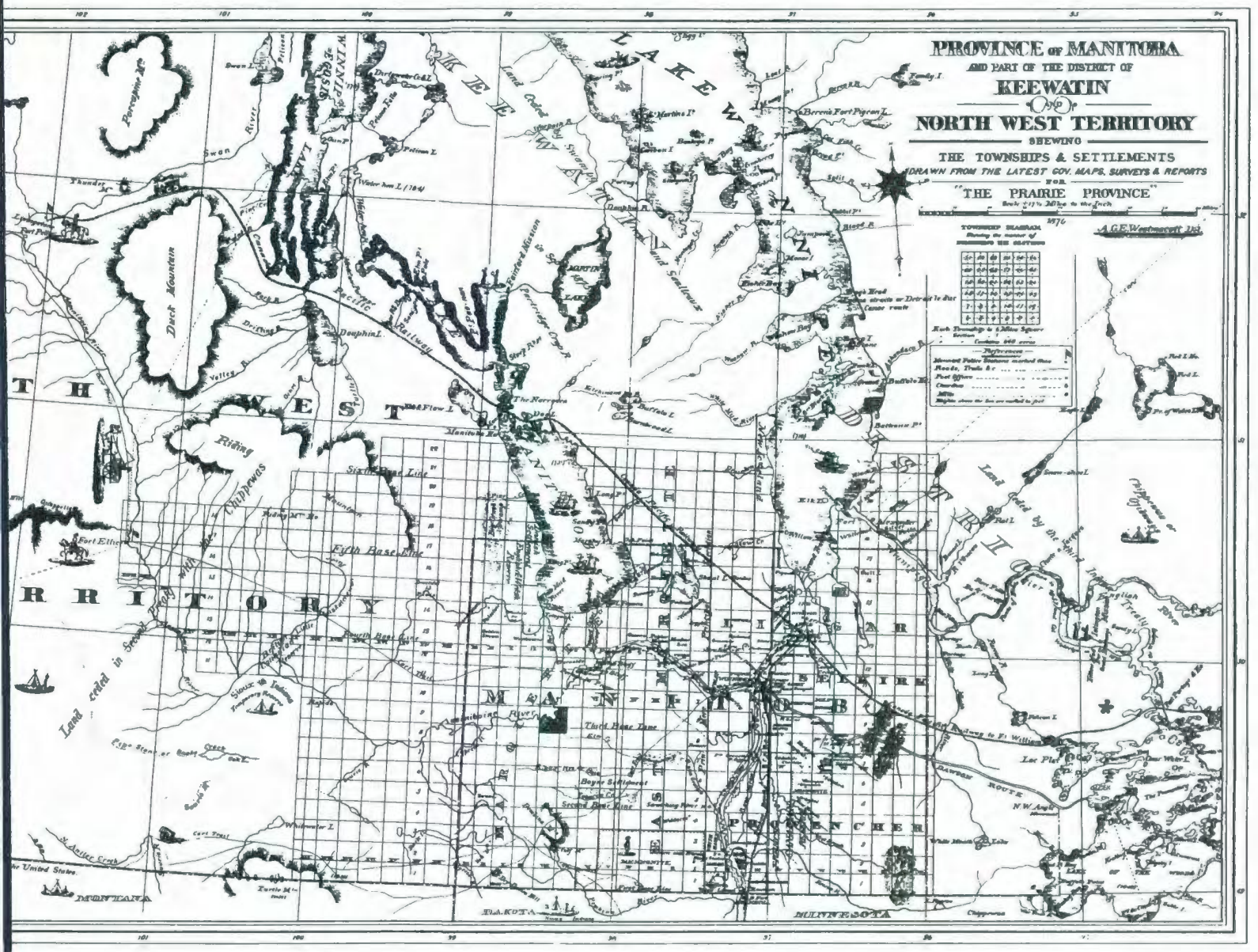
ASSOCIATION OF CANADIAN MAP LIBRARIES AND ARCHIVES

BULLETIN

ASSOCIATION DES CARTOTHÈQUES et ARCHIVES CARTOGRAPHIQUES du CANADA



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ASSOCIATION OF CANADIAN MAP LIBRARIES AND ARCHIVES / ASSOCIATION DES CARTOTHÈQUES ET ARCHIVES CARTOGRAPHIQUES DU CANADA

MEMBERSHIP in the Association of Canadian Map Libraries and Archives is open to both individuals and institutions having an interest in maps and the aims and objectives of the Association. Membership dues are for the calendar year and are as follows:

Full (Canadian map field)... $35.00
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Members receive the ACMLA *Bulletin*, the official journal of the Association, which is published three times a year.

Officers of the Association for 2001/2002 are:

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Province of Manitoba and Part of the District of Keewatin... 1879. This map appeared in Illustrated Historical Atlas of the County of Carleton, H. Beldon & Co., Toronto. Reproduced from an original in the National Map Collection, National Archives of Canada, as ACML Facsimile Map Series No. 14 (ISSN 0827-8024).

Province of Manitoba and Part of the District of Keewatin... 1879. Cette carte apparut dans Illustrated Historical Atlas of the County of Carleton, H. Beldon & Co., Toronto. Reproduite à partir d'un original figurant dans la Collection nationale de cartes et plans, Archives nationales du Canada, dans la Série de cartes fac-similés de l'ACC, carte No. 14 (ISSN 0827-8024).

PRESIDENT'S MESSAGE
MESSAGE DE LA PRÉSIDENTE

Grace Welch

Map Deposit: I hope that by the time you read this, the agreement between the Depository Services Program of Canada (DSP) and Natural Resources Canada (NRCan) for expanding the DSP to include maps in digital and paper format will be finalized and that you will have the new agreement in your hands. It has been quite a complex series of negotiations.

Board: The ACMLA Board held a conference call on September 20 and is now planning our semi-annual board meeting to be held in Ottawa on November 16th. Suggestions from the membership for agenda items are more then welcome.

Conference: I am pleased to confirm that next year's conference will be held in Toronto in association with the Canadian Association of Public Data Users (CAPDU) from May 29 - June 1, 2002. Mark your calendars now! Thanks to our members Marcel Fortin, Trudy Bodak, Jenny Marvin, Richard Pinnell, Cathy Moulder and Pam Schaus who have agreed to work on conference planning.

National Archives: An official liaison has been appointed by the National Archives to act as a coordinating link between our two organizations: Winston Gomes, Policy and Planning Officer. Mr. Gomes is currently preparing an official update on some of the issues and concerns raised by ACMLA in the English Report and during our meeting in Montreal with the new Director General of the Government Records Branch, Marilyn Osborne.

Committees: Betty Kidd, now retired from the National Archives, has agreed to work with David Jones on a review of the Association's publications program. The list of our Honours Award winners now appears on our web site. The Bibliographic Control Committee is just finalizing several examples of "core level cataloguing records" to guide cataloguers in applying the list of core data elements.

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Dépôt de cartes : J'espère qu'au moment où vous lirez ces lignes, l'accord entre le Programme des services de dépôt du Canada (PSD) et Ressources naturelles Canada (RNCan) pour étendre le PSD aux cartes papiers et aux cartes numériques sera finalisé et que vous aurez le nouvel accord en main propre. Ce fut un processus de négociations bien complexe.

Conseil : Le conseil de l'ACACC a tenu une conférence téléphonique le 20 septembre dernier et planifie une réunion semestrielle du conseil d'administration à Ottawa le 16 novembre prochain. Nous invitons les membres à proposer des points à l'ordre du jour.

Conférence : Je suis bien contente de confirmer la tenue de notre conférence de l'an prochain à Toronto du 29 mai au 1er juin 2002, en collaboration avec l'Association canadienne des utilisateurs de données publiques (CAPDU). Faites une croix à vos calendriers dès aujourd'hui! Merci à nos membres Marcel Fortin, Trudy Bodak, Jenny Marvin, Richard Pinnell, Cathy Moulder, Pam Schaus qui ont accepté de travailler à l'organisation de la conférence.

Archives nationales : Les Archives nationales du Canada ont désigné un contact officiel pour agir en tant que coordonateur entre les deux organisations. Il s'agit de Winston Gomes : agent des politiques et de planification. Il est présentement en train de dresser la liste officielle des questions et des inquiétudes invoquées par l'ACACC dans le rapport English et lors de la rencontre avec la nouvelle directrice générale de la Direction des documents gouvernementaux, Mme Marilyn Osborne à la conférence de Montréal cet été.

Comités : Betty Kidd, à la retraite des Archives nationales, a accepté de travailler avec David Jones sur la revue du programme de publications de l'Association. La liste de tous les récipiendaires des prix d'honneur se trouvent maintenant sur

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DISPLAYING (AND USING) HIGH-RESOLUTION IMAGES OF MAPS ON THE WORLD WIDE WEB

Marcel Fortin
Map Library
University of Toronto

The World Wide Web has revolutionized the way we use information and the kind of information we use. In early developments of the Internet, being able to access text held at a remote location was not only a breakthrough in technological engineering, but also a source of amazement at the potential for a new information age. Never before had information been distributed so widely and so rapidly. Quickly, technological advancements also allowed images to become elements of our Internet consumption, as computers became more powerful and connection speeds continuously improved. Then followed sound and moving images, which have made the Internet not only a dispenser of information, but also a part of our home entertainment systems.

Displaying digital reproductions of maps or any other high-resolution images, however, has not developed as quickly. Very few web sites exist that can render a map as useful electronically as it is in paper format. Attempts at this are numerous, but effective sites are few. Success, however, is slowly coming to hand, thanks to developments in file compression and display software. This article will examine some of these triumphs and will attempt to describe why they are successful.

In a 1997 *Meridian* article on digitizing maps, David Allen explained that it was practically impossible to display maps in any useful way over the Internet because of the large sizes of high-resolution images.[1] Four years later, the same problems exist, but with a bit of know-how and helpful software and hardware, solutions are at hand to rectify the situation. It is interesting to note that that edition of this journal was on digitizing maps, but not one article had the main theme of putting images of maps on the web. Certainly, anyone digitizing cartographic material in the year 2001 now has the intention of displaying them in one fashion or another on the Internet.

Many of us have scanned maps and loaded images on our web pages, but rarely have any of these digital reproductions come close to doing justice to our cartographic treasures. Both the large format of the originals and cartographic detail have made it difficult to provide access to images of maps that are both reasonably easily accessible and useful.

Images can be incorporated into the HTML coding of web pages in both Joint Picture Expert Group (JPEG, JPG) format and Graphics Interchange Format (GIF). Incorporating large image files into web pages however does not lend itself well to browsing as easily as one would with a paper map. A web-browser window is useful for scrolling text, as this task only requires slowly moving down the window. Once a word is read, it is no longer required in the vision of the user. As a result, browser windows can be maneuvered on the X and Y axes only and only one axis at a time. A map, however, requires examination in a variety of ways. It needs to be looked at as a whole, in sections, in zoomed views, shades of colour have to be examined next to each other, etc. To avoid the clumsiness of HTML pages, one option is for the user to download the image and view it in image editing software such as Photoshop or Paint Shop Pro. If the user is not going to use the image in a web browser, then a better quality format such as Tagged Image Format File Format (TIFF, TIF) can also be used. TIF files, however, tend to be quite large, making them difficult for some to download.

As an example of this type of situation, in 1997-1998 the University of Toronto Map Library had

a copy of the 1876 *Bird's Eye View of Toronto* scanned at a very high resolution in order to have all the detail, including the ripples in the paper, reproduced digitally. A good sum of money was paid to have the item scanned in California. Plans were made to eventually display the image on the web. The digital copy was delivered on CD in a 170-megabyte TIF file. In order to make the image available over the web, a compressed JPEG version was created. Unfortunately, some of the resolution quality was lost in the conversion to JPEG, but most importantly the size of the image remained too big for most computers, at about 60 or 70 megabytes. In order to render the image to the size of the average screen, most of the quality of the resolution would have had to be compromised. Concerned with the lack of quality of such an endeavour, we decided against further creating such images for the web - at least for the time being.

While displaying quality images on the web has been difficult, scanning good quality images has also proven quite challenging. Most computers in educational institutions, even quite a few computers in homes, now boast a scanner attachment. Unfortunately, these are mostly of low quality, not allowing the scanning of high-resolution output. Often they have too small a scanning surface to allow the processing of large cartographic material. Most scanners are of the 8.5" x 11", or at best 8.5" x 17" size, thus making the scanning of maps difficult. The task may not be impossible, but it certainly is challenging. Using smaller scanners requires the image to be processed in sections. The sections are then stitched together, using image editing software or special batch processing software such as PanaVue (www.panavue.com).

Solutions

As technology has advanced in the last few years, several solutions to the outlined problems now exist. These are not perfect, but they do permit much more creativity and enhance the usefulness of digital images of maps.

Scanning technology, for one, has changed dramatically. While drum scanners are still quite expensive (and still dangerous to your brittle treasures), other options are now available. Large-format high-resolution flat-bed scanners with surfaces of 11" x 17" can be had for not much more than was paid for small-sized scanners just a few years ago. Smaller, good-quality scanners, if one still wants to venture in that direction, can now be had for very little money.

Digital cameras have become quite popular for this type of reproduction because the maps do not have to be moved around or rolled through a machine. A camera also allows for the reproduction of atlas pages more easily than a flat bed scanner. The map is, depending on the size of the item, put on a wall backing unit, using either magnets or a vacuum mechanism, or put on a large platform. While traditional digital cameras are of low-resolution quality, some special cameras can reach 300 dpi and higher. They are now being used quite extensively to do the work that scanners used to do. The most famous project using one of these types of cameras is, of course, the David Rumsey project (www.davidrumsey.com), which now houses several thousand images of maps. A feature article on this project appeared in a recent issue of *Mercator's World.*[2] Rumsey uses a PhaseOne PowerPhase camera to duplicate his maps.

The University of Toronto Preservation Division has also purchased a high-resolution digital camera (JenOptik Eyelike, www.academicimaging.com/tech/diginput/cameras/jenoptik/eyelike.html), because of our expanding repertoire of digital projects. Of major interest is the Barren Lands Digital Collection project, that will eventually incorporate all of J.B. Tyrrell's papers, photographs and maps (digital.library.utoronto.ca/Tyrrell) and the Greater Toronto Area Digital Mapping Project (www.library.utoronto.ca/maplib/gta). Although still in the planning phases, this latter project has taken advantage of the presence of the digital camera and digitized a few dozen items. The Toronto Public Library has also purchased the same camera and has developed a rich site of maps, atlases, photographs and documents (historicity.tpl.toronto.on.ca:9000). McGill University's Canadian Digital County Atlas Project (digital.library.mcgill.ca/countyatlas/) used a PROGRES 3012 Genoptik Digital Camera to scan its atlas pages.

While the digital camera is fast becoming an option in many settings, most institutions still cannot purchase their own digital reproducing equipment. Services that will digitize your collection, custom create files and copy them onto laser optical disks are now quite common. As well, their prices have come down and are becoming more affordable. The University of Toronto used the services of Luna Imaging Inc. (www.luna-imaging.com) to create its first few digital images of maps before purchasing a digital camera. Luna was one of the few large-format scanning specialists in North America at that time. They originally created the David Rumsey digital collection, and provided the image search and display database and software for that web site.

Other services have sprouted since the late 1990s which also perform this type of high-resolution imaging. A few are even here in Canada. The Bibliothèque nationale du Québec, for instance, contracted Trigonix (www.trigonix.com) to digitize a collection of their maps. Another Canadian venture in this area is Vallillee Digital Imaging Solutions of Pickering (www.vallillee.com). They began by reproducing engineering and architectural drawings, but have since done maps and photographs for several projects.

The advantage of these scanning service companies is that they have extensive experience in reproducing large-format items and are knowledgeable in getting the most efficient and high-quality images from their equipment and software. Some, such as Luna Imaging and Vallillee, can provide clients with project consultation and software solutions. Luna has its own line of database retrieval systems called Insight. Vallillee is a Mr.Sid vendor. The big advantage of the Trigonix operation is the size of their reproduction equipment. They can digitally reproduce maps or drawings up to 42" wide, as compared to Vallillee who can scan up to 36" wide.

It is one thing to have the solutions to create good resolution images, but it is another to be able to make use of them. As mentioned above, many sites continue to put map image files straight in html format with the "<IMG SRC=" code. Site developers opt to put the TIF, GIF, or JPEG file in the tag. Whichever they choose, image files displayed this way are not being used to their full potential.

As previously mentioned, once a file is created in high-resolution format few conventional options exist that enable its display on the web. Some argue that a JPEG version of an original high-resolution image can be used without resolution loss, but others argue that JPEGs are inferior in quality and should not be used in applications such as Geographic Information Systems (GIS) software.[3] At the same time, a high-resolution TIFF file is quite often too large and cannot be downloaded by most users.

Luckily, in the last few years two companies, using advanced mathematical algorithms, have developed raster file compression software which have solved this dilemma. Earth Resource Mapping (www.ermapper.com) has produced the ER-Mapper / ECW Compressor, which is downloadable for free from their web site. LizardTech's counterpart is the Mr.Sid software, also downloadable from their web pages. Both packages can compress images to a ratio of 20 to 1 without resolution loss. Higher compression ratios of up to 50 to 1 are possible, but not without added noise or resolution loss. Files of up to 500 megabytes in most formats can be processed using this free software. Paid versions are available for compressing images larger than 500 megabytes. For a review and comparison of both of these software options, see Steve Wallace's "Features" article in *DirectionsMag.com* at www.directionsmag.com/features .asp?FeatureID=27.

The University of Toronto's example of the *Bird's Eye View of Toronto, 1876* illustrates well the compression powers of the software. When compressed in ER-Mapper, the file was reduced from 170 megabytes to 8.1 megabytes.

ER-Mapper and Mr.Sid Plugins for Paint Shop Pro and Photoshop are also available. These allow users to compress images in Mr.SID or ECW format from within the image-processing software package of their choice. Plugins are also available for GIS and CAD software. Some GIS packages, such as ArcView, have extensions built-in which allow the use of these file types.

Once a raster image is compressed in this fashion, however, the file it is contained in cannot be placed on a regular web server and called up in the same manner as GIF or JPEG raster files. Server-side software must be installed in order to display the compressed images. Again, some of the server software is free, depending on the platform and the size of files served. For instance, Lizardtech has a free server-side software package for Linux, while ER-Mapper has a free version of its server software for images no larger than 500 megabytes. As well, with both formats the user must also install free client-side plugins, in order to access the files. Mr.SID formatted files can also be accessed using java applets and javascripts instead of a plugin. However, most of the sites I've viewed without a plugin have had inferior displays. Once the server software is installed, templates are provided for the creation of pages using the compressed files, making the creation of web pages with these file-types quite an easy task.

The advantage of this compression file approach is the availability of high-resolution images with the ability to pan, zoom, drag, and to view an entire item without scrolling. The most important part of the equation though is that all of this is done with very little required RAM. The image file does not need to be downloaded, but can instead be integrated with other images, mosaics of images, and meta-data or other descriptive text. The image can also be displayed in a variety of sizes, depending on the template chosen by the web developer. In short, bandwidth or RAM no longer limits the creativity of the display of high-resolution images on the web, and proper display of cartographic images has finally arrived on the web. And, with the availability of free options from these companies, most interested in serving digital images on the web can now develop a site for a relatively small investment in a web server.

Earth Resource Mapping and LizardTech have dominated the field for a few years, but alternatives are now starting to emerge. HMR Inc./Bentley Engineering's Microstation DesCartes (www.bentley.com) is a lesser-known product, but offers image compression and display options much like the two others above. As far as is known by this author, no free products exist from this company. Zoomify (www.zoomify.com), on the other hand, allows the creation of web pages around JPEG images with pan, zoom, and drag options. Developers wishing to create web pages can simply drag good quality JPEG or BMP files onto the Zoomify web page. An application on the Zoomify site is prompted from the file, and a folder with HTML and script files is written to your hard drive. Users can then ftp the folder and the files to their own web page. The files created can also be edited to customize the web pages. Text and other images can be added to the file as with any other normal web files.

As demonstrated, there are a few very good alternatives to displaying high-resolution images using HTML, but few institutions have taken notice as yet. The federal government agencies which deal with maps and images, for instance, are lacking any kind of presence in this field and have shown no leadership. The Canadian Museum of Civilization (www.vmnf.civilization.ca/vmnf/cartes/index-e.htm) has a total of seventeen maps displayed in JPEG format on its web pages. Very basic reproductions, the functions are limited to enlargements of sections of the file selected through mouse clicks. The National Map Collection's online exhibition, *Canada at Scale* (www.archives.ca/05/0514_e.html), has a total of 78 cartographic images but all are in JPEG format. They are nice reproductions, but of very little use as they are. Users cannot read any of the text, let alone any specific geographic or cartographic detail displayed on the image because of the limitations of the browser window. Even if a user were to download the image to view in image editing software, the resolution is such that it would not make a difference.

There are, however, some sites which display good resolution images of maps, even if they do not take advantage of compression software. One of the best institutional endeavours is that of the Bibliothèque nationale du Québec (www2.biblinat.gouv.ca/accueilnum.htm). Their project to digitize maps (about 1,800 maps are now posted) has done wonders for database access to digital files. The one drawback is that the files can only be accessed in JPEG format. Another tremendous web page for cartographic images is McGill's *County Atlas* digital project. This site is extremely useful and well done. McGill has shown, with this project, that these types of efforts

are not done in vain. Users who would previously have required access to the print copy of the atlases can actually use these images instead to do their research. Being scanned in the original colour instead of the facsimile black is also a treat for the user. The only drawback, again, is that the images are all in JPEG format and created to fit HTML defined browser windows.

These two projects are excellent. The files are in JPEG format, but they are still useful in the sense that one can download the image and view it in a viewer or editor and retrieve necessary cartographic, geographic, and other information because they were created with that use in mind. In other words, the choice of resolution has rendered them useful. However, both sites would be even better if they displayed their images using compression and display software.

The number of institutions that have noticed the new technological innovations in image compression and display is thankfully growing. The Library of Congress was probably one of the first to display the power of digital reproductions of maps. Their American Memory Project (memory.loc.gov) pages are loaded with large images, including hundreds of maps, which are displayed using Lizardtech's Mr.Sid compressed format. David Rumsey's collection of maps are also compressed using Mr.Sid, as are the images of the Toronto Public Library's history project. These last two use more features than the American Memory Project, such as pan, zoom, and drag tools. They, along with the University of Connecticut's Map and Geographic Information Center's Digital Historical Map Collection (magic.lib.uconn.edu/cgi-bin/MAGIC_HistList.pl), have truly harnessed the best features of the software and have unleashed the power of their maps close to the maximum extent.

The accessibility, both financial and technical, of this type of compression and display software makes the future mixing of cartography and the World Wide Web quite exciting. In fact, the development of this type of technology has allowed the development of new types of web sites that are slowly beginning to appear. There are now applications on the Internet which no one could have predicted as possible just a few years ago. Using web GIS software such as ESRI's ArcIMS, it is now possible to display digital air photos and maps over top of one another or side by side. A good example of such a site is the Miami Property Appraisers' office which has developed a web site displaying a complete mosaic of Dade County with an overlaid series of local maps (www.co.miami-dade.fl.us/pa). Another good example is the state of California's site which integrates Tiger census maps, topographic maps, Mapblast layers, and about a terabyte of air photos in a mosaic (www.earthetc.com/ecwgis/ecwgis_frame.htm). These two sites use the ER-Mapper Image Web Server package. Both illustrate the tremendous technological developments that have finally made maps on the World Wide Web useful. They show that the task of digitizing maps does not have to translate into vain attempts at simply displaying static images. There is still plenty of work to be done in creating digital maps on the web that are as useful as our paper maps, but the future looks bright.

Notes

1. See Allen, David "The Digital Imaging of Historical Maps and Aerial Photographs: An Overview", in *Meridian: A Journal of the Map and Geography Round Table of the American Library Association* (12) 1997, pp.5-14.

2. Sweetkind, Julie. "State of the Art: David Rumsey's Online Map Collection", *Mercator's World* 5(5), September/October 2000, pp.12-17.

3. Generally, a JPEG image can be saved from a TIF file without significant loss in resolution, but if it is saved several times it will degrade. Note, however, that a JPEG image can be viewed as often as it is requested without any deterioration. Resolution loss occurs when saving the image. For an in depth explanation of graphic formats, see *Digital Image File Formats, A Primer* by Rob Miracle at www.cameraboy.net/Digital/fileformats.html.

WHERE DID WE LAND ON MARS? SEARCHING FOR SPACECRAFT AND SURVEY POINTS ON THE RED PLANET

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We tend to approach modern maps with the assumption that they portray the true positions of objects. Blaeu and Hondius may not have located every feature on their maps precisely, but we generally assume that we are now able to do so. Our faith is, of course, generally justified for maps of Earth. Is the same true of maps of other worlds? In this article I point out the difficulty planetary cartographers face in trying to create accurate maps of the Moon and Mars, the two worlds which are most interesting from the point of view of human exploration. Linked to this, and part of the solution to the problem, is the question 'where did our spacecraft actually land?' I show how we can try to answer that question, and describe some results obtained by me and by other researchers.

Let's start by asking how we came to make accurate maps of our own world. Look at those maps by Blaeu and Hondius, and their contemporaries. We see at once distorted continents, and both omitted and invented coastlines. Omissions are understandable. Much remained for the cartographers to learn about the world. Inventions are excusable under the circumstances, though our preference today might be to prefer blank spaces. The distortions are more worrying. They arose primarily because of the difficulty of measuring locations precisely, particularly in the case of longitudes. A place – say San Francisco Bay – might be known very well, and detailed plans of it might exist, but if you don't know where it is on the world, you can't place it accurately on a latitude/longitude grid. Maps became accurate, in the sense that features were placed at the correct latitude and longitude, when astronomical techniques, chronometers and surveying methods matured in the 1700s. The story will be well known to many readers of this *Bulletin* and I won't repeat it here. An important observation, though, is that accurate mapping was achieved long before aerial photography and satellites came on the scene, by hard work and ingenuity on the ground.

During the Apollo program in the 1960s, hundreds of maps were created to support human exploration of the Moon, chiefly by the U.S. Air Force and the Defense Mapping Agency. Today, robotic exploration of Mars is in progress. Within ten years, robots may be collecting Martian rock samples for return to Earth. In two or three more decades, human exploration may be beginning. Again, hundreds of maps have been prepared, primarily by the U.S. Geological Survey, to portray the surface of Mars and to help plan future exploration. Many map libraries have a selection of these maps among their holdings. It's easy to assume they are as accurate as their terrestrial counterparts. But are they?

We are immediately faced with a problem. Maps of Earth were made accurate by the use of ground-based observations long before air photos or satellite images became available. In fact, we can use those images for mapping only after they have been carefully fitted to existing maps. Any GIS user will be familiar with the process of registration of images to a geometrically controlled base. This process is impossible for the Moon and Mars since no surveying or ground measurement of position is yet possible. On the other hand, their entire surfaces have been photographed. We find ourselves in the inverse of the terrestrial situation: global image coverage but no ground control. Can we use these images to make accurate maps?

We can certainly make maps, of course. The Moon's markings were first portrayed on a map 400 years ago, or older still if very simple

drawings are considered to be maps. The first map of Mars is over two hundred years old. A simple approach is to superimpose a latitude/ longitude grid or graticule over a photograph of the body. Feature positions can be read from it and transferred to a grid for any standard map projection. If this is done for a series of images which show different parts of the world, a global map can be compiled. This is how, for instance, the well-known National Geographic map of the Moon was created. Of course, it's not easy to do it perfectly. The grid must be accurately shaped, reflecting for instance the degree of polar flattening for the body in question and the point perspective view seen from the camera position. It has to be aligned properly with the image. It is also necessary to select a zero meridian, from which to count longitudes, but these are now well established.

Maps made in this way can be reasonably accurate, but errors will occur for three principal reasons. First, large relief variations will displace features relative to the grid if they cannot be taken into account. The necessary topographic data have only recently been obtained, and are not incorporated into any existing printed map. Second, the positions of the camera (i.e. the spacecraft) and the body to be mapped will be uncertain to some extent, leading to errors in grid orientation. Third, the grid must be aligned to the rotation axis of the world, but our ability to locate the poles is subject to uncertainty. Add to these the inevitable distortions in optical systems and the difficulty of combining individual images into an accurate mosaic, and there is plenty or room for errors. These difficulties combine to create errors in position of ten or twenty kilometers in the typical maps of the Moon and Mars found in map libraries today. This corresponds to about a quarter of a degree in angular position (all these figures are approximate).

Does this matter? It certainly does for mission planning purposes. For the Apollo landings on the

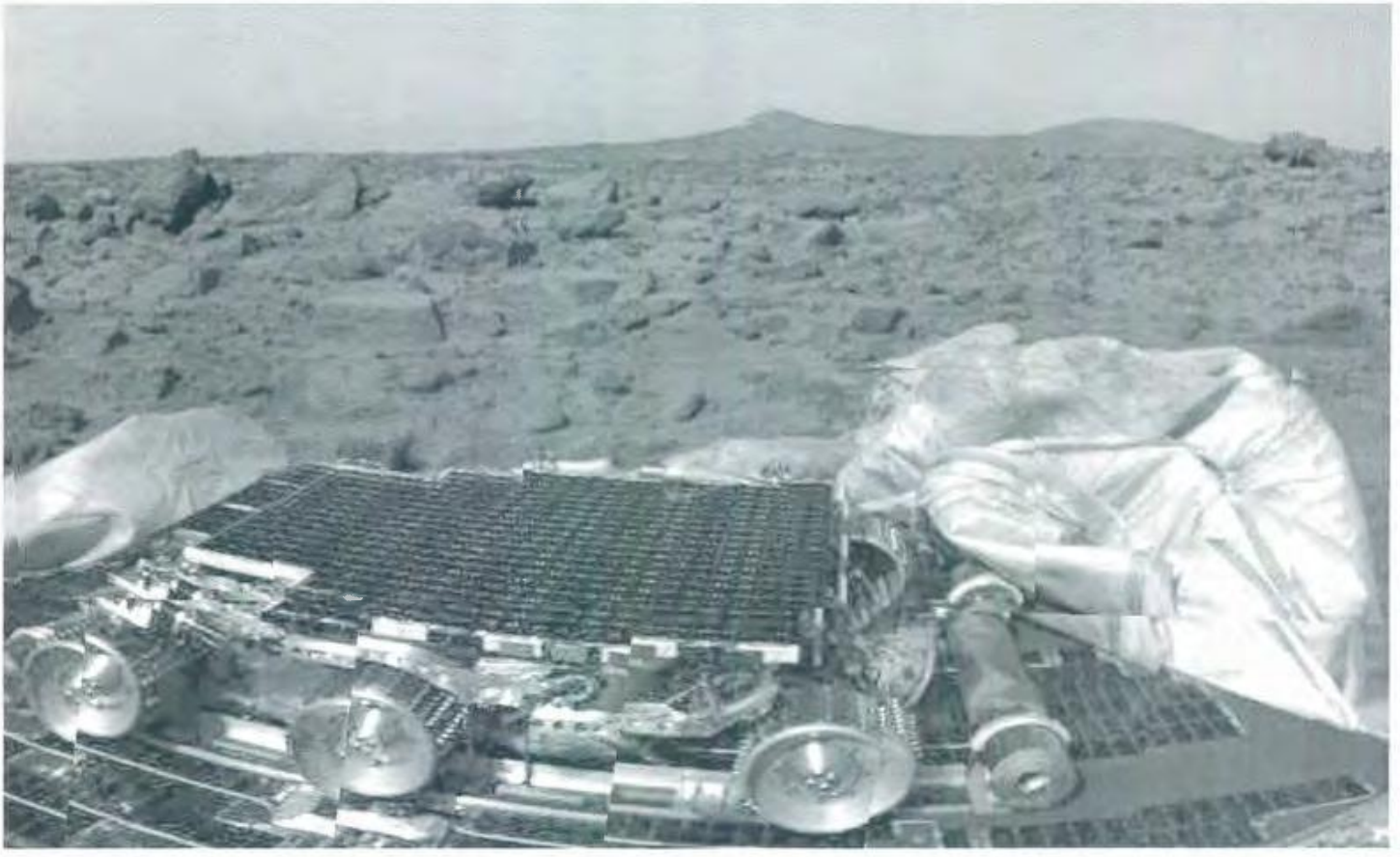

Figure 1. The first view of the surface of Mars from the Pathfinder spacecraft, taken on July 4 1997. Note the Twin Peaks, a pair of prominent hills on the horizon. The Sojourner rover is at bottom, resting on the Pathfinder spacecraft body.

Moon, for instance, the lunar modules had to touch down within a kilometer or so of their targets to ensure that scientific objectives were met. The same will be true of future Mars sample return missions – you need to know which geological unit a sample came from. But how can greater accuracy be achieved? The missing component in these extraterrestrial maps is ground measurement, and of course we can't just go and make the measurement we need. Even the Apollo astronauts, the only people ever in a position to do this, did not do any surveying, and nobody has been to Mars to attempt this. But it turns out that there is a way to obtain the positional information we need after all. I will focus on Mars for what follows because my own work has been associated with that planet.

Three spacecraft have successfully landed on Mars and returned data to us, two Vikings in 1976 and Pathfinder in 1997. When they landed they transmitted data via a radio link. That radio signal carries within it the information we need to find the latitude and longitude of the transmitter to a high degree of precision. The transmitter, sitting on the surface of the planet, is carried around by the rotation of Mars. A point on the equator has to travel a lot further in its daily motion than a point near one of the poles (a day on Mars, called a 'sol', is about 24.5 hours long). Therefore the equatorial point moves a lot faster than the near-polar point. That motion produces a doppler shift in the transmitted signal, a change in the radio wavelength proportional to the speed. By measuring the doppler shift very precisely we can make a good estimate of the latitude of the spacecraft. As the spacecraft is carried around by the planet's rotation, its signal is cut off when it moves out of view of Earth, around the edge of the planet's disk as seen from Earth. From the spacecraft's point of view, Earth has just set on the western horizon. By timing this loss of signal and its reappearance later as Earth rises again an estimate of longitude can be made. There is more to the process in practice, but the basic idea is simple – the radio signal reveals latitude and longitude.

Applying these methods gives us the locations of three points relative to the grid to quite high precision. Now, if we know where those points are in the global photographic data, we can fix three points on the map, the equivalent of three surveyed control points, and the rest of the photo data can be registered. We would like more, but three is what we have. The trick is to find the

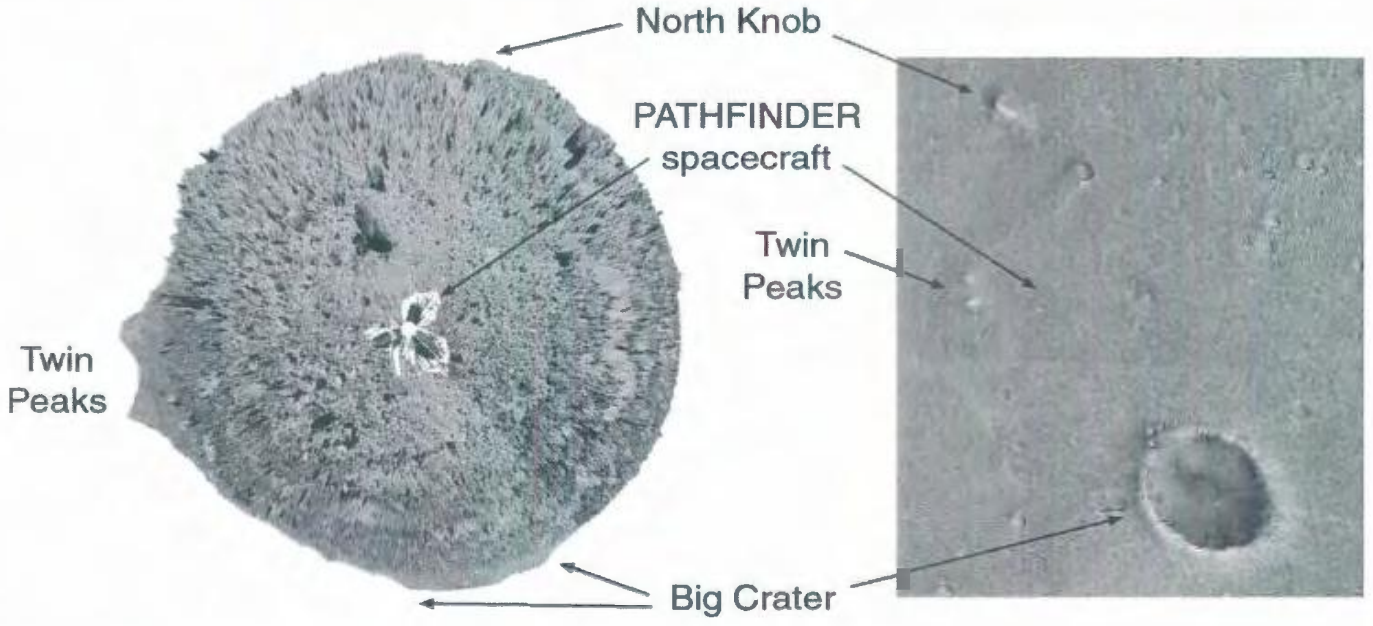

Figure 2. The full Pathfinder panorama distorted into a circle with the spacecraft in the centre and the horizon around the edge. The heights of hills on the horizon are greatly exaggerated for clarity. Prominent features are indicated by labels on the panorama and on a Mars Global Surveyor image at right. The area shown at right is 3 km across, and north is approximately at the top in this and all subsequent figures.

lander locations in photos of the surface of Mars. There is only one obvious way to do this: to identify hills or crater rims on the horizon in a panoramic image made by the lander, and find a set of corresponding hills or craters on images taken from orbit.

Consider the well-known Pathfinder spacecraft which landed on Mars on July 4, 1997, and released a small rover called Sojourner to explore the surroundings. Its first act on landing was to photograph the surface. Figure 1 shows the first pictures received from Pathfinder, and two prominent hills nicknamed the Twin Peaks are clearly visible on the horizon. The location of the site was known approximately, but it could have been anywhere within a thousand square kilometre area around the target point. Nevertheless, within hours of the landing, Tim Parker of the Jet Propulsion Laboratory (JPL) in Pasadena identified a pair of small hills which might have been the ones seen on the horizon. They lay near a prominent crater whose rim should also be visible. He predicted that the crater rim would show up as a ridge on the horizon behind the spacecraft when that area was photographed the next day. Sure enough, it did. Soon a variety of other features were identified in both sets of pictures, clinching the identification. Figure 2 shows the full Pathfinder panorama in an unusual form: distorted into a circle and with horizon features exaggerated in height to make the hills easier to see. Labelled features are also shown on a Mars Global Surveyor photo taken from orbit. Many other features were also matched. So for Pathfinder, both the latitude/longitude position and the location in photos are known

But this is just one point. There were two older spacecraft on Mars, the Viking landers which touched down in 1976 at two widely separated points. They had long since ceased working, but their positions were known from radio tracking. Could their positions be found? Viking 1 had been located in exactly the same way soon after it landed, but Viking 2 had not. It landed in a very flat area, and unfortunately in a spot where only low resolution and low contrast images from orbit were available. I decided to tackle the problem again.

First I took the lander panoramic images, which showed a flat plain covered with boulders. Figure 3 shows them again reprojected into a circle with heights of horizon features greatly exaggerated.

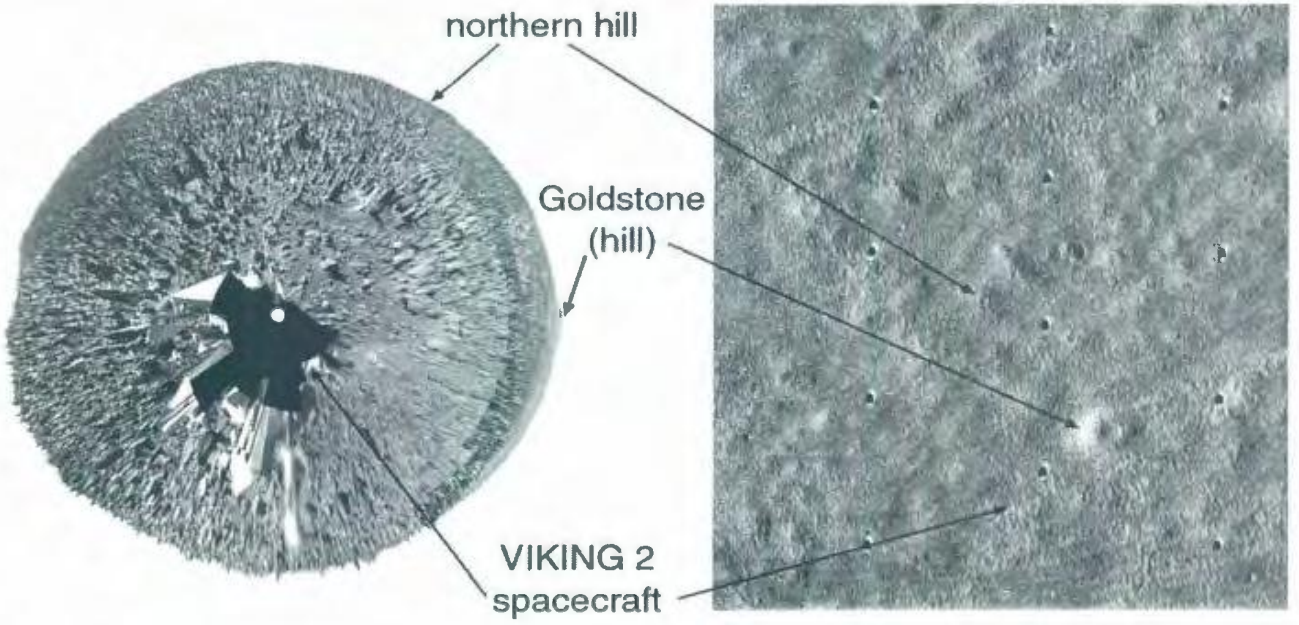

Figure 3. The Viking 2 landing site. A panorama, treated as in Figure 2, is matched with surface features in a Viking Orbiter image at right. The area shown at right is 60 km across.

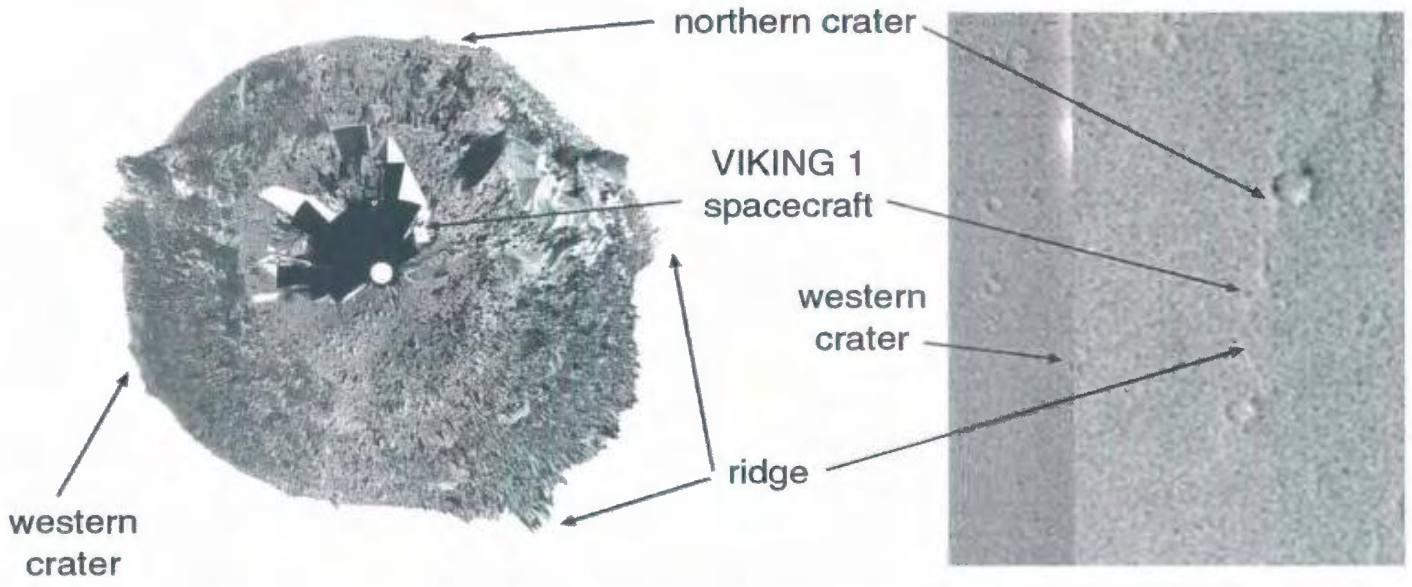

Figure 4. The Viking 1 landing site. The panorama is treated in the same way as the other two. My erroneous identification of the location is shown at right. The area shown at right is about five km across.

For such a flat site this exaggeration was essential to reveal subtle topography. In this view, the lander is at the centre. Two low hills are shown – only one was clearly visible in the unexaggerated views. I also used the apparent sizes of boulders along the horizon (stretched into spikes in these exaggerated views) to try to estimate distances to different parts of the horizon. This indicated the shape of a gentle hollow in which the lander seems to sit.

Next the orbital images were processed carefully to reveal faint features. On comparison, a location was found which may match features seen in the lander's images. Figure 3 shows where Viking 2 probably landed on Mars. After this work was published, two other scientists, Tim Parker at JPL and Jurgen Oberst in Germany's Centre for Aerospace Research, have repeated this work. Their positions are close to mine. All three of our points lie within a few kilometres of each other on a straight line. We had hoped that the high resolution camera currently operating on the Mars Global Surveyor spacecraft would be able to see Viking 2 on the surface and settle the matter, but unfortunately Viking 2 seems to be slightly too small to show up in the pictures. We expect that the Mars Reconnaissance Orbiter of 2005 will do better, with its image resolution of only 30 cm on Mars.

Now we had three points on Mars! But this was soon reduced to two. The Viking 1 and Pathfinder landing sites are close to each other, but the calculated positions didn't match measurements made on photographs. One of the surface identifications had to be wrong. It turned out to be Viking 1. The search for it was coordinated by the late Merton Davies of the Rand Corporation in Santa Monica, a veteran of planetary cartography and geodesy. As he recalculated possible positions, the likely point seemed to drift eastwards across the surface of Mars from the initial erroneous location. I searched at the easternmost point he indicated, using the same technique as before. Figure 4 shows the Viking 1 panorama in the same format as before (remember the heights of hills are greatly exaggerated!) At my location, I found several possible corresponding points, but the matches were not perfect. My tentative identification is shown beside the lander panorama, with matching points shown. It would be nice to report that everybody agreed with this, but unfortunately Tim Parker found a better site, one which fully satisfied all measurements made on orbital images. His site lies between the initial wrong location and my

new wrong one (Figure 5). This points out the difficulties of this type of work. Three possible locations for Viking 1 all gave reasonable matches to the horizon features.

Where possible, future landers will try to take pictures during descent to the surface, so this type of search will not always be needed. That was attempted during the descent of the ill-fated Mars Polar Lander, which crashed near the south pole in 1999. Regrettably there will be no descent imaging in early 2004 when the next set of landers (two American, one European) arrive at Mars. For a few days after each landing, scientists will scramble to locate the places where their machines have touched down on the red planet. Meanwhile the geodetic value of the search for landers has lessened as a result of an instrument on the Mars Global Surveyor spacecraft. Its laser altimeter has created a fascinating high resolution global topographic map showing surface elevations at very well known locations in latitude and longitude. From the first, its results showed significant positional offsets between measured dips in topography and visible craters or valleys. The surface features were not where the maps said they were. The most modern maps are now tied to the altimetry rather than to lander locations. Wasted work? Not really - it's still nice to know where they are!

Phil Stooke is a planetary cartographer in the Department of Geography at the University of Western Ontario. He has developed maps of asteroids using new map projection methods for non-spherical worlds. He is currently making improved photomosaics of the moons of Saturn in preparation for the Cassini mission's arrival at Saturn in 2004, and preparing an International Atlas of Lunar Exploration which will be published by Cambridge University Press.
(pjstooke@uwo.ca)

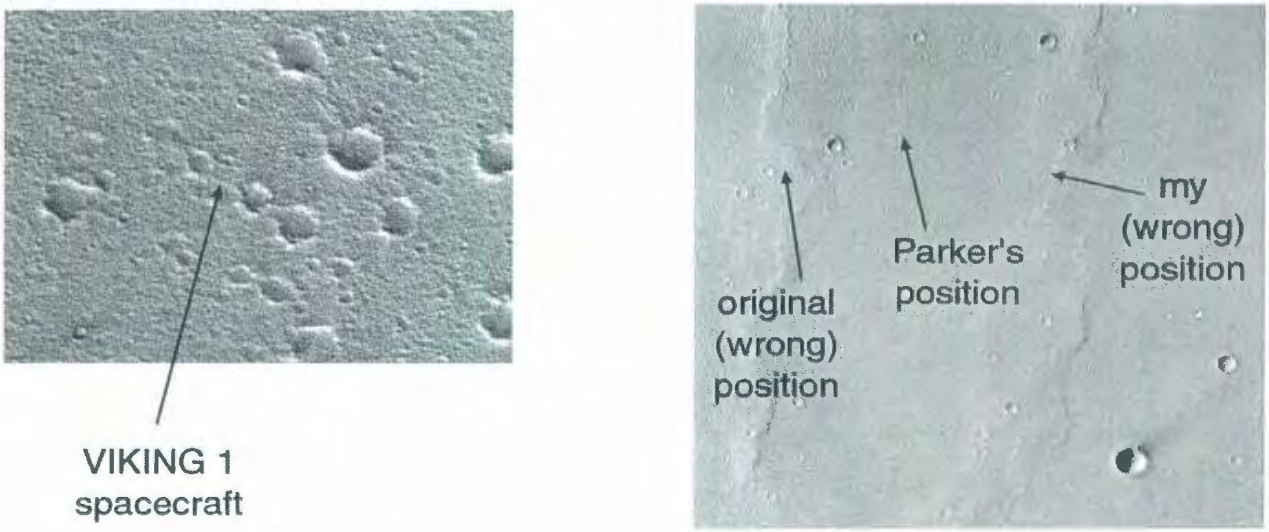

Figure 5. At left is Tim Parker's correct location for Viking 1, shown on a Mars Global Surveyor image. The ridge was made up of separate crater rims. The area shown is about 1 km across. At right the three positions considered for Viking 1 are shown on a Viking Orbiter image. The area shown is about 25 km across.

CORE LEVEL CATALOGUING FOR NON-SERIAL CARTOGRAPHIC MATERIALS

(Suggested by the Bibliographic Control Committee, ACMLA)

This document is a revision of the core document published in the *ACMLA Bulletin*, no. 108, Spring/ Summer 2000, pp.55-56.

The National Library of Canada's online catalogue, AMICUS, now houses more than 60,000 cartographic cataloguing records from more than 16 Canadian institutions. This union catalogue of maps is a substantial database, and it continues to grow as current records are added and as more institutions begin to participate.

With a number of libraries contributing cataloguing records, there is a need for a "core level of cataloguing" standard for cartographic materials. Although there is a CONSER core record for cartographic materials (see item 4.7 at the web address: http://lcweb.loc.gov/acq/conser/recordreq.html), there is no official core level cataloguing standard for non-serial cartographic materials. Members of the Bibliographic Control Committee, ACMLA and representatives of the Union Catalogue Division of the National Library of Canada have prepared the following guidelines for this latter category. It is hoped that this core level of cataloguing will provide better access to cartographic materials in AMICUS, and that it will also facilitate in the matching process when catalogue records are loaded. The fields that are used for automated matching are indicated below with the symbol *.

M = Mandatory; MA = Mandatory if applicable; O = Optional

		CODES
	Leader & Directory	
*	Leader 06 (Type of record)	M [1]
*	Leader 07 (Bibliographic level)	M
	Leader 17 (Encoding level)	M
	Leader 18 (Descriptive cataloguing form)	M
	Variable Control Fields	
*	001	M
	007	M [2]
	008 (Fixed Fields)	
	06 (Type of date/Publication status)	M
*	07-10 (Date 1)	M
	11-14 (Date 2)	MA
*	15-17 (Place of publication, etc.)	M
	18-25 (Relief)	O
	22-23 (Projection)	O
	25 (Type of cartographic material)	O
	28 (Government publication)	O
*	29 (Form of item)	M
	31 (Index)	O
	33-34 (Special format characteristics)	O
	35-37 (Language)	M
	39 (Cataloguing source)	M
*	010 Library of Congress Control Number (LCCN)	O
*	020 $a International Standard Book Number (ISBN)	MA
*	034 Coded Cartographic Mathematical Data	

	*	$a	M
	*	$b	MA
		$d-$g	O
	037	$a Source of Acquisition (Stock number)	MA [3]
	040	Cataloguing Source	
		$a	M
	*	$b	M
		$c	MA
	041	Language Code	MA
	052	LC Classification Code	O
*	1xx	Main Entry	MA
*	245	Title Statement	
	*	$a	M
	*	$h	M [4]
	*	$b (bib level monograph)	MA
		$c	MA
	246	Varying Form of Title	MA
	250	Edition Statement	MA
	255	$a Cartographic Mathematical Data (Scale)	M
		$b Projection	O
		$c Coordinates	O
	256	$a Computer File Characteristics	MA
	260	Publication, Distribution, Etc. (Imprint)	
		$a, b, c	M
	300	$a Physical Description	M
		$b, $c	O
	342	$a Geospatial Reference Data	MA
	352	$a Digital Graphic Representation	MA
	4xx	Series Statements	MA
	5xx	Notes	MA [5]
	500	Source of Title Proper	M [6]
	505	Formatted Contents Note	MA [7]
	520	Summary note	O
	533	Reproduction Note	MA
	538	System Details Note	M [8]
	6xx	Subject Added Entries	M [9]
	7xx	Added Entries	MA
	8xx	Series Added Entries	MA
	856	Electronic Location and Access	MA

Notes

1. Apply the *Guidelines for Distinguishing Cartographic Materials on Computer File Carriers from other Materials on Computer File Carriers,* January 1998, prepared by the Library of Congress (http://lcweb.loc.gov/marc/cfmap.html).
2. For information concerning the minimum level of coding for 007, refer to the article "National Union Catalogue Map Records: Mismatched Records" in *ACMLA Bulletin,* no. 104, Winter 1999, p. 58. This article will also be posted on the ACMLA web site.
3. Record MCR and MCE numbers in this field.
4. For information concerning the GMD, refer to the article "National Union Catalogue Map Records: Mismatched Records" in *ACMLA Bulletin,* no. 104, Winter 1999, p. 58. This article will also be posted on the ACMLA web site.
5. Only those notes that support identification of item need be included. Criteria may vary from one

item to another.

6. If the title is taken from a source other than the chief source of information (AACR2 rule 3.7B3).
7. Supply as appropriate for collections, compilations, or for any multi-part work.
8. For **direct access files**: Make a "System requirements" note according to Chapter 9 of AACR2.
   For **remote access files**: Make a "Mode of access" note according to Chapter 9 of AACR2.
9. Make a 650 or 651 subject added entry.

CORE LEVEL CATALOGUING FOR NON-SERIAL CARTOGRAPHIC MATERIALS: EXAMPLES

M=Mandatory; MA=Mandatory if applicable; O=Optional;
. = [blank] (in LD, 007 and 008)

Single Map Bibliographic Record

M	1. LD		00947nem.....a.
M	2. 007		aj.canzn
M	3. 008		940610s1999....pau.....a..s.....engd
M	4. 034	1	aab650000$dW0803000$eW0744500$fN0421500$gN0393000
M	5. 040		$aCaOOU$beng
O	6. 052		$a3821
M	7. xxx		$axxx [Local call no. eg. G3821.P2 1999 .P4]
MA	8. 110	1	$aPennsylvania.$bDept. of Transportation.$bCartographic Information Division.
M	9. 245	10	$aPennsylvania official transportation and tourism map$h[cartographic material] /$cprepared by Cartographic Information Division, Dept. of Transportation.
MA	10. 246	1	$iPanel title: $aPennsylvania state parks & forests
M	11. 255		$aScale [1:650,000]$c(W 80°30'--W 74°45'/N 42°15'--N 39°30')
M	12. 260		$a[Harrisburg, Pa.] :$bDept. of Transportation,$c1999.
M	13. 300		$a1 map :$bcol. ;$c56 x 84 cm.
M	14. 500		$aOn verso: 2 information tables on parks and forest lands and information on facilities and activities.
M	15. 650	0	$aRoads$zPennsylvania$vMaps.
M	16. 651	0	$aPennsylvania$vMaps, Tourist.

Series Map Bibliographic Record

M	1. LD		01131nec.....a.
M	2. 007		aj.canzn
M	3. 008		950504m19939999ie.acg.bh.b..f.....engd
MA	4. 020		$a090499645X
M	5. 034	1	aab50000$dW0110000$eW0050000$fN0553000$gN0511000
M	6. 040		$aCaOOU$beng
MA	7. 041	0	$aengirifreger
O	8. 052		$a5780
M	9. xxx		$axxx[Local call no.: eg. G5780 s50 .O7]
MA	10. 110	2	$aOrdnance Survey (Ireland).
M	11. 245	10	$aDiscovery series 1:50 000$h[cartographic material] :$b[Ireland] / $ccompiled, printed & published by the Director at the Ordnance Survey Office.

MA	12. 246	13	$a1:50000 discovery series :$b[Ireland]
M	13. 255		$aScale 1:50,000 ;$bTransverse Mercator proj.$c(W 11°00'--W 5°00'/N 55°30'--N 51°10').
M	14. 260		$aDublin :$bOrdnance Survey of Ireland,$c[1993]- .
M	15. 300		$a maps :$bcol. ;$con sheets 103 x 80 cm. or smaller.
O	16. 500		$aRelief shown by contours, hypsometric tints, and spot heights.
O	17. 500		$aLegend and marginal information in English, Gaelic, French, and German
O	18. 500		$aPanel title.
O	19. 500		$aDescription based on sheet no. 1, Straith Eolais.
O	20. 500		$aGeographic coverage complete in 89 sheets.
MA	21. 500		$aAlternate title: 1:50 000 discovery series.
O	22. 500		$aEach sheet individually titled and numbered.
M	23. 651	0	$aIreland$vMaps, Topographic.

Geomatics Cataloguing Bibliographic Record

M	1. LD		01133 nec.....a.
O	2. 006		m.....c.s
M	3. 007		aj.cenzn
M	4. 007		co.cg.|||a|aaa
M	5. 008		010501s2000....onc.....b..ss.0...engd
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M	7. xxx		$axxx[local call no.: eg. ROM80218]
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M	9. 245	10	$aDigital cartographic reference base$h[cartographic material] :$b[Ontario] /$cOntario Ministry of Transportation, Geomatics Office.
MA	10. 250		$aVersion 2.0
M	11. 255		$aScale 1:100,000$c(W 95°20'--W 74°00'/N 57°00'--N 42°00').
MA	12. 256		$aComputer data.
M	13. 260		$aToronto :$bOntario Ministry of Transportation,$c2000.
M	14. 300		$a1 computer optical disc :$bcol. ;$c4 3/4 in.
MA	15. 342	00	$bDecimal degree
MA	16. 342	05	$aNorth American datum of 1927
MA	17. 352		$aVector
O	18. 514		$aPositional accuracy +- 100 metres.
O	19. 520		$aCoverage of these data is the Province of Ontario in its entirety with portions of the adjacent provinces/states also included. Features shown on the current Ontario road map are included in the DCRB with the exception of park boundaries and interchange numbers. Boundary files include: administrative, electoral, geographic townships and MTO (Ontario Ministry of Transportation) regional and district boundaries. General outline files include province of Ontario and surrounding provinces/states, lakes. Point and line features includes: rivers, roads, railroads, and roadmap features such as picnic areas, service stations, tourist areas, etc.
M	20. 538		$aAll original data was captured and converted to ARC/INFO shapefiles by digitizing from the Ministry County Map series for Southern Ontario and from the provincial map series produced by Ministry of Natural Resources at a data capture scale of 1:100,000. ArcInfo or ArcView software is necessary to open and manipulate the data.
O	21. 540		$aUser must sign End-User licence agreement before downloading data.
M	22. 650	0	$aRoads$zOntario$vMaps$vDatabases.
M	23. 650	0	$aOntario$vMaps, Tourist$vDatabases.
M	24. 650	0	$aOntario$xAdministrative and political divisions$vMaps$vDatabases.

AN ACTIVE NATIONAL COLLECTION OF MAPS AND PLANS: PRESENT, PAST AND FUTURE - A NEWCOMER'S PERSPECTIVE

Marilyn Osborne
National Archives of Canada

I came to the National Archives of Canada in May of 2001 as Director General of the Government Records Branch and was almost immediately seized with the activity of the cartographic, architectural and geomatics programs. Early on, I had the opportunity to speak to the Board of Directors of the ACMLA, and more recently, I read with interest the article entitled "The Future of Our Cartographic Past: Reflections About Canada's National Map Collection", by Ed Dahl, *ACMLA Bulletin*, number 111, Spring/Summer 2001, p.37. I plan to respond more directly and completely to some of the concerns expressed to me by the ACMLA Board, some of them referred to also in Mr Dahl's article. While it is true that we have not communicated to the ACMLA as much as we would have liked, there has been a lot going on, and the balance has perhaps been hard to find. In this article, therefore, I want to share some of what I have learned about our impressive cartographic activities.

Not Just Old Maps...

The National Archives takes the total archives approach, which allows us to acquire government and private textual, visual and sound archives, a source of pride to us. The specialization required to take good care of each of the documentary supports is recognized and encouraged. All National Archivists have consistently expressed their interest in cartographic and architectural media. The National Archives has always taken very good care of Canada's cartographic past. There is, however, much more to our field and our commitments than this cartographic past and historic maps. We must also ensure that copies of maps produced day after day end up with the National Archives. This is the "present" aspect of our functions. We must ensure that those maps which will be produced some time down the road - in five, ten, twenty years - will be archived. That is the future of our work. An appropriate reflection of our activity would be: continuing to ensure a future to Canada's cartographic records.

Our small cartographic team, which handles printed and published Canadian maps, both historic and recent, also handles the ongoing cartographic and architectural archives acquisition programs relating to government, private architectural and industrial design archives, and foreign maps. We are frequently confronted with immense cartographic and architectural acquisitions. For example, representatives of the National Archives Cartographic and Architectural Archives Section recently met with a large private national corporation with a view to possibly obtaining an extensive collection of maps, architectural and technical drawings dating back to the 19th century. All of the divisions concerned, under the watchful eye of the National Archivist, are currently reviewing in detail the impact of an acquisition such as this with respect to cost, space and time, and the consequences on planning for years to come.

Here is another example. We are in the process of concluding the integration of about 35,000 maps and drawings acquired in the fall of 2000 into our holdings. These were obtained from the archives of the Quebec & Ontario Paper Company, which is felt to be one of the fonds which contributes the most to the understanding of the development of the forestry and paper industry in Canada. It is impossible not to assign an immediate temporary priority to such acquisitions. Similar examples abound week after week.

The National Archives Architecture Program is large. Some major architectural fonds are added each year. Almost all fonds acquired are voluminous, and acquisitions of 5,000-10,000 drawings are by no means rare when, at times, they can even amount to over 20,000 documents, occasionally well over 45,000. The need to arrange and quickly describe

these fonds for monetary appraisal by the National Archival Appraisal Board adds significantly to the pressure. For example, we have recently begun negotiations to acquire the archives of one of the most prestigious architectural firms in Canada, whose reputation extends far beyond our borders. There are approximately 25,000 architectural drawings, in addition to various other documents.

Focussing on Maps...

For the ACMLA, the greatest interest will be in maps, so I will now focus on our map activities. I am delighted to report that the program dealing with maps, atlases, globes and geomatics remains busy and strong.

Acquisition

The National Archives of Canada is still actively acquiring rare, historical maps. Prestigious maps or those of more modest vintage between 1550 and 1900 are regularly acquired. A number of early nineteenth century maps have been acquired in recent months. We are currently working on acquiring a fair number of fire insurance plans. We recently acquired three rare maps from the early 19th century of Lower Canada, Upper Canada and Eastern Canada (1817, 1821 and 1823), which were purchased for us by the Friends of the National Archives of Canada. It happened to be the first time that the Friends were able to purchase documents for the Archives and we were pleased that they chose to acquire these important and beautiful maps. The Archives has also just acquired 163 art prints and old geographical maps (12 maps, 1560-1927), which were generously donated by the Royal Bank of Canada. A manuscript map of the Gaspé Peninsula (1775), has just been purchased. I must also mention the magnificent 1672 Frederick de Wit map of the Americas; the ca. 1850 William C. Chewett globe produced in Toronto (possibly the very first globe published in Canada); the 1811 edition of Arrowsmith's map of North America, a rare mid-eighteenth century map of Eastern North America; and many others, all acquired in the last several years. Two acquisitions, involving an ancient precious map of Newfoundland and a collection of about 66 early maps in the possession of a private individual, are being reviewed and new ones present themselves almost daily. Numerous catalogues and electronic listings from map dealers and auction houses in Canada and all over the world are regularly reviewed by our cartographic experts.

Acquisitions of current and old specialized books on cartography, the history of cartography, navigation technology, surveying, surveying instruments, etc., not to mention books on Canadian architecture and its history also keep us occupied. Building specialized research files on the fields we look after is both a necessary and beneficial activity, but is often arduous. In addition the Archives subscribes to dozens of Canadian and international journals and magazines on cartography, geography, and architecture. Each periodical is read and annotated, and circulated to staff.

We also acquire recent maps and atlases. Although Canada does not have legal deposit for maps, our success rate is quite high. The subject of legal deposit of maps is a complex one, and one in which the ACMLA Board of Directors has expressed particular interest, so I will save this subject for fuller exploration later.

Geomatics

The Geomatics Section at the National Archives is small, but effective. Energies are being devoted to participating in the establishment of a sound departmental electronic documents policy, which essentially centres on the non-discretionary area of textual and specialized archives of the government, including geomatics. Some good work has been done for geomatic documents in general, which interests the entire community. For example, Velma Parker and David Brown, with others, authored *Geomatic Data Sets Cataloguing Rules* and presented papers and workshops on the subject at ACMLA conferences and other venues.

Over the past ten years, the National Archives has acquired an extensive collection of Synthetic Aperture Radar (SAR) and Side Looking Aperture Radar (SLAR) imagery from the Canadian Ice Service with records dating from the early 1990s to the present. Recently, these collections have been supplemented with an acquisition of SAR imagery from the former Airborne Division of the Canada Centre for Remote Sensing at Natural Resources Canada. And, as many in the cartographic community know, over the past five years the National Archives has been working in partnership

with Agriculture and Agri-Food Canada, Natural Resources Canada, Environment Canada, Statistics Canada, and a private-sector firm by the name of Spatialanalysis to ensure the successful migration of all the data that were contained in the Canada Land Data System. These partnerships were created in a primary effort to restore the complete set of data associated with the Canada Land Inventory (CLI) and Canada Land Use Monitoring Program (CLUMP). The partnerships have been a renowned success and the CLI and CLUMP maps are now available on the GeoGratis website. All of this work has been completed with the dedication of two National Archives employees.

Description

Our description activities never end. This involves cataloguing individual documents, preparing archival finding aids and indices, and participating in thematic data bases. At present, we are working on the departmental public RECON (Retrospective Conversion) project. This means we produce a standardized description of each of the accessions of the government's cartographic and architectural documents (about 650 accessions representing hundreds of thousands of documents). These series level descriptions are then linked to the highest level descriptions of individual fonds. (In the government context, a "fonds" is a specific group of archival records; the idea is close to the old concept of "record groups"). Similar work for all of our accessions of private cartographic and architectural fonds and collections will follow. The next step will be to link to each of these descriptions the corresponding finding aids and, whenever possible, images of the documents described.

In parallel, we are producing AACR2 and RAD type cartographic descriptions for tens of recent and old maps and atlases. For the time being, these descriptions are almost exclusively related to documents selected for the National Archives' Canadian Memory digitization project, which encompasses all archival media. This leaves little time for the normal cataloguing activities and contribution to Carto Canadiana; we hope, however, to return to it on a regular basis before long.

A few weeks ago, we realized that Amicus did not contain all the descriptions of our atlases. We took the necessary steps to rectify the situation, and the next update of Amicus will contain all of our atlas descriptions.

Our old monographic map card catalogue is still an effective tool, but its format is out of date and it is not readily available. It has about 45,000 cards, representing maps produced from the 15th century to the end of the 20th century. It can be found in the National Archives reference room. As the archivists and the documents are in three buildings, it is essential that the information contained on these cards be preserved and made available everywhere. We considered dropping the catalogue and preparing for each of the documents cataloguing descriptive entries in accordance with current standards. However, the time and money this would have taken was prohibitive. In the fall of 2000, we decided to create a data base which would house all of these descriptions. It will be possible to access the data from comprehensive access points. The inputting should be completed in the first part of fiscal year 2002-2003. The verification and quality control work will begin shortly. We will make the data available on our Internet site in batches as it becomes available.

We are currently working on a project to prepare specialized guides – county maps, bird's eye views, air photos, county atlases, fire insurance plans, Indian reserves, etc. – which will be available on our web site.

Reference

Reference is at times a difficult field, and all of us in the National Archives are saddened that researchers have sometimes been dissatisfied with the service provided. The situation was difficult in the last few years, with the separation among cartographic archivists, reference archivists and the documents. Nonetheless, reference work continues and the situation is now positive. Cartographic and reference archivists have improved their communications and specialized inquiries on matters relating to cartography and architecture are responded to almost immediately, and meetings with researchers are arranged right away when required. These requests, of course take varying amounts of time depending on their complexity. Each week, we receive about forty requests (ninety seven this week, Louis Cardinal tells me) to check out copyrights and receive permission to reproduce historical and modern maps, and once again, we strive to answer

immediately or within a few hours. Cartographic and architectural documents involve a great deal of activity, and it is obvious that numerous researchers use our fonds and collections and are happy with them. The Specialized Media Consultation Unit, which is part of the Researcher Services Division, has a good team and we are happy to partner with them.

Many researchers in Canada, the United States and Europe contact map archivists directly to talk about their specialized projects (e.g. writing books, articles and historical atlases; preparing exhibitions; conducting legal research; editing geographical/ cartographic journals; producing television series on the history of Canada and Canadian biographies; map librarians not familiar with the history of cartography and the appraisal of early maps; individuals needing advice in the development of their own map collections, etc.). Several times a year, archivists bring these researchers to our storage buildings in Gatineau and in Renfrew spending many hours, even at times two or three days in the vaults, showing them documents of possible interest. This happened again about one month ago. We frequently meet with scholars, and give specialized and general tours of our map programs and facilities.

Preservation

Although this is not a subject within my immediate responsibility, I must mention that each year dozens of early maps are scheduled for microfilming and scanning, and for costly treatment by experts in our world class map conservation laboratory, certainly a major departmental commitment and investment in ensuring the future of our cartographic past. If there is sufficient interest, I will ask my colleagues in the Preservation Branch to say more on this fascinating subject in a future edition of the *Bulletin*.

Exhibitions

The Ottawa ICA Conference in 1999 is an example of our investment in Canada's and the world's cartographic community. We were praised for the responsibilities we shouldered with our map librarian colleagues in the Ottawa area to organize this international cartographic exhibition and other special exhibitions within the conference, the professional 471-page catalogue that was published, the paper presentations, the guided tours of our facilities we gave to groups of visitors, our participation at several levels in the organization of the conference, the redistribution to map libraries of a large number of maps in the months following the conference. We also received praise from high-ranking specialists and other visitors for the associated departmental early cartography exhibition curated by Louis Cardinal and for which a special public event was held with the ICA in our premises.

Will we do this again? We are seriously debating the value of such exhibitions, especially compared to the value of broader public access through the Internet, where we recognise we need to focus more energy. In a world where we cannot do all things, we are faced with difficult decisions. No doubt I will be able to address this subject with you later.

Facilities

The various functions of the National Archives are scattered throughout several buildings and branches. Adjusting to this new situation has not always been easy, as the same division used to look after the acquisition, control, reference, microfilming, and storage. Planning, co-operation and good will are essential in establishing a functional system. The space in Gatineau and Renfrew is away from the archivists but very good work takes place there all the time. These buildings offer big advantages, such as the immense processing rooms that have been specially designed for large documents such as maps and architectural drawings. We also have two large map processing rooms in Ottawa. Few facilities in North America and in Europe with large documents have conditions which make for problem-free handling. We in the National Archives are fortunate that, in spite of a few difficulties, conditions are nonetheless good. With good organization and will, we can take advantage of the current arrangement. The jury is still out on the pros and cons, and, as National Archivist Ian Wilson himself has told us, we need to consider whether we need to or can bring cartographic archivists and records together again.

Publications

This year, some of our specialists have been associated with the publication of at least two books on cartographic and architectural archives and various articles and reviews. Some are in the preparation stage. This does not include unpublished conference papers. Issues of the ACMLA *Bulletin* in

recent years contain some of our articles that deal not only with cataloguing but also with the acquisition and evaluation of early and recent maps, the history of cartography, geomatics, and detailed annual reports about cartographic activities. The National Archives' Velma Parker was awarded an ACMLA Honours Award at the Carto 2001 (cf., ACMLA *Bulletin*, no. 111, Spring/Summer 2001, p.55) acknowledging among many things her contributions to various map publications including the *Bulletin*. I have appended to this article a sample listing of our recent publications and contributions.

Associations

In the past ten years our map and architecture area, with the full support of the department, has participated extensively in architectural archives within Canadian associations and the International Council on Archives, because there was a need to contribute to the advance of this field both nationally and internationally. I regret that this has meant that there has been less time to devote to all the cartography associations than previously, although we do try to keep up. For the ACMLA, the National Archives continues to provide logistical support, and in keeping with a long-standing tradition, National Archives employees occupy the following positions: secretary, treasurer, membership renewals officer, publications officer, and archivist. I understand that meetings between the Board of the ACMLA and representatives of senior management of the National Archives have taken place several times in the past two years to discuss common problems. Since my arrival on the scene, I have observed that the willingness to cooperate and do things together is quite strong. Given the complexity and importance of the ACMLA-National Archives relationship, I have asked Winston Gomes, Senior Planning and Policy Officer in the Government Records Branch, to serve as a permanent liaison point between the Archives and the ACMLA, as well as to investigate the issues the ACMLA has identified. I look forward to a more fruitful association.

In Summary...

I hope my enthusiasm for the work of Louis Cardinal (Chief, Cartographic and Architectural Section), David Brown (Chief, Geomatics Section) and their teams, and all in the National Archives who work with the cartographic collection, is evident to you. There is more to do, and there are many challenges. But the will is strong and the professional dedication of the National Archives cartographic staff is impressive. After my investigations into the area, I am able with confidence to assure all that our commitment to serving Canadians in the area of maps and architectural records is firm and that our programs are active. We will be pleased to continue the dialogue and co-operation with our ACMLA colleagues and the cartographic community we are proud to belong to.

Appendix: Recent Cartographic Publications by Staff of the National Archives

Brown, David L. *Geomatics and Archives: A Hands-On Approach*, a series of essays about electronic records at the National Archives of Canada, Terry Cook and Terry Eastwood, editors, Kluwer International Academic, The Netherlands (to be published); co-editor, *Geomatic Data Sets Cataloguing Rules*, Ottawa, Canadian General Standards Board, Canadian Library Association, 1994; David L. Brown (forthcoming), "Restoration of the Canada Land Inventory", paper presented at the twenty-sixth annual meeting of the Social Science History Association, November 15-18, 2001, Chicago, Illinois; David L. Brown & Mike Comeau (1999), "Restoration of the Canada Land Data System", ACMLA *Bulletin*, Number 106, Fall 1999, pp.42-52; David L. Brown, et. al. (1997), *Every Name Tells A Story*, curator of exhibit and co-producer of internet exhibit sponsored by the National Archives of Canada, Natural Resources Canada, and Parks Canada as part of the centenary of the Canadian Permanent Committee on Geographical Names. http://GeoNames.NRCan.GC.cent/english/; David L. Brown (1999), "Acquisition and Archival Management Issues", paper presented at the joint ICA/ACMLA Conference, Session A2, Ottawa, August 19; David L. Brown (1998), "Preservation of Geographic Information Systems", paper presented at the National Archives and the Challenge of Electronic Records Conference, July 27-31, Session 25, Public Records Office, London, England; David L. Brown (1997), "National Archives and Statistics Canada CLDS (Canada Land Data System) Restoration Project", paper presented at the 1997 Conference, Association of Canadian Map Libraries and Archives, University of Saskatchewan, May; David L. Brown, et. al. (1997), National Biodiversity Information Initiative Workshop on Biodiversity Metadata Needs, Canadian Museum of Nature, technical advisor for geomatic material, November; David L. Brown, et. al. Government of Canada Merit Award, award for the development of the International Cartographic Exhibition for the ICA Conference, August 16-20, Ottawa, - Earth Sciences Sector, Natural Resources Canada; 1999, Government of Canada Merit Award, award for the development of ArchiviaNet an on-line research tool - National Archives of Canada; 1998, Silver Medal, Distinction '98 Awards, Technology

in Government Week, in recognition of outstanding achievement for work completed as part of the Canada Land Inventory Restoration Project - Partnerships category; 1997, Government of Canada Merit Award, award for the development of the National Archives of Canada Internet site; http//www.archives.ca - National Archives of Canada; 1996, Government of Canada Merit Award, award for developing a national cataloguing standard for geomatic records - National Archives of Canada.

Cardinal, Louis. *Managing Cartographic, Architectural, and Enginering Records in the Government of Canada*, Ottawa, Minister of Public Works and Government Services, 2001 (available on the National Archives of Canada Web site under services to government, news and events) ; *La Gestion des documents cartographiques, architecturaux et techniques dans l'administration fédérale*. Ottawa, Ministre des Travaux publics et Services gouvernementaux, 2001; "Longitudes and Latitudes", *L'Archiviste / The Archivist*, number 117, 1998 and ACMLA *Bulletin,* number 109, Fall 2000; "Longitudes et latitudes", *L'Archiviste / The Archivist*, number 117, 1998; "Appraisal and Evaluation of Early and Recent Maps", ACMLA *Bulletin*, number 103, Fall 1998; "Le Programme des archives nationales de l'architecture aux Archives nationales du Canada : historique et production d'instruments de recherche", *Gli Archivi Per La Storia Dell' Architettura, Atti Del Convegno Internationale Di Studi*, Reggio Emilia, 4-8 Ottobre 1993, volume 1, Rome, Ministerio Per I Beni E Le Attivita Culturali, 1999; "Acquisition de trois cartes anciennes pour les Archives nationales du Canada", *Entre Amis*, Les Amis des Archives nationales du Canada, Octobre 2001; "Acquisition of three early maps for the National Archives of Canada", *Between Friends*, Friends of the National Archives of Canada, October, 2001; Louis Cardinal, Curator, departmental exhibition *Canada At Scale: Maps of Our History / Le Canada à l'échelle : les cartes de notre histoire*, Ottawa, National Archives of Canada, 30 June 1999-21 February 2000; Louis Cardinal (National Archives of Canada, Ottawa), Maygene Daniels (National Gallery of Art, Washington, D,C,), Robert Desaulniers (Canadian Centre for Architecture, Montréal), David Peyceré (Institut Français d'Archirecture, Paris), Cécile Souchon (Archives nationales, Paris), Andrée Van Nieuwenhuysen (General State Archives, Brussels), *A Guide to Principles for the Archival Management of Architectural Records, 19th-20th Centuries* Paris, International Council on Archives, 2000 (also available in French as *Manuel de traitement des archives d'architecture XIXe-XXe siècles*); Louis Cardinal and Le'Anne Frieday "Faits saillants de la cartographie au Canada", ACMLA *Bulletin,* number 107, Winter 2000; 'Highlights in Canadian Cartography", ACMLA *Bulletin,* number 107, Winter 2000.

Kidd, Betty. Editor, *ICA 1999 International Cartographic Exhibition / ACI 1999 L'Exposition cartographique internationale*, Ottawa, International Cartographic Exhibition Committee, 1999.

Murray, Jeffrey. 1998, "A Gift for the Gab: Hawking Books in the Hinterland," *Biblio*, vol. 3, no. 7, pp. 14-16; "Through a Lens Elusively", *Western People*, no. 922, pp. 6-7; "Show Me the Way: Deception and a Good Fleecing; These were the Hallmarks of a Great Gold Rush; the Publishers of Maps to the Klondike Knew It Well", *Up Here*, vol. 14, no. 3, pp. 34-40; 1999, "Hard Bargains: The Making of Treaty 8", *The Archivist*, no. 117, pp. 38-45; reprinted in *Western People*, no. 994, pp. 3, 6-7; "Settling for Scrip", *Legion Magazine*, vol. 74, no. 3, pp. 12-14; "Deal of the Century?", *Canadian Geographic*, vol. 119, no. 7, pp. 22-23; "Canadiana Database to Include Cartographic Records", *Cartouche*, no. 32/33, pp. 6; 2000, "The Model City", *Mercator's World*, vol. 4, no. 2, pp. 52-57; "Exploitation", *Canadian Geographic*, vol. 120, no. 1, pp. 56-57; "Nation Building", *Canadian Geographic*, vol. 120, no. 1, pp. 72-73, (co-authored with Geneviève Allard et al.) *Canada and the First World War: We Were There*, Ottawa: National Archives of Canada (Web site); 2001, "Mapping the Mountains", *Legion Magazine*, vol. 76, no. 3, pp. 47-49; co-écrit avec Bruce Weedmark (co-authored with Bruce Weedmark) *A Finding Aid to Maps of the First World War*, Ottawa: National Archives of Canada (web site); (co-authored with Irene van Bavel and Janine Stingle) *The Canadian West*, Ottawa: National Archives of Canada (web site); "Princely Toys", *Military History Quarterly* (in press);co-authored with Geneviève Allard *et al.*, *Canada and the First World War: We Were There*, Ottawa: National Archives of Canada (Web site)

Parker, Velma. National Archives representative on the Anglo-American Cataloguing Committee for Cartographic material; involved in the editing of the second edition of *Cartographic Materials: A manual of interpretation for AACR2* (to be released); contributor to the development of *Rules for Archival Description,* Ottawa, Bureau of Canadian Archivists, Canadian Council of Archives, 1995-2000; Books/Articles: "Cataloguing map series and serials". In *Maps and related cartographic materials : cataloging, classification, and bibliographic control /* Paige G. Andrew, Mary Lynette Larsgaard, editors. New York ; London ; Oxford : Haworth Information Press, 1999 and in *Cataloging and classification quarterly*, Vol. 27, No. 1/2 and 3/4 1999; *Geomatic data sets cataloguing rules.* Editor: Velma Parker ; co-editors: David Brown, Margaret Stewart, Frank Williams. Ottawa : Canadian General Standards Board and the Canadian Library Association, 1994; Reviews: *Tooley's dictionary of mapmakers*. Vol. 1 (A-F). In *Cartographica* Vo. 37, No. 1 Spring 2000; *Place names of Alberta. [Volume I]. Mountains, mountain parks and foothills*. In Association of Canadian Map Libraries and Archives *Bulletin*, No. 82, March 1992.

KATE DONKIN
1924 - 2001

KATE DONKIN
ACMLA Honours Award - 1986

(reprinted from ACML BULLETIN 60, pp.15-16)

It is very fitting that at this, the twentieth annual conference of the Association, we should honour one of our most dear founding members - Kate Donkin. As many of you know, through an unfortunate accident, Kate is not able to be with us today. I hope that Betty will convey to her the essence of this message of gratitude from her colleagues.

I should start by mentioning Kate's practical and varied contributions to map librarianship in Canada. She was one of the founding members of the Association and, at the first national conference, presented a paper on "A Computerized Approach to Increased Map Library Utility" – the result of her pioneering efforts in computer cataloguing at McMaster. When we think of the slow progress in this area to date, it is sobering to think that this was twenty years ago. By 1968, Kate was a member of the National Union Catalogue Committee, a committee to which she was to devote a great deal of her energy in the ensuing fifteen years. In 1969 she conducted a survey of map librarian salary levels and later chaired a committee to look into the whole topic of standards of pay. Many map librarians today reap the benefit of these early efforts. In 1970 she served on the "Maps in Theses" committee and, at the annual conference, was asking the question "Are map libraries obsolete?" - a challenge to map librarians to look to the future.

And so it continued throughout the 70's; Kate was Chairman of the Nominating Committee (1974), organized the 1974 Conference (and, incidentally, wrote a typically witty open letter for the 1975 *Bulletin* on the trials and tribulations of conference planning), became chairman of the vital National Union Catalogue Committee and compiled the *Union List of Atlases in Ontario Universities* (albeit for OUCLCS, but also to the benefit of ACML). She also presented academic papers on the land surveys of southern Ontario with Professor Louis Gentilcore of McMaster University and on the evaluation of

Kate Donkin and Lloyd Reeds, 1994. (Photo courtesy of Andrew Burghart)

the Canadian 1:250,000 topographic map series, with our new leader, Lou Sebert.

The end of the 1970s found her again heavily involved in committee work: she volunteered for the new Constitution Committee (1977), took up again the chairmanship of the National Union Catalogue (NUC) Committee and in 1982, chaired the Remunerations Committee. Those who know the details of events behind some of these titles know that, for a goodly period in the Association's sometimes traumatic teens, Kate was the one to whom we turned for rescue in times of friction, tension or crisis: the ACML Constitution; the growing pains of AACR2 and the MARC format; the remuneration question. When the rest of us had botched things up, Kate was there to straighten them out.

What is it about Kate that allowed her to step into and rapidly sort out, these delicate situations? For there are qualities here that we would do well to note, and emulate as best we may.

First of all, we could always rely on her unfailing, realistic, down to earth, plain good sense. Kate has an innate moral authority that allows her to cut through the nonsense to get to the heart of an issue.

Secondly, she has a deep respect for individuals, a respect which has enabled her to work well with colleagues, to separate people from positions, and thus find solutions to some of our more difficult human situations.

Thirdly, her warm, sunny and fun-loving nature has enabled her to put issues in their proper perspective, often – important though they be – way down low on the totem of true priorities. She could not at any time be carried too far by issues and events! There were always matters of real importance to return to – the cigarette, the glass of scotch, the ACML songs.

It is this sense of priorities that now leads her on a new path, of putting the maps firmly behind and moving into a period of personal and creative activities. We will dearly miss her company; we will miss being able to fall back upon her wisdom; we owe her a great debt of gratitude for her contribution to our field; we send her every good wish for a long, happy and bruise-free retirement.

Barbara Farrell
Map Library
Carleton University

KATE DONKIN
A PERSONAL REFLECTION

The Association of Canadian Map Libraries and Archives lost a founding member and a good friend with the death of Kate Donkin in August.

Kate became the Map Curator at McMaster University in 1964, and completed her Master's in historical geography here in 1969. One of her earliest projects was the creation of an automated map retrieval system, in conjunction with Michael Goodchild who was also a grad student here at that time.[1] This very primitive effort, using 90 character IBM punch cards, is now considered to be the ancestor of modern MARC for cartographic materials.[2] For many years, Kate also served as Chair of the National Union Catalogue Committee. Both of these ventures are characteristic of her career-long commitment to access issues, which for Kate meant finding ways to make people use and appreciate maps.

I was vaguely acquainted with Kate for many years, through the 1970s and 80s. We both worked in special libraries associated with the Department of

Anglo American Committee for the Bibliographic Control of Cartographic Materials, October 1979. Back row, left to right: John Schroeder (Library of Congress), Pierre Lepine (ACMLA), Roger Fairclough (British Cartographic Society), Hugo Stibbe (Public Archives of Canada), Ben Tucker (LC). Front row, left to right: Mary Larsgaard (SLA-G&M, WAML, ALA-MAGERT), Joan Winearls (ACMLA), Yolande Hodson (British Committee for Map Cataloguing Systems), Kate Donkin, Barbara Farrell, Velma Parker (PAC), Vivian Cartmell (PAC). (Photo courtesy of Barbara Farrell; caption courtesy of Velma Parker).

Geography at McMaster, and chatted casually at staff events. In May of 1986, the University Library decided to amalgamate the collection with which I was working into the Map Library, and designated me as Curator of both collections when Kate retired in November. It was at that point that I came to know Kate very well indeed!

The physical move of the two collections was scheduled for immediate action. Unfortunately, Kate suffered a fall which prevented her from supervising the Map Library half of the move (and more significantly from attending the conference that year at which she was awarded the ACMLA Honours Award). However, in typical Kate style, she had copious drawings and plans (not written notes, only visual information!) of what she wanted. My first lesson in supervision was learned from the deep loyalty of her staff. If she could sketch it, they would do it – and the move went flawlessly.

After Kate returned to work, in the period August to October of 1986, came an unparallelled experience in my career, one on which I look back with great pleasure and gratitude. Kate devoted a few hours every week to teaching me something about maps. We talked about topography, we talked about cartography, we talked about history. We talked about geographers and geographic information. She drew pictures and I tried to absorb. It is perhaps never easy to have someone step into one's own dearly loved shoes, but generosity of spirit and collegiality were Kate's trade-marks. Her ideas soared and bounced; my understanding plodded along – we were very much opposites, she being a "right brain" artist and visual thinker, and me a "left brain" linear organizer. And yet... at the end of every conversation, we would mysteriously arrive at the same conclusions, the same underlying philosophies. Access to information, public service, commitment to the teaching of geography, and getting people to use and appreciate maps – these were Kate's values. Perhaps she despaired of ever making a geographer of me, but she was too generous to say so. Her witty sense of humour and intellectual vigour made every hour a joy. And so passed the most marvellous mentoring experience of my career.

As I look around this collection today, I am constantly reminded of her efforts over the years – they are evident in McMaster's strong collection of historical maps of early Canadian exploration, in our fine rare map collection which benefited from year-end budget surpluses in the 1970s, even in small inexplicable pockets of Irish genealogical information!

My earliest introduction to ACMLA came when I was required to listen to a scratchy cassette from the 1986 Annual Conference in Kingston, when Kate's Honours Award was presented in absentia. So my very first impression of this Association was of a rather undisciplined choral group singing, with gusto and obvious affection, some dirge about the Public Archives. Later I learned that ACMLA had a long tradition of sing-alongs, and that Kate had in fact written all the songs, with her husband Bill and Lou Sebert.

Reading these songs over today is like opening a time capsule of ACMLA's early years. Here are all our predecessors and their issues of concern. Here are the occasionally tense dynamics between the librarians, the geographers and the archivists. Here are immortalized the timeless struggles to achieve a National Union Catalogue and the growing pains of the Anglo-American Cataloguing Rules for maps ("comma space"). And here is that affectionate dirge about the Public Archives. So as a tribute to Kate, to her sense of humour and her love of fun, here is reproduced the ACMLA Song Book.

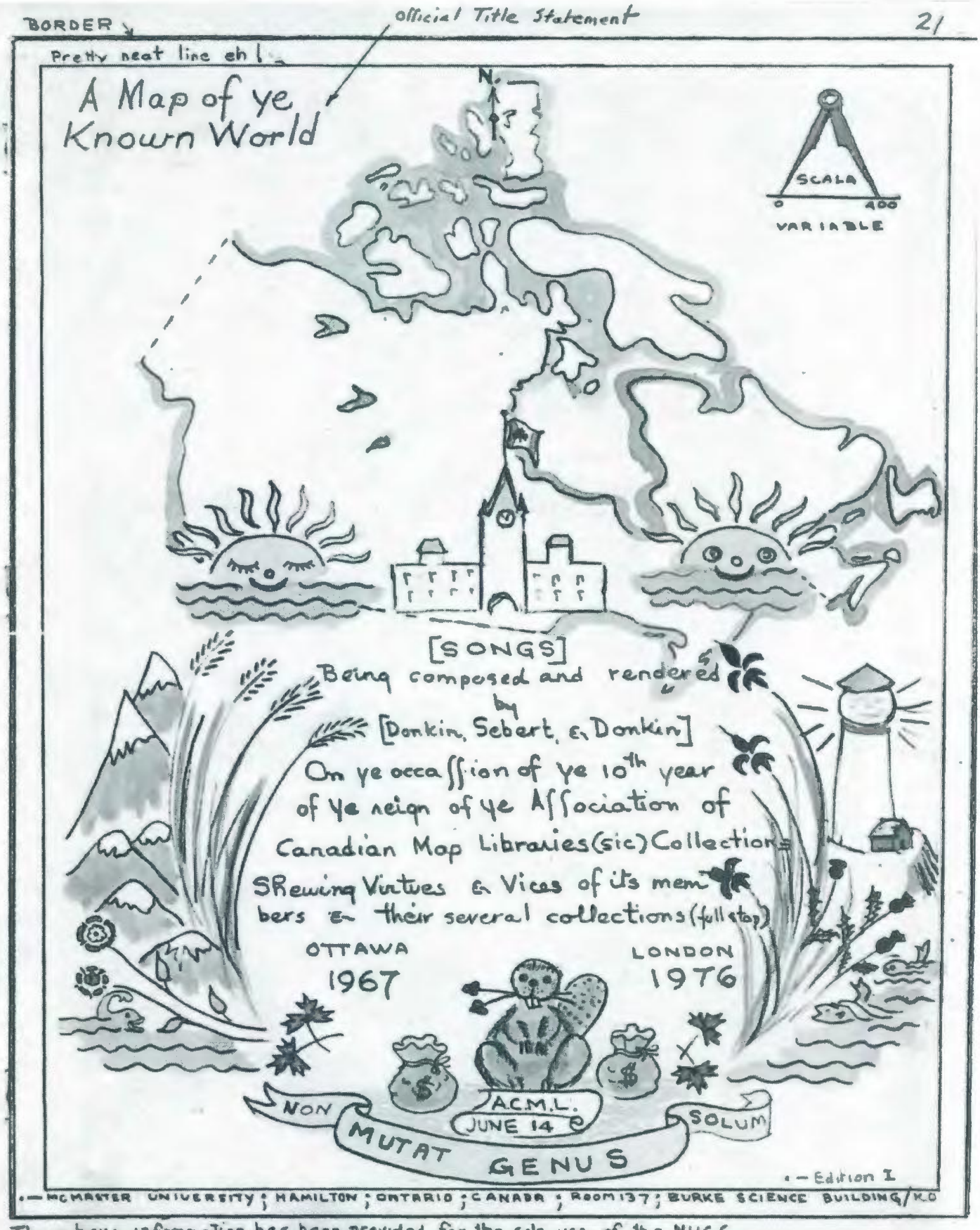
"Bless all geographers stubborn as mules..."

Cathy Moulder
Lloyd Reeds Map Collection
McMaster University

Notes

1. Donkin, Kate and Michael Goodchild, "A Computerized Approach to Increased Map Library Utility", *Proceedings of the First National Conference on Canadian Map Libraries*, June 14-16, 1967, pp.16-23.

2. Stibbe, Hugo L.P., *MARC-Maps: The History of Its Development and a Current Assessment.* (The Hague: Netherlands Organization for Information Policy, Geographical Institute of the State University, 1976.)



The above information has been provided for the sole use of the N.U.C.C.

No. 1 TO ALL

(To: *IVAN SKAVINSKI SKAVAR*
or however its spelled)

There are many great libraries
well known to fame
which are spread yea from sea unto sea
But the greatest of all
We would not dare to name
We'll describe them and then you will see.

Laval's Francophile
And has been there awhile
Champlain had them draw his Town Plan.
It all proved quite silly
The whole place is hilly,
But with all it is run with elan.

Down the highway is Guelph
which lives by itself
In what used to be called Farmers' U.
Their cabinets are plastic
Their index is spastic
But they know what they're doing, they do.

New York is the nexist
It's run by a sexist
It looks like it's built on the moon
Malinski did plan it
And left it to Janet.
Their source list should be published soon.

At Western Serge Sauer has spent each waking hour
Just planning this meeting for us
When it comes to display
Can we beat him? No way
And he's done it without any fuss.

Simon Fraser is known for its rebellious tone
It had Brian now Richard once York
They are not in Vancouver
They couldn't run smoother
And now on the Burnaby Fork.

McMaster the bastard is just up the Bay
They haven't got class you can see
The maps are all tattered
Their atlases battered
Their curator she lives up a tree.

Oh Carleton I fear has connections with beer
For it sits on the shores of Dow's Lake
So Barbara indeed
Has had more than she need
Not of beer, but a mess on her plate.

The National Collection we view with affection
They fathered us all from the start
Their rules are real funny
But they've got the money
Our bonds are so tight we can't part.

Toronto we're sure, it is WASP to the core
Their librarian's a great bibliophile
She worries a lot
But maps she has got
She has most of us beat by a mile.

McGill has Lorraine whose great claim to fame
Is a financial ledger complete
She has broken tradition
With her erudition
Her collection's among the elite.

Calgary is neat and not yet complete
But watch out for those guys from the West
They have got lots of space
And are into the race
Till they pass you, they're not going to rest.

Way out past the West where the sun usually sets
Surrounded by sea and by rain
Maureen has a plan
So does Fran of Japan
To change our constitution again.

Now Edmonton has great oil wells at hand
It buys maps, has cartographers too
Their load got so great
To move was their fate
In the basement they've gone, just like you.

With hundreds of minions and maps by the millions
Ottawa's on the Bytown Canal
Being close to the mint
They don't have to stint
They get grants which are quite bilingual.

Did you know Waterloo has gone right out of view
It is not on a map anymore
But our Peter Brown
Is hunting it down
Was it moved onto 30 M/4?

Now down in the States is a library that rates
We think it is called the L.C.
Now let's be precise
They come here for advice

It's too bad we lost that Colony.

The Map Library at Trent
Is run by a gent
The site was a fine place to choose
Tom Bata bless his heart
Gave the library its start
He entirely financed it with shoes.

Now our N.T.S., we have to confess
Has made some mistakes, just a few
But when Serge finds them all
He just gives them a call
And loudly complains to our Lou.

Now Energy Mines and Resources we hear
Has millions of maps and some more
It was once run by Bradley
And now not so badly
By 12 women and Lorne A. Leafloor.

Now General Brock
He came out of a shock
and discovered he'd won that darn war.
He saved his one map, 'twas the beginning of that
Brock U. could now open it's door.

Now what could be finer
Than to come from Reginer
Which the Mounties declare as their home
It's run by Anwar
Who comes from afar
Where the deer and the buffalo roam.

Sir good old George William
In our humble opinion
Lacked a certain amount of foresight
They started his college
Dispensing with knowledge
All day and way into the night.

From the east in the land
Full of lobster and sand
Come the people who are quite hard to beat
Sackville was divine
Great fun, lots of wine
Our stomachs went down to defeat.

There are more of the same, we never did name
If only they'd make up their minds
One's called old Concordia
Or perhaps Wilfred Lauria
For the rest, you write your own rhymes.

No. 2 GEOGRAPHERS

(To: *WHIFFENPOOF SONG*)

From departments of geography
From the cartographic schools
From the drafting boards and field trips and the rest
Hear the cry of all of our colleagues
With their glasses raised on high
When it comes to Map Librarians we're the best.

Geographers are we who have lost our way
Baa baa baa
Hidden away in a map library
Baa baa baa.

To Hell with indexes, catalogues too
We can read maps and plans, can you?
File them by size and that will do
Baa baa baa.

From departments of geography
From the cartographic schools
From the drafting boards and field trips and the rest
Hear the cry of all of our colleagues
With their glasses raised on high
When it comes to Map Librarians we're the best.

Geographers are we who have lost our way
Baa baa baa
Hidden away in a map library
Baa baa baa.

As long as they're used until they're worn
We've done the job for which we were born
And we can stand the archivists scorn
Baa baa baa.

No. 3 ACMLA ANTHEM

(To: *BLESS THEM ALL*)

Bless us all
Bless us all
The large and the short and the tall

Bless all the librarians and their LC rules
Bless all geographers stubborn as mules

The archivists are best of them all
From grace they never do fall
They guard each accession with growing obsession

So join while we sing Bless Them All.

No. 4 THE PUBLIC ARCHIVES

(To the Tune of *THE VOLGA BOAT SONG*)

The Public Archives, The Public Archives

You may look but mustn't touch

In The Public Archives - The Public Archives

They are keepers of the maps so fair,
They treat maps with tender loving care,
Catalogued and filed away,
They rarely see the light of day,
They'll be there on Judgement Day,

In The Public Archives, The Public Archives.

No. 5 TALE OF A LIBRARIAN

(To: *THE LEADER OF THE KING'S NAVY,* H.M.S. Pinafore)

When I was young for bribery
I served my time in a school library
I shelved the books
And I pushed the cart
And that is how I got my start
And that is how he got his start

I pushed that cart so carefully
That now I am the leader of a map library

He pushed that cart so carefully
That now he is the leader of a map library

As shelving clerk I gain such fame
Circulation clerk I soon became
I marked books out
And I marked them in
And learned that reading was a deadly sin
And learned that reading was a deadly sin.

I avoided sin so cleverly
That now I am the leader of a map library

He avoided sin so cleverly
That now he is the leader of a map library

I went to college for a degree
And made it through as you can see
I had my papers
I was no fool
I hied myself to a library school
He hied himself to a library school

I hied me off so rapidly
That now I am the leader of a map library

He hied himself so rapidly
That now he is the leader of a map library

At library school I heard the tale
If you broke a rule you would surely fail
So I learned square brackets
Used every tool
And exactly to apply each blasted rule
And exactly to apply each blasted rule

I applied each rule so assiduously
That now I am the leader of a map library

He applied each rule so assiduously
That now he is the leader of a map library

Now all you peasants without my degree
Pay sharp attention to what you see
Keep your brackets square
And your comma space
And you all will find yourselves in the proper place
And you all will find yourselves in the proper place

In the proper place you will ever be
The real important person in a map library

In the proper place you will ever be
The real important person in a map library.

No. 6 N U C

(To: *I'VE BEEN WORKING ON THE RAILROAD*)

They've been working on committees
Forever and a day
They've been working on committees
Just to pass 10 years away
Can't you hear the members sighing
Give them a rousing cheer
Can't you see the members dying
Giving them a great big cheer

Give them a cheer
Give them a cheer
Give them a rousing cheer-eer-eer
Give them a cheer
Give them a cheer
Give them a rousing cheer.

Someone wants to change a comma
Someone comma space we know oh oh oh
Someone wants to drop the comma
They'll never get it done you know.

Singing N U C
Singing N U C
Singing N U N U C C C
Singing N U C
Singing N U C
Do you think it will ever really be?

ACMLA HONOURS AWARD

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

Nominations close on March 31, 2002.
Please send your nominations to:

Lori Sugden, Chairperson, Awards Committee
University of Victoria Library
McPherson Library - Map Library
P.O. Box 1800
Victoria, British Columbia V8W 3H5
or via email at:
lsugden@uvic.ca

COMITÉ DES PRIX ET MÉRITES

Le comité des prix et mérites invite les membres de l'ACACC à soumettre la candidature du membre qui, à leur avis, est admissible au Prix d'excellence. Selon les règles du concours, l'heureux(se) élu(e) sera toute personne dont le nom a été retenue en vertu de sa participation considérable au développement de la profession de cartothécaire. Sa contribution peut se quantifier de différentes façons: activitiés particulières ou générales, participation soutenue au sein de l'Association en tant que membre d'autres comités. Bien que ce concours s'adresse surtout et avant tout aux adhérents de l'Association, les non-membres dont le dossier s'apparente á celui des membres réguliers de l'ACACC auront droit á une nomination analogue.

Date d'échéance du concours: 31 mars 2002.
Veuillez faire parvenir vos suggestions de candidats à:

Lori Sugden, Présidente, Comité des prix et mérites
University of Victoria Libraries,
McPherson Library - Map Library,
P.O. Box 1800
Victoria, British Columbia V8W 3H5
ou via le courrier électronique à : lsugden@uvic.ca

ACMLA PAPER AWARD

The Awards Committee invites nominations for the ACMLA Paper Award. To be nominated for the Paper Award, which carrries a $200.00 monetary prize, a feature article by one or more authors consisting of at least three pages in length, must have appeared in issues 109-112 of the ACMLA Bulletin. We are looking for articles that make a solid contribution to map librarianship, including cartobibliographies. Originality, uniqueness of subject matter and depth of research will be taken into consideration.

Nominations close on March 31, 2002.
Please send your nominations to:

Lori Sugden, Chairperson, Awards Committee
University of Victoria Library
McPherson Library - Map Library
P.O. Box 1800
Victoria, British Columbia V8W 3H5
or via email at:
lsugden@uvic.ca

PRIX DU MEILLEUR ESSAI

Le comité des prix et mérites invite également les membres de l'ACACC à soumettre la candidature du membre qui, à leur avis, est admissible au Prix du meilleur essai. Selon les règles du concours, l'heureux(se) élu(e), qui recevra une bourse de 200 $, devra avoir publié un article d'au moins trois pages au sein d'une édition du Bulletin de l'ACACC (no. 109 à 112). Le comité recherche principalement les articles ou les carto-bibliographies, qui alimentent et soutiennent le développement de la discipline. Les articles seront jugés selon les critères d'originalité du thème choisi et du niveau de recherche.

Date d'échéance du concours: 31 mars 2002.
Veuillez faire parvenir vos suggestions de candidats à:

Lori Sugden, Présidente, Comité des prix et mérites
University of Victoria Libraries,
McPherson Library - Map Library,
P.O. Box 1800
Victoria, British Columbia V8W 3H5
ou via le courrier électronique à :
lsugden@uvic.ca

REGIONAL NEWS

Pierre Roy

Newfoundland

Memorial University of Newfoundland
Alberta Auringer Wood
awood@mun.ca

The Fall semester is getting underway with about the same number of full-time undergraduates as last year enrolled, but about a 6.5% increase in part-time undergraduates, and a 1.7% increase in the number of graduate students. Alberta began on sabbatical on September 1, while Dan Duda started as her sabbatical replacement on September 3. He is currently doing training for service on the Information Desk, but will begin to reside in the Map Library the first week in October. Dan, as many of you will know, worked in the Wonders Map Collection at the University of Alberta for many years before obtaining his library science degree. His activities included helping with the 2000 ACMLA conference in Edmonton. We feel fortunate to have him with us. Dan's email address is dduda@mun.ca, while the phone numbers are as for the Map Library.

Six students are being hired to assist with regular work and special projects. One special project will involve scanning of photographs of early maps in the Centre for Newfoundland Studies in preparation for a web page and access to the images through the libraries' catalogues. Others are involved with mapping software, map acquisition, and GEODEX. We have acquired a scanner from another part of the library. Suanne Reid is pregnant with her second child and doing very well this time. She and Joanne Costello continue to work on copy cataloguing and reference work, in addition to supervising the students. Suanne and Alberta participated in the CIBC Run for the Cure on September 30, but as walkers, not runners!

Alberta attended the International Cartographic Conference in Beijing, China, in early August as one of the International Cartographic Association Vice Presidents. A report on this appears elsewhere in the *Bulletin* (p.61). She will be working on her Newfoundland and Labrador map bibliography this fall and going to Norway in January to work on a map cataloguing and access project at the University of Bergen library returning in late July.

Ontario

McMaster University
Cathy Moulder
moulder@mcmaster.ca

McMaster University has been the beneficiary of two marvellous donations of rare maps this year, which were the sole focus of our summer projects.

The first collection was donated by Mr. Sydney Banks of Toronto in December 2000. This collection is composed of 169 maps, with particular research strengths in Cumberland County, England (66 maps) and in South America, especially Brazil (63 maps). For both of these areas, the collection of maps of the same geographical area over several centuries provides a unique opportunity to see change over time and, especially in the case of South America, to see the development of knowledge about this land as it was first explored, all within a single repository. There are also some interesting maps of Canada and of the world. The oldest map in the Banks collection is a map of the British Isles from an edition of Ptolemy's *Cosmographia*, produced in 1486.

The second collection was donated in April of 2001, by Mr. Elmar Hodsoll of Toronto. This collection is composed of 149 rare maps (pre-1900), 72 maps dated after 1900 and 7 atlases. Most maps are of Eastern Canada and especially Upper Canada (Ontario), comprising a rich historical collection with particular strength in the 18th and 19th century periods of settlement. These maps add a strong research complement to McMaster's existing collection of earlier maps of Canada..

Work on the description of these two rare maps actually began in January, but was interrupted by a labour dispute that saw all library assistants on strike for five weeks in March and April. In order to expedite the tax appraisal process, Jennifer Sharp was hired as a summer student to complete the map descriptions and prepare the acquisitions records and

the web pages. Jennifer and Cathy worked full time on this project all summer.

The map descriptions follow standard descriptive cartobibliographic conventions, using Joan Winearls' book *Mapping Upper Canada 1780-1867: An Annotated Bibliography of Manuscript and Printed Maps* as a model. Where possible, we identified the source of the plates which had come from atlases. When the list of maps in each donation was complete, two outside appraisers were invited to McMaster to evaluate each item for tax receipt. In the meantime, Jennifer worked away, turning the same descriptions into our internal accession records and into the descriptions which we use on our web pages. The Banks Collection is described, with photographs, at http://www.mcmaster.ca/library/maps/bindex.htm. The Hodsoll Collection is described at http://www.mcmaster.ca/library/maps/hindex.htm. Ultimately, both collections will also be incorporated into our evolving index of all rare maps in McMaster's collection (http://www.mcmaster.ca/library/maps/rchome.htm).

McMaster support staff now have a collective agreement in place, as of September 1st. Library supervisors have attended a steady stream of meetings and workshops on managing in the unionized environment, and the implementation is proceeding slowly. Enrollment is up in all the first year Environmental Science and Geography courses, making a very busy start to term for orientation sessions and library assignments.

University of Ottawa
Grace Welch
gwelch@uottawa.ca

We just experienced our busiest September ever, in part because of a map skills workshop which Frank Williams and Pierre Leblanc gave to the second year field camp course, which required the compilation of a map bibliography. It was a very good introduction for the students to the range of materials we have in our collection, but demonstrated how complex it is for students to cite maps even with the help of citation guides.

As part of a decision to centralize map cataloguing, Frank Williams will be transferred to the Cataloguing Department beginning in January 2002. Frank will primarily be responsible for authorities work, although he will continue to do map cataloguing one day a week in the Map Library. Frank has been in the Map Library since 1987; this will be a major loss to us.

Cataloguing of the Province of Quebec is now complete, and this summer Frank and Martine Rocheleau moved to the retrospective cataloguing of the U.S. collection. Our hit rates on AMICUS and OCLC have been around 90%.

The Library Network implemented the Innovative Millennium library system this August and staff have been heavily involved in committees, training, and assessing the impact on our workflow. All of our pathfinders and procedures are now being revised.

In collaboration with Carleton, all of the Map Library web pages related to GIS have been revised. More than 40 new pages have been added to our web site to provide our users with information about our GIS data and services (URL: http://www.uottawa.ca/library/map/gis-e.html, in french: http://www.uottawa.ca/library/map/gis-f.html).

All of our city maps of Canada were updated over the summer. From the National Capital Commission we received 40 CD-ROMs containing TIFF images at 1/4 metre resolution showing the urban area of the National Capital Region and Gatineau Park

Grace participated in a three day meeting of the Geographic Names Board of Canada on September 26-28 in Halifax, chairing a half day meeting of the Advisory Committee on Canadian Digital Toponymic Services (ACCDTS). The main topic of concern at the ACCDTS is the spatial enabling of geographic names and their integration with GIS applications. A Geoconnections-funded project on defining a Toponymic Framework has recently been completed and it is hoped to build on the recommendations of this study over the next year.

University of Western Ontario
Cheryl Woods
cawoods@uwo.ca

Over the summer, many sections of the map collection were updated, and in particular, all Canadian aeronautical charts which include 1:1,000,000, 1:500,000 and 1:250,000. These will be useful for the Commercial Administration and Aviation program. Major Canadian city maps and all provincial and U.S. state road maps were

updated. The new series of climate/geoscape posters by GSC have been very useful for display purposes. They will later be used for the 100 level weather and geomorphology Geography courses.

At this time, no workstudy student assistants have been hired. A delay in the financial aid office has caused this problem. As a result, our hours of operation will not be extended, and remain Monday to Friday 8:30-4:30.

Tours in September took place for all first year Geography students on the main campus and two affiliated colleges. A small display and brief lab were set up for the students to look at and do.

After many years of procrastination, the Geography department purchased ArcView for its PC computer lab and a few other workstations in the department, including the one in the map library. Previously, MapInfo has been used quite exclusively in the Mac computer lab. Presently, the department has 160 computers in a variety of labs and offices. The recent signing of the DMTI agreement will hopefully prove to be very worthwhile to students and researchers.

Manitoba

Hudson's Bay Company Archives
Tammy Hannibal
hannibalt@inac.gc.ca

Tammy Hannibal has accepted an Interchange assignment with Indian and Northern Affairs Canada and will be away from the Hudson's Bay Company Archives until July 2002. In the interim, Carey Isaak will be the archivist responsible for Cartographic Records at the HBCA.

Kara Quann will be leaving the Cartographic Records division of the Archives of Manitoba at the beginning of November. She will be joining the staff of the National Archives of Canada. During her tenure as Private Records Map Archivist, Kara undertook a major re-housing of the holdings and survived a renovation and relocation of the collection. She quickly became an invaluable source for assistance and direction to users of the holdings. Kara also recently successfully defended her M.A. (Archival Science) thesis, "Remapping Archives: Cartographic Archives in Theory and Practice at the Provincial Archives of Manitoba". Best of luck to Kara in her new endeavours!

British Columbia

University of Victoria
Lori Sugden
lsugden@uvic.ca

The Map Library is in its first fall term on the first floor of McPherson Library, after moving in March. It is open 9 a.m.-9 p.m. Monday to Thursday, 9 a.m.-5 p.m. Friday and 1-5 p.m. Saturday and Sunday. There has been a considerable increase in reference use by other disciplines than Geography, and by the general public, while casual geography use has decreased.

Carol Unfreed is on a career secondment until mid-April. Her temporary replacement, Barbara Wilson, works Tuesday-Saturday afternoons in Maps, while David Everard works Sunday, and Monday-Thursday evenings in Maps. Both of these positions are full-time, split with the Access Services loan desk, as the map library is a unit of Access and Branch Services.

The successful candidate for the Govt. Documents/Geography/Maps/GIS librarian position in Reference Services was unable to assume the job. Government Documents selection, reference and instruction are the majority of the work. The position will be re-evaluated and reposted in 2002.

The project to create title/call number/item level records for the UVic Main Catalogue (http://gateway.uvic.ca) continues. All of the British Columbia maps held, including those for Vancouver Island, are now entered. The only exceptions are sheet-level listings for the NTS and TRIM topographic series. We have noted a significant increase in the number of people who have found maps through a catalogue search, which allows them to approach the map collection with more confidence, and gives a basis on which to build the reference interview.

Keeping all of the over 127,000 British Columbia air photos in filing cabinets in one room, for the first time in about 20 years, has led to reintegrating them into one sequence. In the process, some intriguing sets have surfaced, including a series of 1950s coastal photos in New Brunswick. At the digital end of the spectrum, the library has also been gifted with an orthophoto of Oak Bay Municipality.

BETTY KIDD RETIRES

Betty Kidd, who recently retired from the National Archives after 35 years of service, notes that throughout her career she has worked with every type and media of archival record, although her areas of primary focus have been cartography, architecture and audio-visual archives. She has worked in and/or managed almost every archival function – including acquisition, appraisal, description, public service, exhibitions, publications, preservation, copying, disaster control and building programs.

Betty first started at the National Archives (then the Public Archives of Canada) in July 1966 as head of cataloguing for the Map Division. She became Director of the National Map Collection in 1975, and throughout the thriving 1970s and 1980s, contributed to developments in descriptive standards and cataloguing for cartographic materials; to innovations in copying (105 mm microfilming) and preservation, including specialized storage for maps and plans; and to the publication of specialized finding aids, beginning with *County Atlases of Canada* in 1970 and including the G.K. Hall publication of the NMC catalogue in 1976. Betty actively participated in the map library, map archives and cartographic communities, while many of these were in their early stages of development – for example, the Association of Canadian Map Libraries and Archives (ACMLA) and the Canadian Cartographic Association (CCA).

As her management role broadened during the latter part of her career – from 1993 to 2000, she became Director of the Visual and Sound Archives Division, which encompassed the acquisition of, description of and specialized reference to all non-textual media – she continued to maintain her interest in her cartographic beginnings. As an example, she served on the Organizing Committee for ICA '99 (the conference of the International Cartographic Association held in Ottawa in August 1999) as well as chairing the International Map Exhibition Committee. For this role, she received not only the International Cartographic Association medal, but also merit awards from Natural Resources Canada.

Betty has been a member of ACMLA since its beginning in 1967. She helped organize and presented a paper at the first meeting, and served in many official capacities, including: Treasurer 1971-1973; President 1973-1974; Editor of the ACML *Proceedings* 1971 and 1972 and the ACMLA *Bulletin* 1984-1985; Chair, Conservation Committee, 1975-1985; member of the first National Catalogue of Maps Committee; and Chair of the Organizing Committees for a number of ACMLA Ottawa conferences.

Betty has published various articles, reports and reviews in the ACMLA *Bulletin,* 1968 to the present. The index to the *Bulletin* (http://toby.library.ubc.ca/resources/infopage) currently lists 53 titles under her name, including "Cataloguing in the Map Division of the Public Archives of Canada" (1967); "The genealogist and the map curator" (1975); "The map user in libraries and archives" (1977); and "Cartographic archives"(1987). In recognition of her many contributions to the ACMLA, she was the recipient of the "Honours Award for Outstanding Achievement" in 1986.

We wish Betty a long and healthy retirement. And perhaps continuation of her ties with the cartographic community – she has already agreed to work with David Jones on a review of the Association's publications program. Thanks, Betty, and very best wishes from ACMLA.

Betty Kidd leads the dancing at the ACMLA Conference in Kingston, 1986. (Photograph courtesy of Flora Frances).

NOUVELLES REGIONALES

Pierre Roy

Terre-Neuve

Memorial University of Newfoundland
Alberta Auringer Wood
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La session d'automne a débuté avec un taux d'inscription d'étudiants semblable à celui de l'an dernier dans les programmes de premier cycle à temps complet. Par contre, nous avons connu une augmentation d'environ 6.5% pour les étudiants à temps partiel et une augmentation de 1.7% pour les programmes de deuxième et troisième cycle. Alberta a commencé un congé sabbatique le 1er septembre tandis que Dan Duda est entré en fonction le 3 septembre pour assurer l'intérim. Ce dernier est présentement en formation au comptoir d'information, mais sera physiquement à la Cartothèque à partir de la première semaine d'octobre. Dan, comme plusieurs d'entre vous le savez déjà, a travaillé à la Wonders Map Collection de l'University of Alberta pour plusieurs années avant d'obtenir son grade en bibliothéconomie. Il a participé à la mise en place de la conférence de l'ACACC 2000 à Edmonton. Nous sommes privilégié de l'avoir parmi nous. Pour communiquer avec Dan utilisez son courriel dduda@mun.ca ou les numéros de téléphone usuels de la Cartothèque.

Nous avons embauchés six étudiants pour aider à la charge de travail et collaborer à des projets spéciaux. Un de ces projets impliquera le balayage (scanning) de photographies de cartes anciennes du Centre for Newfoundland Studies afin de les inclure à un site Web et de les rendre accessibles à travers le catalogue de la bibliothèque. D'autres étudiants travailleront avec des logiciels de cartographie ou participeront à des projets d'acquisition de cartes et GEODEX. Nous avons obtenu un scanneur d'une autre section de la bibliothèque. Suanne Reid est enceinte de son deuxième enfant et se porte très bien. Cette dernière et Joanne Costello travaillent au catalogage dérivé et au service de référence en plus de faire la supervision des étudiants. Suanne et Alberta ont participé à la Course à la Vie CIBC (CIBC Run for the Cure) le 30 septembre dernier en tant que marcheuses, non pas à la course!

Alberta a participé à la conférence "International Cartographic Conference" à Beijing en Chine au début du mois d'août en tant qu'une des vice-présidentes de l'Association Cartographique Internationale. Un rapport détaillé de la conférence est inclus dans ce *Bulletin* (p.61). Alberta travaillera à la rédaction de sa bibliographie des cartes de Terre-Neuve et du Labrador pendant l'automne et partira pour la Norvège en janvier afin de participer à un projet de catalogage et d'acquisition de cartes à la bibliothèque de l'University of Bergen. Elle sera de retour à la fin juillet.

Ontario

McMaster University
Cathy Moulder
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La McMaster University a reçu deux merveilleux dons de cartes rares cette année qui ont été le principal centre d'intérêt de nos projets d'été.

La première collection a été offerte par M. Sydney Banks de Toronto en décembre 2000. Cette collection se compose de 169 cartes, avec une emphase particulière sur le comté de Cumberland en Angleterre (66 cartes) ainsi que sur l'Amérique du Sud, spécifiquement le Brésil (63 cartes). Dans les deux cas, plusieurs cartes dépeignent ses dites régions à travers les siècles et fournissent un outil unique pour étudier les changements spatiaux, et ce, à partir d'un seul endroit. De plus, les cartes de l'Amérique du Sud offrent une occasion unique d'analyser l'évolution de la connaissance de ce territoire depuis les premières explorations. Cette collection inclut également certaines cartes canadiennes et du monde très intéressantes. La plus vieille carte de la collection Banks, produite en 1486, provient de l'ouvrage *Cosmographia* de Ptolemé et représente les îles britanniques.

La deuxième collection nous est parvenue en avril 2001 d'un don de M. Elmar Hodsoll de Toronto. Elle

est composée de 149 cartes rares (pré-1900), 72 cartes publiées après 1900 et 7 atlas. La majorité de ces cartes représente le Canada de l'Est, plus particulièrement le Haut-Canada (Ontario) et constitue une riche collection historique mettant l'accent sur le peuplement de cette région aux 18ème et 19ème siècles. Ces cartes viennent ajouter un complément précieux à la collection de cartes anciennes canadiennes de McMaster.

Le travail de description de ces deux collections de cartes a débuté en janvier mais fut interrompu par un conflit de travail qui a conduit tous les commis de bibliothèque en grève pour cinq semaines en mars et avril. Dans le but d'accélérer le processus d'évaluation des documents, nous avons embauché à l'été une étudiante : Jennifer Sharp afin de compléter la description des cartes anciennes, préparer les dossiers d'acquisition et les pages Web. Jennifer et Cathy ont travaillé à plein temps sur ce projet pendant tout l'été.

Les descriptions des cartes suivent les normes descriptives de la convention cartobibliographique et utilisent comme modèle l'ouvrage de Joan Winearl's "*Mapping Upper Canada 1780-1867: An Annotated Bibliography of Manuscript and Printed Maps*". Lorsque c'était possible, nous avons identifié la source des planches provenant d'atlas. Après avoir complété la liste des cartes de chaque collection, deux évaluateurs externes ont été invités à McMaster afin d'évaluer chaque item pour l'émission de reçus d'impôts. Pendant ce temps, Jennifer poursuivait le travail en adaptant les descriptions à notre système de notices d'acquisition et aux descriptions utilisées sur nos pages Web. Les descriptions des cartes et les photos de la collection Banks se trouve à l'adresse Internet suivante : http://www.mcmaster.ca/library/maps/bindex.htm. La collection Hodsoll est décrite au site suivant : http://www.mcmaster.ca/library/maps/hindex.htm. Les deux collections seront éventuellement incorporées à notre index de cartes rares de la collection McMaster (voir : http://www.mcmaster.ca/library/maps/rchome.htm).

Le 1 septembre les employés de soutien de l'Université McMaster ont signé leur convention collective. Les superviseurs de bibliothèques ont participés à une série continue de réunions et d'ateliers sur la gestion dans un milieu de travail syndiqué. La mise en application des concepts appris lors de ces rencontres se déroule tranquillement. Les inscriptions sont à la hausse pour tous les cours de première année en sciences de l'environnement créant ainsi un début d'année scolaire très occupé en ce qui a trait aux visites d'orientation et aux travaux pratiques en bibliothèque.

Université d'Ottawa

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Nous avons connu un mois de septembre plus achalandé que jamais en partie grâce à un atelier présenté par Frank Williams et Pierre Leblanc au camp d'automne de deuxième année en géographie. Les étudiants de ce camp sont venus en grand nombre à la Cartothèque rédiger une bibliographie de ressources cartographiques pour une région de leur choix. Cet exercice s'est révélé un excellent moyen pour initier les étudiants au grand éventail de matériel de la Cartothèque. Nous avons constaté, par la même occasion, comment il est difficile pour les étudiants de citer les cartes géographiques même en utilisant des guides d'exemples.

Suite à une décision de centraliser les activités de catalogage de cartes, Frank Williams sera muté à la division du catalogage au début du mois de janvier 2002. Frank sera principalement responsable de la gestion des autorités, mais poursuivera le catalogage de cartes une journée par semaine à la Cartothèque. Frank travaille à la Cartothèque depuis 1987, son départ sera une grande perte pour nous tous.

Le catalogage des cartes de la province du Québec est maintenant complété. Cet été, Frank et Martine Rocheleau se sont attaqués au catalogage rétrospectif de la collection des États-Unis. Notre taux de succès pour trouver des dossiers dérivés dans les bases de données d'AMICUS et d'OCLC se situe autour de 90%.

Le Réseau de bibliothèques a implanté son nouveau système de gestion Innovative Millenium au mois d'août et les employés ont été fortement impliqués dans les comités, la formation et l'évaluation d'impact sur le déroulement des opérations. Nous revisons actuellement tous nos guides de procédures et nos bibliographies éclair.

En collaboration avec Carleton, nous avons revisé toutes les pages Web de la Cartothèque portant sur les SIG. Plus de 40 nouvelles pages ont été ajoutées

à notre site Internet afin de fournir aux usagers de l'information pertinente sur les données et services SIG (voir les sites : http://www.uottawa.ca/library/map/gis-f.html, en anglais : http://www.uottawa.ca/library/map/gis-e.html)

Toutes les cartes des grandes villes canadiennes ont été mises à jour pendant l'été. Nous avons reçu une série de 40 CD-ROM provenant de la Commission de la capitale nationale. Cet ensemble contient des images de format TIFF d'une résolution de 0,25 mètre couvrant l'agglomération urbaine de la région de la capitale nationale ainsi que le Parc de la Gatineau.

Grace a participé à une réunion de la Commission de la toponymie du Canada (CTC) qui se déroulait à Halifax, du 26 au 28 septembre. Elle a présidé une réunion d'une demi-journée
du Comité Consultatif sur les Services canadien de données toponymiques numériques (CCSCDTN). Le principal interêt du CCSCDTN se concentre sur la dynamique spatiale des noms géographiques et sur leur intégration aux applications SIG. Le projet sur la définition d'un cadre toponymique financé par GéoConnexions a récemment été complété. Nous espérons tirer parti de ses recommendations dans les prochaines années.

University of Western Ontario
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Au cours de l'été, nous avons actualisé plusieurs sections de notre collection de cartes. En particulier, nous avons mis à jour les séries de cartes aéronautiques canadiennes aux échelles 1:1,000,000, 1:500,000 et 1:250,000 qui seront très utiles pour le programme "Commercial Administration and Aviation" offert à notre université. Les cartes des principales villes canadiennes et toutes les cartes routières des provinces et des états américains ont été également renouvellées. La nouvelle série d'affiches sur les climats canadiens et les posters Geoscape produits par la Commission géologique du Canada ont été parfaits pour l'affichage. Ils seront utilisés prochainement pour les cours de climatologie et de géomorphologie de première année du département de géographie.

En ce moment, aucun étudiant du programme travail-étude n'a été embauché. La source du problème s'avère un retard au bureau d'aide financière. Par conséquent, nos heures d'ouverture n'ont pas été prolongées et demeurent du lundi au vendredi de 8:30 à 16:30.

Nous avons offert des visites en septembre pour tous les étudiants de première année en géographie du campus principal ainsi que pour deux collèges affiliés. Une petite exposition et un laboratoire condensé ont été mis sur pied à l'usage des étudiants afin qu'ils se familiarisent.

Après plusieurs années de procrastination, le département de géographie a finalement acheté le logiciel ArcView pour les postes d'ordinateur de son laboratoire d'informatique et certains autres postes du département y compris ceux de la Cartothèque. Auparavant, le logiciel MapInfo était presqu'exclusivement utilisé dans le laboratoire d'ordinateur Mac. Présentement, le département détient 160 ordinateurs répartis dans plusieurs laboratoires et bureaux. Nous espérons que l'accord récemment signé avec DMTI sera bénéfique pour les étudiants et les chercheurs.

Manitoba

Hudson's Bay Company Archives
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Tammy Hannibal a accepté une affectation sous forme d'échange avec le ministère des Affaires indiennes et du Nord canadien et sera donc absente des archives de la Compagnie de la Baie d'Hudson jusqu'en juillet 2002. Dans l'intermédiaire, Carey Isaak deviendra l'archiviste responsable pour la division cartographique (Cartographic Records) aux ACBH.

Kara Quann quittera la division cartographique (Cartographic Records) des Archives provinciales du Manitoba au début novembre. Elle se joindra au personnel des Archives nationales du Canada. Pendant son mandat en tant qu'archiviste cartographique de document privé (Private Record Map Archivist), Kara a mis sur pied un important projet de relocalisation des ressources documentaires et a survécu aux travaux de rénovation et de déménagement de la collection. Elle est devenu très rapidement une source inestimable pour aider les usagers à utiliser la collection de documents et les diriger aux bons endroits. Kara a aussi récemment

défendu avec brio sa thèse de maîtrise en archivistique intitulée : "Remapping Archives: Cartographic Archives in Theory and Practice at the Provincial Archives of Manitoba". Nous lui souhaitons la meilleure des chances dans son nouvel emploi.

Colombie-Britannique

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Pour la première fois depuis le déménagement en mars dernier, la Cartothèque entame le semestre d'automne à son nouvel emplacement, au premier étage de la bibliothèque McPherson. Les heures d'ouverture sont de 9h00 à 21h00 du lundi au jeudi, de 9h00 à 17h00 le vendredi et de 13h00 à 17h00 le samedi et le dimanche. Nous avons connu une augmentation substantielle du service de référence pour les usagers provenant de disciplines autre que la géographie ainsi que pour le public en général. Inversement, il y a eu une légère baisse pour les questions de référence provenant des usagers en géographie.

Carol Unfreed est en affectation temporaire jusqu'à la mi-avril. Sa remplacante, Barbara Wilson, travaille du mardi au samedi en après-midi dans la section des cartes, tandis que David Everard y travaille le dimanche et du lundi au jeudi soir. Ces deux postes à temps plein sont partagés entre la Cartothèque et le comptoir du prêt des services d'accès (Access Services). Depuis le déménagement, la Cartothèque est devenue une unité des services d'accès et de direction (Access and Branch Services).

Le candidat qualifié promu au poste de bilbiothécaire de la division des Publications Gouvernementales/Géographie/Cartes/SIG du service de référence a été dans l'impossibilité d'assumer la position. La majorité du travail dans ce poste demeure la sélection, le service de référence et la formation dans le domaine des publications gouvernementales. Le poste sera réévalué et affiché de nouveau en 2002.

Le projet de création de dossiers de catalogage titre/cote/statut d'item pour le catalogue principal de Uvic (http://gateway.uvic.ca) se poursuit. Toutes les cartes de Colombie-Britannique de notre collection, y compris celles de l'île de Vancouver, sont entrées dans le système. La seule exception constitue l'inscription au catalogue de chaque feuille comprise dans les séries topographiques du système cartographique nationale et de TRIM. Nous constatons une augmentation significative de gens qui trouvent les cartes en utilisant le catalogue automatisé, ce qui leur permet d'approcher la collection de cartes avec plus de confiance et donne une base sur laquelle nous pouvons commencé le service de référence.

Le déménagement de la Cartothèque, nous a permis de regrouper la série de photos aériennes en un seul endroit, et ce, pour la première fois en 20 ans. La collection compte plus de 127,000 photos de Colombie-Britannique qui sont gardées dans des classeurs situés dans une pièce unique où nous avons pu les intégrer en une séquence continue. Lors du processus de réintégration, quelques jeux de photos intéressants ont fait surface dont une série de photographies du littoral du Nouveau-Brunswick. D'un autre coté, la Cartothèque a également eu la chance de recevoir une orthophoto numérique de la municipalité d'Oak Bay.

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

Membership: Most of you saw the message on CARTA about the death of Kate Donkin, one of our two Honorary Members and one of the hard-working individuals who helped to build our Association. Anyone who ever met Kate will always remember her intelligence, her wit, and her clear sense of what is important.

GIS Day 2001: Many members may be making arrangements for events in their library or institution to celebrate GIS Day 2001 as a means of promoting their GIS services and data. I contacted ESRI to find out what is involved in becoming a corporate sponsor of GIS Day but we were too late for this year's event. Future participation can be discussed at our next AGM.

NEW MAPS

Amy Chan

Amerique du Nord / etablie par la Division GeoAcces, Centre Canadien de teledetection, Geomatique Canada, Secteur des sciences de la Terre, Ressources naturelles Canada. 2. ed. Scale 1:10,000,000. 1 cm. = 100 km. ; Lambert Proj. [Ottawa] : Geomatique Canada, 2000.

Canada / Canada Centre for Remote Sensing, GeoAcess. Scale 1:6,000,000 ; Vertical near-side perspective proj., centred at 50°N, 90°W, altitude 12,500,000m. Ottawa : Natural Resources Canada, c2000.

Canada topo250 (computer file) / SoftMap inc. Scale 1:250,000. Québec City : SoftMap Technologies, [2000] (ISBN: 1894610172).

Canada's oil sands and heavy oil areas. Scale indeterminable. Calgary, Alta. : Oilweek Magazine, 2000. (Supplement to *Oilweek*, September, 2000).

Code of practice for pipelines and telecommunication lines crossing a water body : code of practice for watercourse crossings / Albert Environment. Scale 1:500,000 or 1:525,000. Edmonton, Alta. : Alberta Environment, 2000. (17 maps)

Colombia : scale 1: 2,000,000 / design and cartography : MultiMapping Ltd. Scale 1:2,000,000. Vancouver, B.C. : ITMB Publishing Ltd., 2001.

Copper and associated mineralization, Newfoundland / compiled by J.C. Pollock ; geological cartography by J.C. Pollock. Scale 1:1,000,000. St. John's, Nfld. : Geoscience Publications and Information Section, Geological Survey, Dept. of Mines and Engery, [2000].

East coast Canada map / Newfoundland Ocean Industries Association. Scale 1:2,500,000. [Calgary, Alta.] : Oilweek, 2001. (supplement to *Oilweek*, February, 2001).

Ecozones of Canada / created by Mary-Ellen Maybee. Updated 2000. Scale 1:12,500,000. Lambert conformal conic proj., standard parallels 49°N and 77°N, central meridian 91°52'00". Lindsay, Ont. : Sir Sandford Fleming College, c2000.

Energy & power map of Africa / produced by the Petroleum Economist Ltd., London, in association with Ernst & Young ; designed by P. Bush and K. Fuller. 2000 ed. Scales differ. London : Petroleum Economist Ltd., 2000. (ISBN: 1861861850).

Eurasia pipelines of the 21st century / researched and produced by the Petroleum Economist, Ltd., London, in association with RNGS ; designed by K. Fuller and P. Bush. 2000 ed. Scale [ca. 1:12,750,000]. London : Petroleum Economist, Ltd., 2000. (ISBN : 1861861257).

Fluvial regions of Canada and sensitivity to climate change / Peter Euan Ashmore. Scale 1:7,500,000 ; Lambert conformal conic proj. [Ottawa, Ont. : Geological Survey of Canada, 2000. (GSC bulletin ; 555, figure 2).

Geological map of Québec / Robert Thériault and Chantal Bilodeau. 2001 ed. [Québec] : Ministère des resources naturelles, 2001. (DV 2001-04).

Hydropower & dams in China : to commemorate the 20th congress of ICOLD International Commission on Large Dams. Scale indeterminable. Sutton, Eng. : The International journal on hydropower & dams, 2000. (Issued as supplement to *International journal on hydropower and dams*, v. 7 issue 4, 2000).

Iran 2001 / Gitashenasi Geographical & Cartographic Organization. Scale 1:2,500,000. Tehran : Amir, 2001.

Major pipelines of the world map / produced by the Petroleum Economist in association with Penspen, designed by K. Fuller and P. Bush. 2000 ed. Scale not given. London : Petroleum Economist, 2000. (ISBN: 1861861567).

Mapa geologiczna Polski bez utworów kenozoiku = Geological map of Poland without Cainozoic deposits. Scale 1:1,000,000. Warszawa : Pa'stwowy instytut Geologiczny, 2000.

Natural hazards of Canada : a historical mapping of significant natural disasters / project manager and editor: Paul L'Arivée. Scale 1:10,780,000. Ottawa, Ont. : Office of Critical Infrastructure Protection and Emergency Preparedness, c2001. (ISBN 0662302184).

Natural resource map series (computer file) / Nautical Data International, Inc., Canadian Hydrographic Service. Scale [1:250,000]. St. John's, Nfld. : Nautical Data International, c2000.

Nunavut our land = Nunavut notre terre. Scale 1:3,200,000. Hull, Québec ; [Nunavut] : JLC Repro Graphique, Dept. of Education, 2001, c2000.

Ontario topo50 (computer file) / SoftMap inc. Scale 1:50,000. Québec City : SoftMap Technologies, [2000]. (ISBN: 1894610121 (Lake Superior North) ; 1894610105 (Southern) ; 1894610113 (Upper East) ; 189461013X (Upper West)).

Québec topo50 (computer file) / SoftMap inc. Scale 1:50,000. Québec City : SoftMap Technologies, [2000] (ISBN: 1894610032 (North-Central) ; 1894610024 (Northeastern) ; 1894610059 (Northwestern) ; 1894610040 (Southern)).

Russia (computer file) : oblasts, Krays, republics = Vse Karty Rossii : Karty veskh oblaste_I, Kraev, respublik / produced by AO "Ingit" under license by the Russian government. Version 3.3. Scale 1:200,000-1:1,000,000. Tacoma, WA : Distributed by Hamilton Global Management, c2000.

Sour gas map of Alberta & British Columbia / graphic production by Strategic Design Ltd. Scale not given. [Calgary, Alta.] : Oilweek Magazine, 2000. (Supplement to *Oilweek*, July, 2000).

The World. Scale 1:25,567,000. Ottawa, Ont. : Peter Heiler Ltd., c2001.

World gas map / produced by the Petroleum Economist Ltd., London, in association with British Gas International ; designed by K. Fuller and P. Bush. 2000 ed. Scale not given. London : Petroleum Economist Ltd., 2000. (ISBN: 1861861508).

World gas to power map / produced by the Petroleum Economist Ltd., London, in association with Shell Gas & power. 2000 ed. Scale not given. London : Petroleum Economist Ltd., 2000. (ISBN: 1861861605).

World oil map / researched and produced by the Petroleum Economist, in association with Ernst & Young ; designed by K. Fuller and P. Bush. 2000 ed. Scale [ca. 1:30,000,000]. London : Petroleum Economist, 2000. (ISBN: 1861861168).

World power map, private sector generation capacity / produced by the Petroleum Economist ltd., London, in association with Barclays ; designed by K. Fuller and P. Bush. 2000 ed. Scale not given. London : Petroleum Economist Ltd., 2000. (ISBN: 1861860388).

Welcome
New ACMLA Member

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NEW BOOKS AND ATLASES

Martine Rocheleau

The atlas of literature. 1998. New York : Stewart, Tabori & Chang. 352 p. $57.00 CDN. ISBN 1556708793.

The atlas of population, environment and sustainable development of China = [Zhong hua ren min gong he guo ren kou huan jing yu ke chi xu fa zhan di tu ji]. 2000. Beijing ; New York : Science Press. 252 p. $N/A. ISBN 7030085264 (Beijing), 1880132605 (New York).

Atlas Rive-Sud et Montérégie = Montérégie & South Shore. 1999. 4e éd. mise à jour. St-Laurent, Québec : Cartotek Géo inc. : Distribution, J.D.M. Géo Distribution inc. 160 p. $N/A. ISBN 2921584476.

Audet, Richard and Gail Ludwig. *GIS in schools*. 2000. Redlands, Calif. : Environmental Systems Research Institute, Inc. 109 p. $19.95 US. ISBN 1879102854 (+CD ROM).

Belbéoch, Olivier. *Atlas de l'Europe*. 1999. Paris : Magnard. 48 p. $N/A. ISBN N/A.

Bounthavy, Sisouphantho. 2001. *Atlas of Laos : spatial structures of the economic and social development*. Copenhagen, Danemark : Nordic Institute of Asian Studies. 160 p. $24.95 US. ISBN 8787062879.

Brunier, Serge. 2001. *The great atlas of the stars*. Toronto: Firefly Books. 112 p. $75.00 CDN. ISBN 1552096106.

Canadian Ice Service. 2001. *Sea ice climatic atlas, East Coast of Canada, 1971-2000 = Atlas climatique des glaces de mer, Côte est du Canada, 1971-2000*. Ottawa : Canadian Ice Service = Service canadien des glaces. (various paging). $N/A. ISBN 0660615940.

Earle, Sylvia. 2001. *Atlas of the oceans*. National Geographic Society. 192 p. $75.00 CDN. ISBN 0792264266.

ESRI map book. Volume 16 Geography : creating communities. 2001. [Ed. by Nancy Sappington]. Redlands, Calif. : ESRI Press. 120 p. $N/A . ISBN 1589480155.

The ESRI Press dictionary of GIS terminology. 2001. Ed. by Heather Kennedy. Redlands, Calif. : ESRI Press. 116 p. $31.95 CDN. ISBN 1879102781.

Geographical names of Manitoba. [2000?]. [Winnipeg] : Manitoba Conservation. 323 p. $N/A. ISBN 0771115172. (+CD ROM. $N/A. ISBN 0771115202).

Le grand atlas du monde. 1999. Nouv. éd. Paris : Editions Atlas. 232 p. $74.95 CDN. ISBN 272343043X.

Hammond concise world atlas. 2000. Union, N.J. : Hammond. 238 p. $67.00 CDN. ISBN 0843713860.

Haywood, John. 2001. *The historical atlas of the Celtic world*. New York : Thames & Hudson. 144 p. $53.00 CDN. ISBN 0500051097.

Hewsen, Robert H. *Armenia : a historical atlas*. 2001. Chicago: University of Chicago Press. 341 p. $231.50 CDN. ISBN 0226332284.

Lang, Laura. *GIS for health organizations*. 2000. Redlands, Calif. : ESRI press. 100 p. $31.95 CDN. ISBN 187910265X (+CD ROM: *ArcView GIS tutorial disc*).

Lindau, Ralf. 2001. *Climate atlas of the Atlantic Ocean : derived from the comprehensive ocean atmosphere data set (COADS)*. New York : Springer Vlg. 464 p. $179.00 US. ISBN 3540668136.

Ormsby, Tim [et al.]. *Getting to know ArcGIS desktop : basics of ArcView, ArcEditor, and ArcInfo*. 2001. Redlands, Calif. : ESRI press. 538 p. $59.95 US. ISBN 1879102897 (pbk.) (+CD ROM).

Parry, Bob and C. Perkins. 2000. 2nd ed. *World mapping today*. East Grinstead, U.K. : Bowker. 1064 p. $540.00 CDN. ISBN 3598115342.

Redwood, David. 2001. *Atlas of exploration*. Chicago : Fitzroy Dearborn. 256 p. $127.50 CDN. ISBN 1579583113.

Stalker, Peter. 2000. *Handbook of the world*. Oxford : Oxford University Press. 448 p. $23.62 CDN. ISBN 0192800930.

Strong, Robert A. et al. 2001. *Sky atlas 2000.0 companion*. Cambridge : Cambridge University Press. 304 p. $29.95 US. ISBN 0521008824.

Theobald, David M. *GIS concepts and ArcView methods*. 2000. 3rd ed. [Fort Collins, Colo.] : Natural Resource Ecology Laboratory, Colorado State University. 182 p. $45.00 US. ISBN 0967920817.

Tirion, Wil. 2001. *The Cambridge star atlas*. Cambridge : Cambridge University Press. 96 p. $37.50 CDN. ISBN 0521800846.

World atlas of the oceans. 2001. Toronto: Key Porter Books. 264 p. $75.00 CDN. ISBN 1552633292.

Message de la présidente *(continué de la page 2)*

notre site Web. Le "Comité de contrôle bibliographique" (Bibliographic Control Committee) est à finaliser plusieurs exemples de "dossiers de catalogage de niveau de base" ("core level cataloguing records") pour aider les catalogueurs à mettre en pratique la liste des éléments du niveau de base.

Membres : Plusieurs d'entre vous avez vu le message annoncant le décès de Kate Donkin, une de nos deux membres honoraires et l'une des personnes qui a aidé à bâtir l'Association avec vaillance. Quiconque a rencontré Kate se rappelera toujours de son intelligence, de son humour et de la sagesse qu'elle avait à reconnaître les choses vraiment importantes.

Journée SIG 2001 : Plusieurs membres sont peut être déjà à préparer des activités pour célébrer la journée SIG 2001 dans leurs bibliothèques et leurs institutions afin de promouvoir les services et les données SIG. J'ai contacté la compagnie ESRI afin de connaître les procédures pour devenir une société commanditaire de la journée SIG, mais il était malheureusement trop tard pour l'événement de cette année. Les participations futures de l'Association aux journées SIG pourront être discutées à notre prochaine assemblée générale annuelle.

ACMLA Conference 2002

will be held in Toronto
May 29 to June 3

in conjunction with the Learneds
(Congress of the Social Sciences and Humanities)
and
CAPDU
(Canadian Association of Public Data Users)

More information in the next issue of the *Bulletin*
or contact Marcel Fortin (marcel.fortin@utoronto.ca)

REVIEWS

Tim Ross

Cribb, Robert. ***Historical Atlas of Indonesia***. Honolulu: University of Hawaii Press, 2000. x, 256p. $100.00 US. ISBN 0824821114.

Essentially a textbook of Indonesian geography and history, this work is broadened and enhanced by the inclusion of over 300 thematic maps of the area, illustrating the complex and changing history of the world's largest island group and fifth most populous nation. The plethora of unique and data-rich maps works to further emphasize the author's linkage of Indonesian political and cultural development to its land and environment.

The history of the land and people of the region that became Indonesia is summarized in the first two chapters, while the latter three focus on political, military and commercial history. Dealing respectively with the environment and people of this immense South East Asian archipelago, the first and second chapters outline geologic, environmental, and ethnic change from pre-historic times to the present. The author does a notable job conveying the inconsistencies, complexities, and difficulties associated with interpreting the historical record, and the problems with the use of such data. For instance, the use of population data demands consideration of which persons were counted as adults, the definitions of ethnicity at the time, and ambiguous administrative methods. Cribb's explanations of these distinctions, forming the basis of maps and data, are well defined.

The latter three chapters addressing the Indonesian polity make up the majority of the book; an emphasis not surprising as Mr. Cribb, a Reader in History at the University of Queensland, specializes in political, military, and economic facets of 20th century Indonesian history. Thus, the complex interactions of regionalism and ethnic nationalism, overpopulation, and human rights violations – overriding issues in contemporary Indonesia – are explicated with sensitivity and a thorough historical understanding. Readers with a more general interest, however, may find much of the detail in these areas prosy and overly intricate.

The maps of the *Historical Atlas of Indonesia* correspond to the text precisely in content. The thematic maps, all colour, are executed effectively and attractively and vary widely from chloropleth, interval and nominal, to ordinal, ratio, and dot. Up to four maps may appear on a page, and complete explanations are provided for each, either in the caption or within the layout, making each capable of standing independently. The author makes extensive use of comparative maps, using data from earliest available to most recent, to illustrate trends discussed in text. The single criticism I would offer regarding cartographic content is the absence of a good reference map of the region, which would have benefited readers less familiar with the area.

Though no doubt useful as a textbook, the indexing and numerous invaluable maps recommend the volume as a reference work: an up-to-date and complete historical atlas. The index is outstanding, and the bibliography complete. Collections with special interests in South East Asia and islands of the Pacific, European colonization, or political and historical geography will find this an asset. Available only in hardcover, the list price is US$100, though I have seen it sold online for as low as $70.

Kimberly C. Kowal
Assistant Map Librarian, John R. Borchert Map Library
University of Minnesota Libraries
Minneapolis, Minnesota

Edney, Matthew H. ***Mapping An Empire: The Geographical Construction of British India, 1765-1843***. Chicago and London: The University of Chicago Press, 1997. 480p. $35.00 US. ISBN 0-226-18487-0.

This book examines map-making in India in the period between 1765, when the British East India Company became the formal rulers of Bengal, and 1843, when George Everest (after whom the

mountain is named) retired from his position as surveyor-general of India and superintendent of the Great Trigonometrical Survey. By then, the East India Company had established British hegemony in the sub-continent, though substantial territories remained to be incorporated in Oudh, Punjab and Central India. For much of this period there was constant warfare. For all of it there was administrative confusion, with authority in India divided among the three presidencies of Bengal, Madras, and Bombay (the Governor-General in Bengal had only loose authority over the other two), while in London the Court of Directors of the East India Company was subject to the final direction of the Board of Control, a British government department headed by a cabinet minister. In this broad context, Edney argues that what defined the character of British map-making in India was a four-way competition between the need for geographical information, the availability of labour and money, and the cultural expectation of making accurate maps.

There are two levels to this work. Five of its ten chapters discuss British efforts to survey and map the territories that came under their control during the period covered. The imposition of a single political authority engendered the need and the desire to produce a single map of the sub-continent. Edney describes the institutions the British developed to achieve this end and in particular the efforts they made to produce a single survey – the Great Trigonometrical Survey – despite administrative overlaps, personal rivalries, financial constraints, and the shortage of trained personnel, to mention only the most serious problems. There is much interesting material on, for example, the different methods employed to secure accuracy in survey and in particular on the progress of the Great Meridional Arc of India – 21° 22' in latitude, 2,250 km in length – from Cape Cormorin to the northern frontier, from its beginning in 1799 under William Lambton, an infantry officer, to its completion in 1841 under Everest. The descriptive material is enhanced by numerous illustrations and maps, many of them reproduced from originals in the British Library and other archives, and by a number of tables. The book is based on extensive archival research: there are 757 footnotes covering 59 pages of text and a further 28 pages of bibliography. In these chapters there is much that will interest cartographers, geographers, and historians whether or not their area of specialization is India.

The other level is the theoretical. There are five chapters in which Edney examines British conceptions of what India should be, as revealed by their map-making. Drawing on the theories of writers such as Michel Foucault and Edward Said, and more recently the British historian Chris Bayly, Edney argues that knowledge is not the discovery of an object but a process of construction that invents what passes for the true and the real. Thus for him, the comprehensive mapping of India by the British was accomplished not through the systematic observation and measurement of the land, but through the construction of a cartographic image of the subcontinent derived from a flawed epistemology – that of the eighteenth century Enlightenment. Hence he proceeds to deconstruct the elite British construction of knowledge, in particular the cartographic culture they brought to India from Europe. In mapping India, the British (according to Edney) appropriated the things they observed from their original context and recast them within their own cultural context. The object was to create "a legitimating conception of empire, of political and territorial hegemony, mapped out in a scientistic and rational construction of space" (36). This leads him to conclude that the trigonometrical surveys were simply exercises in self-delusion and that the act of measuring the arc of meridian, referred to above, was a "statement by the members of the elite of their place within a system of universal order and socially constructed space" (301). Obviously, for Edney, the only reality is the one that our own minds have invented. It is no surprise, then, that his overall conclusion is that because the map is a symbol of appropriation and ownership, therefore the British maps of India constituted a geographic myth.

This will leave many readers wondering what the British were really doing as they trudged about India, enduring the heat, erecting observation towers on the plains to have reference points for their triangulation, making their measurements, drawing their maps, all the while dying in large numbers. It struck me how many officers engaged on the surveys succumbed while on the job. Edney himself anticipates such reservations about his theoretical approach. He does not want us to think that the maps the British made of India were lies or that they

constituted propaganda. The British did not misrepresent India when they made their maps nor did they re-present India. Then what did they do? According to Edney, they created a geographical conception. Map-making, he maintains, was integral to British imperialism in India as a significant component of the "structures of feeling" that legitimated, justified, and defined British imperialism. It was an act of geographical violence equivalent to military and cultural conquest. Edney, in other words, belongs to the school of post-colonial criticism that reduces the literature of exploration – if one may include cartography in this category – to an imperial will-to-power. In my judgement, the resulting analysis of "mapping an empire" suffers from this excessively narrow perspective.

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McMaster, Graham, trans. ***Satellite Atlas of Croatia 1:100,000***. Zagreb, Croatia: Naklada Ljevak and GISDATA, 2001. 360 p. $60.00 US ISBN 953-178-171-0. *(Ordering information: available from Naklada Ljevak, Palmoticeva ul. 30, Zagreb, Croatia. Fax 385-231-4873-313. Email naklada-ljevak@zg.tel.hr)*

Despite its title, the *Satellite Atlas of Croatia* is more than just a collection of satellite images. It is also a description and discussion of the physical geography, geographical regions, culture and history of Croatia. Overall, the atlas is composed of a section showing Landsat TM 7 digital satellite imagery, as well as a 205 page section on vector features such as settlements, roads, railways and urban areas, at scales of 1:100,000 and 1:500,000. The introduction includes a brief description of the principles of remote sensing and the applications of GIS. Graphic indexes to the satellite images for specific regions are provided on the book's endpapers.

The satellite images were taken between January 1999 and October 2000 through different seasons, meteorological conditions and vegetation periods, and with varying sensor positions. The images, originally infrared, have been modified to reflect natural colours as perceived by the human eye. Unfortunately, considerable detail is lost in this process, as evidenced by a comparison of the infrared image of Lake Vransko on page 10 with the modified image of the same area on page 176.

Part II of the atlas, entitled "Natural Features, Population and Geographic Regions", consists of several components. The first, "Borders and Physical Geography", describes the major geographical, climatic and ecological zones of Croatia. The main geological features characterizing the Adriatic Basin, the mountainous Dinaric System and the inland Pannonian basin, are all well described. Effective coloured figures depict the major relief systems, while additional features provide information on major mountains, the highest peaks, major karst areas and percentage of area related to elevation. Climate is well treated through the effective use of tables and figures outlining average temperature and precipitation, while hydrography is addressed through a detailed discussion. The "Borders and Physical Geography" component concludes with references to the soil types, vegetation and forest types, amplified by attractive photographs showing the variety and diversity of Croatian landscapes.

The second component, "Population and Settlements", in describing Croatia's human geography and demographic characteristics, employs tables, bar charts and line graphs, as well providing statistics up to 1991, while "Geographical Regions of Croatia", the final component, breaks the country down into several major geographical regions. It focuses on history, regional geography, culture and industrial/economic geography. A brief description of the major physiographic features is provided, and important cultural features are also described in the text. Coloured photographs enhance the textual descriptions.

The book provides an index to place names, including rivers, mountains and regions, but regrettably, this index is limited to the satellite imagery portion, i.e. place names and geographical features discussed in Part II, "Natural Features, Population and Geographic Regions", are not indexed. Another unfortunate oversight is the lack of cross referencing between the components describing the geographical regions of Croatia and their corresponding satellite images. Thus a user who finds an interesting feature while browsing the satellite images must first consult the graphic index

to satellite images, and then the geographical region listed at the introduction to the "Geographical Regions of Croatia" component in order to locate the matching area.

Despite these flaws, the *Satellite Atlas of Croatia* is an attractive and highly useful work, and is well priced, considering the amount of detail it offers. It deserves a place in map libraries and university libraries where there is interest in European geography and satellite imagery.

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FME Professional Suite (FME 2002, Build 519). Safe Software Inc., Suite 2017, 7445 132nd Street , Surrey, British Columbia , Canada V3W 1J8. Phone: (604) 501-9985. http://www.safe.com. $2,624 CDN per seat, plus $599 for Annual Maintenance Contract. *(Please note that the publisher is finalizing the details of an Education Plan which will provide for special educational pricing.)*

FME (Feature Manipulation Engine) Professional Suite is a bundle of six FME products that, to quote from a Safe Software brochure, "together provide data access solutions to spatial data interchange, archival, and retrieval problems". These six FME products include: FME Universal Translator, FME Universal Viewer, FME Workbench, FME Themes for ArcView, FME Objects API and FME Plug-in Builder API. This suite is available for free download and 7-day use from Safe Software's website; I downloaded the 24 Mb self-installer file (fme519.exe) by cable modem at home in 10-15 minutes. Following the installation, one must complete a web form to request a registration key which initiates the evaluation license.

Once installed on a PC (or Unix workstation), the various FME software products are available for use by clicking on the Start button, then highlighting Programs and FME Suite. An exception to this is FME Themes for ArcView, which is available from within ESRI's ArcView software. The Universal Translator, Universal Viewer and Workbench each opens with an empty window plus a menu bar and button bar. At this point, the online help becomes invaluable in order to get started. In addition, a wealth of documentation – product brochures, quick start guides, user manuals, technical sheets, demos, movies – is available for download from the company's website. Nevertheless, it does take considerable time and effort to absorb this information and to put it into practice.

The following product descriptions are taken largely from Safe Software's website. Universal Translator is a stand-alone spatial data format translator which also supports advanced spatial processing and attribute manipulation during translation. Universal Viewer provides a quick way to preview datasets in any of the data formats supported by FME Suite products; both attributes and geometries are displayed. Workbench offers a graphical interface for accessing FME Suite functionality. For example, one can map or link feature types and attributes from source datasets to destination datasets. Themes for ArcView is an ArcView extension that gives ArcView users direct read/view access to many GIS, CAD and database formats including Oracle 8i Spatial. Plug-in Builder enables third parties to develop format and processing plug-ins to FME. Once a read/write plug-in is built, it has access to all the other formats on the FME hub. Objects API provides the information necessary for one to embed FME Objects functionality into an application. The focus of this review will be on Universal Translator and Themes for ArcView since these are likely to be of most interest to the map library and cartographic archives communities.

For anyone who is comfortable using ESRI's ArcView software to view and manipulate spatial data, there should be little difficulty using FME Themes for ArcView. This is accessible, following installation of FME Professional Suite, as an ArcView extension. Simply open a New View then click on the View menu and select either Import FME Theme or View FME Theme. To view a spatial dataset in an ArcView window, choose View FME Theme, specify the format of the dataset (choose from one of 64 formats), navigate to the location of the file, then click OK. Some of the many available formats for viewing include: ESRI Shape, ArcInfo Export, MapInfo Tab, MapInfo MID/MIF, AutoCAD DWG/DXF, and Digital Line Graph, but NOT ArcInfo coverages. Datasets

open in a View window and can then be displayed, manipulated and saved as shapefiles using standard ArcView functionality.

To invoke the FME translator program, choose Import FME Theme from the View menu, then type into the resulting dialogue box. One begins by describing the source dataset (i.e., data format, dataset location, coordinate system), then doing the same for the so-called destination dataset. Note that the only destination format which is available is ESRI Shape. Click OK, and the translation begins. One can select from a drop-down list of several hundred coordinate systems. Each coordinate system is identified by name, a short description, group (geographical), datum, ellipsoid, projection, and units; a longer description of each system is available by clicking on the Properties button. It is possible to customize the display of systems by means of subsetting. For example, one might wish to narrow the display to only those coordinate systems with metric units.

The stand-alone Universal Translator has more powerful functionality than FME Themes for ArcView. The drop and drag feature is a timer saver; instead of typing in the format, location, and coordinate system of the source dataset, one needs only drag the file (e.g., an ArcInfo Export file or a USGS DEM file) onto the open Translator window; this information is then made available to the Set Parameters dialogue box. From the Datum Shift Grids command under the Settings menu, one can point the Translator to specific grid shift files; to shift Canadian data from NAD 27 to NAD 83, it is important to use the Geodetic Survey's National Transformation version 2 (NTv2) and not the Nadcon shift files that are so widely available (e.g., as part of ArcView). Universal Translator has feature processing functionality that is in some respects similar to the functionality of ArcView's GeoProcessing extension. One can add vertices along segments, rotate features, change scale along the X and/or Y axis, and so on. There are over 60 feature functions available for download from Safe Software.

How many of us find it difficult to bring datasets from different data providers into the same View when using ArcView, MapInfo or other similar data browser? I decided to evaluate FME Professional by manipulating NTDB (National Topographic Data Base) data from Natural Resources Canada and OBM (Ontario Base Map topographic data) from the Ontario Ministry of Natural Resources. To make this particularly challenging I used federal data in MapInfo MID/MIF format, NAD 83 datum, UTM coordinates, and provincial data in ArcInfo Export format, NAD 27 (1976 adjustment) datum, UTM coordinates. My objective was to bring both datasets into the same View in decimal degrees, NAD 83 datum. Anyone familiar with OBM data will know that the UTM northings for each theme are offset to the south by 4 million metres, thus posing an additional challenge.

It was a simple matter to drag and drop the roads theme for NTS 40P/08 in MID/MIF format into the FME Universal Translator window and to change the destination format to ESRI Shape and the coordinate system from UTM NAD 83 Zone 17N to latitude-longitude NAD 83 (i.e., LL83). Once I clicked on OK, the translation took 45 seconds on a Pentium 3, 450 MHz computer with 128 Mb RAM. The resulting shapefile was automatically named 40p08roa_polyline.shp by the translator.

The translation of the OBM data was accomplished in two steps, after considerable thought on my part. I dragged and dropped the transport theme (i.e., roads) in ArcInfo format into the FME Universal Translator window, changed the destination format to ESRI Shape, and offset the Y coordinate by 4000000 metres using the Feature Processing function. Thirty seconds later the software created a file named Transport_arc_arc.shp. The second step was to change the coordinate system from UTM Zone 17N (meters), NAD 27 (76) to decimal degrees, NAD 83. First, I inserted the National Transformation CD-ROM disk into the CD tray, then pointed FME to the grid shift file named May76v20.gsb, the file that is required for this NAD 27 (76) to NAD 83 transformation. Then I set up the coordinate-system transformation by selecting UTM Zone 17N (meters), NAD 27 as the source and by selecting latitude-longitude NAD 83 (i.e., LL83) as the destination. After 15 seconds, FME Translator created a file named Transport_arc_arc.shp (this is the same filename as the one created in step 1 so it would be wise to save the result of step 2 to a different directory to avoid overwriting).

When I added 40p08roa_polyline.shp (NTDB data) and Transport_arc_arc.shp (OBM data) to the same View in ArcView, I noted that the arcs from each data source were superimposed almost exactly. Even when zoomed in as far as possible, the greatest discernable offset was only 15 feet, well within the standards for horizontal positional accuracy. Almost by accident I discovered that Translator works extremely well in batch mode. If one drags and drops multiple files into the Translator window, the program processes each one in sequence. I was able to execute coordinate-offset processing on 16 different datasets with one simple drag and drop operation.

It is very easy to move from the Translator program to the Universal Viewer or the Workbench program at any time, simply by clicking on the appropriate button in the button bar; these products are very well integrated. I made little use of the Viewer except to visually check the output of the Translator after each processing step. The Viewer interface is complex and can be set up to display as many as 4 different panes: the graphic window, feature filter window, information window, and log window. Although the interface resembles ArcView's View window in many respects, I still had difficulty "navigating" around. However I was able to use the Viewer to verify that the Translator output was what I expected.

FME Professional Suite (or indeed some of the other Suites available from Safe Software) are highly recommended for data/map libraries or centres that are responsible for acquiring, processing, and delivering spatial data. Although very expensive at the present time, there may be good news early in 2002 in the form of a discounted educational price. Safe Software's website provides excellent documentation and other support, as well as code (i.e., features and factories) for spatial processing and attribute manipulation. I found Safe Software's technical-support and sales staff to be very responsive and most helpful whenever I had an FME-related question or problem.

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- Updated version of ACMLA Rules of Procedure (both HTML and PDF formats)
- New addition: ACMLA Awards - List of Recipients
- Instructions for subscribing/unsubscribing to CARTA Discussion Forum (CARTA listserv)
- Addition of link to the CARTA Discussion Forum Archive
- Addition of two scanned samples of "Canadian Cities Bird's Eye Views" facsimile maps: Montréal, PQ - 1889 and Québec, PQ - 1905

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BEIJING INTERNATIONAL CARTOGRAPHIC CONGRESS 2001: MY PERSPECTIVE

Alberta Auringer Wood
ICA Vice President (Canada)

After the lengthy journey of two days and a night due to crossing the International Date Line, we arrived in Beijing on the afternoon of August 3. The events began with registration and an Executive Committee meeting on the morning of the 4th. Receiving the five volume set of proceedings was a shock as altogether they weighed 5 kg or 11 lbs. We learned later that mailing them back required sending them in two parcels due to one exceeding the weight allowed. As a result, many people abandoned their copies. Ours returned safely due to the kindness of Natural Resources Canada, as they were shipped back with their exhibit materials. For an additional $50 (U.S.) one could purchase a copy on CD-ROM. In the afternoon, the Commission on Children and Cartography met to discuss the events during this meeting. They agreed to request that the Executive Committee allocate $500 for up to 10 prizes of $50 each for the Barbara Bartz Petchenik Children's Map Competition, and to change the theme for the Durban meeting in 2003 to "Making a Better World for Children". This was later approved by the Executive Committee. In the evening, we met with Bob McMaster to finalize plans for the Commission Chairs Meeting on the following day.

The Executive Committee met again on Sunday morning to discuss, among other topics, the strategic plan that must be ready for presentation to the General Assembly in 2003 in Durban. An interim meeting with Commission Chairs is contemplated to get their suggestions. Graciela Metternicht reported on *ICA News* publications plans, including the addition of colour to the cover for the December issue. Considerable discussion ensued regarding other aspects of the ICA publications program. A journal is being contemplated, while each commission is expected to do a monograph during a four year period. Each commission is to send a proposal by November 15th based upon current work and papers appearing in the proceedings. The publications procedures need to be rewritten and a process for reviewing monographs established. It is expected that the Publications Working Group will be dissolved in Durban and the Publications Committee will be reconstituted at that time. Some additional discussion occurred regarding awards and balloting for delegates and the general public on the map exhibits. After a hurried buffet lunch, Bob McMaster and I chaired a meeting of Commission Chairs. The meeting was well attended with only three commission chairs absent. The major topics were publications (such as monographs and the proposal for a journal), archiving (procedures are now in place to deposit ICA materials with the Institut Geographique National in France), and terms of office of chairs. Small group discussion brought up other problems such as participation of young scholars, difficulties in finding members to do committee work, communication to and from the Executive Committee, intellectual property rights and definitions. Commission Chairs have until November 15th to submit a proposal in regard to the latter item. Visitors at the end of the meeting included Rear Admiral Guiseppe Angrisano, President of the International Hydrographic Organization, to talk about possible cooperative efforts. In the evening, members of the Publications Working Group met for a short discussion of possibilities.

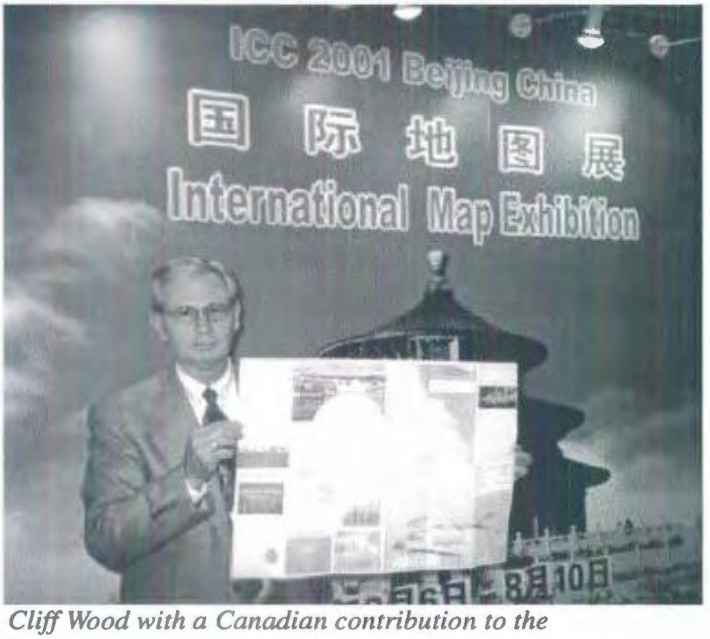
The official Opening Ceremony for the meeting was held on Monday, 6 August, in the Beijing

Alberta Auringer Wood, in Tian'anmen Square, in front of the tomb of Mao. (All photographs accompanying this article are courtesy of Alberta Auginger Wood).

International Conference Centre. It was chaired by Bai Bo, Vice Chair of the Local Organizing Committee and Conference Director. Bengt Rystedt, ICA President, gave a short welcoming address to officially open the conference and introduced the sister society representatives. A letter was read by Chen Bangzhu, Director General of the Surveying and Mapping Bureau, from the Vice Premier of China. Representatives from sister mapping organizations gave greetings from their respective organizations, including ISPRS (International Society for Photogrammetry and Remote Sensing), IGU (International Geographical Union), IHO (International Hydrographic Organization), IMTA (International Map Trade Association), UN (United Nations). Mr. Chen also noted that there were 65 oral sessions, 20 working meetings, six technical visits, and five pre- or post-conference excursions. He noted that the Bureau has agreements with over 20 countries. They foster a management system and produce geospatial data. He would like comments on civilian mapping. Video greetings were presented from Fer Ormeling Sr., former ICA President who had been invited to attend, but was prevented due to health reasons. Yang Kai, Chair of the Local Organizing Committee, indicated that there were delegates from 54 nations. Memorial moments of silence were held for John Keates, Alexander Liouty, and Olof Hedbom, recently deceased cartographers of significance and ICA participants. Bengt Rystedt, ICA President, conducted presentation of awards, assisted by ICA Vice Presidents and Judy Olson, Chair of the ICA Awards Committee. There were two of the prestigious Mannerfelt Medals presented, one to Shupeng Chen of China and the other to Joel Morrison of the USA. This medal honours cartographers of outstanding merit who have made significant contributions of an original nature to the field of cartography and is awarded only on rare occasions to emphasize its distinction. In addition, ICA Honorary Fellowships (for special contributions to ICA by cartographers of international reputation) were presented to Judy Olson (USA, a decision of the ICA Executive Committee, not the Awards Committee), Hu Yuju (China), Kei Kanazawa (Japan), and Ronald Furness (Australia). This was followed by some entertainment including two groups of dancers, a singer with a very robust voice, and a magician who involved the audience in his magic. Michael Wood, ICA Past President, gave a keynote address on the "21st Century World – No Future Without Cartography". This is in the proceedings in its entirety and will probably appear elsewhere in some form. His major themes were the scientific and societal challenges facing all of us, and how cartography and cartographers are necessary for a sustainable future.

With these events, the meeting really got underway. After a lunch break, the first of the oral sessions began. One that I attended was on map design and production, but others were on GIS and digital mapping, cartographic theory and methods, computer generalization of spatial data, and cartography and the environment. After a break, the afternoon concluded with a plenary session on Global Issues moderated by ICA Vice President Milan Konecny (Czech Republic) at which he presented, along with Chen Shupeng (China), Gao Jun (China), Vladimir Bessarabov (UN), and Derek Clarke (South Africa). The exhibits, including maps and technical products, were opened. In the evening, there was an welcoming reception which was a tremendous buffet of all sorts of exotic dishes, with entertainment by musicians.

On Tuesday, August 7, there were numerous (20) oral paper sessions, as well as two poster sessions, technical visits, city and region tours, and exhibits. Session topics included GIS and digital mapping, mapping on the Internet and the World Wide Web, education and training in cartography, tourist mapping and intelligent navigation systems, national and regional atlases, temporal aspects of cartography, security, pricing and copyright of cartographic databases and digital maps and



Cliff Wood with a Canadian contribution to the International Map Exhibition: a map of St. John's done by Memorial University Cartographic Laboratory.

geospatial data sharing, history of cartography and historical maps, spatial data infrastructure policies, satellite mapping, cartographic theory and methods, global mapping and military cartography, multimedia cartography and electronic maps, spatial data visualization, mountain cartography, map design and production, computer generalization of spatial data, and cartography and children and gender in cartography. I visited the Chinese historical map exhibit consisting primarily of reproductions of scroll maps, city and country maps and atlases from the first century B.C. to the early 1900s, including rubbings of stone maps. It was a bit hard to find this exhibit area due to the lack of a floor plan of the conference centre in the conference program and confusing signs in the building. The international map exhibit was also visited where we found several Canadian maps on exhibit. Problematic were double-sided maps of which only one copy had been sent. They were laid on tables along with atlases which meant finding a particular one to be a very difficult task, although the Local Organizing Committee had prepared an excellent, 365 page descriptive listing of all maps in all the exhibits. There was also an exhibit of nautical charts from many countries. I also attended a meeting of the Maps and the Internet Commission. They commented on the high prices charged by Elsevier for ICA publications, and indicated a preference for having the conferences at the end of June or early July. In 2003, they expect to change the commission name to Internet and Mobile Mapping. They plan to meet in Stellenbosch prior to the 2003 meeting in Durban. Two book projects were considered. After a brief lunch, I chaired session 19 on multimedia cartography and electronic maps. There were a few problems, such as the adjacent room's speakers being heard, a buzzing hand microphone, and the lack of a pointer device for speaker use. One person did not show up at all which was a blessing as six people were scheduled for 1.5 hours, another was late due to mis-reading the schedule, people took a little more time than expected, and one computer didn't work properly. That being said, the audience filled the room, asked questions, and the session finished only a few minutes late. In the evening there was a hour-long bus trip to attend the Peking Opera in the Liyuan Theatre of the Beijing Qianmen Hotel. The colourful and ornate costumes with exaggerated facial make-up, as well as the extraordinary singing and dancing, made for a very interesting evening. Following the story was made easier through a device giving English "sub-titles".

On Wednesday, there was another plenary session, on Towards the Cartographic Research Agenda, chaired by ICA President Bengt Rystedt (Sweden) featuring presentations by Dietmar Gruenreich (Germany), Roy Mullen (USA), Liqiu Meng (Germany), and ICA Secretary General Ferjan Ormeling (The Netherlands). In addition, there were eight oral presentation sessions after it, as well as one poster session, technical tours and city tours. The session topics included GIS and digital mapping, mapping on the Internet and the World Wide Web, map design and production, marine cartography, spatial data visualization, mountain cartography, education and training in cartography, computer generalization of spatial data, cartography and the environment, satellite mapping, cartographic theory and methods, global mapping and military cartography, and national and regional atlases. We took advantage of one of the city tours to see the Tian'anmen Square (Gate of Heavenly Peace), the Forbidden City, and the Summer Palace. Some of the useful Chinese words we were told by our guide Jade were Bu yao (no thank you) and Sye sye (thank you). The first was quite useful for discouraging the numerous peddlers we encountered later. She noted that the population was about 15 million people and about 10 million bikes of which many get stolen. She told us that a BMW would cost about 600,000 Yuan (about $113,816 Canadian). We saw quite a few of them around the city. She noted that there are 18 five star and 40 four star hotels in Beijing now, while about ten years ago there might have been just a few. We spent about 2.5 hours walking the square and the Forbidden City, looking at buildings from the outside, including the Great Hall of the People and a World War II monument. After that it was back on the bus to drive through other areas to a restaurant for a family style lunch followed by a stop at a nearby pearl shop where there was a demonstration of how pearls (sometimes as many as two dozen) were harvested from oysters. Another bus trip took us to the Summer Palace where we walked around to see such sights as the Long Corridor, the dragon boats (riding on one across Kunming Lake), and the Empress' marble boat. There was a stop at a cloisonne factory on the way back to the hotel. The whole day had been partly sunny with lots of blue sky and puffy clouds. Then it was a rush to get ready for another hour long bus trip to the downtown area for a performance of Chinese Acrobatics at the Beijing Chaoyang Theatre. It was quite amazing to see how flexible and strong the performers were, as well as the great numbers that

they could pile up on a single bicycle! It was a thoroughly enjoyable evening.

On Thursday there were 20 oral presentation sessions and two poster sessions. The topics included satellite mapping, mapping on the Internet and the World Wide Web, map design and production,

The Empress' marble boat, at the Summer Palace.

national and international standards in cartography, cartography and children, cartographic theory and methods, maps for the handicapped, computer generalization of spatial data, spatial data visualization, GIS and digital mapping, planet cartography, history of cartography and historical maps, geo-spatial data quality and evaluation, national and regional atlases, education and training in cartography, multimedia cartography and electronic maps, and cartography and the environment. I attended the Cartography and Children session followed by a meeting of its commission. After that the Judging Committee for the Barbara Bartz Petchenik Children's Map Competition met to choose the winners. The judges were: myself as Chair, Jacqueline Anderson (Chair of Children and Cartography Commission, Canada), Reinhard Herzig (Member, Children and Cartography Commission, Germany), Elri Liebenberg (ICA Vice President, South Africa), and Xu Gencai (Local Organizing Committee Representative, China). The winning maps included one from Canada for the first time since the start of the competition which was done by Patricia Lan, a12 year old from Glenlyon-Norfolk School, Junior Girls Campus, 801 Bank St., Victoria, B.C., that had the title of "Save the Earth". Other countries with winning maps were Brazil, Greece, Hungary, India, Iran, Slovakia, and South Africa. The map from Iran was also the favourite in the public and delegates vote, while another map from Hungary and the Canadian map were runners-up for the public favourites. A report with full details appears elsewhere (see page 66). After this, there was a meeting of 35 representatives from 26 ICA member countries and others. A number of problems were raised by some of those present. Having six parallel sessions with six or seven speakers each was one complaint, while changes in the order of presentations for people who did not show up was another. There were problems in understanding some of the speakers and session chairs, equipment did not always work, a number of people ended up chairing several sessions, and the problems of the number of volumes of the proceedings and getting them back home was raised. Having the poster papers in the proceedings was appreciated, however. Many supported having registration payments sent with papers, felt that national committees should ensure that their speakers show up, and that a room should be set up where speakers must check-in by a particular time and where a technical set up could be done in advance. Some brief commentaries regarding the strategic plan were made. A number of countries supported the addition of "The Society for Cartography and Geographic Information Science" as a sub-title to the ICA name. Discussions regarding the ICA archiving procedures with the Institut Geographique National in Paris were held. The procedures are published elsewhere or are available upon request. This session was followed by another continuation of the Executive Committee meeting. Among the highlights were forthcoming conference bids (three invitations), finances (no problems), Mongolia will be re-instated as a member, The Turkish Chamber of Engineers will become an affiliate member, and future Executive Committee meetings were tentatively scheduled. In the evening, there was a "Gala Dinner" requiring another hour-long bus ride to the downtown area to the Beijing Hepingmen Roast Duck Restaurant. While time-consuming, it did give an opportunity to see more of the city which is experiencing a tremendous amount of growth and building. The dinner featured such delicacies as deep-fried scorpions, as well as all the parts of a duck that are edible. The march of the cooks with the platters of the roasted ducks was quite something to see, as was the carving of them. After dinner entertainment consisted of toasts by various people and singing by quite a few country delegations, including Canada and the USA.

Friday morning, the last day of the conference, began for me with a history of cartography session

including papers on Jedediah Hotchkiss and the accuracy of his maps prepared during the US Civil War in the 1860s, historic nautical charts of the Mediterranean, digitizing of map archives in Sweden, and Daniel Defoe's 1705 satire "The Consolidator" about Chinese map makers on the moon. It was one of five sessions held first thing in the morning, prior to the Closing Ceremony. That ceremony began with a recounting by Bai Bo of statistics about the conference. For example, there were 814 conference participants of which 519 were from outside China and 295 from within China. There were 1,157 total people involved in the conference from 57 countries and four international organizations, including 59 students, 120 accompanying persons, and 223 exhibitors (100 from outside China). There were four sponsors for the conference, including ESRI. There were seven pre-conference meetings and workshops which 250 people attended. The four plenary sessions included the opening and closing ceremonies. The 65 oral sessions accommodated about 260 paper presentations while 80 papers were displayed in the four poster sessions. There were 20 working group or commission meetings. The international map exhibition had 1,200 items on display from 30 member countries and 16 members of the International Hydrographic Organization. The Chinese historical cartography exhibit had 140 pieces in it, while the Barbara Bartz Petchenik Children's Map Competition had 140 maps from 25 countries. There were 40,000 visitors to the international map exhibit. The technical exhibits had 43 companies from seven countries, 13 were from outside China, and were visited by about 30,000 people. Three-hundred twenty-four people went on the technical visits, while 585 went on city and vicinity tours, including 332 to the Great Wall, 165 to Tian'anmen Square, and 88 to the Temple of Heaven. In terms of the social events, 220 attended the Peking Opera, 180 went to the Chinese Acrobatics, while 260 feasted at the Gala Dinner. There were 19 people who went on pre-conference tours, while 84 were going on post-conference trips in three groups to various areas. The first day cover and stamp booklet for the conference were quite a hit also. There were addresses by ICA President Bengt Rystedt, the Surveying and Mapping Bureau Chief Chen Bangzhu, ICA Secretary General Ferjan Ormeling and Prof. Yang Kai President of the GSGPC and Chair of the LOC. Yang Kai noted that the five volumes of the proceedings contained 160 papers, and that there were 60 members on the Local Organizing Committee. The ICA Travel Awards were presented to Cecilia Maria Oka (Brazil), Richard Olomo (Nigeria), Felicia Olufunmilayo Akinyemi (Nigeria),and Sun Xuejuan (Canada), two of whom made it to the awards session. Appreciation was given to the keynote speaker and invited speakers. Awards for the nine categories (topographic, nautical, geologic, urban, satellite images or maps, recreation and orienteering, globes, atlases, and other) of the international map exhibit were presented. The official committee awarded certificates to maps from Belgium, USA, Russia, Switzerland, Poland, Spain, and China, while the delegate awards went to maps from the USA, the United Kingdom, Russia, Poland, Norway, China, and Germany, and the public awards went to China, Japan, Australia, Canada, Spain, Croatia, USA, and Hong Kong. The jury for the IHO map exhibit chose a chart on maritime safety from China as its winner. The Children's Map Competition winners were announced and are mentioned earlier in this report, as well as in a separate report. Awards for outstanding contributions to the conference were presented, including an Honorary Fellowship in ICA for Bai Bo. Derek Clarke, head of the organizing committee for the 21st International Cartographic Conference in 2003 in Durban, South Africa, noted that it would be held from August 10-16 and would have the theme of "Cartographic Renaissance: Revival of Developing Nations". He gave some enticing information about Durban, such as its 320 days of sun per year, low prices, and low crime rate. He noted that abstracts are due by October 30, 2002, with papers by April 2003. The 8th UN Conference on Standardization of Geographic Names was announced. There was a performance by a number of Chinese entertainers followed by the handover of the ICA flag and the official closing of the conference.

After another delicious lunch in the Nice Foods Restaurant in the convention centre (pigeon, a whole fish, scallops and broccoli, egg plant and tofu, among other dishes), a small number of us went on a special excursion to see the National Library of China. We were met by Mr. Sun Guoqing who was a classmate, at Nanjing University, of Ms. Li Li, our trip organizer and ICA Vice President from China. There are five people who take care of maps currently, according to Mr. Sun, and focus on map collection, cataloguing and reference. It was interesting to tour around the building to see how modern and up-to-date it appeared to be, but we never saw the map storage

area, just a staff work room. More information is given separately (see page 67). After this tour, we dispersed to our various hotels to begin our trips home or to go on post-conference adventures. All in all, it had been a good conference with many experiences of generous hospitality.

2001 BARBARA PETCHENIK CHILDREN'S WORLD MAP AWARD - WINNERS

Report prepared by Jacqueline Anderson, Canada, on 9 August 2001.
Modified by Alberta Auringer Wood, Canada, on 10 September 2001.

25 countries entered with 116 official maps displayed. There were also an additional 24 maps displayed from five of the countries.

Eight Awards were made by the Awards Committee. These best represented the theme of "Save the Earth" or "Préservons la terre." The judges were:
- Alberta Auringer Wood (ICA Vice President, Canada, Chair, Judging Committee)
- Jacqueline Anderson (Chair of Children and Cartography Commission, Canada)
- Reinhard Herzig (Member, Children and Cartography Commission, Germany)
- Elri Liebenberg (ICA Vice President, South Africa)
- Xu Gencai (Local Organizing Committee Representative, China)

The judges focussed on three criteria: 1) a recognizable message, 2) cartographic content, and 3) quality of execution. Peter van der Krogt (The Netherlands) prepared the CD-ROM from which images of the award winners were displayed.

The countries were grouped accordingly:
- North America (2 countries) - one award (Ms. Wood and Ms. Anderson abstained)
- South America (3 countries) - one award
- Africa, Australia and New Zealand - one award (Ms. Liebenberg abstained)
- Asia (China, Japan and India) - one award (Mr. Xu abstained)
- Middle East (Israel, Iran) - one award
- Europe (11 countries) - three awards (Mr. Herzig abstained)

Brazil (BR02)
Title: Sauver la Terre: preserver l'environment aujourd'hui c'est assurer la vie demain
Author: Jacqueline C. Camargo, Age: 11
School: Travessa Jacob Budel, 36, Bocaiuva do Sul

Canada (CA01)
Title: Save the Earth
Author: Patricia Lan, Age: 12
School: Glenlyon-Norfolk School, Junior Girls Campus, 801 Bank St., Victoria, B.C.

Greece (GR02)
Title: [In Greek]
Author: Stelios Petrakis, Age: 15
School: Trilofos Thessaloniki

Hungary (HU06)
Title: Wake up, Man! Perhaps It is Not Too Late!
Author: Kristof Barsony, Age: 8
School: Catholic Elementary and Secondary School, 2072 Zsambek, Zichy ter 3

India (IN03)
Title: Save the Earth
Author: Ankita Lamba, Age: 11
School: Convent of Jesus and Mary, 16 Convent Rd., Dehra Dun, Uttaranchal

Iran (IR03)
Title: Save the Earth
Author: Saba Sameti, Age: 11
School: Edalat Secondary School, Isfahan University Campus, 81744 Isfahan

Slovakia (SK01)
Title: [Not given]
Author: Michaela Klimentova, Age: 12
School: Zakladna skola, ul. Frana Krala 838, 966 81 Zarnovica

South Africa (ZA02)
Title: Save the Earth

Canadian winner in the Barbara Petchenik Children's World Map competition: "Save the Earth" by Patricia Lan of Victoria.

Author: Bonnie Ras, Age: 14
School: Hoerskool Menlopark, Pretoria

The public attending the exhibit also voted. There were 495 ballots received. The top three choices as favourites were:

77 votes
Iran (IR03)
Title: Save the Earth
Author: Saba Sameti, Age: 11
School: Edalat Secondary School, Isfahan University Campus, 81744 Isfahan
This map was also selected, as noted above, by the judging committee.

53 votes
Hungary (HU02)
Title: Continents
Author: Virag Kelle, Age: 15
School: Bethlen Gabor Secondary School, 1115 Budapest, Bartok Bela ut 141

52 votes
Canada (CA01)
Title: Save the Earth
Author: Patricia Lan, Age: 12
School: Glenlyon-Norfolk School, Junior Girls Campus, 801 Bank St., Victoria, B.C.
This map was also selected, as noted above, by the judging committee.

National Library of China and Maps

Prepared by Alberta Auringer Wood with notes from the visit and from a descriptive handout in Chinese translated by Yurong "Jade" Atwill, Asian Studies Librarian at University Libraries, The Pennsylvania State University.

Several people who attended the International Cartographic Association conference in Beijing were given a special tour of the National Library of China that was arranged by Ms. Li Li, ICA Vice President from China. We were met and taken around by Mr. Sun Guoqing who had been her classmate at Nanjing University and was one of the people working with maps in the library.

Beijing Library is China's national library, a comprehensive research library, and national aggregate stack room. The library uses the name "The National Library of China" in international contacts. Beijing Library has a long standing history in collecting cartographic materials. As early as 1909, when the Beijing Library's predecessor Jing Shi Library was established, the Qing Dynasty government decided to transfer all its royal map collection to the library. In February 1929, the Beijing Library specially established the Yu Tu Bu (Map Department) to collect, process, store and view maps. The director of the Map Unit was the famous cartography expert Mr. Wang Yong. In 1948, the library reorganized, and the Map Unit was renamed Yu Tu Zu (Map Team). In 1952, Beijing Library established Shan Ben Te Cang Bu (Rare Book Special Collection Department), which included the Map Team. In 1988, the Rare Book Special Collection Department moved into the new Beijing Library (built in 1986) at Bai Shi Qiao Road, and added a Book Reservation and Reading Team to be in charge of collections and service. The Map Team focuses on map collecting, cataloguing, and reference. For the 60 years since the Map Unit was established, map collecting has always been one of the ultimate goals of the team. They collect domestic and international maps extensively via broad channels.

They have catalogue terminals accessible to the public, and in the last two years the stacks have been opened, though a card is required when going into them. Basically, it never closes, we were told, with the reading rooms open till 8 pm and borrowing available till 5 pm. We saw several reading rooms for periodicals, their Rare Book room, an AV room with computers and large monitors, an electronic reading room where there is a charge of 3 Yuan per hour for students, the book retrieval area (30 minute turn-around time), and the maps work room, but no map or atlas reading room or storage area. The foreign maps are not catalogued, but the Chinese maps are on their OPAC. They have a legal deposit system for maps and atlases, and are supposed to receive three copies of each publication. Mr. Sun noted that more than 80% of companies participate. Most of the topographic maps are stored in the Bureau of Surveying and Mapping where Li Li works. The maps received for the international map exhibit will go to the China Map Publishing Company, rather than the National Library, because they gave money to support mounting the exhibit at the conference. Maps at the scale of 1:50 000 or larger are considered secret in China. There is an Arc China product at a scale of 1:1 000 000, however. There is not much of a tourist walking society in China, but city maps are getting more popular. Some of the holdings information given to us was that by the end of 1991 they had a collection of 23,500 titles and 98,000 volumes or sheets of which 14,000 titles

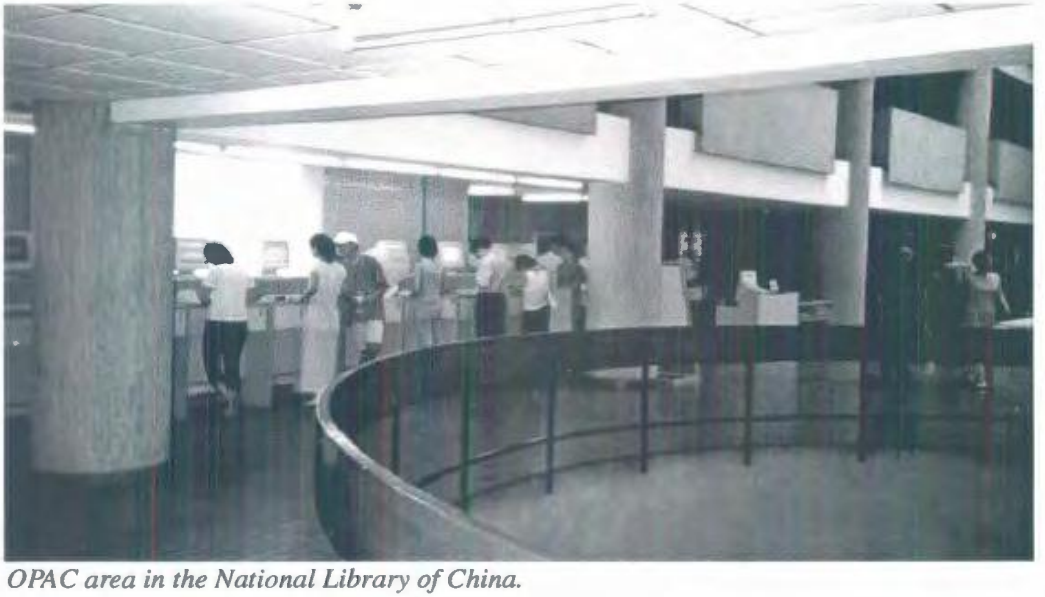
(70,000 volumes or sheets) were in Chinese and 9,500 titles (28,000 sheets or volumes) were in foreign languages (organized in 100 categories). In terms of topographic maps, we were told that there are 24,000 sheets at a scale of 1:50 000, 816 sheets at 1:250 000 and 77 sheets at 1:1 000 000. The oldest item was a stone carved map from the Song Dynasty. Among the other rare items are China's earliest extant atlas *Guang Yu Tu* of the Ming Dynasty; the *Kang Xi Huang Yu Quan Lan Tu* which was the first map drawn based on longitude and latitude measurements in China; also Ming Dynasty's *Shaanxi Yu Tu* and Qing Dynasty's *Huang He Tu* (Yellow River). The early Qing Dynasty colour drawing, *Fujian Yu Tu*, is about seven metres in width and length with a yellow silk dragon edge, and is really one of a kind. These rare maps provide not only the important information for the study of changes in China's geographical environment, as well as, political and economic developments, but also provide valuable information for the historical study of China's cartographic development.

This handout also described the collection policy. As part of the national library, the Map Team can receive free maps published by domestic publishers. The Map Team also collects large amounts of Chinese and foreign language maps through provincial, municipal, and autonomous regions departments, or through Zhongguo Tu Shu Jin Chu Kou Zong Gong Si (China Book Import and Export Co.). The basic policy of the Map Team is to collect all maps openly published in China; actively collect internal reference maps published by central and regional governments; fill gaps in the collection for publications prior to 1949, including ancient maps; for maps published by foreign countries to select the general atlases, subject atlases, large scale series maps, and maps of major ports/cities published by major map publishers.

To provide good service to their users, the Map Team catalogued all maps on cards which were included in the catalogue in the Rare Book Special Collection Department. They were catalogued by region, subject, title and author. Because of the limitation of conditions and specialities of map collection, in recent years the collection has only been open to special researchers with letters of introduction or recommendation. According to their statistics, in 1990 they served 600 researchers who used 8,000 maps; and in 1991, they served 700 users with 7,000 items.In 1991 or 1992, there were eight professionals working on the Map Team, five of them with degrees in geography or cartography, and three in high-level positions. At the time of our visit, we were told that there five people taking care of the maps. In addition to daily routine works, team members work hard to improve professionally, especially research related to history of cartography and atlases in order to provide excellent service to the users.

A useful sounding book citation that we were given was *History Through Maps, an Exhibition of Old Maps of China*. It was produced by the Hong Kong Museum of History and first published by the Provisional Urban Council of Hong Kong in October 1997 (HK $92; ISBN 962-7039-36-5). They contribute to the *Chinese Yearbook of Cartography*, we were told.

The web pages to reach the National Library of China start at http://www.nlc.gov.cn.



OPAC area in the National Library of China.

Historical Maps

Cartes Historiques

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

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