sixteenth and seventeenth centuries. The depth of the study includes excerpts from Champlain's journals and papers, thirty–two maps drawn by him, as well as references to other source materials of the day. Additional illustrations and maps provide a wealth of description that enhances the text greatly. Photographs of artifacts (some that were in Champlain's possession) round out the visual impact of the book.

The contents are arranged into major topics (e.g., Part I: "France in Champlain's Time"), then within this are sub-arranged articles within each topic (e.g., "Brouage in the Time of Champlain"). Each article is well-written with illustrations, maps, excerpts from source materials, endnotes and other elements. There are also sections on Canada in the wake of Champlain, documenting his impact on the North American continent to the present. A substantial bibliography and a good index make the work valuable for research and study.

Since Champlain was a prolific writer, the authors present him to the reader almost as a living person. The writing, drawings, maps and other materials present scenes that are fresh and easy for a modern reader to visualize. His complexity as an individual is most impressive and this book provides a very good documentation of this, while also making a deeper study that researchers will appreciate.

Champlain: the Birth of French America is big in every sense. Its size, thickness, depth, and layout present the study of Champlain in grand style. Colorful, well–printed illustrations and maps complement the vivid text and theme of the book. Because of the financial support of several government and private sources, the book is quite reasonably priced considering its size and the quality of printing. The publication is very impressive and deserves to be in any collection. It would also make a wonderful gift for geographers, cartographers, historians, or for anyone with an interest in exploring and travel.

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Kain, Roger J. P., John Chapman and Richard R. Oliver. ***The Enclosure Maps of England and Wales 1595-1918: A Cartographic Analysis and Electronic Catalogue***. Cambridge: Cambridge University Press, 2004. 415 p. $220.00 US. ISBN 0-521-82771 X (cloth).

This is a work that is deserving of a review article because of its scholarly nature and thorough treatment of its subject matter. *Enclosure Maps* is a specialized work which begins with a historiographical essay on the enclosure movement in England and Wales, then moves on to a county by county analysis of enclosure map characteristics, and concludes with an exploration of the enclosure map as a distinct genre. A lengthy 86-page appendix provides an alphabetical list of surveyors of enclosure maps. Lastly there is an index of places, listed alphabetically, in England and Wales with extant enclosure maps. The title page refers the reader to a web-based electronic catalogue and database "which extend the information provided in this book". One could easily remain unaware of this valuable resource because of its occasional mention in the printed work. This subscription-free resource is available at http://hds.essex.ac.uk/em/index.html.

The authors begin with their definition of enclosure which is a process that "involved the removal of communal rights, controls or ownership over a piece of land and its conversion into 'severalty', that is a state where the owner had sole control over its use, and of access to it." This process is not necessarily synonymous with physically shutting off a piece of land with a fence or hedge. Enclosure was not always accompanied by map-making. Many enclosures by agreement continued to manage without a map even well into the nineteenth century; in part this was because map-making is a skilled and therefore expensive process.

It happens that Bedfordshire, the county of my birth, is the one with the highest proportion of enclosure map cover: a total of 90 maps, ranging in date from 1761 to 1890, and providing 67.8% coverage of the county. At the other extreme, for Kent there are 29 maps which provide only 2.1% coverage. The chapter which describes the enclosure map genre indicates that scales vary from one inch to 0.455 chains (1:360) to one inch to 12 chains (1:9,504) with a majority of the maps tending towards the smaller-scale end. Almost all enclosure maps use at least one colour other than black; colour is used to enhance information which is already shown in monochrome but it also provides additional information. Some of the features shown in colour on these maps include: buildings, roads, water features, field boundaries, enclosed land, and ownership and tenure. Other features which may appear on enclosure maps include: churches, natural features (rivers, drainage, and slopes), agricultural land use such as woodlands, grass, and orchards, and names. Some maps are decorated with cartouches and decorated scale bars.

Richard, Thomas and Edward Gee, as surveyors, were together responsible for 32 enclosure maps. Typically, however, each surveyor listed in the appendix created only one, two or three maps; for example, Thomas Pinnell surveyed three on his own and one in collaboration with Frederick Murlow. Each entry in the index of places includes the name of the place, county, scale in chains, percentage of parish or township covered by this map, the National Grid reference, and a unique reference number. One can then use the reference number to search the web catalogue for additional information.

As an example of how to work with the web catalogue, I found a reproduction of an interesting enclosure map legend for Meare, Somerset on page 191. I then searched for this map in the index and located its reference (EXMID) number: 12154. Using this EXMID I searched the catalogue and found an entry with a great many data fields, some of which were blank; for example, area mapped (acres), map maker's name, map material (vellum or parchment), status of map, whether mills are mapped, details of river and foreshore features, and so on. The catalogue can be searched by county name, name of place, date, and EXMID. Had I searched the catalogue by name of place, Meare, I would not have found this particular entry since it is incorrectly indexed under Mear. Given the focus in the printed work upon the cartographic output of individual surveyors, it is surprising that the online catalogue cannot be searched by surveyor's name.

Enclosure Maps is not a work that many would want to read, with the notable exception of the essay on the enclosure movement, but rather it is meant to be consulted. The county by county analysis is properly included but primarily for reference purposes. I was a little disappointed in the lack of illustrative material, particularly the scarcity of map illustrations. In most if not all cases, the illustrations are only extracts of the complete enclosure maps and none, understandably, is in colour. The work has superb credentials in that it is a sequel to *The Tithe Maps of England and Wales* (1995), co-authored by two of the three authors of the present publication, it was funded by the Economic and Social Research Council and The Leverhulme Trust, and was published by Cambridge University Press. The book derives from a five-year research project at the University of Exeter and work at the University of Portsmouth. It is an expensive publication but decidedly recommended for libraries and archives with an interest in the history of cartography and/or British studies.

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Ehrenberg, Ralph E. ***Mapping the World: An Illustrated History of Cartography.*** Washington, D.C.: National Geographic Books, 2005. 256 p. $40.00 U.S. ISBN 0-7922-6525-4.

The earliest known maps are associated with the civilization of Mesopotamia, dating back nearly 4,500 years. The oldest known map of the world, produced by the Babylonians circa 600 B.C. was created using cuneiform, a style of writing which involved the use of a wedge-shaped stylus to make marks on damp clay tablets. Today, more than two and a half millennia later, geographic information systems, along with a host of other new technologies have changed the nature of cartography such that "what once took years or months to survey can now

be done in hours or minutes." The result is that "...the surface of the Earth is now mapped daily by numerous remote-sensing satellites, producing vast archives of mappable data that is (sic) received, analyzed, and maintained by cartographers, scientists and technicians scattered across the globe."

The story of how maps and map-making have changed since the oldest known world map was pressed into a damp clay tablet is the subject of *Mapping the World: An Illustrated History of Cartography*. Written by Ralph E. Ehrenberg, former chief of the Geography and Map Division of the Library of Congress, and published by the National Geographic Society, this book will delight cartophiles with its sweeping coverage of the history of maps.

The book is arranged chronologically, and is divided into six sections, beginning with "The Emergence of the Mapping Tradition" and ending with "Satellite Imaging, Digital Mapping, and Virtual Mapping". To summarize nearly 4,500 years of cartographic history in a single volume is a formidable challenge, to say the least. Perhaps the single most vexing issue is the choice of maps to be included. In this book, the National Geographic Society and Mr. Ehrenberg have managed to "hit all the highlights", as the press release states. The book is lavishly illustrated and the accompanying text is well-written and informative. The 93 maps depicted in the book serve as an excellent journey through cartographic history. At the beginning of each section, Ehrenberg puts the selected maps into their cultural and historical contexts. His finely written text makes the reader aware of the important innovations, ideas and influences which have shaped map-making through the ages. Among the various map types featured in the book are: *mappaemundi*; portolan charts; bird's-eye views; topographic maps; and maps of historic events, e.g., the 1944 Omaha Beach-East map used in preparation for the D-Day invasion of Europe.

This is a beautifully illustrated and well-written book which both informs and delights. My only quibble is with the bibliography, where the more than 100 entries for the entire book have been condensed in small type onto a single page. Readers seeking additional information from the impressive array of sources listed had best be equipped with a good magnifying glass (which can also be used, of course, to reveal the secrets and the beauty of the maps themselves). Otherwise, the National Geographic Society is to be applauded for making the history of cartography accessible to geographers, historians, and everyone with an interest in how maps reveal our evolving awareness of the Earth and beyond. The message, as told in this book, is that maps not only tell us about the places they depict, they are records of our hopes, dreams and accomplishments. The history of humanity over the past 4,500 years is revealed in our maps.

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Room, Adrian. ***Placenames of France: Over 4,000 Towns, Villages, Natural Features and Departments***. Jefferson, NC: McFarland, 2004. 334 p. $55.00 US. ISBN: 0-7864-2052-9.

This new dictionary from Adrian Room describes the origins of over 4,000 names for populated places, natural features, and historic and contemporary administrative regions in France. Placenames for Corsica and for the municipalities of Monaco and Andorra are also included. It is believed to be the first English language resource to cover these topics.

The alphabetically-arranged dictionary entries are composed of the name, a description of the place and its location, and the name's etymology. The date when the name was first recorded is noted, if known. These entries are occasionally complex since people have been in these places since the 6th century BC, when Greeks settled along the Mediterranean coast, through long periods of Celtic, Roman, Germanic, Norman, and Christian influence, and through the French Revolution, and finally to the present.

There are five Appendices to further explain how the names are used. The first, "French Habitative Names", provides the appropriate name for persons from roughly 1,500 places in France. For instance, a person from Cherbourg is a Cherbourgeois; from Dax, a Dacquois; from Olivet, an Olivetains. The second Appendix provides about 4,000 Revolutionary renamings from the 1789 -1792 crisis

in France. Room states "the new order affected all areas of society, not least the names of places", and so, for many towns and villages, secular names had to replace those with their roots in the Catholic Church or in the aristocracy. Appendixes 3 and 4 consider the naming of places in Paris - Metro stations and major sites such as the Bois de Boulogne and the Centre Pompidou. There is also another section on Revolutionary renamings in the city. Finally, a smaller Appendix lists some common words and elements, generally of Latin derivation, found in French placenames.

Room has researched this material in depth. His bibliography lists geographical dictionaries for France and the world, road atlases for France, a web site, and subject dictionaries such as the *Oxford Companion to French Literature.* Assembled from these diverse sources, his entries tend to be concise and clear. For instance, the name for Cherbourg, a city and port on the English Channel, is attributed (in the bibliographic sources that I checked) to a variety of Roman, Germanic, and Old French origins. Room moves quickly through the various attributions, finally stating, "An origin in Latin, *Caesaris burgus*, Caesar's fort, is not likely but theoretically possible."

Room and McFarland together have produced another very useful and accessible reference source. Bring a good map of France with you when you consult this dictionary, to assist in locating the administrative regions, in particular the 95 departments. In spite of this small lack, the dictionary and its appendices should have lasting research value and can be highly recommended for academic libraries and larger public libraries.

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Cussans, Thomas. ***Satellite Atlas of the World.*** New York: Oxford University Press, 2005. 295 p. $40.00 US. ISBN: 0-19-522204-0.

Oxford's *Satellite Atlas of the World* is a collection of over 250 worldwide satellite images compiled by NPA Satellite Mapping (www.npagroup.com), a UK company involved in remote sensing image analysis and distribution. The images are arranged in continental groups and depict a wide range of landform features and urban areas. Most of the images are produced with false colour to enhance and highlight terrain features, creating more a work of abstract art than an atlas. Image sources include Landsat, DigitalGlobe, Space Imaging, NASA, and USGS. A brief caption and index map accompanies each image. Also included with this atlas are a brief forward and explanation of satellite imagery, place names index, and set of world political maps.

This atlas is a fascinating collection of "earth as art" images. Although few details are provided on sources, the high quality of these images indicates that they are derived from newer high-resolution satellites equipped with hyperspectral sensors. It is evident that a high degree of technical skill has gone into the image selection, preparation, and interpretation. This atlas dramatically illustrates the advances in remote sensing technology that have occurred since the last major satellite atlas was published, the *National Geographic Satellite Atlas of the World* (1998).

It is interesting to compare the two atlases; the National Geographic work, although older, is superior is many ways. It provides a detailed explanation of remote sensing history, technological aspects and applications, with relevant index maps, explanatory notes for each image, full imagery credits, a detailed index, and is well laid out with a variety of image types. In contrast, the Oxford atlas has more and higher quality images, but little other content. As mentioned above, there are few technical details provided for the images. Perhaps only technical types would be interested in sensor and satellite type, resolution, date, location coordinates, and band/wavelength combinations, but this is a major omission. More in-depth information on remote sensing and satellite imagery, context maps, and a detailed index would make this a better satellite atlas. Also the atlas needs a greater variety of images and text to make it more interesting. In this reviewer's opinion, looking at so many false colour satellite images becomes physically unsettling.

A final critical comment involves the writing and editing. On page 210, there is an image of Vancouver and the Lower Mainland with a caption reading: *"Vancouver, capital of British Columbia, is*

the only city of note on Canada's west coast." Errors like these lead one to question the accuracy of the atlas text in general. This is surprising considering the high quality of this publisher's works such as the authoritative Oxford *Atlas of the World* (11th ed, 2003), which includes the same Vancouver image with an accurate caption.

Although a somewhat flawed publication, The Oxford *Satellite Atlas of the World* is still a worthwhile addition to a Geography collection. With over 250 high quality remote sensing images, it is good value for the price of $40 US.

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President's Message *(continued from page 41)*

years behind paper maps. Canada produced world class topographic mapping 30 years ago, however with this most recent policy change Canada's mapping is on par with developing countries.

The migration to digital only is by no means a minor change. The shift will have major repercussions to university and community libraries, as well as to ordinary Canadians. Given current technological limitations, both physical and knowledge-based, Natural Resources Canada's promotion of Canadian access to a website (which in turn will direct access to an "ftp" site, in order to download a vector "pdf" file, sized at 38" x 26" and have the file printed), is ahead of its time. The Canadian public, especially those located outside of urban centres without access to technological support, will therefore no longer be served.

The digital only initiative is a natural progression in the longer term; however it is undoubtedly premature and unrealistic. ACMLA proposes the convening of an expert panel to evaluate the policy and provide recommendations to the Minister of Natural Resources. In the interim, or until technological and institutional support systems can catch up, the Government of Canada must ensure all Canadians have access for both print and digital maps.

Maps are important. They are not only an integral part of our heritage but also of our current and future economy. Who we are as Canadians is a product of where we are.

ACMLA has always benefited from a positive relationship with the Ministry of Natural Resources. The Association would greatly appreciate the opportunity to work with you on this issue of importance to all Canadians. ACMLA' s Map Users' Advisory Committee (chaired by Heather McAdam) provides an avenue for such communication and cooperation. I and my colleagues in Ottawa (Heather McAdam at Carleton University; Grace Welch and Susan Mowers at the University of Ottawa) would be happy to meet with you to explore solutions.

Report of the Map Users' Advisory Committee

Heather McAdam (chair)

Background

It was clear from the Panel Discussion on the Future of Topographic Mapping in Canada at Geotec in June that re-opening any discussion on the future of printing topographic maps in Canada was not going to happen (according to NRCan's speaker: Prashant Shukle (Director, CTI, ESS/GC-MSB)). For ACMLA to have any effect on this policy it would have to be moved to a political level.

That panel precipitated the following:

- This summer MUAC was re-activated by the ACMLA Executive with a mandate to focus on the topographic map issue.
- MUAC drafted a letter for the Executive to be sent to the Minister of Natural Resources putting the Minister on notice of ACMLA's position on the government's policy in regards to topographic maps with the suggestion of the convening of an expert panel to evaluate this policy and provide recommendations to the Minister.

continued on page 56

DATA REVIEWS

Compiled by Richard Pinnell

Topo USA Version 6.0, Delorme, 2006. [2 DVDs]

$99.99 USD for entire country or $49.99 for East or West half only. Designed for Windows XP or 2000 SP3, recommended Pentium III with at least 256MB of RAM.

Topo USA 6 is a digital seamless topographic map of the entire United States which integrates USGS topographic data with Delorme's own highway, street and trail network data. Unlike most of the geospatial data reviewed in this section, Delorme's ***Topo USA 6*** is not data that can be used or manipulated in GIS platforms like ArcGIS or MapInfo. The vector data can only be viewed using the Topo USA 6 Graphical User Interface (GUI). However, Delorme has provided a semi-GIS approach to their GUI which gives the user an opportunity to do more than just browse the seamless United States map database.

Designed to be a quick and easy reference for trip planners, outdoor adventurers and armchair explorers, ***Topo USA 6*** provides contour intervals of up to 20 feet, administrative boundaries and street networks, route tracking capabilities (similar to MapQuest and the other online map engines) and interoperability with handheld GPS devices. Perhaps the most intriguing feature is the option to split the screen into a 2D view and a relatively quick and adjustable on-the-fly 3D rendering of the data, with the ability to drape ***Topo USA 6*** custom ortho or satellite imagery over top.

Released in 2006, ***Topo USA 6*** is provided on two DVD-ROMs. Disc 1 is used only for the installation, while Disc 2 contains all run-time data (approximately 4 gigabytes) so there is no need to switch discs when browsing. The program can be installed on one computer only, as an online registration key is required to use the software. A detailed, 180 page PDF guide is included with the software package to help novice users with the program. ***Topo USA 6*** gives the user the option of copying a large amount of data to the system's hard drive to increase running speed of the program. Running solely off the DVD-ROM will cause the program to grind quite slowly at times, especially when zooming in and out. The user should be prepared to watch the data slowly redraw over and over again.

Default map coordinates are displayed using datum WGS84 (World Geodetic System 1984), but can be changed to NAD 83 or NAD 27 if needed. Furthermore, measurement units can be changed from Statute Miles to Kilometres. The data includes most of the features found on topographic maps (excluding building footprints) as well as detailed street and trail networks. Unfortunately metadata is scarce; for example, important items such as scale and date of the vector data are not indicated.

GIS users may find many of the following features of the ***Topo USA 6*** GUI familiar. First, the map is somewhat customizable to suit taste. There is the option to turn data layers on and off to create a view that is pertinent to interests while omitting unnecessary data. Shaded relief can also be turned on or off depending on the user's preference. Zooming capabilities range from the entire country to the smallest urban streets, and some layers are set to show more detail as the user zooms in. For example, contour line intervals decrease as the user zooms in. This is a very good feature for reducing the clutter when zoomed out.

The software includes an Identify tool to examine the general attribute data for any feature on the map, from physical aspects like roads, trails, woodlands, contour lines and lakes to invisible divisions like administrative and park boundaries. The attribute data includes information such as feature name, length, area (usually in acreage), spot elevation, ZIP code, latitude and longitude, township, county, state and so forth. Most features are labeled in the map to help with identification (depending on the zoom level). There is also a Draw feature, which allows the user to create and save points, lines or polygons of interest and to measure their respective distances and area.

For trip planners and geocachers, GPS interoperability is possible with ***Topo USA 6*** as the program allows

the user to send and receive route points and waypoints from their GPS device. Most of the standard commercial handheld GPS devices are supported.

The route tracking feature is quite similar to online route finders such as MapQuest or Yahoo Maps, but ***Topo USA 6*** goes one step further by giving the option of including hiking and bike trails. If one were so inclined, she could find directions from point A to point B by way of hiking or biking trails. This can be quite beneficial for the outdoorsy type or field researchers, but the road tripper would do just fine with the free online route websites.

The software package does have a few weaknesses that may leave users frustrated. One drawback is that several of the features that would be important to map library patrons are not always intuitive, and trial and error may be necessary to yield optimal results. Simply printing a map is a quite lengthy process as it requires several different menus of settings to browse. It may take a few tries to print out a quality map with a traveling route and elements such as scale bar and a title. To export a map to a JPEG or BMP requires the same steps involved as printing and the user will have to dig deep to find the option to change to a higher resolution than the very low default resolution of 75 dpi.

Zooming in and out can also be quite tiresome, as the zooming tool only lets the user zoom in or out one level at a time. There is a quick zoom "trick" which involves dragging the mouse pointer halfway across the screen in a diagonal manner, but it only seems to work some of the time as the DVD-ROM can not keep up.

Perhaps the most visually appealing feature of ***Topo USA 6*** is the ability to view USGS Digital Ortho Quads, USGS 7.5 Minute Topo Quads, USGS Digital Elevations, and DeLorme Sat10 satellite imagery in 3D. Unfortunately, ***Topo USA 6*** only comes with a very small data coverage, meaning the user will have to download his area of interest at a cost of $3 for a tiny 1minute x 1minute area. Since the imagery are not compatible with any other application and can only be used with ***Topo USA 6*** it hardly seems worth the extra money. This feature seemingly goes to waste.

In conclusion, ***Topo USA 6*** can be a great package for those interested in exploring or traveling within the United States, but one must be aware of the learning curve involved in getting a complete and worthwhile experience from the product. For more information on the potential uses for ***Topo USA 6***, please see http://www.delorme.com/topousa/.

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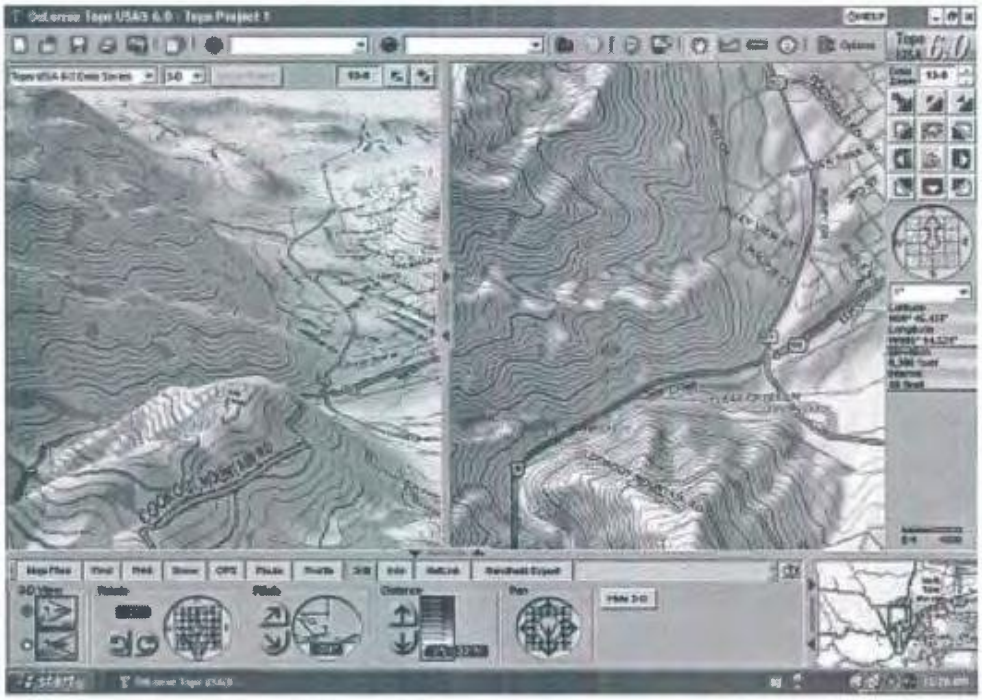

Screen capture of the Denver area, showing 3D view on the left side and 2D on the right.

Clutter Data. [Computer file]. Markham, Ontario: DMTI Spatial, 2005.

The *raison d'être* of DMTI's clutter data is to provide engineers with an underlying picture of terrain and ground cover, in order to refine their wireless signal loss prediction models. Different land uses affect wireless signals in different ways, either by reflection, diffraction, absorption or scattering of the transmission waves. Clutter data is basically generalized land use data to provide a picture of man-made and natural features that may impair radio frequency propagation.[1]

DMTI's clutter data has 10 land use classifications: (1) fresh water, (2) ocean, (3) coniferous forest, (4) deciduous forest, (5) open land, (6) airports, (7) industrial, (8) urban, (9) dense urban and (10) wetland. This dataset should be used by advanced GIS users since it requires some manipulation in order to import into GIS software. The following data review was done with the use of ArcGIS 9.x; therefore all technical steps outlined are specific to ArcGIS 9.x.

Technical Specs

The base data for this land use classification dataset is the National Topographic Database (NTDB) 1:50,000 scale digital mapping. The data files are tiled according to the national topographic system. Each tile is filed in the Universal Transverse Mercator coordinate system, i.e., zones 7 to 22 for Canada.

The dataset comes in two resolutions, 30 metres and 90 metres (resampled from 30 metres); both are delivered in 1:50,000 and 1:250,000 geographies (areas of approximately 28 km by 38 km and 112 km by 152 km). The data available to Canadian university libraries through the DMTI Geoconsortium agreement are only in Universal Transverse Mercator (UTM) but the documentation describes two projections: unprojected latitude/longitude and UTM. The data are based on the North American Datum of 1983 (NAD 83). There are in total 6,164 tiled files for the 30 metre resolution data and 524 tiled files for the 90 metre resolution data. These files are organized by UTM zone, in other words, the files are filed in folders, each representing a different UTM zone.

These files are quite difficult to import into ArcGIS since they are ASCII classified grids. Similar to an ASCII grid file these files have the grid information in the file header, in addition to having a look-up table of class values defining

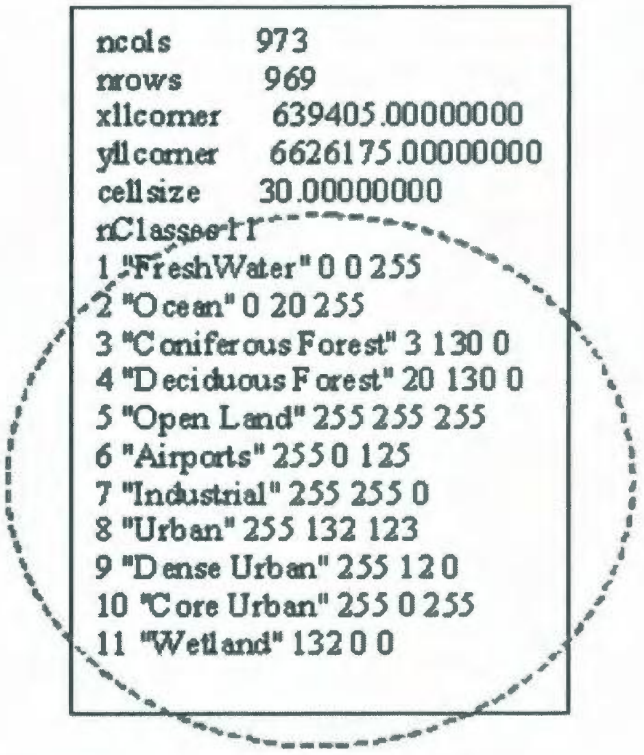

Figure 1.

which integer will represent which class name.[2] For example, see Figure 1.

ArcGIS does not recognize an ASCII classified grid as an ASCII grid since it has a lookup table; therefore, we encounter problems importing these files into ArcGIS 9.x. In order to properly import these data into ArcGIS 9.x we must remove the look-up table within the raw ASCII text file. For example, we would open the following "c30m062E01.txt" file in Notepad and then delete the lookup table from the file; it is recommended to paste this table into another Notepad file (see Figure 2).

It is important to note that the look-up table must be kept and saved in Notepad since it will be used

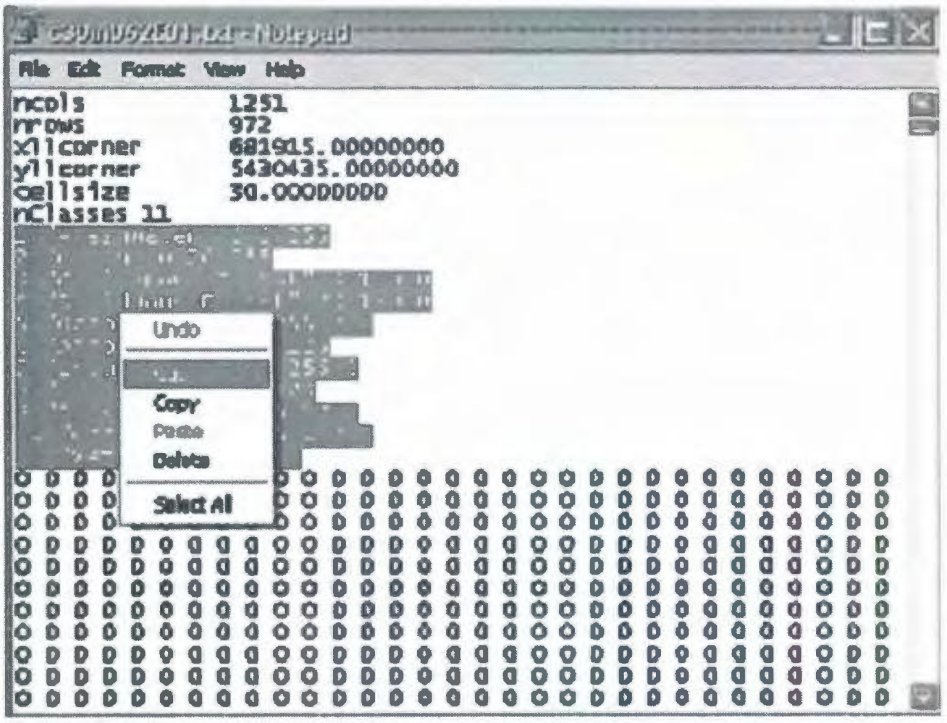

Figure 2.

to provide legend information later in ArcGIS (simply rename the file to ensure that the original file is kept unmodified).

The file is now ready to be converted in ArcGIS. To convert the file you must use ArcToolbox and under CONVERSION TOOLS select TO RASTER and ASCII TO RASTER. Select which file you want to convert and then select where you want the new file to be stored. You must select INTEGER as an output data type. Once the file is converted you will need to change the legend labels to reflect the appropriate land classes saved previously from the lookup table. The SYMBOLOGY under the LAYER PROPERTIES will be changed so the legend represents the land use classes, for example (see below) value "1" represents "Freshwater" land use class. The numbers following the land use classes are the RGB values if you want to use DMTI's recommended colour schema (Figure 3).

Overall Assessment

The metadata available for this dataset are available on DMTI's website in ".pdf" format. This documentation is not complete; it lacks information on the creation date and DMTI's update intentions. Furthermore, it does not follow any metadata standards such FGDC or ISO 19115. The conversion steps and technical information are not available in the documentation.

These data are nothing more than a generalization of the national topographic database at 1:50,000 scale. DMTI has classified the data into ten classes, as outlined in the Description section. After comparing the converted grids to the appropriate 1:50,000 topographic sheets the generalization seems to have been done properly; however, it is recommended that the user double checks the grids against the raw 1:50,000 topographic sheets in order to assess that no errors have occurred during the generalization. For this data review we compared the converted tile to the appropriate NTS sheet; please see Figure 4.

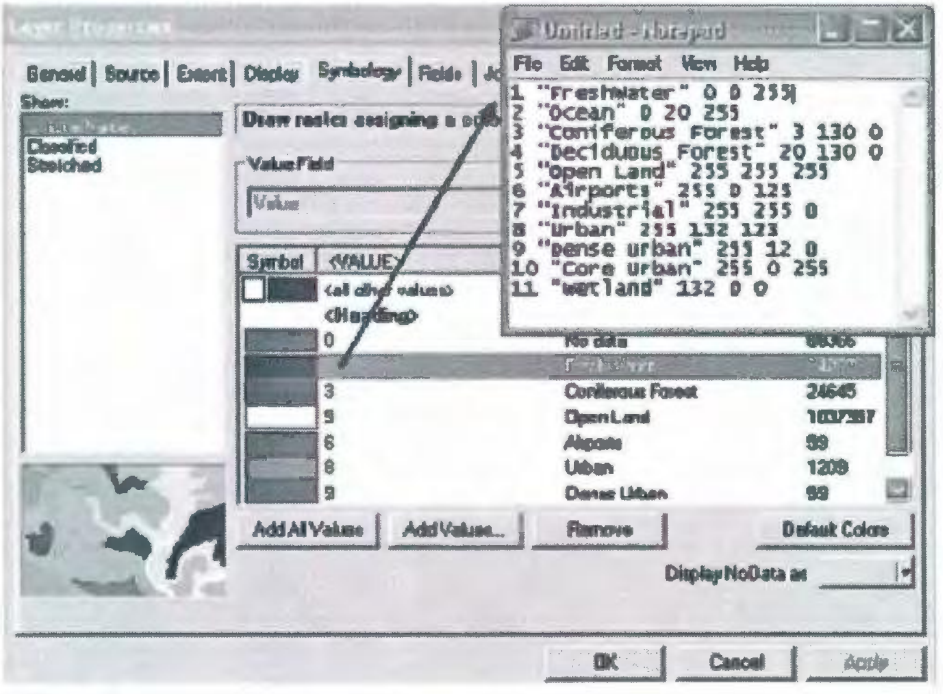

Figure 3.

The comparison reveals that the generalization was done properly for this tile; however we have been warned in the past that generalizations done for clutter data based on the NTS sheets do not always accord perfectly with the original NTS sheets. In other words, the land use classes do not lineup perfectly with the appropriate layers of the NTS sheets. We always explain to users that this data is a generalized version of the topographic sheets and as with any manipulation they should verify that it has been done properly.

For more information on the usage of the clutter data, please see: http://www.geomatics.uottawa.ca/docs/COSSETTE_CIG2005_forWeb.pdf.

These clutter datasets, along with other DMTI products such as RouteLogistics, are available to members of the DMTI Geoconsortium.

Notes

1. http://www.directionsmag.com/companies/DMTI_Spatial_Inc./products/Clutter_Data/

2. http://lazarus.elte.hu/hun/digkonyv/ havas/mellekl/vm25/vmd01.pdf

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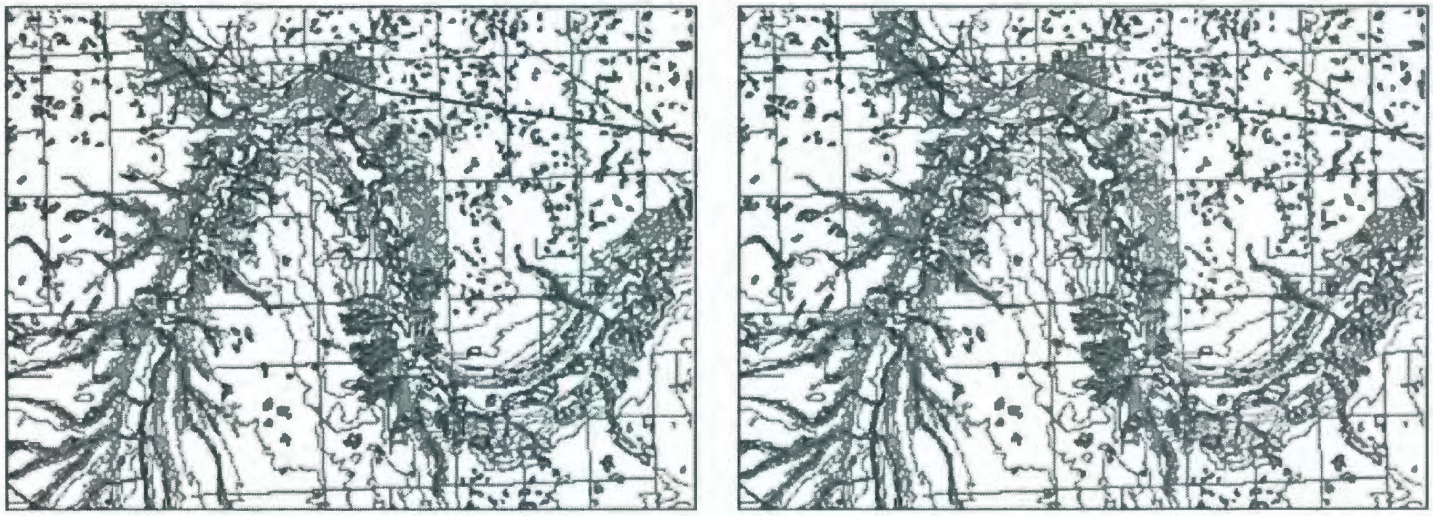

Figure 4. On the left, NTS topographic map. On the right, Clutter data.

Mark your Calendars

for next year's

Conference...

Montreal

May 9-14, 2007

Something new...

Atlas of Alberta Railways

http://railways-atlas.tapor.ualberta.ca/cocoon/atlas/

(thanks to Cheryl Woods for the URL)

President's message *(continued from page 50)*

- A plan of action was formulated including an independent website.

Plan of Action

The Canadian government wants to get out of the business of producing paper topographical maps and close the Canada Map Office. However, many Canadians place a priority on the paper map service the Government currently provides. For the majority of ordinary Canadians Natural Resources Canada's promotion of self-printing from a website is ahead of its time. Those members of the Canadian public without access to the technological support required to access digital plotted maps will no longer be served by the government of Canada. In the interim, or until technological and institutional support systems can catch up, the Government of Canada must ensure all Canadians have access to both print and digital maps.

How can we get involved and try to make a change? Why should we get involved in the public policy process? In short, why Lobby? **This policy will have an enormous impact on the Canadian public and our map users.** ACMLA is the authority in this field and represents both the public and research communities. As a result, the Minister of Natural Resources has a responsibility to listen to our point of view. This is not a minor policy amendment but a major change that has implications not just for map librarians but for the ordinary Canadian who is looking for a map for their cottage or who wants to go snowmobiling or hiking. Canada can be a vast and unforgiving country without a map in hand.

Lobbying is a powerful strategy to influence government policies. The topographic map issue needs to be brought to the attention of our politicians. So, what do we mean by lobbying? We mean nothing more than trying to persuade the members of our government to change their policy on topographic maps. That is our right, and our responsibility.

What you can do

This is a political issue and we must get the message out to as many Canadians and organizations as possible. A website has been set up to lobby and inform Canadians. ACMLA members must **send emails informing associations, university departments, schools, individuals, etc. of the Canadian Government's policy to abandon printing paper topographic maps.** Let your Member of Parliament and the Minister of Natural Resources know what their stakeholders think of this decision. One letter will not make a difference but how many letters does it take to make a difference? The Map Users' Advisory Committee will be meeting with Minister Lunn to discuss the issue as soon as possible.

Working together and informing our politicians of what we think can make a difference. Maps are important. They are not only an integral part of our heritage but also of our current and future economy. Who we are as Canadians is a product of where we are and not all of us can use a computer to see that.

Support Access to Maps for Canadians and send a letter: **mapsforcanadians.com**

September 2006

Update October 12, 2006
"Federal Government Stays in the Paper Map Business"

Minister of Natural Resources Gary Lunn announced on October 12th that Canadian topographic maps will continue to be available in paper format. The government's plans to discontinue paper map-making and switch to a digital-only map database resulted in a flood of letters and calls from citizens, educators, map vendors and librarians. Public opinion appears to have influenced the government's decision. A CBC audiofile provides more information on the decision (see "Federal government stays in the paper map business", October 12, 2006, at http://www.cbc.ca/ottawamorning/archives.html). Congratulations to Heather McAdam, the Map Users' Advisory Committee and ACMLA for taking the lead in focussing public opinion on this important public information issue. CM

ACMLA

Canadian Cities: Bird's Eye Views
Villes du Canada: Vues a vol d'oiseau

The following colour reproductions have been printed through the Association of Canadian Map Libraries and Archives' Historical Maps Committee. Maps cost $15.00 each and are printed on high quality paper 55 x 70cm (22" x 28"). A minimum of $7.50 will be charged for postage and handling. Larger orders will be charged the actual surface/parcel rate.

Les reproductions en couleurs suivantes seront imprimées par le comté des cartes historiques de l'Association des cartothèques et archives cartographiques du Canada. Cout 15,00$ par copie. Les cartes imprimées sur papier de grande qualité 55x70cm (22" x28"). Un minimum de 7,50$ sera demande pour payer l'affranchissement des colis. Les tarifs varieront selon le poids et la destination du colis.

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Montréal, PQ - 1889	Waterloo, ON - [189-]
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