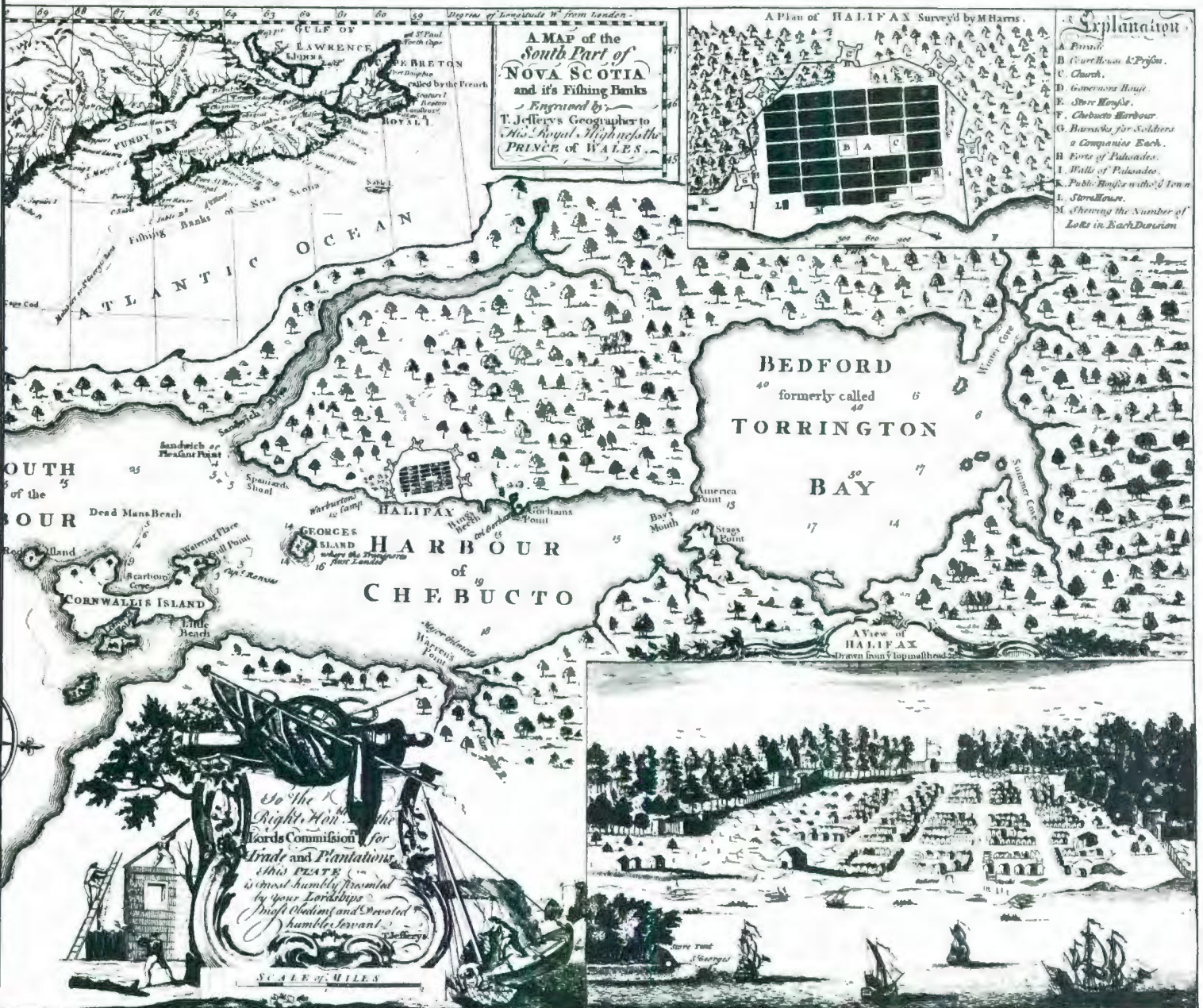


BULLETIN

ASSOCIATION des CARTOTHEQUES et ARCHIVES CARTOGRAPHIQUES
du CANADA



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ON THE COVER...

A MAP OF THE SOUTH PART OF NOVA SCOTIA..., by Thomas Jefferys, 1750. This map,
the original of which is in the Visual and Sound Archives Division, National
Archives of Canada has been reproduced as ACML Facsimile Map Series, Map No. 17
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From the Editor..

I would like to bring your attention to the ACMLA business news, especially conference travel funding, page 26. The deadline for funding requests is March 2, 1996 (90 days prior) for the Halifax conference. I do hope you have at least a few days notice by the time this issue arrives!

Also, Heather Stevens has been busy ! The list of map give-aways from the National Archives goes on and on..... take advantage of it!

I would like to welcome Geoff Brown, Dalhousie University Map Collection, to the editorial staff as Reviews Editor. If his efforts reflect that of his conference organizing, we have much to look forward to.

This being my final issue as *Bulletin* Editor, I have many people to thank..... in particular the editorial staff who made my job easy—Carol, Bruce, Amy, Melissa, Shirley, Grace, Bev—and my Map Library staff who scrutinized every proof copy. Thanks also to all the contributors of some very fine articles, and to Alberta—I was never at a loss for a conference report, whatever the conference!

Considering I had not a clue about editorial work when I took this job, the experience over the last two years has been..... well,..... challenging, but also gratifying and fun. Thank you EVERYONE for your support and kind words of encouragement as I stumbled through it!

Surgité!

Colleen

ARTICLES

THE DEEP HOLLOW, THE WHITE OAK TREE, AND THE SPLIT ROCK: THE EARLY SURVEYS OF NIAGARA TOWNSHIP

by
Alun Hughes
Department of Geography, Brock University

This paper was presented at the 1994 ACMLA conference at the University of Guelph. It is based on 'The Early Surveys of Township No. 1 and the Niagara Peninsula' by Alun Hughes, in Hugh J. Gayler (ed.), Niagara's Changing Landscapes, Carleton University Press, 1994, 209-239.

The temptation on viewing Ellis's map of about 1860 showing the survey grid in the Niagara Peninsula [figure 1], is to ask, 'what went wrong?' Not here the tidy six-mile townships and one-mile sections of the Canadian Prairies—instead we see a patchwork of strange shapes, sizes and orientations, hardly what one would expect from that most systematic of professions, the surveyor's. So what went wrong?

The answer, of course, is that nothing went wrong, apart from the errors that arise in any surveying operation. The irregularities simply reflect the fact that the Niagara Peninsula surveys were not the result of a single master plan, conceived and executed at leisure. Instead they were a late eighteenth-century form of emergency response, impelled by the need to provide land for thousands of refugees displaced by the American War of Independence.

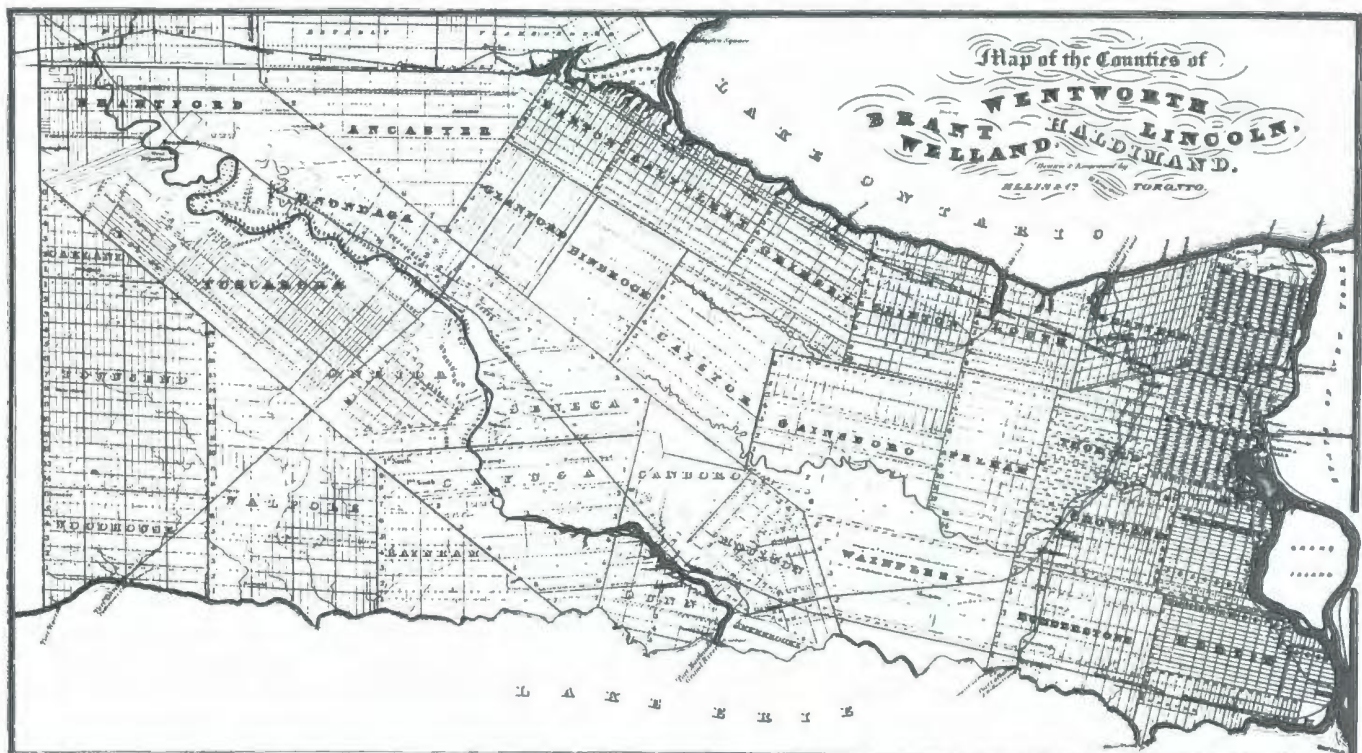


Figure 1: The Niagara Peninsula survey grid in the mid-nineteenth century.

The main period of surveying extended over an 18 month period from 1787 to 1789, during which eleven Peninsula townships were fully surveyed and three others surveyed in part, all under the direction of Philip Frey. The first township to be completed was Niagara, until 1792 known as Township No. 1 and the

subject of this paper. Frey's survey of Niagara was preceded by two other surveys, by Allan McDonell in 1783 and William Tining in 1784. I shall examine all three surveys, but before proceeding I need to say a word about the final survey grid as established by Frey in 1787.

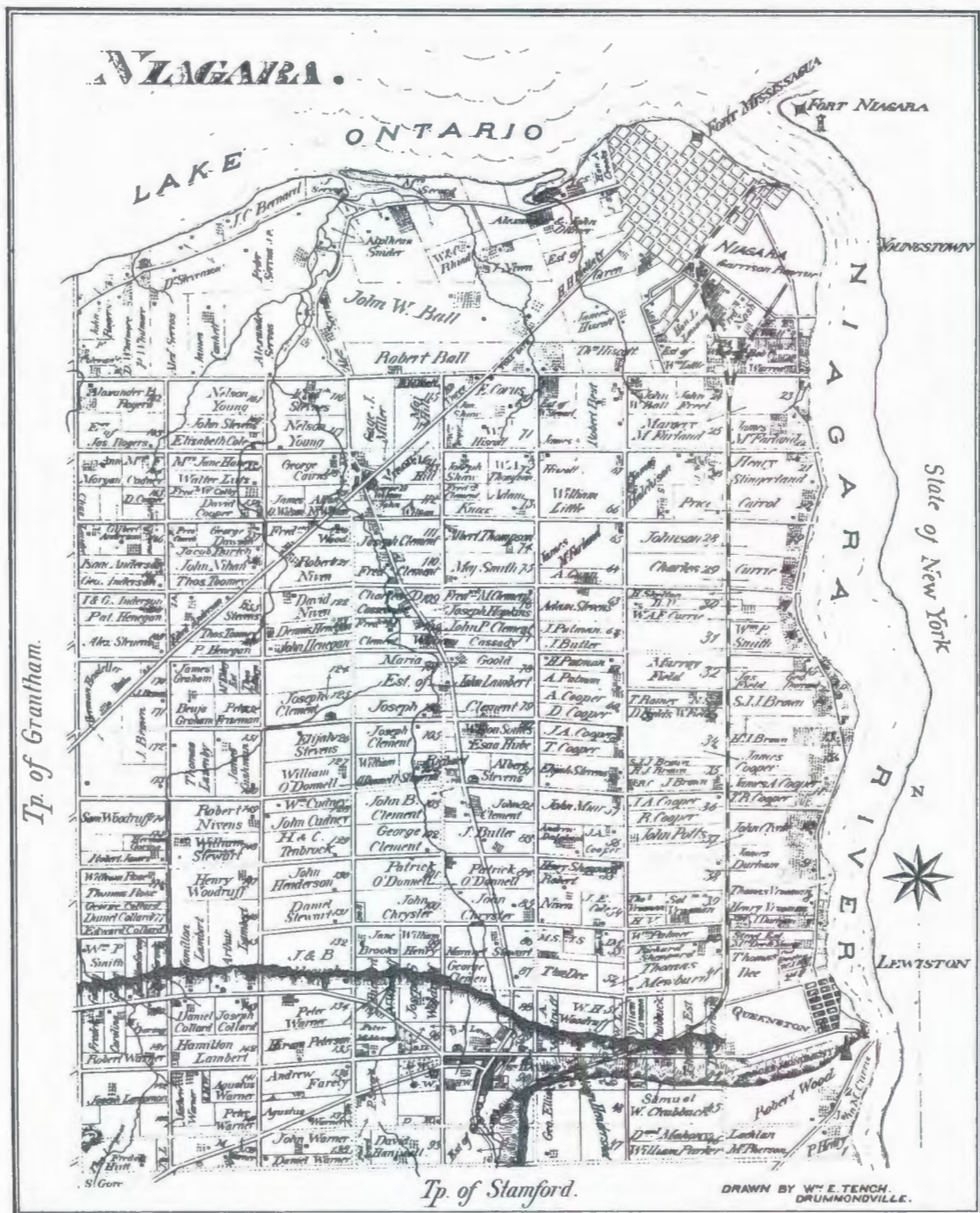


Figure 2: Niagara Township in the late nineteenth century, showing the Garrison Line.

Niagara Township is split into two distinct portions by the east-west Garrison Line [arrowed in figure 2]. The land to the north was reserved for the Crown from an early date, and apart from the section that became the townsite, was never formally subdivided. Instead it came to be broken down haphazardly into lots of varying shape and size.

South of the Garrison Line, in the township proper, the land was systematically subdivided into lots and concessions. There were eight concessions, each 50 chains in depth, running north-south parallel to the Niagara River. Each concession was divided into 23 lots, 20 chains in width and 100 acres in area. Adding in the one-chain road allowances, the total size came to 5.1 miles east-west by 5.9 miles north-south, exclusive of a narrow strip of broken fronts along the Niagara River.

The McDonell Survey

The first written evidence of any survey in Niagara is a letter dated May 3, 1783 from Colonel Butler, Commandant of the Corps of Rangers at Fort Niagara, to Captain Mathews, military secretary to General Haldimand, Governor of Quebec, in which he states:

'I take this opportunity to transmit you an exact Survey of the Settlements, and will as soon as possible send you an estimate of the same specifying the quantity of Land already cleared and cultivated with the different kinds of grain planted and sown &c. I also inclose the account for surveying those Lands, which I beg you will lay before His Excellency...' (Niagara Historical Society, 1927, 51)

The account was for 24 days of surveying, included the cost of two chain bearers and one marker, and totalled £32 2s 0d. It was dated April 4 and was in the name of Allan McDonell (Cruikshank, 1934, 31-32).

The origins of McDonell's survey date back to the American War of Independence. The lone British outpost of Fort Niagara on the east bank of the Niagara River was almost entirely dependent on imported provisions, and the ever-growing influx of Loyalist refugees and displaced Indians created a major crisis. To alleviate the problem, Haldimand in 1780 authorized the purchase of a four-mile tract of land on the west bank from the Mississauga Indians, so that it could be farmed by Loyalists. The aim was not to create a permanent settlement, but simply to produce food for the garrison, and the Loyalists would return to their homes across the river when peace came (Niagara Historical Society, 1927, 18-21).

The purchase of the land was completed in May, 1781,

and the Mississaugas were reported to have been 'well-satisfied' with the payment of 300 suits of clothing. They would have been less satisfied had they known that the British had redrawn the boundary of the tract to include more land than originally proposed. The starting point on Lake Ontario was shifted westward, and instead of following the contour of the Niagara River, the boundary was reduced to two straight lines (Niagara Historical Society, 1927, 29-32) [figure 3].

Some settlement had already taken place on the west bank, and by August, 1782 the population had grown to include 68 persons, with over 230 acres cleared (Niagara Historical Society, 1927, 42). At some stage, most likely early in 1783, the land was surveyed by Allan McDonell, himself probably a soldier stationed at the fort. The survey may have been a purely local initiative, possibly an attempt to alleviate Loyalist concerns about security of tenure, for Haldimand does not seem to have known about it in advance (Niagara Historical Society, 1927, 64-65).

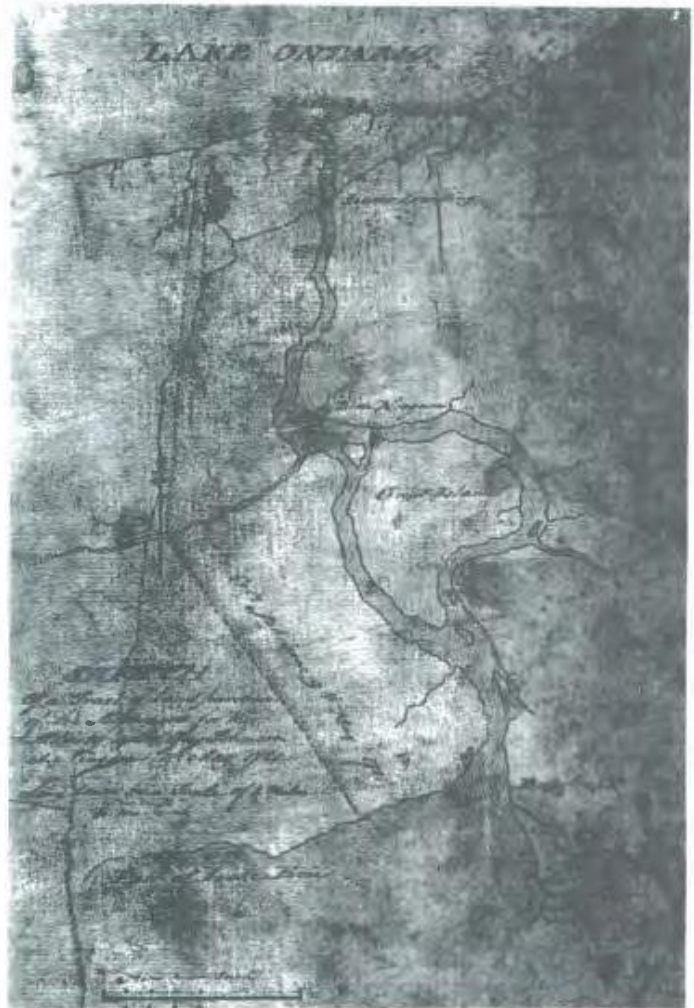
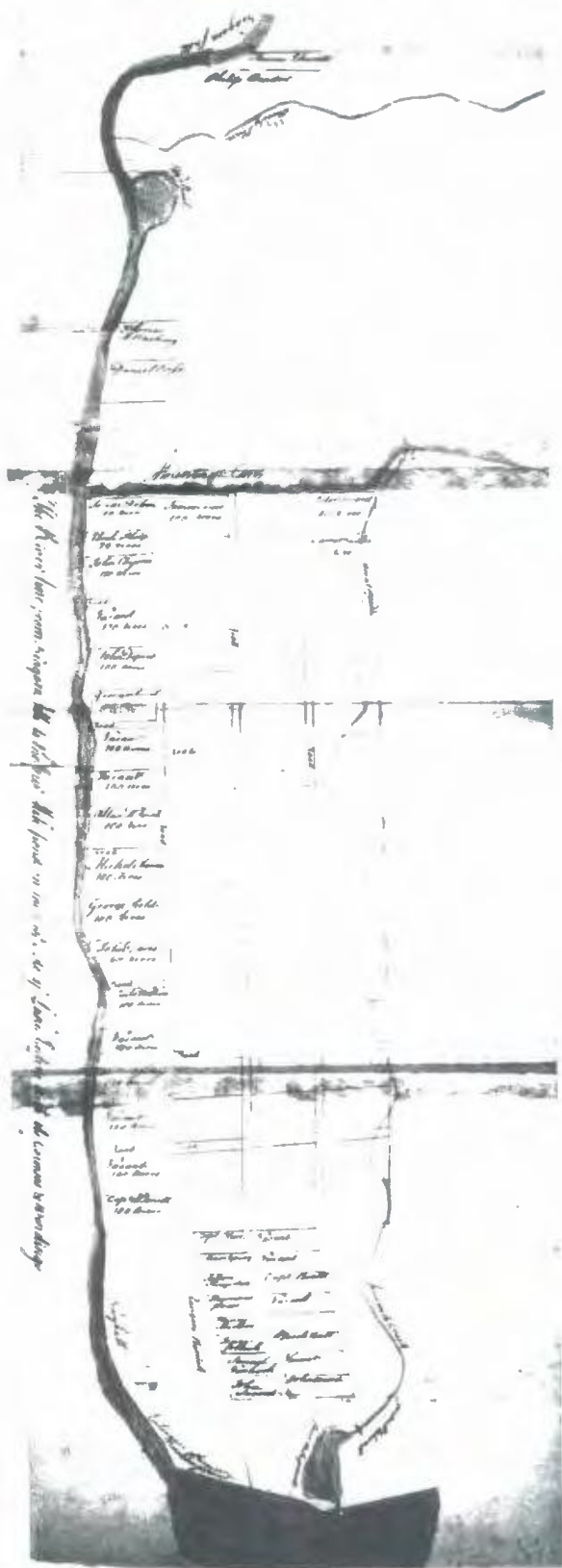


Figure 3: The 1781 purchase from the Mississaugas



The River line from Niagara falls to the four mile pond on the West Side of Lake Ontario with its Courses & windings

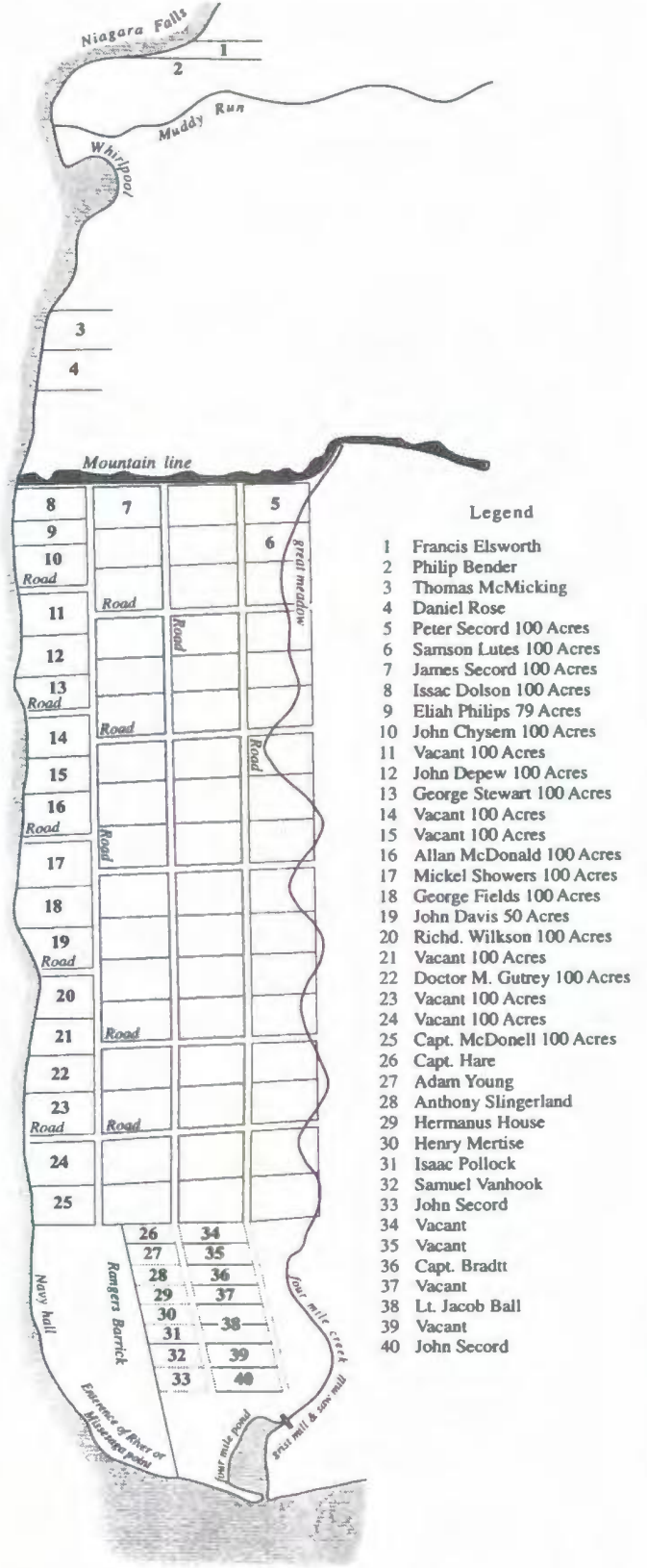


Figure 4: McDonnell's map of the Niagara settlement, 1783

A map among the Haldimand Papers in the British Library in London is almost certainly McDonnell's work and is probably the 'exact Survey' referred to in Butler's letter [figure 4]. Oriented with north at the bottom, the map shows three areas of settlement: a compact group of lots in the north, four concessions of lots along the Niagara River, and some scattered lots above the Niagara Escarpment in the south. Several lots are marked with the settler's name and the acreage, others are marked vacant, and others are left blank. The names are those of the original settlers of Niagara Township.

Most of the named lots were presumably occupied prior to survey, and the fact that these occur in units of 100 acres indicates that the settlers had been allocated land in a systematic fashion. There may even have been some sort of formal township plan. Supporting this conclusion is the fact that McDonnell's map shows two key lines that later became part of the final survey grid of Niagara Township. The first is the Garrison Line at the northern limit of the block of concessions, and the second is the boundary between Niagara and Stamford townships, separating two named lots above the Niagara Escarpment.

The correspondence between McDonnell's survey and the final survey grid is not exact, however. His map shows only 18 lots in the First Concession below the Escarpment, as opposed to the 20 that were surveyed in 1787, and other discrepancies occur also. But given the circumstances of the time—the area was forested and swampy, and the settlers' clearances were still very small—errors of this kind were not surprising.

The Tinling Survey

The signing of the Treaty

of Paris, marking the end of the War of American Independence, in September 1783 brought about a radical change in the status of the Niagara settlement. Immediately the pressure on land—from Loyalists, Indians and demobilized troops—became acute, and the government had to react quickly to avert disaster. No longer could Niagara be regarded as a purely military outpost with minimal civilian presence; it had to be opened up for large-scale permanent settlement.

Three things had to be done before this could happen: firstly, a plan for the subdivision and allocation of land had to be put in place, secondly, more territory had to be purchased from the Indians, and thirdly, the land had to be surveyed.

The first was achieved late in 1783 by the handing down of Instructions from Quebec City concerning township size and subdivision, and the amount of land to be granted to different classes of settler. The grants were in multiples of 50 acres, the precise amount depending on rank for discharged soldiers and Rangers and a combination of marital status and family size for others (Bureau of Archives, 1906, lxii-lxiii).

The second was achieved by the purchase in May, 1784 of a vast tract of about 4500 square miles extending from the 1781 purchase as far as present-day London and including the entire Niagara Peninsula. Included was a reservation twelve miles wide along the Grand River for the Mohawk Indians who has supported the British during the war. The cost of the purchase was £1180 7s 4d, about one tenth of a penny per acre, little more than a 'trifling

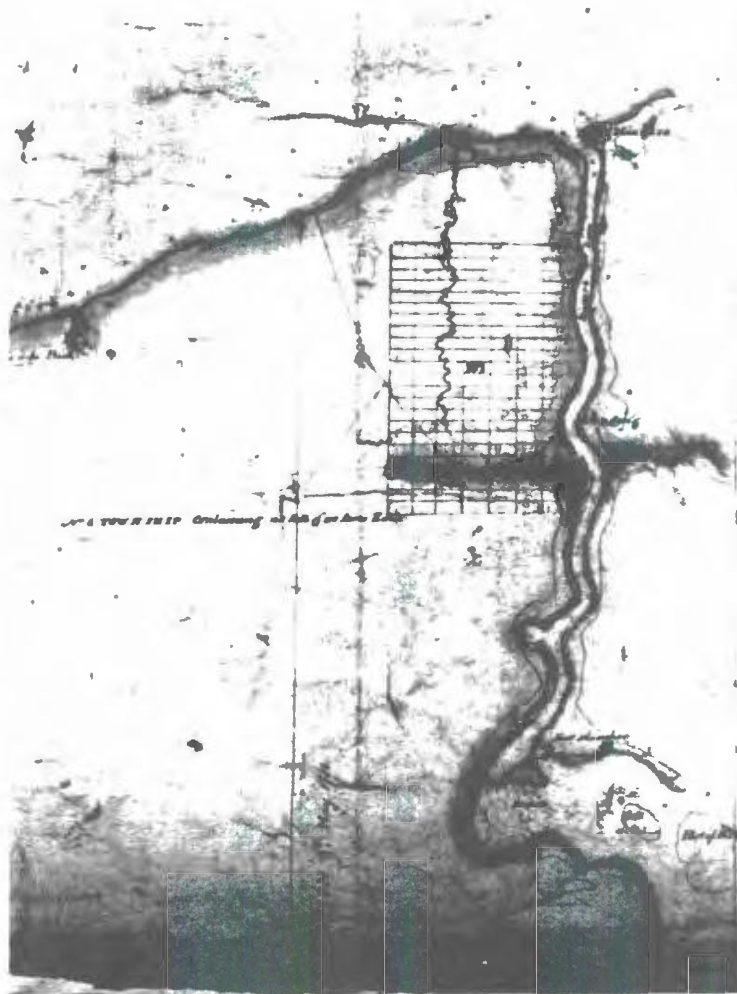


Figure 5: The layout of Township No. 1, possibly as surveyed by Tinling in 1784

consideration' in Haldimand's words (Niagara Historical Society, 1928, 12 & 30).

The third prerequisite was surveys, and with the ever-increasing threat of wholesale squatter settlement, the need for these was acute. The surveyor assigned to the task was Lieut. William Tinling, an Assistant Engineer with the 29th Regiment, who probably arrived in Niagara in June, 1784.

Haldimand's instructions to Tinling were quite explicit—he was to reserve the northern part of the township for the Crown, and to lay out the remainder in lots and distribute them to settlers (Niagara Historical Society, 1928, 17 & 34)—but how much Tinling actually achieved is uncertain.

If a map of Lake Ontario ca. 1785 in the Ontario Archives is to be believed then Tinling did everything expected of him [figure 5]. The map shows the results of a coastal survey carried out by Lewis Kotte and James Peachey in 1784 and incorporates a survey of the Niagara River below the Falls done by Tinling himself in 1785. It also shows an almost complete layout of Niagara Township (lacking only an eighth concession) accompanied by the notation 'No. 1 Township Containing 158(?) Lots of 100 Acres Each.'

The dimensions of the township are however incorrect, being compressed in both directions, the Garrison Line lies too far south, and doubt exists as to how many of the lines shown were actually surveyed, as opposed to being just drawn in on the map. It is known that Tinling did survey the Garrison Line, but what he did beyond this is unknown. The opinion of Tinling's successor, Philip Frey, is not reassuring: 'The person who had been employed in the surveying business previous to me had made few and very erroneous surveys, having only laid out a few lots for particular people, many plans may have been transmitted, which may not have been effectually executed' (Niagara Historical Society, 1928, 130).

The Frey Survey

If there is uncertainty over Tinling's contribution to the surveys of Niagara, there is none about Frey, for it is to him that we owe the township layout that has survived to the present day. Frey was a teenager in New York when the American War of Independence broke out, and after being imprisoned by the rebels escaped to Fort Niagara. He served with Butler's Rangers and the 8th Regiment before resuming civilian life in Detroit (Green, 1939, 54-63).

Frey must have done some surveying with the army, for in 1784/85 he was appointed a Deputy Surveyor with responsibility for both Detroit and Niagara (Bureau of

Archives, 1906, 307). The primary need for his services was at Niagara, but it was eighteen months before he made the move from Detroit. A possible reason for the delay is that he had to wait for a survey of all the township front lines around Lake Ontario from Cataraqui (Kingston) to Niagara to be completed, since these would have provided a framework for his own surveys. This survey, by Lewis Kotte, was completed sometime in 1785 (Bureau of Archives, 1906, 399).

Be that as it may, Frey probably reached Niagara in the summer of 1786. Some local survey work was done that year in areas where prior settlement had made the need acute, but it was not until 1787 the surveying of townships in the Niagara Peninsula began in earnest. Frey's first task was to survey Niagara Township, and he started on June 11 by running the Garrison Line. He was assisted by Augustus Jones, a Loyalist who had trained as a surveyor in New York City and who was to play a major role in the surveys of what became Upper Canada (Archives of Ontario, 32, 443-444).

The method of survey was a variant of the so-called Front-and-Rear System, in which the surveyor first ran the township boundaries, and then ran the lot lines (oriented east-west in the case of Niagara), moving back and forth through the concessions like a shuttle in a loom, leaving survey posts at the front and rear of each concession. This system was time-consuming and expensive, and was never used outside the Niagara Peninsula.

The main instruments employed would have been a Gunter's chain (66 feet, or 1 chain, in length) for distances and a surveyor's compass for bearings. Frey is also known to have had a theodolite, but this was probably used only to observe true north as a check on local magnetic attraction.

By August 24, just 74 days after they began, Frey and Jones had completed the work, and on September 18 Frey conveyed plans and reports to Quebec City (Niagara Historical Society, 1928, 130).

Whether or not these original plans have survived is unknown, but later maps based on Frey's survey do exist. These were of two kinds—'Quebec Plans,' plans deposited in the Surveyor General's Office in Quebec, and 'Land Board Plans,' plans retained locally in Niagara. Three of the oldest, all drawn at a scale of 38 chains to 1 inch, are reproduced in this paper.

The first is a Quebec Plan, one of two so-called Shubel Walton maps in the National Archives in Ottawa [figure 6]. It shows a large number of settlers' names, many of

which have been crossed out and replaced by others. Certain lots are marked 'certificate given' or 'certified,' indicating that they had been formally allocated to settlers. The second is a Land Board Plan held by the Ministry of Natural Resources in Toronto [figure 7], and the third is a redrawing of the second Shubel Walton map [figure 8].

Dating these maps is not easy. By examining settlers' names it is possible to place them in chronological order (the order in which they are listed here), but absolute dating is another matter.

The Land Board map, the only one of the three to give Frey's name as the surveyor, is the easiest to pin down, for it must post-date the establishment of the Nassau Land Board in 1789. Indeed, it may have been drawn as late as 1791, since the accompanying text makes reference to a decision taken by the Land Board in 1790. It follows that the second Shubel Walton map is probably 1791 or later, since name evidence places it after the Land Board map.

That leaves the first Shubel Walton map, the oldest of the three. At first sight dating seems to be no problem, for the map carries the marginal notation 'about 1784 or earlier,' but this is written in a different hand and different ink from the other lettering on the map and is probably not contemporary. Indeed, since the same notation appears on the second Shubel Walton map it has to be discounted altogether. Further, since Frey's own name appears in lot 51, the map could not presumably have been drawn before 1786, the year he arrived in Niagara.

It is possible that it dates from 1789 or later, for it is not until then that we encounter the first documentary

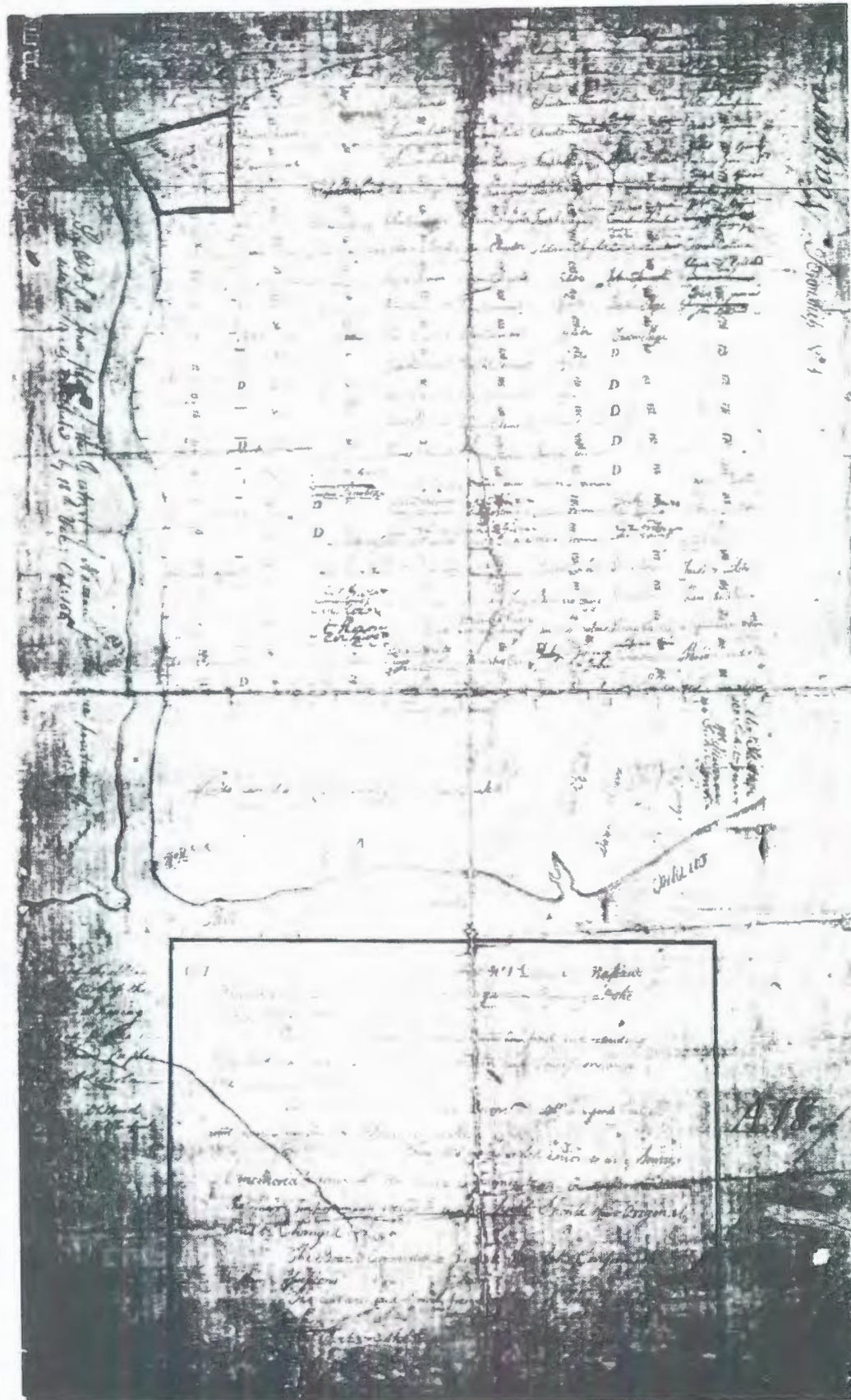


Figure 7: Land Board Plan of Township No. 1, ca, 1790

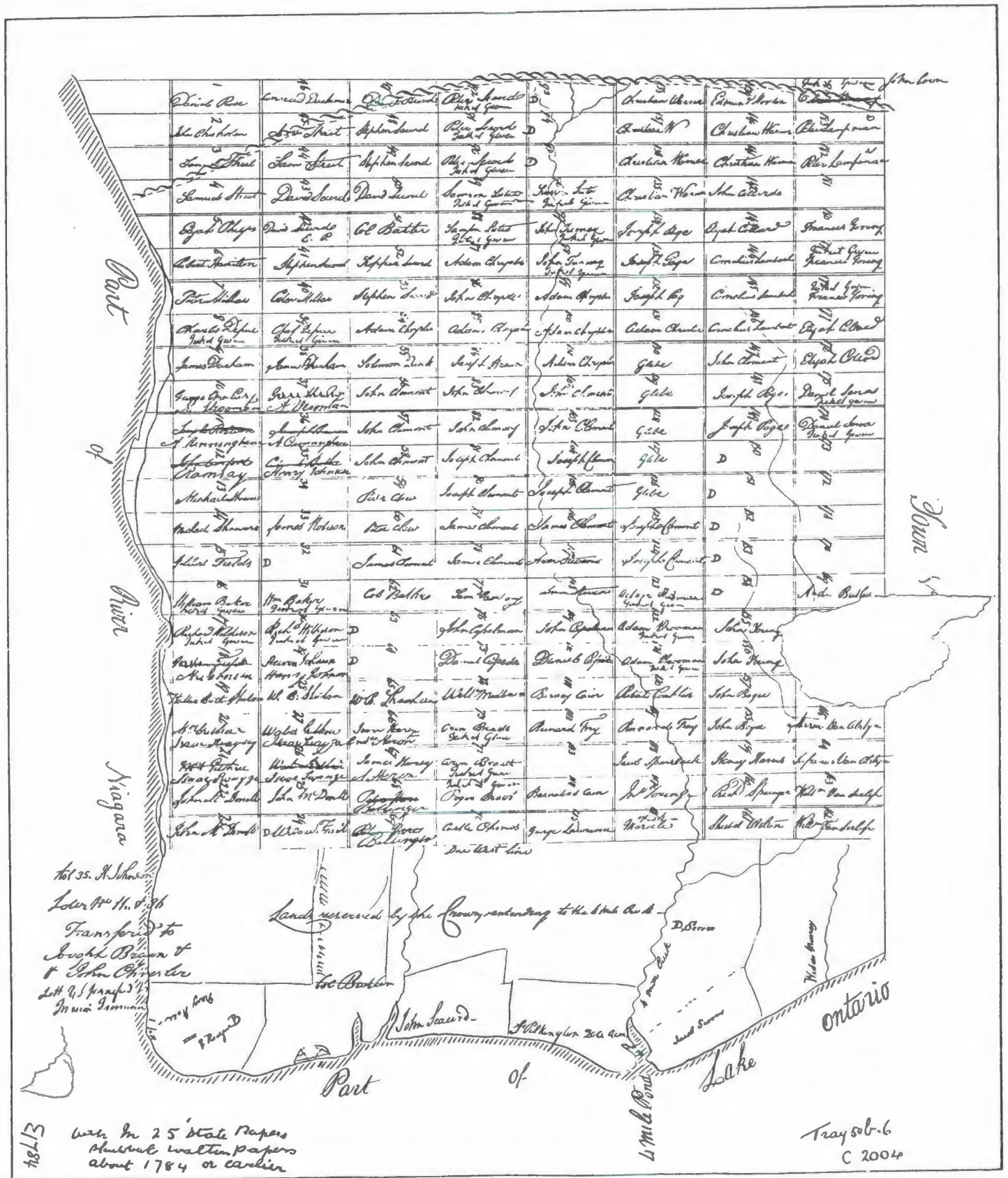


Figure 8: Copy of Quebec Plan of Township No. 1, the second Shubel Walton map, ca. 1791

reference to large-scale maps carrying settlers' names. This is a letter dated January 20, 1789 from Deputy Surveyor-General John Collins to Frey, in which he complains that a previous map submitted by Frey was at too small a scale, and requests—apparently for the first time—plans at 38 chains to 1 inch with the settlers' names marked in each lot (Niagara Historical Society, 1929, 71). The plans required were not just of Niagara Township, but also of all the other Peninsula townships surveyed by that date.

Frey's response was illuminating. He had chosen a small scale to make the map easier to transport, he could not produce a new map right away because of a lack of paper, and a map showing settlers' names would be very unreliable anyway because of the rapid changeover of lots (Niagara Historical Society, 1929, 84-85). The complaint about shortage of paper was a real one, and at one stage Frey was reduced to using the blank backs of playing cards as tickets for land. Following a series of increasingly testy interchanges with Quebec, and having had a request for leave turned down, Frey left for the United States late in 1789, never to return. It is uncertain if he ever did produce any of the detailed township maps required of him, and the bulk of the work was eventually undertaken by his successor Augustus Jones.

Niagara Postscript

I conclude by mentioning three survey-related issues in Niagara Township that persisted for a number of years.

The first concerned the east-west road allowances along the lot lines. Figure 2 shows the allowances as they actually are—an allowance along the Garrison Line and along every other lot line to the south. But all maps produced before 1855 show the allowances along the wrong lot lines, even maps like Thomas Rideout's of 1811 that were based on formal surveys. Some maps even omit the allowance along the Garrison Line, the second Shubel Walton map being a case in point. How this came about is a mystery, for it is known from a statement signed by Jones in 1804 that the road allowances were surveyed correctly (Archives of Ontario, 32, 365). Confusion persisted for half a century, and it was not until Edmund DeCew was commissioned to retrace Frey's survey in 1855 that the matter was put to rest—though not soon enough apparently for the allowances to be shown correctly on Ellis's map in figure 1.

The second survey-related issue was the townsite. No provision for a townsite had been made in the survey of Niagara Township, and the question of location proved to be a thorny one. The Land Board originally recommended

lots 15-18 in the First Concession along the Niagara River, but the existing settlers were loth to give up their land. Eventually, following a public vote on four options, the Crown lands north of the Garrison Line were chosen (Niagara Historical Society, 1930, 22 & 53). The survey, which was carried out by Augustus Jones in two stages in 1791 and 1792, was not without its complications. Before the survey even began the townsite had to be shifted to the north-west because of an error in the plan supplied to Jones by the Surveyor General's office. And because of the unwillingness of Colonel Butler and other existing settlers to relinquish their land, the survey could not be completed, leaving what was meant to be a square townsite without one corner ever since (Niagara Historical Society, 1930, 117, 118 & 141). The missing piece is clearly visible in figure 2.

The third issue was the Garrison Line. When Jones assisted Frey in running the line on June 11, 1787, he little thought that he would have to run it three more times over the next 40 years. The first occasion was in 1790, in an attempt to resolve discrepancies between the Tinling and Frey surveys. Jones concluded that Frey's line was the most correct one, the line surveyed by Tinling 'appearing crooked in several places, it being reported to have been run by an instrument very imperfect, called a plane table' (Niagara Historical Society, 1917, 34) Further problems arose in 1821, and it was not until 1828 that a sixth survey settled the matter once and for all.

Reporting on the 1828 survey, Jones wrote:

'To all whom it may concern, I do hereby certify, that ... I visited the deep hollow or Ravine above Navy Hall, being the point at which Mr. Frey and myself, commenced running the line between the Military Reserve and the Township of Niagara in the year 1787, and traced the said line westerly, passing a white oak tree, marked by us that year and mentioned in my field notes ... and that I have on this occasion planted a stone monument ... immediately west of the road to Queenston, marked 'I.W.' and another stone monument between the said road to Queenston and the split rock, marked 'I.W.' as before, showing the true bearing of the Garrison line as originally surveyed by us to the Split Rock' (Niagara Historical Society, 1917, 35)

In his description Jones mentions three landmarks—the 'deep hollow,' the 'white oak tree,' and the 'split rock'—that lend an almost romantic aura to what was otherwise a simple exercise in practical geometry. The deep hollow can still be found, but there is no sign today of the white oak tree and split rock, nor of the two monuments marked 'I.W.'

But the Garrison Line and the other survey lines remain a fixture in the Niagara landscape—a permanent testimony to the work of those pioneer surveyors two centuries ago.

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Map Sources

- Fig. 1: 'Map of the Counties of Wentworth, Brant, Haldimand, Lincoln, Welland,' Ellis & Co., Toronto, ca. 1860 (Winearls 818)
- Fig. 2: 'Illustrated Historical Atlas of Lincoln and Welland Counties,' H. R. Page, Toronto, 1876
- Fig. 3: 'Sketch of a Tract of Land purchased of the Mississaugas for His Majesty by Col. Guy Johnson at Niagara' by Prevost, 1781 (Ontario Archives AO565, Winearls 665)
- Fig. 4: 'The River line from Niagara falls to the four mile pond on the west side of Lake Ontario ...' ca. 1783 (British Library, Haldimand Papers 85, 71-72, Winearls 666)
- Fig. 5: 'Plan of the North Side of Lake Ontario from Cataraque to Niagara ... by Mrs Kotte and Peachey ...' ca. 1785 (Ontario Archives AO1401, Winearls 4)
- Fig. 6: Untitled, ca. 1789 (National Archives of Canada NMC3556, Winearls 668)
- Fig. 7: 'An accurate Survey of Township No 1 District of Nassau ...' ca. 1790 (Ontario Ministry of Natural Resources A18, Winearls A1401)
- Fig. 8: Untitled, ca. 1791 (Niagara Historical Society 1930, p. 16, Winearls 668 (2))

OUR FIRST SURVEYORS

A.R. Davies, O.L.S., Toronto

Surveyor-General Holland,
Sent by Governor Haldimand,
Left Quebec for Canada West,
Its mighty forests to infest.

Holland had seen his chief, Wolfe, fall
On Abra'ms Plains where Britain-Gaul,
With desperate contumacy,
Struck last blow for supremacy.

England won out in fifty-nine;
Then Holland engineered the line
Of defences, and kept close check
On Public Works in new Quebec.

When Loyalists came like surging tide,
In eighty-three, and flooded wide
These Western fertile lands, Holland
Set forth to meet their large demand.

John Collins was his chief of staff,
And made up parties from riff-raff.
They manned the batteaus, carried sacks,
Cut wood, pitched tents and cooked game snacks.

Surveyors, chainmen, axemen, all
Rushed up St. Lawrence at the call;
And soon the axes music made
Along North shore, through wood and glade.

The Polar Star, not always bright,
Gave Surveyors vigils by night,
Finding Meridian and True North;
Then steered by transits, all set forth.

Through vast, dense forests, night and day,
Up the St. Lawrence — Quinte Bay,
The shouts and songs of scores of men
Sent startled deer to distant glen.

Straight base and boundary lines were run,
Through weary hours from sun to sun;
Surveyors, keen, did note, discern,
Each course and bearing in its turn.

Many Surveyors led the way,
In other fields, at later day.
Demands were great for homesteads free.
Ontario was God's country.

They helped the settlers find their lots,
Adjusted claims, snared legal plots,
Served country, fellowmen and God.
Surveyors, rest you, 'neath the sod.

—*Annual Report of the Association of Ontario Land Surveyors*, no. 40. p.148-149, 1925.
(Reprinted with permission from the Association of Ontario Land Surveyors)

SPATIAL DATA IN DIGITAL FORM: AN OVERVIEW

by
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Presented at ACMLA July 1993 Annual Conference
(Minor updates, July 1995)

Introduction

"The procurement of forms of electronic map publishing presents map curators with major problems."
(Margaret Wilkes, in *Joint Scottish...* 1987, p.92)

Increasingly over the past five years, and especially in the last three, spatial data in digital form is coming to the forefront in what we so modestly term "map libraries." The following paper has as its goal to give an overview of the current situation of spatial data in digital form as it applies to libraries.

The format of the paper will be: data; software; hardware; vocabulary; and standards. Throughout the paper, I will be using examples from the library in which I work.

Information Access - An Introduction

A notable recent trend is the call for data in digital form, and especially for such data to be available over the Internet. More and more national topographic surveys are moving into the digital arena, and on the commercial side, ESRI is encouraging ARC/INFO users to approach ESRI about the possibility of publishing users' data, and National Information Services Corporation (NISC) is inviting institutions or individuals to get in touch with them about electronic datasets that the latter two have, which the former might be interested in publishing.

This portion of the paper is composed of items that one obtains as a physical product (such as a CD-ROM) and keeps in house, and those which one may obtain off the Internet (and which, once obtained, can if needed become a physical product in-house); many data sets are both, and the line between them will become increasingly blurred and unimportant. What I've been keeping my eyes peeled for lately is lists of this sort of data, items such as:

a) *on the thematic side:*

Provost, F.; Nieuwenhuysen, P.; and de Mes, W.W. 1992. *Information related to water and the environment: databases*

available online and on CD-ROM. Paris: UNESCO. (IHP-IV Projects M-2.1 and M-2.2). Free copies available from: Director, Division of Water Sciences, UNESCO, Place de Fontenoy, 75700 Paris, FRANCE.

b) *base data:* a list compiled by University College, London, available free from Sue Alstad, Information Scientist, HUGHES STX Corporation, South Dakota Operations, EROS Data Center, Sioux Falls, SD 57198. To quote from a 5/20/93 letter from Ms. Alstad: "The EROS Data Center has been collecting information about various land data sets in a data base we call the Global Land Survey. Most of our information comes from catalogs we have collected, and our main concentration has been with data sets that include regional, continental or global coverage. The best source of information for topographic data we have found is a catalog produced by University College London. ... Although we have entered much of the information into our data base, we distribute this catalog (with the authors' permission) when we get a request such as yours. You may also be interested to know that we are generating digital elevation models from ... DCW elevation and hydrology data. We are currently working on Africa and hope to provide worldwide coverage in the future. As new areas are completed, they will be referenced in our Global Land Information System (GLIS)."

c) *The Internet:* over a period of nearly two years, I collected a stack about three inches thick of printouts with Internet addresses; these have been entered at: <http://alexandria.sdc.ucsb.edu> (look under *Other Interesting Sites*). Below are listed some sources that I used to start out on finding these Internet addresses:

i) Beard, Colleen. 1993. "Exploring the Internet for digital map data." *ACMLA Bulletin* no. 86:2-11. Colleen specifically mentions two important sources:
- Krol, Ed. 1992. *The Whole Internet users' guide and catalog*. Sebastopol CA: O'Reilly and Associates, Inc.
- Thoen, Bill. 1992-. *Internet resources for earth sciences*.

Colorado Springs: University of Colorado (available ftp csn.org, in COGS directory)

ii) *JEI news*. 199- . College Park MD 20742-3281; Joint Education Initiative Office, University of Maryland. - 2(3) for March 1993 was virtually all on Internet addresses or other sources for spatial data in digital form I've also noted what kinds of requests for spatial data in digital form are appearing on MAPS-L; so far, topographic data, as detailed as possible, for any place you can think of, and place-name (physical and cultural) lead the list.

When dealing with electronically available information, one is looking at not only a substantial number of what are analogous to individual publishers, but also at two entities which are analogous to vendors - that is, they bring in data from other servers. The latter are WAIS (Wide Areas Information Servers) and browsers such as Mosaic and Netscape, in which one searches a variety of databases through one interface. The WAIS protocol began as a project of Thinking Machines, to create a system to allow a user to access and manipulate many different kinds of data through one interface. For more information on WAIS:

1. Lukanuski, Mary. 1992. Help is on the WAIS. *American Libraries*, October 1992, pp. 742-44.
2. Bates, Sally. 1992. The Internet: new WAIS to gopher information. *UNIDATA* newsletter, fall 1992, pp. 1-5.
3. Contact Brewster Kahle (Thinking Machines) at: brewster@think.com
4. USENET newsgroups under comp.infosystems on the Internet.

Mosaic and Netscape are easier to use, more sophisticated, and currently compiled for both UNIX and PC. They are networked information browsers and World Wide Web (WWW) clients. WWW, a recent addition to the Internet's information services, is based on hypertext, where a document is linked to other documents in a multitude of ways - text, image, sound video, whatever. For more information on Mosaic, see: mosaic-x@nesa.uiuc.edu; ftp nesa.uiuc.edu (directory is mosaic).

I. THE DATA

None of the following pretends to be a definitive list; it does list those data sets that a spatial data librarian from the United States is most likely to know about—e.g., sets issued by the Federal government; widely advertised commercial sets from the U.S. and major publishers in other countries; etc.

A. Physically located in-house

1. World data sets
 - a. Maps

i. Base data

a) World Data Base I and II: generated from 1:1M ONC's; available through NIIS and from some commercial vendors; usually in magnetic-tape form. WDBI - originally generated by the US CIA - is available on the Internet from hanauma.stanford.edu (World Map directory); WDBII is much more usable (translation: without heavy programmer assistance) - available from US EROS in Sioux Falls SD (425M, 170M compressed)

b) MundoCart: also generated from 1:1M base data; work originally done by Petroconsultants; now marketed by Chadwyck-Healey; CD-ROM; see *Information services and use* 9:139-47 for a review.

c) DCW (Digital Chart of the World): done under contract by Environmental Systems Research Institute (ESRI) for the U.S. Defense Mapping Agency (DMA); available initially in VPF format (as per DMA's specifications), now commercial vendors are issuing it in formats usable by their software - e.g., ESRI has it in ARC/INFO format, American Digital Cartography (ADC) has it in MapInfo format, and DXF (AutoCAD) format either is available now or so will be.

d) ETOPO5: sold by US NGDC; magnetic tape (grid data can be obtained on pe floppy); 1988 update contains modifications better to match edges of ocean data to land data, and corrections have been made

e) World Vector Shoreline (WVS): DMA product, available for public sale; contains shorelines, international boundaries, and country names; originally on magnetic tape, now probably available on CD, at least in prototype

f) National Geographic Society atlas

g) PCGlobe

h) TerrainBase global DEMs (Digital Elevation Models): scheduled for completion by US National Geophysical Data Center (NGDC) by end of 1993

j) Global Relief CD-ROM: available from NGDC (1993); took data previously available.

ii. *Thematic data*: there are many of these; see Map & Imagery Lab's CD and diskette lists for a more extensive listing. The following are given as examples.

a) Global Ocean Temperature and Salinity: in 2 CDs; provides temperature and salinity in the world ocean 1900-1990; US National Oceanographic Data Center (NOAA/NESDIS E/OC21)

b) World Map of Hydrogeological Conditions and Ground-Water Flow: 1:10M; this Unesco/IIHP project is available both as 4-sheet paper map and on CD or diskette; Hydrosience Press, 2145 Draper Avenue, #202, St. Paul MN 55113

b. Imagery: again, a selective listing

- i) Landsat
- ii) SPOT

iii) EOS (to come)

iv) AVHRR (Advanced Very High Resolution Radiometer): for example, the 1990 conterminous U.S. AVHRR data set; proposed is a global land 1-kilometer data set (by the International Geosphere-Biosphere Program, Data and Information Systems Pilot Group, USGS Global Change Program, NASA, NOAA, EEC, ESA - European Space Agency)

v) All the various NASA CDs related to space travel - Magellan and Galileo (Venus; Earth, Moon), etc.

2. U.S. - mainly Federal government. The Federal government as a whole, spearheaded by USGS and DMA, is working on a National Digital Cartographic Data Base (NDCDB; 1:24K, 1:100K, 1:2M; SDTS format, DLG-E data structure) (*Research and development ...* 1991, p. 11). Witness the request from Doyle Frederick (Associate Director, USGS) on p. 5 of the July 1992 Geotimes: "If you have responsibility for geographic[sic]-related databases; if you are concerned with having accessible, reliable data; if you have databases to share - we want to hear from you. We are serious about looking for partners. We are serious about serving the customers of federally acquired geographic data. Uncle Sam really does want you and your data. Let us hear from you. Contact Nancy Tosta, Executive Secretary, FGDC, 590 National Center, USGS, Reston VA 22092."

See the *Manual of Federal Geographic Data Products* for more.

i) US Geological Survey (USGS): see USGS's many helpful brochures, some of which have as a heading "USGeoData," e.g., *Digital Cartographic and Geographic Data; Catalog of Digital Data*

a) DEMs: raster elevation data from topos (1:24K; 1:250K); complete for 1:250K. 1:24K was at 41% as of 1/91.

b) DLGs (Digital Line Graphs): vector line data from topos; main scales are 1:100K and 1:2M; data categories for 1:100K are Public Land Survey System, boundaries, transportation, hydrography, and hypsography. Current standard is DLG-3, with information derived from topo sheets; to come is DLG-E (Enhanced), which is designed to support "enhanced" cartographic and GIS applications; its source data are published maps, existing DLG-3 data, and imagery sources. Some commercial firms, such as American Digital Cartography, sell digital versions of some topos.

c) Digital orthophotos: "digital image of an aerial photograph with displacements caused by camera angle and terrain removed" (from the USGS Fact Sheet of the product's title); will be issued in "county format" on CD - about 30 or so are out now (all east of the Rockies so far); all quarter quads (1:12,000) for a county are present but they are not mosaicked into seamless image. These are

issued in compressed form so that (in most cases) one county will fit on one CD (56M per quarter quad, 224M for a full quad, means 3.4 gigabytes for an average 15-quadrant county if uncompressed); decompression software will be included on the CD. About 12,000 CDs will be issued; spatial-data librarians in the US are already trying to figure out where all these are going to go (probably on shelves, stored upright, with the shelves as close together as possible!).

d) USGS has been heavily involved in digital data for some years, cf. *Scientific and technical, spatial, and bibliographic data bases and systems of the U.S. Geological Survey, 1983* [1984?]. USGS's Geologic Division alone had in the late 1980s about 150 data bases and systems, e.g., National Coal Resources Data System; Index to Geologic Maps (GEOINDEX); Geologic Names of the United States (GEONAMES); etc. (Davis 1990, pp. 22-23).

ii. U.S. Bureau of the Census

a. TIGER (Topologically Integrated Geographic Encoding and Reference files): generated for the 1990 Census by USGS for USBC, from the 1:100K quads (planimetric data only). The 1980 Census generated GBF/DIME files (Geographic Data Base/Dual Independent Map Encoding), which are no where nearly as extensive as the TIGER files, either in geographic coverage or in amount of data per file. Many commercial firms have seized eagerly upon the TIGER files as a source for added-value products; Census has available on demand a list of firms that have registered with Census as working with TIGER. A sampling of these firms includes Klynas (Streets), Strategic Mapping (Atlas/GIS), Etak (MapBase), and Geographic Data Technology (DYNAMAP/2000). The Bureau of the Census maintains a list of commercial firms that work with TIGER data, and will supply the list upon request.

iii. U.S. Soil Conservation Service: deeply involved in a digital soils-mapping program; the best explanation I've seen is in an excellent pamphlet (free) from the Wisconsin State Cartographer, called *Soil Mapping*. USGS has also issued a brochure on the topic.

iv. US National Geophysical Data Center (NGDC): sometimes it seems not a week goes by but I get a flier from these people in Boulder about some new, must-have product of spatial data in digital form. In the world-datasets portion of this is the Global Relief CD; on the US side is, for example, the 30-Second U.S. Topography Data for Personal Computers (TOPO-30)

v. And just about every other Federal agency you can think of that deals with spatial data. For example, the Forest Service actively pursues GIS applications in

forestry. Kilauea volcano data on CD was just issued by NASA this year, as was the Oregon Transect Ecosystem CDs.

3. State and local products

Many geological surveys have digital data files and products; on the local side, the heavy use here is existing landbases, especially cadastral, and those agencies dealing with the provision of services (police; fire; utilities). Also, Federal agencies frequently issue datasets related to a given state (as the two examples given in the last paragraph), for example Minnesota Aeromagnetic Data (2 CDs; ODS; Windows).

4. Commercial firms: there are many of these, and they're multiplying; De Lorme, Geovision, etc.

3. Non-US

And here I surrender, and am reduced to supplying lists of sources!

a) Wolf, Michael; and Wingham, Duncan. 1992. *WP4010: a survey of the world's digital, elevation data*. Dorking, Surrey: Mullad Space Science Laboratory with the Dept. of Electronic and Electrical Engineering, University College London.

b) Finch, Sara. 1987. *Cartographic and remote-sensing digital databases in the United Kingdom*. London: BL Research and Development Dept. (BL Information Guide ; 6)

c) Gittings, Bruce. 199-. *Catalogue of digital elevation data*. Dept. of Geography, University of Edinburgh, Drummond Street, Edinburgh EH8 9XP, SCOTLAND. I printed out the 2/24/93 version off MAPS-L.

d) Data Consultancy (URPI Group Ltd., 7 Southern Court, South Street, Reading RG1 4QS) has two titles of interest:

- i. *Data set news* (my most current issue is 2/93)
- ii. *Spatially referenced data sets catalogue : including maps, boundaries and databases*. (2/92)

II. THE SOFTWARE

I will be looking at three different categories of software here: image processing; GIS; and my favorite category, other.

Let's start with image-processing software. Image processing is the manipulation and interpretation of graphics (any image) in digital form, using a computer; these work with raster (pixel-lated) files. Commonly used techniques are: rectification and restoration: manipulating raw data to correct distortions and fit the image to a map base; enhancement (any process that sharpens or brings out more clearly detail of interest to the user); classification (assign pixels to thematic categories, e.g., land-cover classes); and data merging (merging different types of image data, e.g., Landsat TM with SPOT).

This is not a definitive list, but rather a listing of more common software.

A. Image-processing software

i) ERDAS; ERDAS Imagine; for IBM, Sun, DEC platforms; ERDAS Inc., 2801 Buford Highway NE, Suite 300, Atlanta GA 30329-2137; in Canada, get in touch with Northway Map Technology (416/441-6025); version 7.5; comes in modules, with each module separately priced; there is an educational discount - a "bundle" for the pc of CORE, raster GIS modelling, and image processing in the U.S. is \$2,800. With next version of Imagine, it seems likely that Imagine will become ERDAS; it's an easier-to-use interface than what ERDAS currently has.

ii) IDRISI: DOS; Version 4.0; \$280 from IDRISI Project, Graduate School of Geography, Clark University, 950 Main Street, Worcester MA 01610; IDRISI@CLARKU

iii) IMDISP (Interactive Image Display program): derived from VICAR (mainframe; Jet Propulsion Lab's Video Image Communication and Retrieval System); DOS; developed in 1989. Comes with many U.S. government issued CDs. MIL's most current version is 7.79.

iv) The Core: UNIX only; image-display, manipulation, and processing system. \$500 from Core Software Technology, 818/796-9155; 675 South Arroyo Parkway, Pasadena CA 91105.

v) XV (current version: XV3): \$25 per license from John Bradley, 1053 Floyd Terrace, Bryn Mawr PA 19019; bradley@cis.upenn.edu

vi) For the Mac - the author has 2 1990 lists, which are probably hopelessly out of date and therefore I've not included them; mine came from the *Wisconsin mapping bulletin* for March 1990 (pp. 4-5) and from Michael C. MacDonald, ESL, 495 Java Drive, POBx 3510, Sunnyvale CA 94088-3510

B. GIS (geographic information system) software

GIS software may be thought of as a computerized system to capture, analyze, and display spatial data, doing this by integrating a wide range of data (e.g., maps; remote-sensing images; attribute data - numerical or descriptive data that is geo-coded). GISs tend to have extensive I/O (input/output) requirements and heavy CPU requirements. A GIS should be able to: work with large, heterogeneous spatial databases; be able to query databases about the existence, location, and characteristics of a wide variety of objects; operate efficiently; be able to be tailored (both to applications and to users); be able to "learn" about data and a user's objectives; and be able to supply a readily interpreted output product. Its five essential parts are: data acquisitions; preprocessing; data management; manipulation and analysis; and product generation. See USGS's colorful 1991 brochure, *Geographic information systems*, if you'd like more information but not too much more information; there are several GIS introductory texts out (e.g., Jeff Star and John Estes) if you'd like more.

- i) ARC/INFO: with its viewing module for ARC data, ArcView; DOS, UNIX; ESRI, Redlands CA
- ii) Atlas/GIS: DOS; Strategic Mapping, 4030 Moorpark Avenue, Suite 250, San Jose CA 95117-9964
- iii) AutoCAD: DOS and UNIX; AutoDesk
- iv) GRASS (Geographic Resources Analysis Support System): public domain; often used within the US Federal government. There is a newsletter - Grassclippings; Linda Rous, Editor, POB 3879, Champaign IL 61826-3879. There is a Global GRASS I CD-ROM data set, for \$375 US; Cook College Remote Sensing Center, Global Dataset Project, Box 231, College Far Road, Rutgers University, New Brunswick NJ 08903-0231.
- v) IDRISI

C. Other

- i) operating systems, backup, etc.: DOS; UNIX; Norton; Ethernet; Windows and Windows NT; security
- ii) compression/decompression software; e.g., PKZIP and PKUNZIP (\$47 from PKWare Inc., Brown Deer WI). Two terms you may see used here are "lossless" and "lossy" techniques; the first produces compression files that can be decompressed into files which are identical to the original (compression ratios of 2:1 to 10:1 for text and software, less than 2:1 for digital orthophotos, for example). The latter technique produce compressed files that decompress into close representations of the original - appropriate for photographs and sound; ratios of 5:1 up to 30:1 or more (for example, for digital orthophotos, 10:1 to 15:1 are recommended). See: Lininger, Skye. 1991. Compression squeezes files. *Personal publishing*, October 1991, pp. 42-46.
- iii) visualization software
- iv) mapping software (e.g., Harvard Graphics)
- v) compound-document software: e.g., Island Graphics Corporation (4000 Civic Center Drive, San Rafael CA 94903-4178); word-processing/desktop-publishing/graphics-software package
- vi) file-conversion software:
 - a. Image Alchemy: Handmade Software, Inc.; 15951 Los Gatos Blvd. Suite 17, Los Gatos, CA 95032
 - b. Graphics Transformer: IMSI, 1938 Fourth Street, San Rafael CA 94901
 - c. programs available from San Diego supercomputer

III. THE HARDWARE

One starts out with a CPU (central processing unit) of some kind - microcomputer (pc), minicomputer (workstation), mainframe - that is graphics-capable. Micros and minis are getting closer and closer together, and may at some point merge into one rather large amorphous glop. For the moment, what most of us are looking at is a pc, with the following:

- 486 cpu
- 50Mhertz (speed)
- 300M hard drive; SCSI controller, math co-processor
- no less than 16 M of RAM (32 is better)
- MS-DOS 6 (built-in file compression)
- Windows 3.1
- support for CD-ROM, mouse, laser printer, digitizer, scanners, Ethernet, floppy drives (both 5.25" and 3.5"), filmwriter/film-recorder (takes images created on computer or scanned onto computer and outputs to film, typically 35mm slides), etc.
- large screen, high-resolution color monitor (EGA; VGA; 8-bit display is affordable - in contrast to 24-bit and 32-bit displays - and for many applications will be sufficient)

... and here are some prices:

- a. pc: under \$10,000; the above at university prices is around \$6,000-\$8,000; run DOS; designed to run as standalone, and have limited networking capabilities compared with a workstation
- b. workstation (e.g., Sun, DEC, IBM RS6000): \$7,000-\$70,000; run UNIX; more powerful than pcs and more easy to integrate into a networking environment
- c. mainframe: about \$60,000 and up

Now we get to the peripherals, which is what seems like an ever-increasing list. Many of these have to do with changing hardcopy information into digital form, or vice versa; the new Murphy's Law of spatial-data librarianship is, "Whatever form you've got it in, the user needs it in something else" (this applies both to format and to digital-file type, sadly enough). A subsidiary of this is that you need to have printers (preferably color), since - as noted above - if it's available in one form (digital), your user needs it in another (hard copy), and besides, library users tend to consider printers and photocopiers as a right, not a privilege!

IV. THE VOCABULARY

About three years ago, out of desperation, I put together a glossary of terms and acronyms, which I have on diskette and which every year or so I update. There have appeared a few works of interest in this realm:

- a. Spencer Donald D. 1993. *Illustrated computer graphics dictionary*. Camelot.
- b. Rimmer, Steve. 1992. *The graphic file toolkit*. Reading, Mass.: Addison-Wesley Publishing Company.

V. THE STANDARDS

And we thought libraries were compulsive about standards; it is nothing compared to what is happening on the digital side of the shop. I will not address the cataloging

side of the matter—the Canadian Committee on Geomatics has done an excellent job here, and in June of 1994, the U.S. Federal Geographic Data Committee issued Content Standard for Digital Geospatial Data, all fields of which have been subsumed into USMARC. What is very attractive for the future is a spatial-data catalog that is a GIS turned inside out - that is, attribute data (e.g., bibliographic data) plus an image of the item described, so that browsing through a collection can be done in one's office, rather than riffling through (and damaging) the actual items.

It is heartening how the non-library community sees the need for standards, vide Jordan and Star's 1992 "A call to action: standards for the GIS community," Nebert's 1992 "Data characteristics and quality: the importance of spatial metadata," Kottman's 1992 hefty little pamphlet that is all about standards, and the June 2-4 (1992) International Workshop on Standards for the Exchange of Geographic Data, that was held in Toronto. To give some idea of the level of interest here, Kottman identifies eleven niches where standards are needed: media (e.g., physical characteristics of item, such as CD-ROM - ISO 9660 is the standard); encapsulation=physical structure and format (how the info is transport-encoded - many use ISO 8211, others use custom headers); world-view (what features are of interest, what hierarchies and relationships between features are required, etc.); data structure (how features, attributes, etc., are to be organized); schema implementation (type - real, binary ... - and length of each subfield, order of fields; physical entity relation model); feature/attribute dictionary; content (instances and types of features and attributes); metadata; directories and indices (any retrieval tools); receiver tools (mechanisms for browsing, querying, visualizing the exchange set); and user environment (high-level characteristics of the operating environment, such as presence of standard graphics library and a "C" compiler) (Kottman 1992 pp. 19-22). Bless his heart, on p. 29 Kottman asks (and answers) the question, "Why are there so many standards?" - "there are many levels of encoding necessary for the representation of geographic information in a digital structure, and each level requires agreements, ... many industrial, professional, and academic disciplines involved ... and many have their own standardization committees ... Standards arise to enable cooperation between components ..." Kottman closes by saying (p. 67), "Soon spatial data exchange will be as transparent as importing a spreadsheet." I am a bit less sanguine than he—I would change "soon" to "eventually." In his list of trends on pp. 67 and 68, my favorites are: better support to very large databases; mandatory and computer-assisted data-quality management for metadata generation and interpretation; and a master

library of metadata that holds descriptions and access methods to standards-compliant, transfer-ready datasets that are public or commercially available. It promises to be an exciting world!

Conclusion

It's a good life if you don't weaken.

"We can transform ourselves and the profession, or be swept away by a technological torrent As a matter of professional survival, we must purposefully begin to change the nature of our work."

Jerry D. Campbell, p. 560 and 566 of "Choosing to have a future," *American libraries*, June 1993 (560-66).

These statements summarize my observations and feelings about this whole matter of the changing world of information. While I am the first to say that often getting the best results the fastest means NOT being seduced by the glamour of digital, but by using hard-copy data, the fact remains that we in the world of "map libraries" - a phrase that is getting to be more inaccurate than ever - now have yet another format - or rather family of formats - with which to deal. And, for those of us working in research institutions, it is one that our users find to be essential. I am painfully aware of the problems of keeping up with both hard-copy and digital systems at the same time (which reminds me—if digital data is indeed taking over, why is my library getting just as many, if not more, paper maps as ever? Sort of like the predicted demise by Marshall McLuhan of paper), and especially of the equipment and user-education problems. On the equipment side, there's the point that libraries are accustomed to equipment like map cases or book stacks—you buy them about once every five to twenty years, they never need maintenance, they almost never need repair, and they never need updating. Nothing could be further from dealing with computer hardware and software. Then there is the little matter of who is going to maintain the hardware, in a time of diminishing or stable staff numbers to boot? (word to the wise: SERVICE CONTRACTS, plus basic trouble-shooting training for staff—on the level of, make sure it's plugged in and turned on). Then how about training users -there are so many of them and so few of us. It is rather like the teacher in an English public school who retired in his early fifties because, as he pointed out, he kept getting older and the boys were always the same young age. For my part—I am big on getting software with tutorials, or at the very least demos. My attitude here is that when users come to the library, they don't expect library staff to teach them how to read; and using computer software is a form of reading. No, I won't teach persons DOS; although I am tempted to take the guide to DOS I put

together for MIL staff members, pare it down, and leave it out for users!

This world of spatial data in digital form is here, and the question is not if we will deal with it, but how, and further than that how we will turn it to our own best advantage.

ACKNOWLEDGEMENTS

Two of my most frequently consulted sources for the preceding paper are Larry Carver (Head, Map and Imagery Lab, Library, UCSB) and Dr. Jeff Star (Geography and Remote Sensing Unit, UCSB). My thanks to them for their patience.

Appendix A A Sampling of Standards

- a. ATKIS (Authoritative Topographic Cartographic Information System): Working committee of the Surveying Administrations of the States of Germany
- b. CGIS (Canadian Geomatics Interchange Standard): Canadian Council on Geomatics Interchange Format (CCOGIF)
- c. DIGEST (Digital Geographic Information Exchange Standard): NATO. Designed for the exchange of generic-information databases.
- d. DLG and DLG-E: USGS
- e. DTD (digital terrain data): for example, USDMA uses DTED (elevation data), DFAD (feature analysis), and ADRG (ARC digitized raster graphics). These military formats are designed to support specific weapon or other military systems.
- f. ETF (European Transfer Format): Comité européen des responsables de la cartographie officielle (CERCO; heads of national topographic surveys of western Europe)
- g. GDF (Geographic Data File): Phillips and Bosch, and Cartographic Institute of Hannover University
- h. MACDIF (Map and Chart Data Interchange Format): Canadian Hydrographic Service
- i. MDIF (Mapping Data Interchange Format): Ontario Ministry of Natural Resources
- j. MDG77 Marine Geographical Data Exchange Format for bathymetry, magnetics and gravity): 1989 rev. from NGDC (*Key to geophysical records documentation no. 10*)
- k. SAID (Spatial Archive and Interchange Format): British Columbia Surveys and Resource Mapping Branch
- l. SDTS (Spatial Data Transfer Standard): Digital Cartographic Data Standards Task Force (various U.S. Federal agencies); for Internet access to documents: isdres.er.usgs.gov (130.11.48.2). User name: anonymous. After connecting: `cd usgs.sdts`. The `readme.doc` file will

- m. Specifications for the Exchange of Digital Hydrographic Data - 19090 (DX-90): International Hydrographic Bureau
- n. VPF (Vector Product Format): Digital Chart of the World, done on contract for USDMA by ESRIcmj.9ahng3ee:

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LEARNED SOCIETIES CONGRESS

**Brock University
May 23 to June 7, 1996**

Special Event:

Exploring Data Liberation: accessing and analyzing Canadian microdata - an introduction

Saturday June 1

Through their participation in the Data Liberation Initiative (DLI)— a co-operative effort between Statistics Canada and several other Federal Government Departments, the Canadian Association of Public Data Users, the Canadian Association of Research Libraries and the academic community, and co-ordinated by the Social Science Federation of Canada—[University libraries in Canada willsoon have available for researchers and students, vast amounts of previously inaccessible Canadian data.

This day-long workshop will focus on the accessing and analysis of this data, and will be of use for both librarians who will handle the data, and researchers who wish to access it. In particular, attention will be paid to tools and mechanisms to facilitate data analysis, including enabling software.

Attendance is limited, and interested delegates are asked to register with general conference registration. More information about the workshop and the DLI can be retrieved from

URL

<http://www.carleton.ca/~ssdata/ssfc.html>.

THE CANADA GAZETTEER ATLAS EDITION 2

by

Gordon Shields

Canadian Cartographics Ltd, Coquitlam B.C.

The Canada Gazetteer Atlas is an inventory of selected place names and physical features. Based on the 1976 census of Canada, the first edition of *The Canada Gazetteer Atlas* was published in 1980 by the federal government to provide a quick reference guide to Canada's toponymy. It includes some 95 pages of maps as well as a gazetteer of populated places and physical features. *The Canada Gazetteer Atlas* quickly became a useful reference tool in many of the nation's libraries. The first edition is hard bound at 13 x 18. When opened, each 2 page spread has an image area of 15" x 23". The current edition has been out of print for a number of years.

Canadian Cartographics Ltd. became aware of the need for a revised edition of *The Canada Gazetteer Atlas* and undertook to reach an agreement with the federal government. This would allow a commercial venture and give both parties some incentive to bring a new edition to market.

A lengthy negotiating period ensued between Canadian Cartographics Ltd. and the Department of Supply and Services, acting on behalf of the National Atlas Information Service, Canada Centre for Mapping, Natural Resources Canada, which resulted in an agreement that allows Canadian Cartographics Ltd. to produce and publish an updated English-language edition of *The Canada Gazetteer Atlas* and retain revenue from the sale of the product, as well as providing a royalty payment to the federal government. The federal government retains copyright at all times and allows Canadian Cartographics Ltd. sole license to market the atlas for a period of one year followed by a non-exclusive license for a subsequent period of four years. The agreement is a tangible expression of initiatives to seek private sector assistance in order to maintain services which the government itself is less able or willing to provide from public funds.

Two administrative units of the Canada Centre for Mapping have provided expertise and materials to assist in preparation of the second edition. The Geographical Names section of the National Atlas Information Service

(NAIS), Canada Centre for Mapping has made available records of place name changes and administrative boundary updates current to 1994. The Cartographic Operations section of the NAIS has provided all of the original reproduction materials used in the 1980 edition of the *Gazetteer Atlas*. Together, the materials form the basis for a second edition.

Canadian Cartographics Ltd. will be responsible for data assembly and organization, compilation of the updating information, preparation of the final maps as well as printing and marketing of the atlas. The entire project, from commencement of compilation to the completion of marketing objectives, will take approximately eighteen months, incorporating numerous checks by NAIS of project specifications and approval of page proofs prior to printing.

Having described the agreement between the Federal Government and Canadian Cartographics, we can return to discuss the concept of *The Canada Gazetteer Atlas* and the organization of toponymic information in Canada.

The complexities of organizing and maintaining information on place names requires a significant amount of energy and expertise in order to avoid confusion. This was recognized as early as 1897 when the Federal Government created the Geographical Board of Canada, the predecessor to the Canadian Permanent Committee on Geographical Names (CPCGN)—the current body charged with setting policy on toponymic data. This committee is composed of a representative from each of the provinces and territories and from each of the various federal departments with an interest in mapping. The committee establishes general policies for additions and deletions to Canada's toponymic information database. However, each province has its own naming practice and programs, carried out in accordance with CPCGN guidelines. In British Columbia, for example, the Geographical names office of the Ministry of Environment Lands and Parks makes the final decision on which names are approved as official geographical names.

The Geographical Names section of the Canada Centre for Mapping is charged with maintaining the Canadian Geographical Names Data Base, which reflects the decisions made by the CPCGN and provincial naming bodies. The core of the CGA Ed 2 will be an inventory of populated places, with some significant physical feature labels included. Out of the some 1/2 million geographical names in Canada, only a very small number can be adequately portrayed in an atlas of this scope. There are currently 22000 names of populated places in the atlas along with some 7500 physical feature labels. *The Canada Gazetteer Atlas* is soundly based on the research and data collection efforts of a number of professional bodies with the secretariat of the Geographical Names section of NAIS being responsible for the integrity of data within the atlas.

More recently, the Canadian Geographical Names Data Base has been made available in digital form. This record consists of some one-half million names of populated places and geographical features. Current development of on-line services using the internet has great potential for future data base products.

Reviews of *The Canada Gazetteer Atlas* after the release of the first edition were very favourable, noting that the material was presented in a readable format. Some reviewers found fault with the fact that only twenty-two thousand or twenty percent of the place names of Canada representing populated places were shown in *The Canada Gazetteer Atlas*. The relatively small scale of many of the maps was undoubtedly a limiting factor here with the largest scale of 1:250 000 being reserved for the urban areas of Montreal and Ottawa, while other populated parts of the country were covered at 1:500 000 and less settled areas were relegated to coverage at scales of 1:1 million, 1:2 million or 1:4 million.

More significant criticism related to the lack of place name locations within incorporated places where only the name of the incorporated place is shown. As a result, considerable toponymic information on locality names within the incorporated place is withheld. Restructuring of municipal boundaries in Ontario has resulted in the creation of large municipalities incorporating many settlements with names of historical significance. The decision was made to not show these place names in the first edition of the atlas. As a result, the real toponymic structure of the area was masked by a more recent, and in some ways more artificial, purely administrative place name which applied only to the larger incorporated area. With the same trend toward reorganization and amalgamation of municipal governments continuing, particularly in Atlantic Canada, to pursue the decision made by

the editors of the first edition would have led to the loss of significant information. This shortcoming will be remedied somewhat in the next edition, although it would be prohibitive to locate all local place names within incorporated areas.

Another major issue for the editorial team concerns the nature of data collection for the 1991 census, which has resulted in a number of populated areas within larger incorporated units not having separately recorded population figures. For example, although Manotick, Ontario had a recorded population in 1976 and 1981, the 1991 census provides only an aggregate population for the township in which Manotick is located, with Manotick itself having no separately recorded population. The editorial team is still attempting to devise a suitable strategy for dealing with these problems, perhaps by including a unique symbol to designate populated places with no available figures. Experience with the first edition of the atlas indicates that initial matching of census names and approved geographical names was only about 50% successful with additional research required to reconcile the remainder.

The index forms a substantial part of *The Canada Gazetteer Atlas*, and as such, will be completely updated. Special attention is given to accurate portrayal of French language characters and two special characters used in aboriginal language place names. Significant renaming of place names has occurred in northern Canada in the intervening fifteen years since the publication of the first edition of the atlas, demanding special attention.

The current proposal for the second edition of *The Canada Gazetteer Atlas* of Canada is to remain in analog or paper print form, for reasons of economy. Most of the work of updating will be confined to revising the population information to reflect the information collected in the 1991 Census of Canada. The first edition of *The Canada Gazetteer Atlas* was based on data from the 1976 Census of Canada. While the second edition of the atlas will be based on population figures from the 1991 census, many changes have been made to the data set to reflect amalgamation and incorporation that have occurred since 1991. Changes will continue to be made until a cut-off date is decided, when the production work has reached a point where it is no longer feasible to incorporate such changes.

In the interest of correcting some of the shortcomings of the first edition of the CGA, the federal department of Natural Resources Canada, National Atlas Information Service, sponsored a meeting in Ottawa in April 1994 in order to discuss some of the concerns of users and

potential solutions to some of the problems encountered with edition 1. Several individuals representing one of the most significant user groups, namely libraries, were present along with researchers from NAIS who have had an active role in the collection of information for the second edition

Feedback was received from users who felt that more detailed road information should be shown. The atlas shows only the Trans-Canada Highway, with other selected roads, mainly provincial and territorial highways. Some settlements appear to have no road connection, when they do in fact. It can be argued however that *The Canada Gazetteer Atlas* has no mandate to provide road information beyond that which is necessary to make sense of the system or hierarchy of settled places.

At the same time, those present at the meeting noted the usefulness of the atlas as a reference source, often a first choice for many place name researchers, so much so that the National Library felt *The Canada Gazetteer Atlas* to be its most intensively used atlas as a first reference source.

Those in attendance were universally agreed that the 2nd edition of the atlas should be as comprehensive as possible with respect to place names for population places, including the incorporation of place names which are unapproved and unincorporated. The addition of administrative units, including counties in Ontario and the Maritime Provinces, regional districts in BC, MRCs in Quebec and rural municipalities in Manitoba and Saskatchewan was deemed worthy of inclusion. Since these administrative units appear as components of the 1991 census, and often coincide with census subdivisions, their inclusion in the second edition of the atlas would seem most appropriate.

Other issues brought forward at the meeting may not be addressed to the complete satisfaction of all users, owing to the need to keep costs in line. The logistical problems associated with repaginating the atlas to achieve a more natural or logical order preclude doing anything about this problem, other than to label adjoining sheets. This should assist the user in more effectively

navigating through the atlas.

In order to reduce the extensive modifications to type which would be needed to label administrative units and depict the boundaries, it may be necessary to prepare a series of separate reference maps of each province/territory showing these administration divisions.

New pages will be created in order to depict some urban areas at larger scales. These new pages will be prepared in a digital environment, using Intergraph hardware and associated software, including Map Finisher, which will result in final printed map material with the high quality graphics standards attained by the first edition of *The Canada Gazetteer Atlas*.

Some other new or expanded features being considered include a map showing the ecumene of Canada (possibly incorporated with the index map at the front of the atlas), more complete coverage of provincial parks, and a listing of relevant geographical facts and figures which would provide users with additional background information relevant to understanding the nature of settlement in Canada.

The second edition of *The Canada Gazetteer Atlas* will retail for C\$95.00, with 12000 copies being printed in English. No arrangement has yet been made for the provision of a French language edition, although, the French language version of the first edition sold approximately 3000 copies. Libraries will obviously form a major part of the market for the second edition of *The Canada Gazetteer Atlas*, with approximately 7000 libraries in Canada according to the current Directory of Libraries in Canada, not including elementary and secondary schools. There will also be a certain number of sales to private individuals as well as some sales outside of Canada.

The preparation of a second edition of *The Canada Gazetteer Atlas* represents a significant contribution to the understanding of Canada and its population. It is expected that the second edition will find a useful role in the nation's libraries just as did the first edition.

ACMLA BUSINESS

PRESIDENT'S MESSAGE

The ACMLA Board gathered in Ottawa on November 18, 1995 for its mid-year meeting. The lengthy agenda kept us busy for the whole day. Among the decisions was to prepare notices of motions for the members for the annual general meeting next June on quorum for that meeting and on student members. See notice on the following page.

We learned that digital boundary files from Statistics Canada are now available to all CARL members, and that other files will be obtained under the Data Liberation Initiative. Grace Welch, First Vice President, and James Boxall, Second Vice President, met with representatives of Natural Resources Canada about obtaining digital cartographic data from them. It appears that we may get some sample data sets initially, while eventually a system of access for all the data sets may be developed.

There was discussion regarding the sites for the 1997 and 1999 meetings. I am happy to report that in mid-December Andrew Hubbertz agreed to host the 1997 meeting at the University of Saskatchewan in Saskatoon. Dates and other details are yet to be decided. Participants on the conference organizing committee will be most welcome. Please contact me or Andrew if you are interested. We think it will be a great venue!

With the winning of the bid for the 1999 International Cartographic Association meeting in Ottawa, we plan to have the 1999 ACMLA meeting in conjunction with it. The dates are about August 14-21, 1999. Grace Welch will be taking the lead on planning for this conference for the time being. Those interested in volunteering to work on

our meeting and the ICA '99 conference should contact me or Grace. There's lots of work to be done!

We have a Review Editor to follow Carol Marley when she completes her stint in this position, Geoffrey Brown of the Dalhousie University Map Library. Welcome Geoffrey! We heartily thank Carol for her contributions. We are still looking for a *Bulletin* Editor to take over when Colleen Beard finishes her term. These contributions of time and effort to the betterment of the association are much appreciated. Many thanks to both of them!

The anticipated program for the Halifax meeting was reviewed. It is also listed separately. One of the highlights may be an advanced ArcView workshop building on the ones held in 1995 in Montreal and Edmonton. GISIG is also going to be involved in this activity.

Grace Welch attended a meeting of the AACCC-CM (Anglo American Cataloguing Committee - Cartographic Materials) just prior to the Board meeting. This was held in Santa Barbara, Calif., and a revised version is expected in the not too distant future. The major task is adding rules relating to cataloguing geomatic data.

No one has so far stepped forward to volunteer to chair the Awards Committee to date. So, I will continue on for this year. I prepared a list of recipients of the Honours and Papers Awards that appears elsewhere in the *Bulletin*. Now, we just need nominees!

Alberta Auringer Wood
President, ACMLA

NOTICE OF MOTIONS December 19, 1995

These two motions will be brought to the Annual General Meeting in June in Halifax. They have the approval of the Board that is required before being submitted to the membership for consideration. If a two-thirds majority of the full members present vote in favour of one or both, then these changes to our bylaws would go to the Minister of Consumer and Corporate Affairs for consent, after which it or they would become effective.

1) Student Membership — Our new membership brochure has a category for student membership, but our association has never officially approved this category. If we are going to continue to offer this membership, perhaps it is the time to carry out the necessary changes to the bylaws to make it legitimate. We are not currently overwhelmed with student members, but having the category may attract some.

MOTION: Change Bylaw 1, Sect. 4.2 and 4.3 as follows:

New Bylaw 1, Sect. 4.2.3 Student Members - Individuals who are full or part-time students in a program of study that would qualify them to work in a map library, with certification of student status by the student and a faculty member.

Renumber the rest of Bylaw 1, Sect. 4.2.

Revise Bylaw 1, Sect. 4.3.2 to add after "Associate", the words "and Student", to read: Associate and Student members shall possess the following rights and privileges:-

- a) the right to serve on the committees of the Association except in the capacity of chairman of the committee;
- b) the right to receive the official journal of the Association without charge;
- c) such other benefits and services as the Association may establish.

2) Quorum — In order to make it possible to start our annual general meetings in a more timely manner, the Board recommends changing our Bylaw 1, Section 10.8, such that a quorum would be 25 members or 25% of the voting membership. Currently, it is 50 members or 33% of the voting membership. The exact wording, old crossed out, new in bold, is as follows:

MOTION: Change the bylaw as follows:

Bylaw 1. Sect. 10.8

At any meeting of members of the association, a quorum shall be constituted when ~~fifty~~ **twenty-five** members in good standing and entitled to vote or ~~thirty-three~~ **twenty-five** per cent of the voting membership, whichever is the lesser, are present in person at such meeting. If, thirty minutes after the time appointed for the holding of any meeting of members, a quorum not be present, the meeting shall stand adjourned for one hour to the same place on the same day and if, thirty minutes after convening of such meeting, a quorum not be present, those full members in good standing who are present in person and entitled to vote shall be deemed to be a quorum and may transact all business which a full quorum might have done.

1996 ACMLA ANNUAL CONFERENCE

June 2 - June 8

Halifax, Nova Scotia

Hosted by the Dalhousie University Map Collection

conference homepage <http://is.dal.ca/~gsbrown/acmla96.html>

ACMLA CONFERENCE '96 SCHEDULE (Tentative)

Sunday, June 2

- Executive Board Meeting 1:00 - 5:00

Monday, June 3

- GIS Literacy Project Training Session 9:00 - 5:00
- Reception 5:30 -

Tuesday, June 4

- GIS Literacy Project Training Session 9:00 - 5:00
- Vendors Reception 5:30 -

Wednesday, June 5

- Electronic Charts and New Technologies in Bathymetric Mapping (tentative joint session with Canadian Hydrographic Service Conference) 9:00 - 12:00
- Presentation by David Cobb (Harvard) and Mary Larsgaard (UC - Santa Barbara) 1:30 - 3:00
 - Issues facing the Canadian Map Collection - Copyright, technology, finances, and organizational change (i.e. What's the Future all about ??) 3:30 - 5:30

Thursday, June 6

- Report from National Archives, and developments related to Geomatics 9:00 - 10:00
- Panel discussion: joint session with Canadian Library Association, issues and trends regarding GIS in libraries, with panelists Elizabeth Hamilton (University of New Brunswick), Yves Tessier (Laval University) and Wendy Watkins (Carleton University) 10:45 - 12:15
- Policies, Standards, Cataloguing and Geomatics : Workshop for ACMLA organized by the Bibliographic Control Committee 1:45 - 5:30

Friday, June 7

- Annual General Meeting 9:00 - 12:00
- Tours: Nova Scotia Department of Natural Resources and others TBA
 - Banquet (Dalhousie University Faculty Club)

Saturday, June 8

- Field trip to McNabs Island!!

Conference contacts: James Boxall (jcboxall@is.dal.ca)
or Geoff Brown (gsbrown@is.dal.ca)

ATTENTION ALL ACMLA MEMBERS!

TRAVEL FUNDING FROM SSHRC GRANT COMMITTEE

It is the intention of this committee to ensure that all ACMLA members have equal opportunity to the funding available.

In order to do this all eligible members **MUST** submit a request for funding ninety days prior to the date of the annual conference - March 2, 1996.

The committee will consider all requests for funding and will indicate to the applicants the amount available per individual sixty days prior to the annual conference. PLEASE NOTE that the committee will not advance funding. The intention is to permit members to take into account SSHRC funding when submitting applications for travel authorization from their respective institutions.

All other sections of the *ACMLA Policy on Travel Funding* relating to SSHRC funding will remain in effect and will be used by the committee to determine the amount of the grant.

All receipts must be submitted no later than forty five days after the annual conference. Disbursements will be made shortly thereafter.

Requests received for SSHRC funding after the annual conference may be considered if all available funding has not been disbursed.

Submit requests to: Tom Nagy, National Archives of Canada, 395 Wellington St., Ottawa, ON K1A 0N3

AWARDS RECIPIENTS

ACMLA Honours Awards

- 1972 Serge A. Sauer
- 1982 Serge A. Sauer
- 1985 Norman L. Nicholson
Louis M. Sebert
Serge A. Sauer
- 1986 Theodore E. Layng
Betty M. Kidd
Kate Donkin
- 1987 Joan Winearls
- 1988 No Award
- 1989 Aileen Desbarats
Barbara Farrell
- 1990 Maureen Wilson

- 1991 Hugo L. P. Stibbe
Yves Tessier
- 1992 Frances Woodward
- 1993 Lorraine Dubreuil
- 1994 No Award

ACMLA Paper Awards

- 1986 Carol Marley in no. 55
- 1987-1990 No Award
- 1991 Colleen Beard in no. 76
- 1992 No Award
- 1993 Cathy Moulder in no. 85
- 1994 No Award

A few words about the history of the Honours Award and the Papers Award may be in order in the presentation of the list of recipients. The first award was presented to Serge Sauer to honour him for his Folio Plans of University Map Libraries, while the second was presented to him in recognition of his long-standing contributions to the association and achievements as Chair of the Historical Maps Committee of the association. He was presented with a beautifully framed map of Upper Canada, 1846, by Smyth and Faden at the 1982 conference banquet. It coincided with the publication of facsimile map number 100. In 1983 and 1984, new guidelines were prepared to formalize the Honours Award and a special certificate to commemorate it was prepared. In recognition of Serge's past contributions, he was among those honoured first of all in this way, too, by being presented one of the certificates. Since that time, there has been an item in the Bulletin regarding each recipient. The guidelines were published most recently in Bulletin no. 93. The Papers Award was conceived along with the formalization of the Honours Award, and the guidelines for it were also published at the same time. It was felt that having such an award would encourage our members in making contributions to our Bulletin. While there has been a notice in the Bulletin shortly after each award has been presented, no complete listing of the recipients to date had been produced. This will remedy that situation. Perhaps, it will also inspire someone to nominate a worthy person for the Honours Award or produce a really stellar paper to earn the Papers Award!

Prepared by Alberta Auringer Wood, Chair, Awards Committee, December 7, 1995

CALL FOR NOMINATIONS

December 15, 1995

The Nominations Committee encourages you as a full member of the Association to use your membership privilege and nominate other full members to serve on the Board of Directors (under Section 4.2.1 of the Association's By-Law No. 1). This By-Law Section specifies that nominations must be sponsored by no fewer than two (2) full members of the Association. A consent by the candidate to stand for election must accompany the nomination.

Positions: President
 1st Vice President
 2nd Vice President
 Secretary
 Treasurer

A nomination form is included. If you wish to nominate more than one candidate, you may use a photocopy of the enclosed nomination form. Please note that members of the Nominations Committee are not eligible for candidacy.

Forms should be returned to the Chair of the Nominations Committee no later than March 1, 1996. They should be sent to:

Cathy Moulder
 Lloyd Reeds Map Collection,
 Mills Memorial Library
 McMaster University
 Hamilton, Ontario L8S 4L6

At least seven (7) weeks prior to the annual meeting in Halifax, you will receive the official ballots for the 1996 elections. The results of the elections will be announced at the Annual General Meeting. Members who are unable to attend the meeting will be notified of the results through the *Bulletin*.

Yours sincerely,

Nominations Committee
 Cathy Moulder (Chair) (905) 525-9140, ext. 24745 /
 moulder@mcmaster.ca
 Tim Ross

Le 15 Decembre 1995

Nous vous invitons instamment à vous prévaloir de vos droits et de nous faire connaître toute autre nomination. Selon l'article 4.2.1 de la constitution de l'association, une nomination doit être appuyée par au moins 2 membres réguliers de l'association et porter l'acceptation écrite du candidat. Veuillez utiliser le formulaire ci-joint, un seul par nomination. Vous pouvez photocopier le formulaire pour faire plus d'une nomination. Les membres du comité ne sont pas éligibles.

Postes: Président
 1er Vice-président
 2e Vice-président
 Secrétaire
 Trésorier

Les avis de mise en candidature doivent parvenir au Président du comité des mises en candidature au plus tard le 1 mars 1996 à l'adresse suivante:

Cathy Moulder
 Lloyd Reeds Map Collection,
 Mills Memorial Library
 McMaster University
 Hamilton, Ontario L8S 4L6

Plus tard vous recevrez la liste officielle des candidates en un bulletin de vote que vous retournerez au comité après avoir voté. Les résultats des élections seront dévoilés au cours du congrès de l'association à Halifax. Ceux qui ne peuvent assister au congrès seront avisés des résultats par le Bulletin.

Veuillez agréer, Madame, Monsieur, l'expression de nos sentiments distingués.

Le Comité des mises en candidature
 Cathy Moulder (Chair) (905) 525-9140, ext. 24745 /
 moulder@mcmaster.ca
 Tim Ross

Summary of the Final Report of the Information Advisory Council

Carol Marley, ACMLA Copyright Committee

After 15 months of "careful deliberation and spirited debate," the final report of the Information Highway Advisory Council, *Connection Community Content: The Challenge of the Information Highway*, has been released. ACMLA members have already been notified of its existence through Carta. Copies of the report are available via FTP from: info.ic.gc.ca/pub/info-highway, or via Gopher from: [info.ic.gc.ca port 70/Information Highway Advisory Council](http://info.ic.gc.ca:port70/Information%20Highway%20Advisory%20Council), or on the WWW at: <http://info.ic.gc.ca/info-highway/ih.html>. For paper copies contact: Distributions Services, 208D, East Tower, Industry Canada, 235 Queen Street, Ottawa, Ont. K1A 0H5 Tel:613/947-7466, Fax:613/954-6436.

The Government of Canada set out 15 issues on which it sought the council's advice. The Council's deliberations were guided by 3 objectives:

- "creating jobs through innovation and investment in Canada
- reinforcing Canadian sovereignty and cultural identity
- ensuring universal access at reasonable cost"

and five principles:

- an interconnected and interoperable network of networks
- collaborative public and private sector development
- competition in facilities, products and services
- privacy, protection and network security
- lifelong learning as a key design element of Canada's Information Highway."

The report consists of 8 chapters which cover: The Information Highway: Transition to a Knowledge-Based Society, Competitiveness and Job Creation: The New Marketplace, Canadian Content and Culture: A Strong Canadian Presence, Access and Social Impacts: The Human Dimensions, Learning and Training: The Knowledge Society, Research and Development, Applications and Market Development: New Opportunities, Implementing Our Vision, and finally, The Council's Recommendations.

Of particular interest to the Copyright Committee, not

unnaturally, are the Copyright and Intellectual Property Recommendations. Equally important to members of our association are the recommendations on Universal Access. Each in turn will be addressed.

The report submitted by the Council's Copyright Subcommittee represents one of the first attempts to comprehensively examine copyright law and practice in the context of the information highway in Canada. Claude Brunet, long associated with proposed copyright legislation in Canada, chaired the subcommittee. Other members were: Jeff Carruthers, Globe Information Services, Ottawa, Gail Dykstra, Director Publishing and Government Relations, Micromedia, Toronto, Michael Eisen, Partner, Morris/Rose, Ledgett, Toronto, Peter Grant, Partner, McCarthy, Tetrault, Toronto, Andrea Rush, Partner, Gowling Strathy and Henderson, Toronto. It is interesting to note how many lawyers were represented on this subcommittee. Brunet himself is a partner in Martineau, Walker, Montreal.

The Subcommittee made 16 recommendations, the first of which is to maintain a "balance between the rights of creators to benefit from their works and the needs of users (including the education and learning community) to access and use those works on responsible terms." The Subcommittee thinks that the categories of works currently contained in the Copyright Act need not be amended or eliminated in a digital environment.

One issue that has proven to be particularly complex is browsing. The Subcommittee concluded that "the act of browsing a work in a digital environment should be considered an act of reproduction". The group further recommended that the Copyright Act be amended to clarify what constitutes 'browsing' and what works are 'publicly available'.

As to fair dealing, it is recommended that the concept should be clarified. "Specific criteria and guidelines as to the scope of the fair dealing exception should be provided in the Copyright Act, including explicit clarification that fair dealing applies to the making of an electronic copy of a work and to the storage and transmission of that copy by electronic means."

Information professionals will be happy to note that although the Subcommittee recommends that Crown Copyright be retained, it also recommends that "The Crown in Right of Canada should, as a rule, place federal government information and data in the public domain...Where Crown copyright is asserted for generating revenue, licensing should be based on the principles of nonexclusivity and the recovery of no more than the marginal costs incurred in the reproduction of the information or data." Further to this point, the federal government should create an inventory of Crown works covered by intellectual property that is of interest to the learning community and information production sector. Also the federal government should negotiate nonexclusive licenses for their use on the basis of cost recovery for digitization, processing and distribution and invite provincial and territorial governments to provide similar services.

With respect to bulletin boards, no operator should be liable for copyright infringement if they did not have knowledge that the material infringed copyright and they acted reasonably to limit potential uses.

Universal access is a concept dear to the hearts of many of us in Canada. The first section in the Recommendations for Universal Access stipulates that, "Under the leadership of Industry Canada and in conjunction with other government arising opportunities and tools in order to succeed in such an economy."

One thing seems certain, the Information Highway as outlined in this report, will be a different environment than what it is today. The report is highly recommended reading. If we want an information highway that serves the needs of all Canadians, we had better get involved, and what better way to start than with being well-informed.

[Editor's note: Since the following report has never been printed, it is included here for additional copyright information]

REPORT OF THE COPYRIGHT COMMITTEE 1991-92

Carol Marley and Allan Youster

Copyright is a complex, and at times, confusing issue. The Committee has over the years submitted briefs to the federal government and prepared reports for our members on new developments. Following is a brief bibliography highlighting key issues of interest to the Canadian map community.

Sebert, Lou, "Association des Cartotheques et Archives Cartographies du Canada: Memoire soumis au Comite legislatif charge de l'etude du projet de Loi C-60." *ACML Bulletin*, 65, Dec. 1987, 20.

Marley, Carol, "Copyright in Canada" *ACML Bulletin*, 65, Dec. 1989, 19.

—————, "Copyright Committee Report" *ACML Bulletin*, 66, March 1988, 24.

—————, "The Canadian Copyright Legislation: Its Impact on Map Producers and Users" *ACML Bulletin*, 69, December 1988, 6.

Langelier, Gilles, "Rapport du Comite sur le Droit d'Auteur" *ACML Bulletin*, 70, March 1989, 37.

—————, "Copyright Committee" *ACMLA Bulletin*, 76, September 1990, 31.

Marley, Carol, "Report of the Copyright Committee" *ACMLA Bulletin*, 80, September 1991, 33-34.

Please note that para. 3 should be rephrased to read, "ACMLA's recommendation that maps be treated as literary, rather than artistic works, was not incorporated into the legislation. Maps were, however, exempted from the regulations relating to artists' exhibition rights."

To refresh your memories of recent events, Bill C 60, the first section of amendments to the Copyright Act, was passed in 1988. This is a partial amendment, not a complete replacement of the 1924 Canada Copyright Act. A 'work' is more clearly defined. For example, a 'book' includes every volume, part or division of a volume, sheet of letterpress, sheet of music, map, chart, or plan separately published (C-42 Section 2)

Maps, charts and plans have been defined as artistic works, and as such, have been exempted from the exhibition restrictions (C-42, Section 2).

The copyright holder has the right to control his/her own work, or any substantial portion thereof (this is not defined more precisely).

Among the provisions of the old law still standing are a number of exceptions to copyright. A person can deal fairly with any work for the purposes of private study, research, criticism, review or newspaper summary. A lecturer can use any reasonable extract from a work (without a definition of what is reasonable). Short passages from published works can be published in a non-copyrighted collection for schools, with some qualifications.

The new law allows for the formation of collectives to represent copyright holders and negotiate blanket licenses to allow institutions to copy for a fee.

Libraries and archives find themselves in a bind. Can they avail themselves of the defense of "fair dealing" if they make a photocopy of a work, eg. a periodical article for interlibrary loan? Or is "fair dealing" a defense that is available only to a researcher? How does "fair dealing" relate to photocopying? What is a substantial proportion of a work? No one knows for sure. All we do know is that no academic library in Canada has been convicted of violating copyright with respect to photocopying, nor has even been brought to trial.

The Canadian Library Association, Canadian Association of University Teachers and many other organizations are still lobbying for a redefinition of exceptions to the law, as it stands. They want researchers and library staff to be allowed to make single copies of periodical articles and to be allowed to copy out-of-print material for conservation or replacement purposes.

At this point in time, the federal government does not appear to be moving in this, or any, direction. There is a real danger that the second section of regulations may never be enacted. Associations like ACMLA should continue to press for a clarification of exceptions. The Committee is seeking your approval to draft a letter on the subject as soon as possible.

It would be even more effective if universities and library, archival and faculty associations would present a united front to get the legislation moving. ACMLA may wish to take the initiative in this direction, and to that end, we recommend to the members that ACMLA begin the process of forming a lobby group to push the federal government towards resolving the second, and essential part of copyright legislation, the exceptions.

ACMLA Publications

Canadian Fire Insurance Plans in Ontario Collections, 1876 - 1973. Marcel Fortin, Lorraine Dubreuil, Cheryl Woods. Ottawa, ACMLA, 1995. (Occasional Paper No.5) ISBN 0-9695062-6-0 \$22

Directory of Canadian Map Collection = Répertoire des collections canadiennes de cartes. Tim Ross. Ottawa, ACMLA=ACACC, 1992. 6th edition=6e édition. ISSN 0070-5217. \$18.00=18\$.

Guide for a Small Map Collection. Barbara Farrell, Aileen Desbarats. Ottawa, ACMLA, 1984. 2nd edition. ISBN 0-9690682-39 \$8

Canada's Militia and Defence Maps, 1905-1931. Lorraine Dubreuil. Ottawa, ACMLA, 1992. (Occasional Paper No.4.) ISBN 0-9695062-3-6 \$10

Standard Topographical Maps of Canada, 1904-1948. Lorraine Dubreuil. Ottawa, ACMLA, 1991. (Occasional Paper No.3.) ISBN 0-9695062-0-1 \$10

Sectional Maps of Western Canada, 1871-1955: an early Canadian topographic map series. Lorraine Dubreuil. Ottawa, ACMLA, 1989. (Occasional Paper No. 2.) ISBN 0-9690682-9-8 \$15

Early Canadian Topographic Map Series: the Geological Survey of Canada, 1842-1949. Lorraine Dubreuil. Ottawa, ACMLA, 1988. (Occasional Paper No.1.) ISBN 0-9690682-8-X \$15

Explorations in the History of Canadian Mapping: a collection of essays. Edited by Barbara Farrell and Aileen Desbarats. Ottawa, ACMLA, 1988. ISBN 0-9690682-6-3 (paperback/ broché) \$25

Back issues of the *Bulletin* are also available at \$1.00 per copy

Les anciens numéros du *Bulletin* sont disponible à 1\$ l'exemplaire.

ANNUAL REPORT OF THE
VISUAL AND SOUND ARCHIVES DIVISION
NATIONAL ARCHIVES OF CANADA

to the 1995 Annual Conference of the
Association of Canadian Map Libraries and Archives

Introduction

The annual report of activities in the National Archives relating to cartographic records—whether the responsible division has been called the National Map Collection (NMC), the Cartographic and Architectural Archives Division (CAAD), the Cartographic and Audio-Visual Archives Division (CAVA) or the Visual and Sound Archives Division (VSA)—has been a tradition at the ACMLA annual conferences for more than twenty years. In 1995, since the conference was being held jointly with the Western Association of Map Libraries, some background information was provided for our American colleagues.

The National Archives of Canada is the oldest federal cultural institution in Canada; the department was founded in 1872, when our nation was only five years old. Some of the earliest records acquired by the then Dominion Archives—later Public Archives of Canada—were cartographic and architectural records. In 1995, these holdings number well in excess of 2,000,000 items. Throughout its history, the Canadian archives has had a dual responsibility—for the records of federal government departments and agencies, including map production, and for the historical records in all media from the private sector. As well, since a National Library was not established in Canada until the 1950's, the current private published map production has also traditionally been acquired by the National Archives of Canada. This broad mandate equates to the combined roles of the Geography and Map Division, Library of Congress and the Cartographic and Architectural Branch of the National Archives and Records Administration in the United States.

Currently the acquisition of, the intellectual control of and the specialized reference to the cartographic and geomatic records is the mandated responsibility of the Visual and Sound Archives Division. The division also has similar responsibilities for the other non-textual holdings of the department—that is, architectural records,

audio-visual records, documentary art records, photographic records and philatelic records. However, this report will deal primarily with cartography and geomatics. Other functions normally associated with map libraries and cartographic archives are mandated to other divisions/branches within the National Archives—that is, physical control to the Custody of Holdings Division, Archives Preservation Branch and general reference to the Researcher Services Division, Client Services and Communications Branch.

Acquisition

The Cartographic and Architectural Sector and the geomatics component of the Electronic Records Sector continued to acquire, from both public and private sectors, numerous high-quality records in the last year. Activity in the public or government sector is, of course, most pronounced, since map-making in Canada has been largely government-based throughout the nation's history.

Electronic records acquisitions included several hundred additional Gbs of SAR imagery from the Ice Centre of Environment Canada; the Integrated Resources Management Information System (IRMIS) of the Mineral Strategy Branch of Natural Resources, for which it was necessary to negotiate software (in FOCUS) licensing; and a small (60 Mbs.) acquisition on *Atlas GIS* from the Treasury Board Official Languages and Employment Equity Branch. Submissions and pilot work continued with Canadian Hydrographic Service's Electronic Navigational Charts, the Solicitor General and Central Mortgage and Housing Corporation.

In addition to continuing receipt of current federal government map production, the division, as a participant in the department's Multi-Year Disposition Plan (MYDP), acquired records, either as scheduled or as planned direct transfers, from Public Works, National Defence, CN, Natural Resources, Privy Council, Fisheries and Oceans, etc. As the government's Program

Review reductions are implemented, the National Archives will be on the receiving end of an unprecedented volume of records, since the National Archives must approve all records disposition in the federal government. This is at the same time as the National Archives must also reduce the number of staff working in acquisition activities. For VSA, the Program Review reduction in government acquisition staff is 1.5 full-time equivalents (FTEs) and in private acquisition, 3 FTEs.

In the past year, we appreciated the cooperation of our ACMLA colleagues in assisting us to complete identified gaps in the one inch to one mile series.

In private sector acquisition, highlights included:

- a) Sketchbooks of Midshipman George Back, a member of the ill-fated overland Franklin expedition from 1819 to 1822. These sketchbooks, which contain 67 watercolours and 85 maps, were acquired in partnership with Hoechst-Celanese Canada, a private sector corporation and the Canadian Cultural Property Export Review Board (CCPERB).
- b) Globe acquisitions included an 1854 terrestrial globe published in Canada; Ellen Fritz's "Miniature Mechanical Globe", c. 1880—Ms. Fritz was a native of Saint John, New Brunswick; and a globe presented to former Prime Minister Brian Mulroney by the President of France.
- c) Records of the *Historical Atlas of Canada* began to be received in the past year.

Acquisition agreements between the National Archives and the National Library are in the process of being negotiated and updated. That for cartographic materials is being updated. (Note: Completed and approved by the National Archivist and the National Librarian after the conference, the agreement includes a new clause: "The National Archivist may request the National Librarian to invoke the exception clause in the National Library Legal Deposit Regulations to acquire separately published maps of national significance if necessary.")

Control/Description

Control and description are the most time-consuming activities in the Visual and Sound Archives. Control activities are taking place in a period of great change, as integrated descriptive standards and procedures are developed and introduced and as the department moves towards an integrated Archival Holdings System (AHS). At the same time, current practices and a multitude of systems must be maintained to some extent until feasible conversion times are determined.

The *Rules of Archival Description* (RAD), coordinated by the Bureau of Canadian Archivists, will be completed within the next year. Chapter 5 deals with "Cartographic Records", and Chapter 6, with "Architectural and Technical Drawings"—both are as yet unpublished. The National Archives has formally committed to the use of RAD, where applicable, and training of staff is underway. There will be a requirement for the continuation of use or development of other standards for specific media. For example, the 1994 CGSB CLA publication, *Geomatic Data Sets Cataloguing Rules*, in which VSA staff played key roles, will continue to be used. As well, divisional staff are currently developing RAD-like rules for philatelic records. This commitment has necessitated other departmental work, including development of standards for arrangement, a common accessioning procedure, criteria for the creation of multiple media fonds, the beginnings of an interpretation manual for RAD, and an investigation of a common authorities system.

Some years ago, the National Archives determined the content requirements of an Archival Holdings System (AHS). The first component implemented was a container circulation system, known as TRAKKER. More recently, the department decided to use GENCAT as an interim system—the NA application will be known as MIKAN—and in the future, will use this system as a "front-end system" into AMICUS, the major bibliographical system being developed by the National Library.

A pilot project already underway using RAD and MIKAN will test the rules and the system with records for all media and for multiple media and at all levels of arrangement, accessioning and description by the end of the current fiscal year.

As well as preparing for future description activities, we also continued to accession and describe cartographic and geomatic records and to undertake special control projects when resources permit or need dictates. Recently these have included the continuation of the description of the 8000 Chas E. Goad fire insurance plans on loan from the British Library for microfilming in 105 mm format, the conversion to ISM entries of the manual series index cards for NTS sheets and CHS hydrographic charts (necessitated by the centralization of finding aids in another building), and several projects to ensure availability of records for native land claims research, funded by a special allotment to the National Archives. The latter money allowed VSA to continue the description of the large Grand Trunk Pacific Railway fonds (CN) being held on our behalf by the Manitoba Provincial Archives Records Centre in Winnipeg, to upgrade and automate descriptions of Indian land survey maps, and to scan

Volumes 1 and 2 of *Maps of Indian Reserves and Settlements in the National Map Collection* and then reformat and add information and records for an eventual CD-ROM product.

The last control project to be mentioned—which fits none of the criteria noted earlier—was accomplished by two retired GSC geologists who volunteered to identify and prepare, in cooperation with VSA staff, an itemized listing of copper plates from the Geological Survey of Canada.

Carto-Canadians

In 1995, the third microfiche edition of *Carto-Canadians* was published. Since VSA staff and the ACMLA Bibliographic Control Committee have been sharing concerns on the future of this project—the need to expand to include other institutions' records, the need to move to other technologies, etc.—the desire of the National Library to produce a multi-media *Canadians* CD-ROM in partnership with other federal departments provided an opportunity to propose the possible inclusion of *Carto-Canadians* in this initiative. Following consultation with the Chair, BCC and with management in the two departments, it can be officially announced that there will be "cooperation between our two departments in the areas of including Film-Video *Canadians* and *Carto Canadian* records in the proposed new *Canadians* on CD-ROM product." (The above wording is from a fax received from the National Library just prior to this report at the conference.) Furthermore, the possibility of pursuing "Cataloguing in Publication" data for cartographic materials was discussed with the same National Library officials. The Bibliographic Control Committee will be meeting with National Library officials and VSA staff, in the near future to discuss the future of *Carto-Canadians*.

Other

In the past year, there have been a number of physical

moves to allow the consolidation of divisions and branches formed or altered by the 1993 departmental reorganization. The Visual and Sound Archives Division, as of February 1995, is located on the first floor of the West Memorial Building at 344 Wellington Street.

A divisional training initiative for spring 1995 is a one-day course (to be offered on three occasions), prepared for archivists and analysts in other divisions, who in the course of their work may encounter "visual and sound" records in various departments and agencies. The purpose of the course is to train these persons to recognize and understand the value of such records, and to appreciate that archival records may include "products" (e.g., maps produced by Natural Resources).

In international activities, the emphasis in the National Archives in recent years has been on assistance to Eastern Europe. The senior cartographic archivist from the Central State Historical Archives in Lviv, Ukraine recently spent five weeks in the division, and one of our staff is spending a month at another Ukrainian archives to assist in establishing a cartographic program. As well, some Canadian redistribution material—especially atlases—have been provided to the Vernadsky Central State Library in Kiev, Ukraine.

The National Archives World Web Site on Internet should be available within several months. Planning has been underway for some months. (Note: The site may be accessed by using this address—<http://www.archives.ca/>)

Conclusion

The Visual and Sound Archives Division is pleased to continue the tradition of annual reports at the annual conferences of the ACMLA.

CARTO-CANADIANA 3rd Edition
1995
on microfiche

Available from National Archives of Canada
Visual & Sound Archives Division
395 Wellington Street
Ottawa, Ontario

DEPARTMENTS & NEWS

NEW BOOKS AND ATLASES

Bruce Robin

1996 Road Atlas: United States, Canada, Mexico. 1996 ed. Heathrow, Fl.: American Automobile Association, c1996. 145 p. ISBN 1562511785.

Asia & Oceania Today: A reproducible Atlas. 1995 rev. ed. 193 p. World Eagle's Today Series. ISBN 0930141573.

Atlas de France. Volume 2, Population. Dirigé par Roger Brunet et Franck Auriaie; coordination scientifique: Yvan Chauvire et Daniel Noin. Montpellier: RECLUS; Paris: La Documentation française, c1995. 128 p. ISBN 2110033797.

Atlas of Amphibians and Reptiles in Britain. H.R. Arnold. Huntingdon: ITE, 1995. 40 p. ITE Research Publication; no. 10. ISBN 0117018244.

Atlas of Mediterranean Environments in Europe: the Desertification Context. Paola Mairota and John B. Thornes, eds. New York: John Wiley & Sons, c1996. ISBN 0471960926.

Atlas of Sakhalin Region. Part I, Sakhalin Island. [S.l.: s.n], c1994. 116 p. Contact Four One Company Ltd., 523 Hamilton Road, London, Ontario, N5Z 1S3. Email: four.one@icis.on.ca.

Atlas of Sakhalin Region. Part II, Kuril Islands. [S.l.: s.n], c1994. 48 p. Contact Four One Company Ltd., 523 Hamilton Road, London, Ontario, N5Z 1S3. Email: four.one@icis.on.ca.

Atlas of the African Child. Mahesh S. Patel, ed. Nairobi: UNECA; UNICEF, [1995?]. 67 p.

The British Library Companion to Maps and Mapmaking. Rebecca Steffoff. London: The British Library, 1995.

The Cities Below: the Aerial & Street Atlas of America, Version 2.0 [CD-ROM]. San Francisco: Now What Software, c1995. US \$34.95.

The Darker Side of the Renaissance: Literacy, Territoriality, and Colonization. Walter D. Mignolo. Ann Arbor: University of Michigan Press, 1995. 426 p. ISBN 0-472-10327-X. [Good treatment of early modern cartography].

Dimensions of Need: An Atlas of Food and Agriculture. [Food and Agriculture Organization of the United Nations]; Tony Loftas, ed.; Jane Ross, assistant to the ed./principal researcher. Santa Barbara, Calif.: ABC-CLIO, c1995. 127 p. ISBN 0874368537.

Editing Early and Historical Atlases: Papers Given at the Twenty-Ninth Annual Conference on Editorial Problems, University of Toronto, 5-6 November 1993. Joan Winerals, ed. Toronto: University of Toronto Press, 1995. \$32.00.

Environmental GIS: Applications to Industrial Facilities. William J. Douglas. Boca Raton; London: Lewis Publishers, c1995. 128 p. Mapping Sciences series. ISBN 0873719913.

The Historical Atlas of the Earth: A Visual Exploration of the Earth's Physical Past. Roger Osborne and Donald Tarling. London; New York: Viking, 1995. 192 p. [Viking Historical Atlas of the Earth]. ISBN 0670853747.

Maps and Civilization: Cartography in Culture and Society. Norman J.W. Thrower. Chicago: University of Chicago Press, 1995. U.S. \$48.95.

New Mexico Road and Recreation Atlas. [S.l.]: Benchmark, 1995. US \$17.95. ISBN 0-929591-26-7.

Philip's Atlas of the Oceans. Rev. and updated. John Pernetta. London: Philip, 1995. 208 p. ISBN 0540062758.

La Population de la France: atlas. Paris: INSEE; Le Puy-en-Velay: Cartographie et deçcision, 1995. 40 p. ISBN 2110662212.

Rand McNally 1996 Commercial Atlas & Marketing Guide. 127th ed. Chicago: Rand McNally & Co., 1996. 575 p. ISBN 0528816020.

Satellite et surveillance du climat. Atlas de veille climatique: 1986-1994 (Afrique et Atlantique intertropical). ORSTOM [Institut français de recherche scientifique pour le developpement en cooperation] ; MeteÇo France. Paris: Editions ORSTOM, 1994. 91 p. ISBN 2709912384.

South Asia Market Atlas. Dennis Kessler. Hong Kong ; London: Economist Intelligence Unit, c1994. 179 p. ISBN 085058812X.

The Steck-Vaughn Atlas of the World. Austin, Tx.: Raintree Steck-Vaughn, c1995. 64 p. ISBN 0811463893.

Terra Cognita. Studien zur romischen Raumer fassung. Kai Brodersen. New York: Georg Olms, 1995. 354 p. ISBN 3-487-10008-8.

Webster's Concise World Atlas. New York: Barnes & Noble Books, c1995. 192 p. ISBN 1566198247.

West Coast Newfoundland Oil Spill Sensitivity Atlas. J. Dempsey, et al. St John's, Nfld.: Seaborne Information Technologies Ltd., 1995. Environmental Studies Research Funds Report ; no. 127. ISBN 0921652291.

The Wine Atlas of Germany: and Traveller's Guide to the Vineyards. Stuart Pigott. London: Mitchell Beazley, 1995. 232 p. ISBN 1857326253.

World Facts and Maps. [1996 ed.] Chicago: Rand McNally & Co., 1996. 215 p. ISBN 0-528- 83695-1.

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This map is also available in digital form suitable for Geographic Information System (GIS) applications, electronic publishing and customized digital products. Contact Geomatics Canada at e-mail: atlasinfo@nais.ccm.emr.ca or through the Internet's World Wide Web, URL "<http://www-nais.ccm.emr.ca/>"

NEW MAPS

Amy Chan

Afrika, Misereor-Landkarte. Ausg. No. 3, 1994. Scale 1:8,000,000. Obertshausen bei Frankfurt am Main, Germany: Kartographischer Verlag Reinhard Ryborsch, [1994].

Antigua and Barbuda. Scale [ca. 1:650,000]; Lambert conformal conic Proj. [Washington, D.C. : Central Intelligence Agency, 1995] "Base 802393 (547694) 5-95".

Armenien. Scale ca. 1:2,300,000. [Bonn?]: Amt für Militärisches Geowesen, [1994]

Canada, a land of superlatives. Scale [ca. 1:7,200,000]. Ottawa : Dept. Of Natural Resources Canada, c1995.

Canada, permafrost. Scale 1:7,500,000; Lambert conformal conic proj. [Ottawa] : Canada Centre for Mapping, National Atlas Information Service, c1995.

Czechmya. Scale [ca. 1:1,800,000]. [Washington, D.C. : Central Intelligence Agency, 1995] "735708 (R00672) 5-95".

Energy map of the world / produced by the Petroleum Economist in association with Chase ; designed by D.A. Burles. 4th ed. 1995. Scale 1:35,000,000. London : Petroleum Economist, c1995.

France, Lieux de batailles. Scale 1:1,000,000. Paris: Institut GÉographique national : Caisse nationale des monuments historiques et des sites [distributor], c1994.

Germany. Scale 1:1,000,000; Conic proj. London: Bartholomew, c1995. ISBN 0-7028-2467-4.

Glaciotectonic map of North America. Scale 1:6,500,000. Boulder, Colo. : Geological Society of America, 1995.

Heart of the Rockies : above the Rockies through digital eyes. Scale 1:2,847,000. Washington, D.C. : National Geographic Society, Cartographic Division, 1995.

Italy. Scale 1:1,250,000; Lambert conformal conic proj. London : Bartholomew, c1995. ISBN 0-7028-2755-x.

Manitoba, geological highway map / compiled by Lauhn-Jensen, D.M. Scale 1:1,000,000. [Ottawa]: Geological Survey of Canada ; [Winnipeg]: Manitoba Minerals Division, [1994].

Map of physiographic regions. Scale not given. [Washington, D.C.]: United States National park Service, [1995?]

[*Map of Serbia and Montenegro*]. Scale [ca. 1:3,000,000]. [Washington, D.C. : Central Intelligence Agency, 1995]. "7357102 (R00450) 3-95".

Muslim distribution. Scale 1:40,000,000. [Washington, D.C. : Central Intelligence Agency, 1995]. "735021 (R01698), 6-95".

Panama: political. Scale [ca. 1:3,125,000]. [Washington, D.C. : Central Intelligence Agency, 1995]. "802395 (540285) 5-95"

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REVIEWS

Carol Marley

PRIVATIZING GOVERNMENT INFORMATION: THE EFFECTS OF POLICY ON ACCESS TO LANDSAT SATELLITE DATA. Kathleen M. Eisenbeis. Metuchen, NJ: Scarecrow Press, 1995. 355 p. \$42.50 US ISBN 0-8108-2934-7

Kathleen Eisenbeis's book on Landsat data is more than just a work about remotely sensed imagery. It is also more than just a book about access to government information. The information presented is partly the result of a doctoral thesis and it has been designed (or re-designed) to provide an historical overview of the policy developments related to both the privatization and de-privatization of Landsat data. Also, as stated in the author's introduction, this work is meant to "teach policy research by example". The two legislative/policy events that provide the backdrop to this work are the Landsat Remote-Sensing Commercialization Act of 1984 and the Land Remote Sensing Policy Act of 1992. One could be fooled into thinking (as I was when first reading this item) that the story ends there - two Acts, two histories, two rather legalistic items to plod through. Eisenbeis does more than just present these two legislative events in isolation. She goes to great lengths to explain why there developed two different Acts, which are at two different ends of the access spectrum, and she also provides a methodologically sound analysis of the social, economic and research/user impacts of these two events. From the Canadian perspective, this book offers a paradox. It is both difficult to relate to because it deals with events, people, policies, and outcomes in the United States, and yet it is a text that could very well provide members of the map (or imagery) library community in Canada with much ammunition to seek policy solutions for accessing geographic data in and about Canada. This point alone is enough of a reason to acquire this text.

Eisenbeis provides an exceptional and excellent review of the literature in one chapter. This is obviously a carryover from the dissertation, but it is welcome and may prove to be useful for Canadian researchers wishing to follow similar paths. The author also provides a useful description of the study's methodology and questionnaire, not to mention a discussion of the technical aspects of Landsat. The results of the questionnaire are

included, and some may consider this excess material. In fact, almost half of the text seems to be taken up by material related to the dissertation. Upon careful reflection of the data from the questionnaire, and paying close attention to the numerous and very useful footnotes, graphs and charts, one comes to the realization that the user community has been very effective in having the original privatization legislation repealed. Also, Eisenbeis discusses the role(s) played by various library task forces and associations in their attempt to sway the policy process. The success of these actions, as measured by the 1992 Act, gives hope that solutions to Canadian data access issues could be found. Also, and not surprising considering the context of her thesis in Library and Information Science, the book finishes with a thorough bibliography (the part of a book I look at first! and I would suggest using it to gain a better understanding of remotely sensed imagery's place in libraries).

The doctoral thesis the work is based upon won the 1992 Doctoral Award from the Association for Library and Information Science Education. These final points combined, this reviewer can only agree that the author succeeded in "teaching policy research by example". Finally, one quote from the book struck me as having a very clear message for Canadian map librarians and archivists (or simple curator like me), it came from Al Gore (US Vice President) in his book "Earth in Balance" (1992: Houghton Mifflin). Those concerned about the increasing emphasis on digital spatial data should take note:

"Our current approach to information resembles our old agricultural policy. We used to store mountains of excess grain in silos throughout the Midwest and let it rot, while millions around the world died of starvation...Now we have silos of excess data rotting (sometimes literally) while millions hunger for solutions to unprecedented problems "

And people wonder why the US has a policy for a National Spatial Data Infrastructure ?

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NAMING CANADA: STORIES ABOUT PLACE NAMES FROM CANADIAN GEOGRAPHIC. Toronto: University of Toronto Press, 1994. \$55 CAN, \$16.95 CAN (pbk) ISBN 0-8020-6990-8

This collection of articles highlights, in an easy-to-read way, the history of a wide variety of Canada's geographical names. Originally written for Canadian Geographic, the 61 articles appeared in Alan Rayburn's place names column between 1983 and 1993. Benefitting from the feedback of readers, Rayburn has been able to include changes and minor additions to the material in this new presentation. As many will know, the author certainly has the appropriate credentials to write toponymic material and undoubtedly the text has been well researched. The additional teamwork of the Canadian Geographic editorial staff preparing the articles for their original appearance in the magazine also adds to the accuracy and the readable style of presentation.

The articles (three to four pages each) as assembled in *Naming Canada* are grouped into eight categories, from names of Native origin to political issues and language problems. Individual topics covered are wide ranging. Some are associated with particular events ... Meech Lake, '88 Calgary Olympics, or federal electoral districts; others address more general themes, for example, features named for people (e.g. Queen Victoria, Sir Wilfrid Laurier, and geologist George Mercer Dawson). You will find information on items which are particularly Canadian: tickles and rips, Ha! Ha! names, Flin Flon, Medicine Hat, and Lake Laberge, to mention but a few. Readers will be interested in the names of our National Parks, the villages drowned by the St. Lawrence Seaway, or even toponyms honouring the moose!

Books devoted to the origins and history of Canadian toponymy are mostly presented in dictionary format, which enables readers to find quickly the entries they require, but does not allow for the development of naming themes. By contrast, this weakness of toponymic dictionaries is the strength of Rayburn's new publication. For example, names of the Middle East used in Canada, legacies of the voyageurs on the Prairies, or names associated with Christmas, can be explored as they apply to the whole country, without the constraints of alphabetical listings.

There are, of course, always elements of content or organization that can be questioned. I did find the eight broad themes for grouping articles to be of limited value, and the assignment of articles within them somewhat arbitrary. To aid reference users, the author has taken considerable care in compiling an index of place / fea-

ture and personal names. This appears to be accurate and complete, sometimes even to the point of frustration! For example, a reader might expect to find information on the origins of the names Toronto, Ottawa, Fredericton, or Edmonton, but after checking the index, it is rather disappointing to find that references lead only to minor points of information. Selection or non-selection of topics is also an easy target for criticism. Why might a reader be interested in Rayburn's personal favourites (p. 29), when he / she cannot find information on some of the major cities in Canada? However, take heart... this is a collection of articles, and as of September 1995 the column still appears in Canadian Geographic, and so coverage continues to expand.

The style of Canadian Geographic does not include data on sources or on further reading. Unfortunately, *Naming Canada* continues this approach, so the more serious browser is provided with few avenues to pursue the intriguing. As a geographer, I find the lack of maps and illustrations in the book denies a whole dimension of Canada to the reader... yet, I realize the price of the book would be less appealing with these additions!

I hope map libraries and archives will view this book as good value for money. It is easy reading for a general audience and provides considerable detail not found in standard toponymic dictionaries or place name studies. Enjoy the colourful accounts, as for instance, how Canada might have been named Tuponia, Efigsa, Laurentia, Hochelaga or perhaps Superior... but do not expect the articles (without second and third volumes) to answer all toponymic questions posed by researchers!

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THE NYSTROM CANADIAN DESK ATLAS. Chicago: Nystrom, 1995. 166p. ISBN: 0-7825-0587-2 (paper).

Nystrom, a Division of Herff Jones, Inc. is nothing if not a responsive publisher. It has published a Canadian edition of *The Nystrom Desk Atlas* apparently in response to the Bulletin review (No. 92, Jan. 1995: 43-44). In this computer age, that should technically be an easy exercise. Content, however, may pose more of a challenge, requiring more thought and greater effort.

Nystrom points out that they are now involved in the making of anatomical models, "hands-on" programmes

and computerized products in social studies and science (CD-ROMs, laserdiscs, and software) in addition to the publication of maps, globes, atlases, and charts, an amplification of their principal activity as described in our previous review.

They also point out that the new Canadian edition has 26 pages devoted to Canada and only 8 to the U.S., compared to 12 on Canada and 30 on the U.S. in the first atlas. Those 26 pages on Canada consist of four pages of reference maps, 12 pages of thematic maps, graphs and photographs of the six Canadian regions (British Columbia, Prairie provinces, Ontario, Quebec, Atlantic provinces, and northern Canada), plus 12 pages of thematic maps, graphs, and photographs relating to Canada as a whole (physical regions, climate, agriculture, mineral resources, economics, population, cities, and the environment).

Also, Canada is used as the basis for area comparison maps and is featured in thematic maps and graphs throughout the book. Canadian spellings are used.

All of the above is stated in a letter from the Project Director for the *Nystrom Canadian Desk Atlas* and not in the Introduction where it would have provided useful information. In fact, the Introduction appears to be unchanged from that of the first atlas, except for a title change in the initial sentence. This may seem like quibbling; after all, the introduction of the first publication is equally nondescript. But might this be an initial indication that the Canadian edition was done precipitously, in a rush to publish?

The organization and general appearance of this atlas differ very little from the first. The cover is the same, except for the insertion of the word "Canadian" in the title and a change in the background illustration showing the central portion of a physical map of Canada instead of North America. Total paging has been reduced from 175 to 166 pages. Gone are the nine U.S. regional maps—some on two-page spreads—and thematic maps and graphs, replaced by the six regions of Canada—each on one page only—and Canadian thematic maps and graphs on topics similar to those previously illustrating American statistics and trends.

As before, the initial thirty-five pages of the atlas display World physical and thematic maps. North America and Canada are featured next, followed by sections on the United States, Central America and the Caribbean, South America, Europe, Africa, Asia, Australia, Pacific Rim, the Arctic and Antarctica. Its title may suggest otherwise, but this is—like its predecessor—primarily a

world atlas, with Canada as the focus rather than the U.S. Perhaps the *Canadian World Desk Atlas* would have been a more appropriate title.

Canada first appears in a prominent way in the initial World section, with a map and graphs of worldwide immigration to Canada amongst other thematic representations of world migration, religion, and political change (p.20-21). It is also now included in the list of countries with the highest net annual immigration. Here too appear the first of several colour photographs (apart from one historical black and white picture) of Canadian scenes and activities scattered mainly throughout the Canadian section (p.40-65).

In fact, it is clear that a concerted effort was made to include Canada in all area comparison maps, in many of the comparison charts, and even to substitute Canada for the U.S. in others. Some of these substitutions indicate a lack of a sense of some subtle Canadian sensibilities. In one or two instances, it may have been desirable to retain both countries in comparison charts, in view of the Canadian propensity to compare itself—often more favourably—with its larger neighbour. For example, the country's reputation as a more genteel society is often touted by Canadians when compared with the reputation for violence of the U.S. However, this view may only be challenged statistically with the two editions in hand. Only then does the opposite appear to be the case, or at least very similar. The series of bar graphs illustrating "Causes of Death" in six countries including "Accidents, poisonings, and violence" (p.25) in the Canadian edition shows that 7.1% of deaths in Canada are the result of accidents, poisoning, and violence. The previous edition shows only 6.8% of deaths resulting from these causes in the U.S. Another example: many Canadians pride themselves on their more "just society" with its numerous social programmes. This perception is often based on a comparison with the U.S. which has unfortunately been removed from the "Disparity of Income" bar chart (p.27). Only a comparison of the two editions shows little difference between the two countries. The perception is otherwise justified in the chart where Canada appears at the lower end of a scale alongside nine other countries. Fortunately the "Sulphur Dioxide Emissions" chart (p.65), a comparison chart between the U.S. and Canada, and its caption reflect the prevalent concern in Canada that most of the emissions resulting in acid rain come from the United States. Curiously though, the acid rain thematic map stops at the Canada-U.S. border. Environmental concerns often characterized by their disrespect for political borders are perhaps best represented by regional maps, such as those showing annual precipitation, natural vegetation, land use and population in North America (p.38-39).

The Canadian section is prominently positioned in the book immediately after the World and North American continent sections. It begins with a set of physical and political maps of the country, setting the pattern for the other sections of the atlas. These maps helpfully include a "pending boundary" of the new Inuit territory of Nunavut with the notation: "effective by April 1999."

There follows a series of maps of the different regions of Canada, interspersed with colourful bar and pie charts representing statistical comparisons of various activities such as "Forest Production by Region" (the bars are wooden planks), "Wheat Production by Province" (the "pie" is a checkerboard of wheat fields), "Value of Manufacturing by Province" (the 3-D stacked bar is an open carton with bands of coloured bars on the visible sides of the carton), "Forestry Exports" (pies are tree rings), etc. Indeed, the thematic charts and graphs are as colourful and attractive as those of the previous edition. An exception here is the pie chart illustrating Canada's balance of trade (p.61). Balance of trade charts for Canada and for all other featured countries have been altered to plain multi-coloured pies, whereas the previous edition uses a grayed-out U.S. dollar coin as the background. Could the editors not find a loony to scan? Maybe they did but thought not to use it since, throughout the atlas, balance of trade figures are in U.S. dollars only.

In the balance of trade pie charts for other countries, Canada is included in only two: those for the United States and Jamaica. The United States is represented in all of them. Is this an indication that Canada's trade with these other countries is so minimal it cannot effectively be represented graphically and had to be grouped under the "all others" portions of the pies? Neither is Canada represented in the "Dependence on OPEC Oil" stacked bar chart (p.117). Should we conclude that its dependence is minimal, or did the editors simply overlook this chart in their adaptation of the atlas—or both? On the other hand, Canada has been added to the "Leading Automobile Manufacturers" chart (p.117) even though it registers a mere 3.0% of world production, compared to Italy's 5.2% which has disappeared in this edition and is presumably now lumped in with "Other Countries." The percentages on this chart vary by only .2%-2% from those on the same chart in the previous edition, so perhaps the reader should conclude that Italy's production has been reduced and surpassed by Canada's.

As before, the most visually striking representations in the atlas are the cross sections, such as the new cross section of the Great Lakes and St. Lawrence Seaway system (p.49) and the elevation "Cross Section of Canada", spreading across the bottom of two pages (p.56-57) and,

thankfully, losing nothing in the gutter. All cross sections in the atlas are colourful, attractive and instructive.

Important contemporary Canadian issues are not forgotten. There are charts of the "Ethnic Composition" of Quebec and the "Remainder" of Canada (a.k.a. the Rest of Canada), the decline of the Atlantic cod stocks, and historical regions and present settlements of indigenous peoples.

Some themes from the previous edition were adapted to reflect the Canadian situation in this edition. For example, "Change in U.S. Farms" has become "Change in Canadian Farms". "Domestic Water Use" for Canada, a stacked bar graph in the shape of a barrel—in litres—has been added. The U.S. chart has been retained in the United States section but is now expressed in litres too, not gallons. It is also less detailed than previously to conform to the Canadian chart presumably. How many litres Canadians use each day to wash the dishes is apparently not known, but Americans use 14 gallons per day for this purpose according to the previous edition.

Other thematic maps and graphs representing national issues have been introduced. A series of bar charts show "Economic Comparisons" of the Canadian provinces and territories (p.61). The bar charts are somewhat difficult to interpret until one realizes that the first showing unemployment rates for the years 1991, 1992, and 1993, represents the whole country—which is not stated—while those that follow for the provinces, which are named, represent the same years rates. It would have been helpful to repeat the years on the bars of each, particularly since the bars are of the same colour.

Other new country-wide comparison maps and charts show the growth of urban population and metropolitan areas. Four small area maps of Toronto in 1931, 1951, 1971 and "today" bring home the point. Oddly, the map of Canada's highways and airports—however sparse—has been removed from this edition. So has that of the U.S. But the rail system in Europe depicted along with European trade organizations has been retained and the world map of shipping routes has been enlarged.

Each Canadian region merits its own colourful thematic maps and graphs, with particular attention paid to regional issues: Pacific fisheries and forest production by region for British Columbia, wheat production and energy for the Prairies, manufacturing and energy for Ontario, hydroelectric energy and manufacturing for Quebec, the Atlantic fisheries and the decline of the cod stock for the Maritimes, indigenous peoples, continental glaciation and energy for the North.

The rest of the atlas is little changed from the previous edition. The Pacific Rim section (p.128-129) has been expanded slightly to include a combined thematic map and bar chart of the "Economy of the Pacific Rim" and a stacked bar chart of "High Technology Trade" which, as the caption notes, is dominated by Pacific Rim countries. Otherwise, the header at the top of page 129 should have been removed in view of the fact that only one of the two area maps which occupy three-quarters of that page is only remotely related to Pacific Rim issues ("Shipping Routes"). A "North American Trade" area map in this section is a useful map but totally out of place here. The area comparison map of Japan and Canada on the opposite page is out of place: it should have been placed in the section on Asia or dropped altogether if space was at a premium. A world map of "National Productivity" is also out of place on the same page, having no particular relevance to the Pacific Rim. In fact it appears that these two pages were not well planned.

There are other indications of an attempt to update the previous edition: an earthquake in India in 1993 has been added to the list of "Notable Earthquakes". The editors did not alter the boundaries of NAFTA to include Mexico on the world map of "International Trade Organizations" (p.26), but a pointer extending across the southern U.S. border was added. The area map of "North American Trade" oddly tucked away in the "Pacific Rim" section as mentioned above, clearly shows the reach of NAFTA, along with the volume of trade amongst the three countries. The "Economic Areas and Rail System" thematic map for Europe (p.97) has been updated to reflect the change from EEC to European Union and now features the European portion of the CIS. The "Ozone Depletion" area maps (p.35) have been clarified with the addition of the names of continents and shaded areas are based on Dobson units instead of percentages of ozone lost.

A two-page "World Facts" section has been added near the end of the book. It contains tables with the sort of statistical extremes which always interest young people for whom this atlas is clearly intended, from the largest urban area (Tokyo, Japan: population 25 8000 000) to the lowest recorded temperature (-89.2 C in Vostok, Antarctica on July 21, 1983), the age of the earth (4.6 billion years old) and its diameter (12 756.32 kilometres). All figures are noted in the metric system.

A word on the penultimate section of the book, the 21-page index, which serves as a gazetteer: its size has been reduced from the previous edition by some five pages. More Canadian names have been added while some U.S. names were removed, reflecting the change in maps in the Canada and U.S. sections of the atlas. Gone

are Valentine, Nebraska and the Tug Fork River, but Ajax, Ontario and Fortune Bay, Newfoundland, are now in. The Aguanus River in Quebec has been updated to the more modern spelling Aguanish (but the same pronunciation is given). The corresponding map (p.50, 50 N 62 W) has been corrected too. The phonetic pronunciation system used, based on that of the *World Book Encyclopedia*, is inadequate in some instances: for example, the atlas indicates that the "n's" in Mont Tremblant (Quebec), are aspirated ("MAWN trawm BLAWN") whereas they are not.

Last but not least by any means, this new edition contains a one-page list of "Sources" or, in other words, a bibliography—always an essential part of any printed work claiming scholastic merit. The list is impressive and includes publications by Statistics Canada, the U.S. Geological Survey, OECD, OPEC, and the United Nations.

The final verdict? *The Nystrom Canadian Desk Atlas* is recommended for purchase by high school and public libraries in Canada, especially those on a tight budget. It should be rebound in hard cover, though, before being placed on the shelves. It is also highly recommended as a good low-cost desk atlas for Canadian high school students and even for upper elementary grade students. It is good value for the money. It is attractive, colourful, informative and on the whole, clear in its exposition of world geography. If no other atlas in its category designed for a Canadian audience is available, this one is a laudable beginning. It is to be hoped that a second edition will be prepared, with even more careful planning and heightened attention to the point of view of its intended readership.

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THE HISTORY OF CARTOGRAPHY, VOLUME 2, BOOK 2. CARTOGRAPHY IN THE TRADITIONAL EAST AND SOUTHEAST ASIAN SOCIETIES. J. B. Harley and David Woodward, eds. Chicago: The University of Chicago Press, 1995. 1,040 p. \$195 US

This 1,040 page mammoth would literally take months to read in detail. It is a compendium of information about early maps and spatial diagrams from Lhasa to Lombok. I use the term "spatial diagrams" deliberately. The authors who have contributed to this tome have all expanded the traditional definition of "map" to include any type of spatial representation, including landscape painting, cosmological diagrams such as mandalas and

even ancient petroglyphs depicting human interaction with the environment. To quote Catherine Delano Smith, who wrote the first chapter on prehistoric cartography in the region, "Cosmological ideas, the recording of parts of the earthly world and of the skies, were as universal in prehistoric times as throughout history. Something of them is to be glimpsed in the petroglyphic and pictographic record." (p. 15) This inclusion of religious diagrams is certainly justified since conventional Western histories of cartography typically include medieval Christian maps which were quite similar. The well known "T and O" map is a typical example.

"Asia" is a tricky notion, as Edward Said has so aptly demonstrated. Harley and Woodward are well aware of this. "Asia is a peculiarly European notion. It is an eccentricity by, say, Indian or Chinese standards. Asians seldom find the idea of Asia meaningful unless they have adopted Western categories of thought, and with them European ways of lumping things together. (p. 23).

The concept of "East and Southeast Asia" is no different and not a marked improvement. As Sivin and Ledyard state in their introduction to East Asian cartography (Chapter Two), the appellation bears no resemblance to the notion of "Europe" or "The West" which connotes a shared sense of history and consciousness. Nevertheless, the editors have considered this terminology useful, or at least necessary, as a cultural label. For East Asia they explain: "We mean by it the parts of Asia that were governed by a system based more or less on the bureaucratic hereditary monarchy of China. (ibid.)" As such, the region of East Asia can be seen as not only a political system but one with consistencies in educational styles and religion. The region thus includes China, Japan, Korea and Vietnam due to the latter's historical liaison with China. Since cartography is culture, as Sivin and Ledyard so aptly put it, the designation East Asia—along with Southeast Asia—is a useful geographical appellation. Treatment of Southeast Asia includes Thailand (Siam), Malay maps (Malaysia and Indonesia) and Burma (Myanmar).

The section on China, divided into seven chapters written by Cordell D.K. Yee and John Henderson interpret the impressive corpus of the traditional maps and spatial diagrams of this region. They explain, for example, that many of the maps cannot be understood without reference to accompanying texts which were meant to be read simultaneously.

Yee, in his discussion of Chinese cartography, challenges the convention explanation that mapping in this ancient civilization was a result only of advanced astronomical

and mathematical knowledge. Instead, he argues that cartography was linked with a well developed sense of aesthetics which had been demonstrated in landscape painting, calligraphy and poetic descriptions of place. Although there is certainly an artistic element in cartography, one would think that the purpose underlying the construction of topographic maps in China (as opposed to landscape paintings) was certainly related to the long standing existence of a centralized state which required inventories of population and resources. Yee, along with other authors in the volume, does not stress this enough. Indeed, the entire volume - while loaded with fascinating details - underemphasizes the militaristic, economic and political function of mapping in East and Southeast Asia concentrating instead on aesthetic and religious concerns.

All the contributors show excellent examples of the cross-cultural borrowing which influenced cartography in the region; especially intra-Asian transfers of ideas rather than solely focusing on the "western" impact which has so often tainted previous histories of the subject. For example, Chinese geomancy had a much greater impact on Korean mapping than in its home country, "The science of siting (or "geomancy") which studies the flow of vital substance (*qi*) through the contours of the land in order to find dynamically balanced sites for buildings and tombs, was Chinese in origin, but only Koreans used it as a structure for national cartography." (p. 30).

Islamic influences also pervaded Korean mapping. Japanese cartography, contrary to China and Korea, was highly influenced by Western mapping, even in the Edo period. Western maps were commercialized by Japanese merchants during the anti-Western Tokugawa shogunate. Especially popular were navigational charts of western origin which were used to sail to Southeast Asia. Southeast Asian sailors - predominantly Malay - designed their own impressive navigational charts which were then borrowed by Western explorers.

Schwartzberg's section on Southeast Asia explains the relative paucity of maps from this region with the exception of the above named charts. Apart from a few Burmese examples—many drafted by ethnic Shans—there are few known examples of maps from the pre-colonial period. This is due to a number of factors: poor scholarly investigations of the subject; a hot and humid climate which has deteriorated many documents; and finally, practices such as *chamra* in old Siam resulted in the periodic purging of state archival material. "for certain countries, most notably the Philippines, but also Laos and Cambodia, not a single indigenous, premodern non-cosmographic map is known to survive to the present day." (p. 689).

Therefore, there are no surviving maps from Southeast Asia before the 16th century. To compensate for this lacuna, Schwartzberg focusses on cosmographic spatial diagrams such as the Thai *trai phum* where the travels of the Buddha are depicted on a 50 meter cloth folded accordion-like into a book. He also deals with the impressive corpus of Malay sea-charts. These two types of spatial representations are certainly worthy of consideration. However, it seems as though Schwartzberg sometimes goes too far by considering divinatory practices in his discussion. For example, Figure 17.6 provides a photo described as the following: "Ventral side of pig's liver from which omens are read". Are the superstitions surrounding pig's livers appropriate material for a history of cartography?!

I would have preferred a more extended discussion of why relatively few maps are available in pre-colonial Southeast Asia in addition to the three reasons explained above. Could it be related to the relatively decentralized states of the region which did not require the same types of spatial information as China? There are a number of possibilities which can be entertained. Geographer Larry Sternstein, for example, has argued that Thais do not think in the same spatial terms as westerners for example. These arguments should be included.

Despite these minor criticisms, this is an excellent history of cartography in East and Southeast Asia (including a short separate section on Greater Tibet and Mongolia). The work purports to be a major effort toward righting an imbalance usually tilted toward the achievements of Mediterranean and western Europe. For this, the contributors to this volume ought to be congratulated. They experiment with an expanded definition of cartography which is a challenge in itself. Their goal is to paint a portrait of the human dimension inherent in graphic spatial representations. "As a result of their human dimensions, traditional East and Southeast Asian maps leave one with an impression of the world that contrasts with that left by their modern mathematical counterparts. The world of the traditional artifacts is a vital place, one that interacts with human beings, not an inert conglomeration of physical forms. One may thus view with a sense of loss the triumph of the modern." (p. 847).

A tad romantic perhaps? In spite of my slight lack of enthusiasm for the overabundant descriptions of the emotions, values and aesthetic dimensions of East and Southeast Asian maps (to the detriment of a more political and economically focussed discussion) I heartily recommend this volume to aficionados of cartography and the Pacific Rim.

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GROUND TRUTH: THE SOCIAL IMPLICATIONS OF GEOGRAPHIC INFORMATION SYSTEMS. John Pickles, ed. New York: The Guilford Press, 1995. 248 pp. ISBN 0-89862295-6.

Ground Truth, in the editors words, is motivated "by a deep concern for the impacts of *unmediated technical practices* on the discipline of geography." [x] It is a book about "the transformation of data handling... and the impact (that has had)," about consequential "ideas, ideologies and social practices that have emerged;" and about "GIS as a tool... within the wider transformation of capitalism in the late 20th century... and the redefinition of what passes for democracy." "*Ground Truth*... signifies an emerging economy of the virtual sign, of cybernetics and cyberspace." [vii] Clearly this "the-medium-is-the-message" book is not your standard technical celebration of the power of GIS.

The book consists of 10 chapters by authors who were "encouraged to reflect thoughtfully and critically on GIS within as wide a context as they wished." [xi] The chapters might be loosely lumped as three that are introductory, two that deal with ethical dimensions, three that deal with commercial dimensions, one that deals with a public participation application and one with summation.

Pickles opens the discussion with an attempt to define (or show the "ambiguity and the absence of a coherent definition" of) GIS. He then describes some of the social implications and connections of GIS. "Epistemological Inertia and the New Imperial Geography" critiques "the view that if data and technology availability permit the manipulation of spatial data for particular ends, the ends themselves are justified (or are of no concern to the geographer)." He observes that "GIS requires a critical theory ... of the ways in which its use ... reconfigure cultural, economic or political relations." Given the role of GIS at the dawn of the information age, this is a difficult conclusion to challenge [25].

Mike Goodchild, who might well be amongst those who Pickles considers "space cadets" [22] and who describes himself as being amongst those who can "write words like objective, scientific and truth without placing them in quotation marks" reviews GIS technology and research and provokes readers with the questions of whether GIS appeals "because it allows people without training in cartography to make maps, people without training in geography to analyze geographical distributions, and people without mathematical skills to model spatial phenomena?" or whether a "GIS user is empowered by the technology or demeaned by it?"

The following chapters pick up these themes and provide a wealth of piquant insights that are challenging, informative and even entertaining to read. Taylor and Johnston place the GIS debate in the context of the ongoing debate about the impact of the quantitative revolution in geography, the fear of the "failure of geography to become a respectable science." [53], and the ultimate backlash in the discipline against "the myopia" of the revolution [55]. They note that we act according to the images we see of the world and that GIS is a tool that makes and modifies images of the world. It cannot be ignored. Curry discusses an "unmooring" of elements within the discipline through which "traditionally related levels of research, communication and social practices are coming apart." [71] Veregin notes that the impact of technology is at its greatest when we stop noticing it; that some technology constrains as it liberates. McHaffie describes the public process of defining space through making maps and raises questions about the deskilling of cartographers. He also questions what the impact of increased cost of data will be on the democratic processes the information is supposed to support. The euphoria about the information revolution is put in context with the reminder that substantially less than 1% of the world's population has access to the information highway! Goss argues "that the corporate community is eager to purchase GDIS because of its capacity to... manipulate the market and consumer identity..." [131] Roberts and Schein present a lavishly illustrated and poignantly annotated overview of the promises made or implied in GIS system advertising. [172].

There is only one case study described in the book, a South African program which outlines five objectives of participatory GIS and describes the desirability of adding local knowledge as one theme in GIS overlays. The case study returns to one of the central themes of the book, if the data and technology drive the decision making process and if those two elements are determined externally, how inclusive can decision making be. The authors observe that participation is no guarantee of justice.

One cannot read this book without feeling that, despite the somewhat self-indulgent tone, there is a great deal of substance for important and engaging debate. After all, GIS is an extremely important medium that has had relatively little attention paid to its message. This book advances the search for the essence of that message, but the question is: who will be listening? In the final chapter Pickles describes three possible, "visual imagineries" for GIS in the future. These labour under the rather cumbersome postmodernist titles of "digitality, representation and intertextuality", "deterritorialization, delocalization, and community identity" and, lastly,

"democratizing appropriations?" And herein lies a central problem.

There is a split between those who are sensitive to the crises of postmodernism and the social and political implications of new technologies; and there are those Pickles describes as "space cadets" racing ahead to push back the frontiers of a rapidly evolving technology, driven by the momentum of technology, by the market, and by the need to maintain authority (and by genuine curiosity?). *Ground Truth* is a lively introduction to some complex social issues. But one wonders if it is likely to be probed and appreciated by those in the former camp, who may have little to do with real-world applications, and, perhaps, ignored by those in the later who are driving GIS into the future.

Prof. Thom Meredith
Department of Geography
McGill University

THE SHAPE OF TEXAS: MAPS AS METAPHORS.
Richard V. Francaviglia. College Station, Texas A & M University Press, 1995. illus., x, 118p. \$29.50 US ISBN 0-89096-664-8.

If you doubt the ubiquity of the Texas map (as I first did), just pick up a copy of Francaviglia's book and take a brief look at the illustrations. *The Shape of Texas* offers more than 130 black/white and colour photographs showing various uses of the map of Texas, from the kitsch that fill highway and airport gift shops, to the more sophisticated logos and advertisements that market Texas-owned and -operated businesses, products, and services. Most of the illustrations are drawn from the author's own collection. They show Texas-shaped swimming pools, pencils, belt buckles, patio stones, and pasta noodles; others show how the map is used extensively in billboards, neon signs and corporate logos. The obvious question then is how can the map of Texas have such wide appeal and such wide usage?

Francaviglia first attempts to tackle this question by examining the map of Texas from the point of view of a graphic designer. What is it about the map that draws people's attention? According to Francaviglia, the map of Texas has several important design characteristics that encourage its use. At the top of the list is its uniqueness. "The combination of shapes in the Texas map makes for instantaneous distinction from other states—an essential requirement for something that serves as a symbol or icon" (pg.32). Whether the map has been used in its correct proportions and perimeter details, or whether it

has been abstracted and simplified, it is still easily identified as a map of Texas. Such uniqueness in shape helps to brand the Texas-made products and services which use it as part of their logo or advertisement as unique and undeniably Texan.

According to Francaviglia, there are graphical considerations to the wide use of the map of Texas to consider as well. For example, the north+south and the east-west dimensions of Texas (the height-to-width ratio) are almost proportionally equal (there is only a three percent difference). This means the outline will fit nicely into a square or circle, even though it is not symmetrical. This last characteristic offers lots of potential for graphic designers, making the Texas map "... a perfect stage on which verbal and graphic actions interact" (pg.41). In fact so perfect it has now displaced other "traditional" popular images of the state, such as the Lone Star, armadillos, oil wells, ten+gallon hats, and longhorn steers.

How then did this transition in popular images come about? According to Francaviglia much of the earlier iconography of Texas is closely affiliated with the Anglo history of the state. Now that Texas has become more cosmopolitan in its demographic make+up, most of these earlier icons have lost much of their popularity. The map is more suitable to modern+day advertisers because, unlike the older icons, the map is never confused with any other symbol. Of course, the shift to the Texas map did not occur over night. Although it seems to have been in use as early as the 1910s, it did not start to become popular as a symbol until the early 1950s when it was often used in conjunction with another symbol, such as the Lone Star. Today, "it symbolizes Texas and Texas products at a time when geographic identity is important in establishing a world market for products" (pg.101).

Francaviglia admits that *The Shape of Texas* "... lies at the peculiar interface between cartography, geography, popular culture, environmental perception, advertising, and historical geography ..." (pg.7). Because it is impossible to "pigeonhole" an interdisciplinary study of this nature, I suspect many academics will find it difficult to take *The Shape of Texas* seriously, just as they would any study that dares to "... venture into territory at the edges of established academic thought ..." (pg.11). Popular cartography is still very much in its infancy. To my knowledge *The Shape of Texas* is the first serious attempt to examine the process by which a map becomes a popular symbol. Although its focus may be limited in that it concentrates a single cartographic icon, the methodology will surely be applicable to the study of any popular map.

The Shape of Texas has serious ramifications for map

libraries and archives. Francaviglia has just legitimized popular cartography as a thoughtful academic pursuit. No doubt we will be seeing more such studies in the future. As keepers of the "cartographic memory," map librarians and archivist must now ask themselves if they have been as diligent in collecting and preserving popular cartography as they have the official cartography of the state. I suspect that most of us probably have not, and if that is the case, then we are obviously misrepresenting the cartography of our generation to future researchers.

So does *The Shape of Texas* have a place in Canada's map libraries and archives? It most certainly does, if for no other reason than to help us rethink some of our policies on acquisition.

Jeffrey S. Murray
National Archives of Canada

PUBLICATIONS RECEIVED

GEOMATICS: WHO NEEDS IT? Peter Poole, Guest Editor. *Cultural Survival Quarterly*, Winter 1995, Vol. 18, No.4. \$7.50 US including postage. Available from: Cultural Survival, 46 Brattle Street, Cambridge, MA 02138. Tel: (617) 441-5400, Fax: (617) 441-5417. Email: survival@husc.harvard.edu

Peter Poole, guest editor of this issue of the *Cultural Survival Quarterly*, has spent the last 15 years working with indigenous organizations and communities in the Arctic and Central and South America on renewable resource development projects, environmental impact studies, mapping and demarcation.

His editorial makes a number of interesting points about maps as both symbols and instruments of power. As indigenous peoples use maps to re-name and reclaim their lands, their maps remain instruments of power, but of a creative and restorative power. Bernard Neitschmann, who wrote one of the articles, puts it aptly, "More indigenous territory can be reclaimed and defended by maps than by guns."

This collection of articles reflects how people from land based communities are using geomatics in imaginative ways to address the question; how can we live off the land and keep it well? A broad range of mapping throughout the world is described. Canadians will be particularly interested in the Eagle project (Effects on Aboriginals for the Great Lakes Environment) and how the Nunavik Inuit have gathered information on

ecology and land use in aid of information self-sufficiency. Other articles report on ethnography in the Darien, Panama, gendered resource mapping, current activities in mapping and biodiversity conservation and defending the Miskito Reefs off Nicaragua with maps and GPS. Of the GPS receiver, Poole says that in the world of mapping it promises an impact equivalent to that of the transistor radio in communications."

Recommended reading.

CLAYOQUOT VALLEY WITNESS TRAIL MAP AND RECREATION GUIDE. Ian Parfitt. Vancouver, B.C.: Western Canada Wilderness Committee, 1995. \$6.25 CAN for WCWC members, \$6.95 CAN for non-members. Available from: WCWC, 20 Water Street, Vancouver, B.C., Canada V6B 1A4 Tel: (604) 683-8220 Fax: (604) 683-8229.

In addition to the high quality hiking map, in aid of environmental advocacy, which we have come to expect of WCWC, there is an interesting map titled, *Undisturbed and Disturbed Watershed Areas in Clayoquot Sound*.

The latest shipment of maps from ITMB include a very attractive map of British Columbia and a map of Cambodia, published in collaboration with Vietnam's Cartographic Mapping Institute. No prices included but these maps usually range between \$6 and \$8 CAN.

British Columbia: An International Travel Map. Scale 1,500,000. Vancouver, B.C.: ITMB Publishing, 1995. ISBN 1-895907-357.

Cambodia: An International Travel Map. Scale 1:800,000. Vancouver, B.C.: ITMB Publishing; Hanoi: Cartographic Mapping Institute, 1995. ISBN 0-921463-70-7.

Lower Mainland Region: Vancouver to Lillooet. 2d ed. Scale 1:250,000. Vancouver, B.C.: ITMB Publishing, 1995. ISBN 1-895907-66-7.

Nicaragua. Scale 1:750,000. Vancouver, B.C.: ITMB Publishing, 1995. ISBN 0921463634.

Virgin Islands: British and U.S. Scales vary. Vancouver, B.C.: ITMB Publishing, 1995. ISBN 0-921463-39-1.

INDIGENOUS PEOPLES, MAPPING & BIODIVERSITY CONSERVATION: AN ANALYSIS OF CURRENT ACTIVITIES AND OPPORTUNITIES FOR APPLYING GEOMATICS TECHNOLOGIES. Peter Poole. Landover, MD: Corporate Press, 1995. (BSP Peoples and Forest Program Discussion Paper Series) Available from: The Biodiversity Support Programme, c/o World

Wildlife Fund, 1250 24th St., NW, Washington, D.C. 20037.

The discussion paper series was created to disseminate analyses of issues, methods and policies related to tenure, community-based natural resources management and mapping. The objective of this particular report within the series is to document the ways in which indigenous communities are using maps and advanced mapping technologies, both for local purposes and in their transactions with external agencies. Of special interest is the extent to which these local applications are consistent with the goals of the Biodiversity Convention. In total, 63 projects are summarized. Fewer projects are listed for Africa, Asia and Australia. The reader is alerted that this is not necessarily indicative of fewer mapping activities but rather that the author has contacts with Canada and Latin America, the results of which are that the listings for these areas are more comprehensive.

It should be noted that most reports on community based work are distributed locally and that they do not appear in most libraries nor in standard data bases. Therein lies the value of this report. To encourage information and networking, contact numbers have been provided so that readers can approach people directly involved with particular projects, to learn more about their experiences.

LAND OF GENGHIS KHAN: THE RISE AND FALL OF NATION STATES IN CHINA'S NORTHERN FRONTIERS. David Chuenyan Lai. Western Geographical Series, Volume 30. Victoria, B.C.: University of Victoria, 1995. \$9.95 CAN pbk. ISBN 0-919383-20-0.

This book is aimed at teachers, students and the general public who are interested in the history of the Eurasian nomads of China's northern frontiers. The book is brought to the attention of the map community because it includes 19 maps which, for the most part, include information not easily found in our collections. Maps range from boundaries in the period of the warring states (475-221 B.C.), to the extent of the Mongol Empire of Genghis Khan (1227). Of particular interest are the maps depicting borders in this century: The Reorganization of Inner Mongolia, 1928, The Boundary of the Inner Mongolian Autonomous Region, 1953, 1957-1968, 1969-1978, and finally, the 1994 boundaries.

Dr. Lai is a professor at the University of Victoria. His research interests are Chinatowns, Overseas Chinese, Hong Kong and China. Prof. Lai has published several books and received many awards in recognition of his research and community work.

REGIONAL NEWS

Melissa Leitch

NEWFOUNDLAND

Memorial University of Newfoundland (Alberta Auringer Wood)

Our library is in the process of implementing a change to the integrated, and online library system called UNICORN. The seller is Sirsi, a company in Huntsville, Alabama. We are undergoing "training" in myriad aspects of use of the system. We are currently on SPIRES. This will result in doubling the number of computers that we have, from four to eight. One will probably be a "dumb" terminal for access to the OPAC part of the system, but one will be a Pentium of some sort for use with mapping software.

NOVA SCOTIA

Dalhousie University (Geoff Brown)

Please welcome James Boxall's new assistant at the Dalhousie Map Collection, Geoff Brown.

Work on the ACMLA annual meeting scheduled for Dalhousie next year has begun. A home page on the world wide web will soon be announced to keep everyone informed of progress. The address will be posted on CARTA when it is ready. The Map Collection is busy preparing for the rush of students wishing to take advantage of our involvement in the GIS literacy project. A recent article in the Dalhousie News fuelled this interest when it featured James and Frank Nolan (president of Petro Drilling Company Ltd.). Frank recently donated \$1000.00 to go towards the purchase of a colour printer for the collection.

[Editor's note: see ACMLA conference '96 homepage <http://is.dal.ca/~gsbrown/acmla96.html>]

ONTARIO

OCUL Map Group (Trudy Bodak, Chair, OCUL)

On November 10th, the OCUL Map Group held its fall meeting at the University of Waterloo. The major topic for discussion was the report of the OCUL Map Group Sub-Committee on Data License Agreements. B. Znamirowski of Trent University, chair of the Sub-

Committee, outlined the work of the Sub-Committee and reported on its meeting with the Ontario Ministry of Natural Resources (OMNR). The Sub-Committee is exploring options for improved access to OMNR digital data. A report will be prepared for the OCUL chief librarians for their spring meeting.

C. Beard of Brock University distributed her inventory of digital/electronic map holdings of Ontario map libraries. Members suggested that this list be made available on the Brock homepage (forthcoming) with links to the page from the OCUL and ACMLA homepages.

There was also considerable discussion about users' guides for digital products. It was agreed that the existing guides, already prepared by members, could be shared and that as a group, on a voluntary basis, members would try to develop guides for products that have not yet been documented. Members also agreed on a template for the development of new guides.

The meeting ended with a demonstration of Netlink by R. Pinnell of the University of Waterloo downloading census data from a central server to a public PC in the Map and Design Library. C. Beard then demonstrated, using MapInfo, how she used census data to create a census atlas of the Regional Municipality of Niagara.

Geological Survey of Canada (Karen Lochhead)

As a founding organizer of the then ACML in 1967 along with Ted Layng, Yves Tessier and Joan Winearls, I would like to let my old and new colleagues know that I have come full circle, so to speak in the Map Library business. After an absence from the map library scene in Canada for a number of years, I can tell you all how delighted I am to once again be associated with "spatial materials". I am presently working as the Acting Coordinator for Special Collections at the Canadian Geoscience Information Centre at the Geological Survey of Canada.

The collection, with the staff expertise of Denis Allen and Marjorie Elwood, Irene Kumar and Louise Simpson, collects maps, photos, geophysical material, houses the Book and Map Archives and is, as many of you know, located in Room G70 at 601 Booth Street in Ottawa. This is, in fact, the very space which used to hold the

Geographical Branch Map Collection in the 1950's and 1960's and where, as a young cartographer for the Atlas of Canada, I first became interested in map collections. That interest led me to a job in the National Map Collection of the Public Archives of Canada as head of the Foreign Section, and as a result, to much committee work with ACML in its early years.

In 1989 I left, with my family for a posting to Australia with the Department of Foreign Affairs and International Trade. There, while my husband was Senior Trade Commissioner, I managed to find interesting work with several Australian government departments and agencies, most of which was related to the documentation of digital spatial datasets. While working for a company called Wizard Information Services and an associated multimedia CBT firm called Learning Curve I was introduced to a library science teacher by a mutual friend. Together we hit upon the idea of producing a computer based training product to teach cataloguing. Subsequently in a joint venture with Learning Curve, we produced CatSkill, the first CD-ROM computer based training package to teach AACR2(R) and MARC coding (in USMARC, CAN/MARC, ABNMARC AND UKMARC versions). I am now managing the North American marketing for CatSkill.

In addition, while in Australia, I completed a Certificate in Gemmology from the Canberra Institute of Technology. The magpie tendency to collect things that glitter and to pick up pretty rocks in my travels has been partially satiated now by a little knowledge of the origins of gemstones, and my travels in Australia in search thereof. And it is great to be working back in Canada in one of the world's premier geoscience institutions!

Karen Lochhead
Acting Coordinator, Special Collections
Canadian Geoscience Information Centre
Geological Survey of Canada

Serge A. Sauer Map Library, University of Western Ontario (Cheryl Woods)

A telnet link has been completed to our database of 2254 atlases, 1312 Departmental theses (BA, BSc, MA, MSc, PhD), and 902 foreign urban plans. To access this database: telnet SSCL.UWO.CA/port=196. Since access varies according to each institution's technology, telnet SSCL.UWO.CA and request port 196.

The collection recently acquired a set of 100 - 1:250,000 maps of Nigeria showing vegetation and land use derived from Landsat MSS Imagery (1976-78) and printed in 1995.

A student from Fanshawe College's Library and Information Technician Programme was with us for a 2 week field work placement. This is the second year UWO has agreed to this cooperative venture and with satisfying results. The Serge A. Sauer also employs 4 students from the Ontario Work Study Plan under the Ontario Ministry of Education and Training Student Support Branch.

Carleton Map Library (Barbara Farrell)

Carleton University Map Library was the grateful recipient of an SSHRC grant which enabled the acquisition of some two hundred atlases and two thousand topographic maps relating to Eastern Europe and the former Soviet Union. The materials formed part of the collection of the late professor Bogdan Zaborski. They date from the late nineteenth to mid twentieth century, and add to the already considerable collection of materials relating to Eastern Europe held at Carleton. They support University research studies particularly in the departments of geography and political science, the Norman Paterson School of International Affairs, and the Centre for East European and Russian Area Studies. Readers specifically interested in these materials may Email Barbara_Farrell@carleton.ca

The Library is hosting a special exhibit of children's maps of their world—maps from the ICA map competitions in 1993 and 1995. The Barbara Petchnik Children's Map Competition was established in 1993 as a memorial to Barbara Bartz Petchenik, Vice President of the International Cartographic Association (ICA), who died in 1992. The exhibition features original art by children depicting their interpretations of the world through maps. The views vary from images full of hope and optimism to expressions of despair with images of famine and war. The exhibition runs from October 18 to December 14, 1995 on the main floor of the MacOdrum Library. The maps will then be permanently housed at Carleton Map Library as a result of a proposal by Barbara Farrell. There are plans to have selected images available on the WWW as part of a forthcoming ICA home page.

This exhibition has so far received the most enthusiastic response we have ever had to an exhibit in the Library.

University of Ottawa (Grace Welch)

As of September 1995, Bruce Robin, our library technician has accepted a one-year work assignment as the Cartographic Technician/LAN Administrator in the Geography Department. He has been replaced by Martine Rocheleau.

The Map Library is participating in a one-year pilot project to test and evaluate Netscape for reference services. Netscape was installed on the 486 public workstation in June, and to date, response has been positive. A second workstation has been made available to the public, a Pentium, 90 Mhz, 16 MG RAM, primarily for use with ArcView 2.1. Work is also underway on a Map Library homepage which is expected to be available in mid-December.

Map Library staff recently completed a physical count of all maps, books and atlases in the collection. The count of the airphoto collection will take place next summer.

Grace Welch represented the Bibliographic Control Committee as a member of a Working Group on Cataloguing Digital Cartographic Materials which met in Santa Barbara, November 11-14. The committee reviewed the *Geomatic Data Sets: Cataloguing Rules* with the view to integrating them into *Cartographic Materials: a Manual of Interpretation for AACR2*. As well, additional rules are being suggested to take into fully describe geomatic datasets. The proposed revisions to *Cartographic Materials* will be submitted to a meeting of the Anglo-American Cataloguing Committee for Cartographic Materials tentatively planned for the fall of 1996.

ALBERTA

University of Alberta (David Jones)

The last week of September was GIS week in Edmonton. It started with a one-day Intro to GIS workshop sponsored by the U of A SciTech Library. Denis Johnson of the Geography Department provided an intro to GIS for map and data librarians who were in town for the ARL-GIS training that took place on the three following days. This led to the weekend and the WESTCAN-ASIS Conference which also focussed on GIS. A heavy but rewarding week for all concerned.

Following along the GIS theme, U of A now has its Pentium station with ARCVIEW and a number of cartographic CD-ROMS loaded. We are also preparing a memo/questionnaire which will go to faculty library representatives in all departments on campus introducing the GIS activity and collecting data on the interest and uses of GIS throughout the campus. This will be distributed early in the new year.

The William C. Wonders Map collection on the main floor of the Cameron Library is seeing heavy use and providing a learning experience for us all. The Map Archives (ground floor) have survived another round of renovations, their organization is our winter project.

We have just received back from ISM the the first batch of maps sent to them for cataloguing. These will be accessible via our DRA online catalogue. We are also investigating the conversion of the manual catalogue to a DRA file.

BRITISH COLUMBIA

University of Victoria (Lori Sugden)

The Map Library was recently renamed to enhance user recognition of our principal collections. The collection was called Cartographic Resource Centre and has changed to Map Library in order to avoid confusion with the Technical Services in Geography which does cartography. Over the past two months we have been installing two new computers and learning ArcView as participants in the ARL GIS Literacy Project. This is propelling the Map Library, which is in a different building from UVic's main (McPherson) library, into the public-access workstation world for the first time. There is a lot to learn, but it is an exciting and rewarding challenge!

Map Society of British Columbia (Frances Woodward)

This is the only Canadian regional society listed in the new edition (D8) of *Who's Who in the History of Cartography*, since the Edmonton and Ottawa societies are now defunct. The BC society is still active, and in the midst of a major project. The President is R.C. (Bob) Harris; Treasurer, John Spittle; Secretary, Bruce Ward; Program Co-ordinator, Frances Woodward; Project Co-ordinator, Bruce Ward. The project is a Cartobibliography of BC Maps to 1871 with a data base and photocopies of the maps. As of mid-November, 1300 maps have been listed.

The September speaker was Doug Aberley, who spoke at the ACMLA-WAML Conference. He had been scheduled for May, but had to postpone his talk until September. He spoke about his Cascadia atlas as well as his Terrace-Hazelton map, and his Fraser Valley map, called Salmonopolis. In October Dr. Alfred Siemens, UBC Geography Dept., spoke about his work in the area of Veracruz, Mexico, reconstructing the changes in settlement and agriculture from old maps and colonial reports. In November Dr. Stanley Deane talked about the development of European cities as shown in the Braun and Hogenberg atlases. In December Carole Lowes will lead us in the Footsteps of the Legions, the first part of an historical survey of the British road system.

Regional News Announcement

Courtney C.J. Bond, 1910 - 1995

Courtney C.J. Bond, surveyor, cartographer, author of many map related articles and books, and Head of the Canadian Section, National Map Collection, Public (now National) Archives of Canada, 1968-1971, died in Ottawa on November 16th, 1995.

There will be a tribute in the next issue of the *Bulletin*.

Annonces de nouvelles régionales

Courtney C.J. Bond, 1910-1995

Courtney C.J. Bond, arpenteur, cartographe, auteur de nombreux articles et livres portant sur les cartes et chef de la section canadienne, Collection nationale de cartes et plans, Archives publiques (maintenant nationales) du Canada, 1968-1971, est décédé à Ottawa le 16 novembre 1995. Nous lui rendrons hommage dans le prochain numéro du *Bulletin*.

NOUVELLES RÉGIONALES

TERRE-NEUVE

Université Mémorial de Terre-Neuve (Alberta Wood)

Notre bibliothèque est présentement engagée dans un processus de changement avec un système informatisé pour bibliothèque appelé «UNICORN». La compagnie SIRSI nous a vendu ce système et elle vient de Huntsville en Alabama. Nous sommes présentement en formation afin de nous familiariser avec de nombreux aspects du système. Actuellement, nous utilisons «SPIRES». Ceci nous permettra de doubler le nombre de nouveaux ordinateurs que nous avons de 4 à 8. Un de ceux-là sera probablement utilisé comme terminal permettant d'avoir accès au répertoire «OPAC» du système, mais un des ordinateurs sera un Pentium pour utiliser le logiciel de cartographie.

NOUVELLE ÉCOSSE

Université Dalhousie (Geoff Brown)

Nous souhaitons la bienvenue à Geoff Brown, le nouvel assistant de James Boxall de la cartothèque de l'Université Dalhousie. Les préparatifs pour l'Assemblée générale annuelle (AGA) de l'ACCAC qui se tiendra à Dalhousie l'an prochain ont débuté. Un site Internet sur le réseau paraîtra bientôt afin de vous informer des progrès dans l'organisation de cet événement. L'adresse sera donnée dans «CARTA» lorsque cela sera prêt. La cartothèque s'affaire afin de pouvoir répondre à l'afflux d'étudiants qui voudront prendre avantage de notre implication dans le projet d'éducation «GIS». Récemment, un article paru dans le *Dalhousie News* a contribué à accroître l'intérêt envers ce projet quand on y présentait James et Frank Nolan (président de la compagnie «Petro Drilling Ltd.». Frank a offert la somme de 1000 \$ pour aider à l'achat d'une imprimante couleur pour la collection.

ONTARIO

Groupe des cartothécaires «OCUL» (Trudy Bodak, Présidente)

Le 10 novembre dernier, le groupe des cartothécaires «OCUL» a tenu sa réunion d'automne à l'Université de Waterloo. Le sujet principal de discussion était le rapport du sous-comité du groupe des cartothécaires «OCUL» en ce qui a trait aux ententes pour «Data Licence». B. Znamirouwski de l'Université Trent, qui préside ce sous-comité, a souligné le travail du groupe et a fait rapport en ce qui a trait à la réunion avec le ministère des Ressources naturelles de l'Ontario (MRNO). Le sous comité explore diverses options pour améliorer l'accès aux données numérisées du MRNO. Un rapport sera préparé pour les bibliothécaires en chef de «OCUL» pour leur rencontre au printemps. C. Beard de l'Université Brock a distribué son inventaire des cartes numérisées/électroniques pour les cartothèques ontariennes. Les membres ont suggéré que cette liste soit disponible sur le site Internet à venir de Brock avec des liens aux sites Internet de «OCUL» et de l'ACCAC.

Il y aura aussi des discussions importantes en ce qui a trait aux guides pour usagers pour les produits numérisés. Le groupe s'est mis d'accord sur le fait que les guides existants, déjà préparés par les membres, pourraient être partagés comme groupe, sur une base volontaire, les membres tenteront de développer des guides pour les produits qui n'ont pas encore de documents d'accompagnement. Les membres se sont entendus sur un patron («template») pour le développement de nouveaux guides.

La réunion s'est terminée avec une démonstration de «Netlink» par R. Pinnell de l'Université de Waterloo, il prenait des données du recensement d'un serveur

central pour les charger dans un terminal public dans la cartothèque. C. Beard a aussi montré comment elle pouvait utiliser les données du recensement à partir de «MapInfo», afin de créer un atlas du recensement pour la municipalité régionale de Niagara.

Commission géologique du Canada et une mise à jour personnelle (Karen Lohead)

En tant qu'organisatrice fondatrice de l'Association en 1967 avec Ted Layng, Yves Tessier et Joan Winearls, j'aimerais informer mes anciens et nouveaux collègues que j'ai fait le tour du jardin en ce qui a trait à tout ce qui touche les activités liées aux cartothèques. Après une absence du domaine cartographique pendant un certain nombre d'années, je peux vous dire que je suis heureuse d'être à nouveau associée aux «matériaux spatiaux». Je suis actuellement coordonnatrice intérimaire pour les collections spéciales au Centre canadien d'information en géoscience à la Commission géologique du Canada.

La collection, avec l'expertise de Denis Allen, Marjorie Elwood, Irene Krumar et Louise Simpson, acquiert les cartes, les photographies, le matériel géophysique et abrite les archives pour les livres et les cartes, de plus comme plusieurs d'entre vous le savez, nos locaux sont situés dans la Pièce G 70 au 601, rue Booth à Ottawa. Ceci est en fait l'endroit où se trouvait la Cartothèque dans les années 1950 et 1960 et c'est aussi l'endroit où comme jeune cartothécaire pour l'Atlas du Canada, je me suis intéressée pour la première fois aux collections de cartes. Cet intérêt m'a permis de décrocher un emploi aux Archives nationales du Canada, à la collection des cartes et plans comme responsable de la Section des cartes étrangères, ce qui a eu comme résultat, mon implication au travail en comité avec l'Association à ses débuts.

En 1989, j'ai quitté le Canada avec ma famille pour un poste en Australie avec le Ministère des Affaires étrangères et du Commerce international. Là, alors que mon mari occupait le poste de commissaire senior au commerce, j'ai réussi à trouver du travail intéressant auprès de plusieurs ministères et agences du gouvernement australien et presque tout était lié à la documentation «d'ensembles de données spatiales digitales». Alors que je travaillais pour une entreprise appelée «Wizard Information Services» et une firme multimédia associée «CBT», nommée «Learning Curve», j'ai été présentée à un professeur de bibliothéconomie par un ami commun. Nous avons convenu ensemble de l'intérêt de mettre sur pied un programme informatisé pour enseigner le catalogage. Par la suite, nous avons dans un projet conjoint avec «Learning Curve» produit

«Catskill», soit le premier logiciel de formation sur disque laser pour ordinateur afin d'enseigner «AACR2 (R)» et le codage de format «MARC» (en versions «US MARC, CAN/MARC, ABNMARC et UKMARC»). Je suis maintenant responsable du marketing pour «CATSKILL» au niveau nord-américain.

De plus, lorsque j'étais en Australie, j'ai terminé un certificat en gemmologie de l'Institut de technologie de Canberra. La tendance que j'ai à collectionner les objets qui brillent et à ramasser de jolis cailloux lors de mes voyages a été partiellement comblée par des connaissances fragmentaires des origines des pierres précieuses et semi-précieuses, ainsi que par mes voyages en Australie afin de les chercher. C'est merveilleux de travailler de nouveau au Canada dans l'une des premières institutions géoscientifiques au monde.

Karen Lohead
Coordonnatrice par intérim
Collections spéciales
Centre canadien d'information en géoscience
Commission géologique du Canada

Cartothèque Serge A. Sauer, Université Western Ontario (Cheryl Woods)

Notre base de donnée comprenant 2254 atlas, 1312 thèses départementales (BA, BSc, MA, MSc, PhD) et 902 plans urbains étrangers est maintenant accessible par modem. Pour y avoir accès, il faut taper : telnet SSCL.UWO.CA/port=196. Puisque l'accès varie selon la technologie utilisée par chaque institution, l'adresse est SSCL.UWO.CA et requière «port 196».

Nous avons récemment acquis pour la collection un ensemble de 100 cartes du Nigéria à l'échelle de 1 : 250 000 qui montrent la végétation et l'utilisation du terrain, à partir de l'imagerie «Landsat MMS» (1976-78) et imprimées en 1995.

Un étudiant du Collège «Fanshawe» inscrit au programme de technique en bibliothéconomie et information a été avec nous pour deux semaines dans le cadre d'un stage en milieu de travail. C'est la deuxième année que l'Université Western a accepté de participer à ce programme et cela avec des résultats satisfaisants. La cartothèque Serge A. Sauer emploie aussi 4 étudiants du programme emploi études de l'Ontario par le biais du Ministère de l'Éducation de l'Ontario et la section du soutien à la formation pour étudiants.

Cartothèque Carleton (Barbara Farrell)

La cartothèque de l'Université Carleton a été la récipiendaire d'une subvention du Conseil de recherches en sciences humaines du Canada qui a permis d'acquérir quelques 200 atlas et 2000 cartes topographiques d'Europe de l'Est et de l'ex-URSS. Ces documents forment une partie de la collection du professeur Bogdan Zaborski maintenant décédé. Ils datent de la fin du dix-neuvième siècle jusqu'au milieu du vingtième siècle et viennent s'ajouter à la collection déjà importante de documents ayant trait à l'Europe de l'Est, de l'Université Carleton. Ceux-ci représentent un apport important pour la recherche universitaire particulièrement dans les départements de géographie, de sciences politiques, d'études internationales Norman Paterson et le Centre pour les études pour les régions de l'Europe de l'Est et de la Russie. Les lecteurs particulièrement intéressés par ces documents peuvent communiquer avec moi par courrier électronique : Barbara_Farrell@carleton.ca.

La bibliothèque est présentement l'hôte d'une exposition spéciale sur les cartes dessinées par des enfants représentant leur monde - cartes des compétitions cartographiques de l'Association cartographique internationale (ACI) en 1993 et 1995. La compétition Barbara Petchnik pour les cartes par les enfants a été mise sur pied en 1993 pour honorer la mémoire de Barbara Bartz Petchenik, elle était vice-présidente pour l'ACI, elle est décédée en 1992. L'exposition présente des oeuvres originales réalisées par des enfants et montrant leur interprétation du monde par le biais des cartes. Leurs dessins sont porteurs d'images pleines d'espoir et d'optimisme et certains expriment aussi le désespoir avec des représentations de la famine et de la guerre. Cette exposition se tient du 18 octobre au 14 décembre 1995 à l'étage principal de la bibliothèque MacOdrum. Les cartes seront ensuite en permanence à la cartothèque de Carleton à la suite d'une proposition de Barbara Farrell. On projette de rendre disponibles certains dessins sur Internet (WWW) dans le cadre d'un futur site Internet de l'ACI. Cette exposition a suscité jusqu'à maintenant les commentaires les plus enthousiastes que nous n'ayons jamais eu pour une exposition en bibliothèque.

Université d'Ottawa (Grace Welch)

Depuis septembre 1995, Bruce Robin, notre technicien en bibliothéconomie a accepté un poste pour un an comme technicien carto-thécaire/gestionnaire LAN au département de géographie. Martine Rocheleau l'a remplacé.

La cartothèque prend part à un projet pilote d'une durée d'un an afin de tester et d'évaluer «Netscape» pour les

services de référence. «Netscape» a été installé sur 486 postes de travail publics en juin et jusqu'à maintenant, la réponse a été positive. Un deuxième poste de travail a été mis à la disposition du public, soit un Pentium 90 MHZ, Ram 16 no, essentiellement pour avoir accès au programme «ArcView2.1». Nous avons aussi commencé à préparer un site Internet pour la cartothèque, celle-ci devrait être disponible à la mi-décembre.

Le personnel de la cartothèque a récemment fini de compter toutes les cartes, les livres et les atlas disponibles dans la collection. L'été prochain les photographies aériennes de la collection seront comptées.

Grace Welch a représenté le comité de contrôle bibliographique («Bibliographic Control Committee») comme membre d'un groupe de travail sur le catalogage des documents cartographiques digitalisés, une réunion s'est tenue à Santa-Barbara du 11 au 14 novembre. Le comité a revu les ensembles de données géomatiques : les règles de catalogage - dans l'optique de les intégrer dans - les documents cartographiques : un manuel d'interprétation pour «AACR2». De plus, des règles additionnelles sont suggérées afin de pouvoir décrire entièrement des ensembles de données géomatiques. Les révisions proposées pour les documents cartographiques seront présentées, lors d'une réunion du comité de catalogage anglo-américain des documents cartographiques, prévue de façon provisoire pour l'automne 1996.

ALBERTA

Université de l'Alberta (David Jones)

La dernière semaine du mois de septembre était la semaine SIG à Edmonton. Celle-ci a débuté par une journée d'introduction aux ateliers SIG commanditée par la bibliothèque de sciences et technologie de l'Université de l'Alberta. Denis Johnson du département de géographie a présenté SIG pour les carto-thécaires et les bibliothécaires qui étaient à Edmonton pour la formation «ARL-GIS» qui se déroulait les trois jours suivants. Ceci nous amena à la fin de semaine et à la conférence «WESTCAN-ASIS» qui mettait aussi l'emphase sur SIG. Cette semaine a été très occupée mais riche de récompenses pour tous les participants.

Pour faire suite au thème SIG, l'Université de l'Alberta a maintenant son ordinateur Pentium avec «ARCVIEW» et un certain nombre de CD-Roms, cartographiques inclus. Nous préparons aussi une note de service/questionnaire qui sera envoyée aux représentants des bibliothèques de faculté dans tous les départements sur le campus afin de présenter les activités SIG et pour

obtenir de l'information sur l'intérêt et les utilisations de SIG sur tout le campus. Ceci sera distribué au début de la nouvelle année.

La collection de cartes William C. Wonders à l'étage principal de la bibliothèque Cameron connaît un achalandage important et nous offre une expérience d'apprentissage importante. Les archives cartographiques (rez-de-chaussée) ont survécu à une autre ronde de rénovations, leur organisation constitue notre projet d'hiver.

Nous avons reçu récemment de «ISM», le premier lot de cartes que nous leur avons envoyées pour catalogage. Celles-ci seront accessibles par le biais de notre catalogue «DRA» informatisé. Nous examinons aussi la possibilité de convertir notre catalogue (papier) en un fichier «DRA»

COLOMBIE BRITANNIQUE

Université de Victoria (Lori Sugden)

La cartotheque a maintenant un nouveau nom afin d'accroître l'identification par les usagers de nos collections principales. L'ancien nom était le Centre de ressources cartographiques et c'est maintenant la Cartothèque afin d'éviter la confusion avec les services techniques en géographie qui font de la cartographie. Dans les deux derniers mois, nous avons installé deux nouveaux ordinateurs et nous apprenons «ArcView» comme participants au projet «ARL GIS». Ceci permet à la cartotheque d'être accessible aux stations de travail publiques pour la première fois, même si nous sommes dans un autre édifice que celui de la bibliothèque principale (McPherson) de l'Université de Victoria. Le défi est excitant et riche de récompenses même s'il y a beaucoup de choses à apprendre.

L'Association cartographique de Colombie britannique (Frances Woodward)

Nous sommes la seule association régionale canadienne à être mentionnée dans la nouvelle édition (D8) du «Who's Who» dans le *History of Cartography*, puisque les associations d'Edmonton et d'Ottawa n'existent plus. L'Association de Colombie britannique est toujours active et impliquée dans un projet important. Le président est R.C. (Bob) Harris; le trésorier est John Spittle; le secrétaire est Bruce Ward; la coordonnatrice de programmes est Frances Woodward ; le coordonnateur de projet est Bruce Ward. Le projet est une bibliographie cartographique des cartes de C.B. à partir de 1871 avec une base de données et des photographies de cartes. À la mi-novembre, 1300 cartes avaient été répertoriées.

L'orateur invité pour septembre était Doug Aberley, il avait prononcé un discours à la conférence conjointe de l'ACCAC et «WAML». Sa venue parmi nous était prévue pour le mois de mai, mais il a dû la reporter jusqu'en septembre. Il nous a présenté les sujets suivants soit, son atlas Cascadia, sa carte Terrace-Hazelton et sa carte de la vallée du Fraser appelée Salmonopolis. En octobre, le professeur Alfred Siemens du département de géographie de l'Université de Colombie britannique nous a parlé de ses travaux dans la région de Veracruz (Mexique), ceux-ci portent sur la reconstitution des changements dans la colonisation et l'agriculture à partir de cartes anciennes et de rapports coloniaux. En novembre, M. Stanley Deane (Phd) nous a parlé du développement des villes européennes tel qu'indiqué dans les atlas Braun et Hogenberg. En décembre, Carol Lowes nous présentera la première partie d'un recensement historique du système routier britannique.

CONFERENCE '96 FUNDING REQUESTS

DEADLINE — MARCH 2, 1996

see page 26 for details!

MAP REDISTRIBUTION

NATIONAL ARCHIVES OF CANADA
VISUAL & SOUND ARCHIVES DIVISION

CANADA 1: 63,360

NOTE: Unless otherwise noted, maps with a b, c, or d added to the date and dates in square brackets show military edition. Maps are in poor to good condition.

1 N/6	Holyrood	[ca.1950]	21 H/13	Codys	1950 military ed. 2 cop.
1 N/7	Bay Bulls	1943b	21 I/3	Salisbury	1950 military ed.
1 N/10	St. Johns	[ca.1950]	21 I/4	Chipman	1951
1 N/11	Harbour Grace	[ca.1950]	21 I/9	O'Leary	1947 2 cop.
1 N/14	Hearts Content	[ca.1950]	21 I/10	Richibucto	1949
2 D/13	Grand Falls	1950 military edition	21 I/14	Kouchibouguac	1950
11 D/5	Sambro	1939b	21 I/16	Tginish	1947, [ca.1949]
11 D/11	Chezzetcook	1939, 1941, 1941b	21 J/1	Minto	1951
11 D/12	Halifax	1943	21 J/11	Juniper	1950
11 D/13	Uniacke	1938b	21 J/12	Andover	1949 2 cop.
11 D/14	Musquodoboit	1937, 1937b	21 J/13	Aroostook	1949
11 E/4E	Kennetcook	1939	21 L/1	St. Zacharie	1938, [ca.1952]
11 E/6	Truro	1940, 1940b	21 L/2	Beauceville	1940
11 E/10	New Glasgow	1927 3 cop., 1927b	21 L/3	Thetford	1937
11 F/16	Mira	1939, 1940b	21 L/5	Lyster	1944
11 G/13	Louisburg	1936b	21 L/11	Chaudiere	1944b
11 J.4	Glace Bay	1935, 1943, [ca.1952]	21 L/14	Quebec	1932, 1944
11 K/1	Sydney	1942, [ca.1950]	21 O/1	Big Bald Mountain	1949
11 K/6	Margaree	1951 2 cop., [ca.1950]	21 O/4	Grand Falls	1947 2 cop.
11 K/8	Bras d'Or	1939 2 cop., [ca.1950]	21 O/5	Grand River	1947
11 L/2E	Montague	1946	21 O/6	Sisson	1947
11 L/2W	Orwell	1946	21 O/9	Tetagouche Lakes	1950
11 L/3	Charlottetown	1939, 1939b	21 O/12	Gounamitz River	1950
11 L/4	Cape Tormentine	1944	21 P/3	Chatham	1949, [ca.1950]
11 L/5 & 21 I/8	Summerside	1944 2 cop., 1944b 2 cop.	21 P/4	Sevogle	1950 2 cop.
11 L/6	Rustico	1939, [ca.1950]	21 P/5	Nepisiguit Falls	1950
11 L/7	Mount Stewart	1946	21 P/12	Bathurst	1950
11 L/8	Souris	1947	30 L/13	Dunnville	1938, 1938b, [ca.1950]
11 L/12	Malpeque	1944b	30 L/14	Welland	1934, 1938, 1938b
12 H/5	Lomond	1949	30 M/3	Niagara	1938, 1942
12 H/6	Upper Humber	1948	30 M/4	Grimsby	1938
20 O/9	Comeau Hill	1928, 1942	30 M/5	Hamilton	1938, 1938b
20 O/16	Yarmouth	1929, 1942, 1942b	30 M/11	Toronto	1942, 1942b, 1949, 1949b 2 cop.
21 A/15	Gaspereau Lake	1951	30 M/12	Brampton	1933, 1933b, 1942 2 cop., 1942b 2 cop., [ca.1950]
21 E/3	Malvina	1939	30 M/13	Bolton	1940
21 E/4	Coaticook	1936	30 M/14	Markham	1943
21 E/5	Sherbrooke	1933, 1940	30 M/15	Oshawa	1939b 2 cop.
21 E/6	La Patrie	1944, [ca.1950]	30 M/16	Port Hope	1938, 1938b
21 E/7	Woburn	1938, 1944	30 N/15	Duck Island	1932
21 E/10	Megantic	1934	31 B/12	Brockville	1933, 1940, 1940b
21 E/11	Scotstown	1932, 1940 2 cop., 1940b	31 B/13	Merrickville	1940, 1940b
21 E/12	Dudswell	1937, 1944	31 B/14	Morrisburg	1940
21 E/13	Warwick	1934	31 C/1	Wolf Island	1940
21 E/16	Armstrong	1936	31 C/3	Belleville	1933, 1938, 1938b
21 G/15	Fredericton	1928	31 C/4	Trenton	1938, 1938b
21 H/1	Wolfville	1928	31 C/5	Campbellford	1933, 1941
21 H/12	Sussex	1927, 1939	31 C/6	Tweed	1933, 1939, 1939b 2 cop.
			31 C/7	Sydenham	1933, 1933b, [ca.1948]
			31 C/8	Gananoque	1933, 1938, 1938b
			31 C/9	Westport	1938, 1949
			31 C/10	Tichborne	1939, 1939b
			31 C/13	Coe Hill	1947, [ca.1950] 2 cop.

31 C/14	Mazinaw Lake	1947	40 I/12	Bothwell	1948
31 C/15	Sharbot Lake	1941 2 cop.	40 I/13	Strathroy	1933, [ca.1950]
31 D/1	Rice Lake	1932, 1933, 1938, 1942	40 I/14	St. Thomas	1941, 1948
31 D/2	Scugog	1940, [ca.1950]	40 I/15	Tillsonburg	1935, 1939
31 D/3	Newmarket	1939b	40 I/16	Simcoe	1935, 1939, [ca.1949] 2 cop.
31 D/4	Alliston	1940, 1940b, 1949, 1949b	40 J/1	Romney	1941
31 D/5	Barrie	1932, 1943, 1943b, 1950 2 cop.	40 J/2	Essex	1936, 1940, 1940b
31 D/6	Beaverton	1935, 1939, 1939b	40 J/3-6	Windsor	1939
31 D/7	Lindsay	1938, 1939, 1939b	40 J/7	Belle River	1940 2 cop.
31 D/8	Peterborough	1932, 1933, 1939	40 J/7	Chatham	1940
31 F/1	Carleton Place	1939b, 1950	40 J/9	Wallaceburg	1939
31 F/2	Clyde	1948, [ca.1949] 2 cop.	40 J/16	Sarnia	1932, 1936, 1936b, [ca.1950]
31 F/3	Denbigh	1948	40 P/1	Brantford	1940
31 F/4	Bancroft	1948	40 P/2	Woodstock	1935, 1938, 1938b
31 F/5	Barry's Bay	1948	40 P/3	Lucan	1936, 1936b
31 F/7	Renfrew	1940	40 P/4	Parkhill	1936, 1940b
31 F/8	Arnprior	1943	40 P/5	Grand Bend	1938, 1938b
31 F/11	Golden Lake	1937, 1937b	40 P/6	St. Mary's	1940, [ca.1950]
31 F/12	Round Lake	1942, 1951	40 P/7	Stratford	1933, 1938
31 F/13	Grand Lake	1942, 1951	40 P/8	Galt	1938
31 F/14	Pembroke	1936, 1939, 1944	40 P/9	Guelph	1935, 1939, 1939b, [ca.1950]
31 G/1	Huntington	1935	40 P/10	Conestogo	1936, 1939
31 G/2	Cornwall	1937, [ca.1950]	40 P/11	Seaforth	1937
31 C/3	Winchester	1933, [ca.1950]	40 P/12	Goderich	1937, 1941, 1941b
31 G/4	Kemptville	1936, 1949b	40 P/13	Lucknow	1937, 1937b
31 G/5	Ottawa	1941, 1948, [ca.1949]	40 P/14	Wingham	1937
31 G/6	Russell	1936, 1939	40 P/15	Palmerston	1937, 1937b
31 G/7	Alexandria	1937, 1937b 2 cop.	40 P/16	Orangeville	1937b,
31 G/8	Vaudreuil	1937, 1940 military edition, 1945b, [ca.1950]	41 A/1	Dundalk	1941, 1941b 2 cop.
31 G/9	Lachute	1943, [ca.1950]	41 A/2	Durham	1945, 1945b 2 cop.
31 H/3	Lacolle	1939, 1944	41 A/3	Walkerton	1946
31 H/5	Lachine	1935	41 A/4	Kincardine	1946
31 H/6	St. Jean	1935	41 A/7	Markdale	1945, 1945b
31 H/7	Granby	1944b, [ca.1950]	41 A/8	Collingwood	1941
31 H/8	Orford	1931	41 A/9	Nottawasaga	1945
31 H/11	Beloil	1932, 1936	41 A/10	Owen Sound	1945, [ca.1950]
31 H/12	Laval	1934, 1938 military edition, 1944, 1944b	41 A/11	Warton	1945
31 H/14	Vercheres	1934	41 A/14	Cape Croker	1946
31 H/15	Upton	1938	41 H/3-4	Tobermory	1946
31 I/1	Aston	1932, 1944	41 H/13	Little Current	1951
31 I/2	Yamaska	1943 2 cop.	41 I/6-7-10-11	Sudbury	1938 identified as 41 I.
31 I/3	Sorel	1928, 1941, 1941b	41 K/9	Sault Ste. Marie	1939
31 I/7	Three Rivers	1941	52 L/5	Pointe du Bois	1951
31 I/8	Becancour	1938, 1938b	52 L/6	Ryerson Lake	1950
31 I/9	Grondines	1931, 1950	52 L/11	Flinstone Lake	1950
31 I/10	Shawinigan	1928, 1941	52 L/12	Maskwa Lake	1950
31 L/1	Brent	1949	52 L/13	Manigtagan Lake	1950
31 L/8	Maganasipi	1949	52 L/14	Garner Lake	1951
31 N/1	Bark Lake	1951	52 M/3	Aikens Lake	1951
31 P/4	Clear Lake	1950	52 M/4	Wanipigow	1950 2 cop.
32 A/8	Chambord	1949	62 H/1	Sundown	1951
32 A/9	Roberval	1950	62 H/2	Tolstoi	1951
32 A/16	Dolbeau	1951	62 H/7	St. Malo	1950
32 G/14	Michwacho Lake	1950 2 cop.	62 H/8	Marchand	1950 2 cop.
40 I/5	Ridgetown	1941, 1941b, [ca.1950]	62 H/9	Richer	1951
40 I/9	Long Point	1937	62 H/10	Ste. Anne	1951
40 I/10	Port Burwell	1937, [ca.1949]	62 H/16	Vivian Station	1951 2 cop.
40 I/11	Port Stanley	1933, 1938, 1941, 1948	62 I/1	Molson	1951
			62 I/2	Selkirk	1939 2 cop.
			62 I/5	St. Laurent	1950

62 I/6	Teulon	1950	82 O/1	Calgary Northwest	1931
62 I/7	Red River Delta	1951 2 cop.	82 P/4	Calgary Northeast	1927, 1940
62 I/8	Lac du Bonnet	1951	83 L/3	Copton Creek	1951 2 cop.
62 I/9	Pine Falls	1950	84 I/11	Stovel Lake	1951
62 I/16	Black River	1951	84 I/12	Buchanan Lake	1951
62 N/2	Grand View	1950	85 B/12	Sandy River	1951 3 cop.
62N/3	Roblin	1951 2 cop.	85 J/8	Yellowknife Bay	1949
62 N/6	Angling Lake	1951	86 B/11	Origin Lake	1951 3 cop.
62 N/7	Baldy Mountain	1950 2 cop.	86 C/8	Ingray Lake	1950 2 cop.
62 N/10	Singush Lake	1950 2 cop.	86 K/5	MacAlpine Channel	1949 3 cop.
62 N/11	Childs Lake	1950 2 cop.	92 B/5	Sooke	1951
62 N/14	Durban	1950 2 cop.	92 B/6	Victoria	1945, 1945b
62 N/15	Pine River	1951 2 cop.	92 B/12	Shawnigan	1950
62 P/1	English Brook	1950 2 cop.	92 B/13	Duncan	1953 2 cop.
62 P/5	Harwill	1952 2 cop.	92 C/9&8	San Juan	1943 military ed.
63 C/1	Duck Bay	1950 2 cop.	92 C/10	Carmanah	1943 military ed.
63 C/2	Renwer	1949	92 C/14	Barkley Sound	1942b 2 cop.
63 C/7	Lenswood	1950	92 C/16	Cowichan Lake	1953 2 cop.
63 C/8	Camping Islands	1951	92 E/8&7	Hesquiat	1949 2 cop.
63 J/16	Duck Lake	1952 2 cop.	92 E/10	Nootka	1950
63 K/11	Cranberry Portage	1950	92 E/16	Gold River	1953
63 L/9	Denare Beach	1951 2 cop.	92 F/1	Nanaimo Lakes	1949
63 L/10	Hanson Lake	1949 2 cop.	92 F/5	Bedwell	1949
63 L/15	Birch Portage	1950 2 cop.	92 F/6	Great Central	1949
63 L/16	Annabel Lake	1951 2 cop.	92 F/7	Horne Lake	1949
63 N/4	Duval Lake	1950	92 F/8	Parksville	1953 2 cop.
64 C/6	Kadeniuk Lake	1951 2 cop.	92 F/13	Upper Campbell	1949
64 C/7	Watt Lake	1951 2 cop.	92 F/14	Oyster River	1949 2 cop.
64 C/8	Turnbull Lake	1951 2 cop.	92 G/2	New Westminster	1938, 1938b 2 cop.
64 C/9	Eden Lake	1950 2 cop.	92 G/3	Vancouver South	1939 2 cop., 1939b
64 C/10	Sickle Lake	1950	92 G/6	Vancouver North	1938 3 cop.
64 C/11	McGavock Lake	1951 2 cop.	92 G/7	Coquitlam	1942 2 cop.
64 C/12	Laurie Lake	1951 2 cop.	92 I/9	Kamloops	1926 printed as 52-M-V (photocopy), 1926b printed as 92 I/9
64 C/14	Lynn Lake	1951 2 cop.	92 L/1	Schoen Lake	1938
64 F/1	Melvin Lake	1952 2 cop.	92 L/2	Woss Lake	1938, 1949
64 F/2	Wells Lake	1952 2 cop.	92 L/6	Alice Lake	1947 2 cop.
64 F/3	Goldsand Lake	1952 2 cop.	92 L/7	Nimpkish	1936, 1951
73 B/2	Saskatoon	1941	92 L/8	Adam River	1949,
73 K/5	Pierceland	1950	93 A/5	Beaver Creek	1952 2 cop.
73 K/6	Goodsoil	1950	93 A/6	Horsefly	1952 3 cop.,
73 K/7	Dorintosh	1950	93 A/11	Spanish Lake	1938b forest cover edition, 1949 2 cop.
73 K/8	Island Hill	1951	93 A/12	Hydraulic	1938, 1938b forest cover ed. 2 cop., 1949 3 cop.
73 K/9	Waterhen Lake	1951 2 cop.	93 A/13	Swift River	1938b forest cover ed. 2 cop., 1949
73 K/10	Flotten Lake	1951 2 cop.	93 A/14	Cariboo Lake	1938b forest cover ed., 1949,
73 K/11	Muskeg Lake	1950 2 cop.	94 A/2	Fort St. John	1949 2 cop.
73 K/12	Cold River	1950	94 A/3	Moberly River	1949
73 K/13	Primrose Lake	1950	94 A/6	Bear Flat	1949 2 cop.
73 K/14	Kesatasew	1951	94 A/7	North Pine	1949 2 cop.
73 K/15	Lost Lake	1950	102 I/9	San Josef	1947
73 K/16	Keeley Lake	1950 2 cop.	104 A/16	McEvoy Flats	1950 3 cop.
73 L/6	Maloy	1951 2 cop.	104 P/15	Lower Dease River	1948
73 P/7	Stanley	1951 2 cop.	104 P/16	Lower Post	1948
73 P/8	Nistowiak Lake	1951 2 cop.	105 D/10	MacRae	1949
73 P/9	Guncoat	1951 2 cop.	105 D/11	White Horse	1949
73 P/10	Otter Lake	1951	105 M/15	Mayo Lake	1949 2 cop.
73 P/15	Forbes Lake	1951 2 cop.			
73 P/16	Settee Lake	1951			
74 A/1	Maribelli Lake	1950 2 cop.			
82 J/16	Calgary Southwest	1930, 1940			
82 N/8	Lake Louise	1927, 1945, 1948, 1953			

Aerial strip map : [central Canada] 1:253 440

No. 1 (experimental)	Montreal to Morrisburg	1929
No. 2 (experimental)	Morrisburg to Kingston	1930
No. 3	Kingston to Toronto	1931
No. 3 western section	[Toronto to Colbourg]	1930
No. 4	[Ingersol to Toronto]	1931
No. 5 (section No. 2)	[Batischi to Baie St. Paul]	1931
No. 5 (section No. 3)	[Ste. Anne de la Pocatiere to Rimouski]	1931

[Aerial navigation charts for Northern Canada]

	Air navigation map Churchill River	1931 2 cop.
335a	Providence to Camsell Bend	1931
335b	Camsell Bend to Norman	1931
335c	Norman to Thunder River	1931
335d	Thunder River to Mackenzie River Delta	1931
335e	Waterways to Fitzgerald	1931
335f	Fitzgerald to Providence	1931
336a	Point Lake to Big Bend Coppermine	1931
336b	Hunter Bay to Coppermine	1931 2 cop.
336c	Hunter Bay to Dease Bay	1931
336d	Dease River to Coppermine	1931
336e	Rae to Lake Faber	1931
336f	Lake Faber to Lake Isabella	1931
336g	Hottah Lake to Richardson Island	1931
337	Beverley Lake to Lower Thelon River	1931
355a	Rae to Hardisty Lake	1932
355b	Hardisty Lake to Hunter Bay	1932
356a	Yellowknife River to Reindeer Lake	1932
356b	Reindeer Lake to Point Lake	1932
357a	Fort Reliance to Sifton Lake	1932
357b	Sifton Lake to Thelon River (inset on sheet 357c)	
357c	Grassy Island to Beverly Lake	1932
358a	Stony Rapids Portage to Wholdaia Lake	1932
358b	Wholdaia Lake to Barlow Lake	1932
358c	Barlow Lake to Dubawnt Lake	1932
358d	Dubawnt to Beverly Lake	1932
362a	Lac de Gras to Bathurst Inlet	110-65 1932
362b	Lac de Gras to Bathurst Inlet	109-66 1932 2 cop.
363a	Lake Aylmer to Lake Beechey	1932
363b	Lake Beechey to Bathurst Inlet	1932 2 cop.
364	McLeod Bay to Mackay Lake	1932 2 cop.

CANADA 1:253 440 topographic maps

NOTE: Unless otherwise noted, maps with a b, or c added to the date and dates in square brackets show military edition.

21 E	Sherbrooke	1941 2 cop.
30 M	Toronto	1941 2 cop., 1941b
31 B	Brockville	1943b
31 C	Belleville-Kingston	1935
31 D	Lake Simcoe	1940 2 cop., 1940b
31 G	Ottawa	1937 3 cop.
31 H	Montreal	1940 3 cop., 1940b 2 cop.

32 B	Gouin Reservoir	1936 2 cop., 1936b
32 F	Waswanipi	938 2 cop.
32 G	Chibougamau	1936, 1953
40 L	St. Thomas	1939b
40 J	Windsor	1943, 1943b
40 P	Kitchener	1939 3 cop.
41 A	Bruce	1947 2 cop.
42 E	Longlac	1938 2 cop.
42 I	Nakina	1934, 1949 2 cop.
52 B	Quetico	1931 2 cop., 1942, 1949 2 cop.
52 C	Rainy Lake	1931, 1948 2 cop.
52 D	Rainy River	1931, 1940 2 cop., 1951 2 cop.
52 E	Kenora	1929 2 cop., 1933 2 cop., 1939, 1957 2 cop.
52 F	Dryden	1930 2 cop., 1938, 1947, 1948 2 cop.
52 G	Ignace	1932, 1947 2 cop., 1950
52 H	Nipigon	1936, 1948 2 cop.
52 I	Armstrong	1928 2 cop., 1948, 1953 2 cop.
52 J	Sioux Lookout	1928 2 cop., 1939 2 cop.
52 K	Lac Seul	1926 2 cop., 1938, 1940, 1947 2 cop., 1950 2 cop.
52 L	Pointe du Bois	1926, 1932, 1948, 1951 2 cop.
52 M	Carroll Lake	1926 3 cop., 1940, 1950
52 N	Trout Lake	1927 2 cop., 1948 2 cop.
52 O	Lake St. Joseph	1929, 1942 2 cop.
52 P	Miminiska	1932, 1947 2 cop.
53 D	Deer Lake	1929 2 cop.
53 E	Island Lake	1929 2 cop., 1946
53 K	Stull Lake	1938 2 cop.
53 L	Oxford House	1929, 1938 2 cop.
53 M	Knee Lake	1938 2 cop.
55 L&K	Ferguson River-Rankin Inlet	1935
62 G	Brandon	1948 2 cop.
62 H	Winnipeg	1930 2 cop., 1938 2 cop., 1950
62 I	Selkirk	1929, 1938 2 cop.
62 P	Hecla	1929 2 cop., 1949 2 cop.
63 A	Berens River	1928 2 cop.
63 B	Waterhen	1930 3 cop., 1950 2 cop.
63 F	The Pas	1942 2 cop., 1950 2 cop.
63 G	Grand Rapids	1927, 1946, 1950 2 cop.
63 H	Norway House	1928 2 cop., 1951
63 I	Cross Lake	1930, 1946
63 J	Wekusko Lake	1927, 1946, 1948
63 K	Cormorant Lake	1927, 1929, 1948, 1951 3 cop.
63 L	Amisk Lake	1934 2 cop., 1952
63 M	Pelican Narrows	1929 2 cop., 1950 2 cop.
63 N	Kississing	1928, 1931
63 O	Nelson House	1934 3 cop.
63 P	Sipiwesk	1930, 1950 2 cop.
64 C	Granville	1933, 1947
64 D	Reindeer Lake South	1932, 1947, 1953
64 E	Reindeer Lake North	1937
73 H	Prince Albert	1933 2 cop.
73 J	Green Lake	1932 2 cop., 1952
73 N	Dillon	1932 2 cop., 1951 2 cop.
73 O	Ile-a-la-Crosse	1932 2 cop.
73 P	Lac-la-Ronge	1929 2 cop., 1951
74 A	Foster Lake	1932 2 cop., 1950 2 cop.

74 B	Mudjatik	1933 2 cop.
74 F	Clearwater	1939 2 cop.
74 G	Cree Lake	1939 2 cop.
74 L	Chipewayan	1929 2 cop.
74 M	Fitzgerald	1930 2 cop.
74 N	Tazin Lake	1935 2 cop. 1950
74 O	Fond-du-Lac	1935 2 cop.
74 P	Stony Rapids	1935, 1949
84 I	Lake Claire	1929 2 cop.
84 P	Peace Point	1929 2 cop.
85 J & 85 I	Yellowknife Bay	1939 2 cop., 1945, 1950 2 cop.
86 K & 86 J	Hunter Bay - Coppermine River	1932 3 cop.
86 N & 86 O	Dismal Lakes - Coppermine	1932 2 cop.
92 I	Ashcroft	1950 2 cop.
93 N	Manson River	1950 2 cop.
94 B	Halfway River	1928
94 G	Prophet River	1928 2 cop.
105 M	Mayo	1950

CANADA (ICAO) 1: 1 000 000 (without air information)

ICAO no.

2007	Eureka Sound	1956, 1961, 1969
2008	Robeson Channel	1956, 1963, 1968
2020	Jones Sound	1957
2021	Belcher Channel	1956, 1968
2022	Ballantyne Strait	1954, 1969
2034	Thomsen River	1956, 1959, 1969
2035	Viscount Melville Sound	1956, 1968
2036	Lancaster Sound	1956, 1969
2037	Eclipse Sound	1951, 1969
2058	Rowley River	1951, 1969
2059	Murchison River	1958
2060	Victoria Strait	1956
2061	Horton River	1956, 1969
2062	Firth River	1950, 1967
2078	Peel River	1951, 1959, 1964
2079	Great Bear River	1958, 1968
2080	Thelon River	1954
2081	Quoich River	1954, 1968
2082	Koukdjuak River	1967
2083	Davis Strait	1951, 1967
2108	Soper River	1951, 1968
2109	Kovik River	1956
2110	Sutton River	1952
2111	Maguse River	1948, 1969
2112	Dubawnt River	1954, 1967
2113	Lockhart River	1950, 1966
2114	Slave River	1949, 1965
2115	Redstone River	1950, 1963
2116	MacMillan River	1951, 1965
2138	Iskut River	1952, 1967
2139	Beatton River	1950, 1963
2140	Hay River	1949, 1966
2141	Clearwater River	1949, 1965
2142	Cochrane River	1951, 1967

2143	Churchill River	1949, 1968
2144	Hudson Bay	1949
2145	Kogaluk River	1951, 1967
2146	Koksoak River	1949, 1961
2147	North River	1949, 1960
2178	Hamilton Inlet	1948, 1960, 1970
2179	Kaniapiskau River	1956
2180	Fort George River	1953
2181	Ekwan River	1949, 1960
2182	Sachigo River	1950, 1952, 1968
2183	Carrot River	1952
2184	North Saskatchewan Rvr	1952, 1965
2185	Athabasca River	1964
2186	Parship River	1950, 1967
2187	Skeena River	1955, 1968
2215	Fraser River	1950, 1956, 1967
2216	Kootenay River	1950, 1966
2217	South Saskatchewan Rvr	1949, 1952, 1967
2218	Assiniboine River	1949, 1952, 1967
2219	Ogoki River	1949
2220	Albany River	1950, 1956
2221	Broadback River	1949, 1970
2222	Saguenay River	1949, 1967
2223	Natashquan River	1949, 1952
2224	Gander River	1948, 1960
2260	Harbour River	1952, 1960
2261	St. Mary's River	1948, 1960
2262	St. John River	1949, 1961
2263	Gatineau River	1949, 1968
2264	Montreal River	1950
2311	Roeway River	1949, 1961
Special	Bagotville	[1957]
Special	Saskatoon	1952
Special	Scott Island	1953
Special	Southern Ontario	1955, 1968

**EARLY CANADIAN TOPOGRAPHIC MAP SERIES:
The Geological Survey of Canada "A" (revised)**

Note: for referencing NTS grid system please consult ACMLA publication Occasional Paper Number 1, *Early Canadian Topographic Map Series: The Geological Survey of Canada 1842-1949*. Ottawa, Lorraine Dubreuil. 1988

36A	Beaverdell	1911
165A	Windermere	1918
200A	Slocan	1929
201A	Mountain Park	1929
226A	Lovett	1929
229A	Turner Valley	1929
241A	Digby	1930
242A	Escuminac	1930
243A	Hillsborough	1930
244A	Panache	1930
246A	Key Harbour	1930
247A	Delamere	1930
252A	Jumpingpound	1931
253A	Bridgetown	1930

260A	Lake Ainslie	1931	540A	Bragg Creek (1:63 360)	1940
283A	Salmo	1934	540 A	Bragg Creek (1:50 000)	1940
297A	Cranbrook	1934	541A	Stimson Creek	1939
302A	Nordegg	1934	542A	Pekisko Creek	1939
341A	Keremeos	1940	543A	Rawdon	1940, 1945
342A	Sherpentine Lake	1936	544A	Morley	1939
348A	Gun Lake area	1936	545A	Mechamego Lake	1939
373A	Ogilvie	1942	546A	Tyaughton Lake	1940
402A	Peticodiac (East)	1946	547A	Joliette	1940, 1945
403A	Peticodiac (West)	1946 2 cop.	550A	Gale River	1939
404A	Bearberry	1937	551A	Nonacho Lake	1940
446A	Manson River (East)	1938	552A	Rochebaucourt	1939
447A	Manson River (West)	1938	582A	Goldfields	1940
448A	Hazelton (East)	1938	583A	Stokely Ctreek	1940
449A	Hazelton (West)	1938	586A	Verner	1940
441A	Rouyn area	1938	589A	Capreol	1940, 1947
466A	Taltson Lake	1938	590A	Leith	1941
467A	Fort Smith	1938	591A	Gordon Lake South	1941
468A	Haliburton (East)	1938, 1945	594A	Hanbury	1940
469A	Haliburton (West)	1938, 1945	597A	Hishagomish Lake	1940
470A	Bobcaygeon (East)	1945	598A	Muir Lake	1940
471A	Bobcaygeon (West)	1945	599A	Crackingstone	1941
472A	Nipisiguit Lake (East)	1938	600A	Marian River	1940
473A	Nipisiguit Lake (West)	1938	617A	Soskumika Lake	1941
474A	Point Wolf	1939	618A	Gordon Lake	1941
475A	Waterford	1939	622A	McConnell Creek	1941
476A	Salmon River	1940	629A	Forget Lake	1941
479A	Nelson	1938	649A	Mayo	1941
480A	Perron-Rousseau (East)	1938	650A	North Caribou Lake	1941
481A	Perron-Rousseau (West)	1938	651A	Windigo Lake	1941
484A	Mistawak Lake	1939	655A	Brock River	1941
485A	Landrienne (East)	1938	656A	Assinica Lake	1941
486A	Landrienne (West)	1938	657A	Tatlatui	1941
487A	Duverny (East)	1938	663A	Nevins Lake	1941
488A	Duverny (West)	1938	664A	Fort Resolution	1942
493A	North Spirit Lake	1939	666A	Athapadukow Lake	1941
494A	McInnes Lake	1939	669A	Moose Mountain	1941
495A	Sherbrooke Lake	1939	672A	George Creek	1942
496A	Springfield	1939	675A	Indin Lake	1947
498A	Quyta Lake	1939	676A	Hardisty Lake	1942
499A	Prosperous Lake	1939	677A	Wawa	1942
500A	Yellowknife Bay	1939	678A	Lac Charette	1942
507A	Rolling Dam	1939	679A	Cuvillier	1942
508A	Canoose River	1939	680A	St. Michel	1942, 1946 2 cop.
509A	Hopewell	1939	681A	Lac au Sorcier	1942
510A	West River	1939	682A	Schyan Lake	1942
511A	Owls Head	1939	683A	McCillivray Lake	1942
512A	Liscomb	1939	684A	Stonecliffe	1942
513A	Melopseketch	1939	685A	Clear Lake	1942
514A	Michwacho Lake	1939	686A	Chalk River	1946
515A	Lake Mulgrave	1939	687A	Fort Hope	1942
516A	Upper Musquodoboit	1939	699A	Wasmsley Lake	1942
517A	Lochaber	1939	700A	Cullin Lake	1942
518A	Moose River	1939 2 cop.	701A	Point Alexander	1942
519A	Ecum Secum	1939	702A	Mondonac Lake	1942
520A	Port Dufferin	1939	706A	Lac Boucher	1942
521A	Tangier	1939	707A	Wickenden Lake	1942
522A	Ship Harbour	1939	708A	Lac Livernois	1942 2 cop.
523A	St. Andrews	1939	814A	Beaver Mines	1943
524A	St. Stephen	1939	715A	Saunders	1943

716A	Fall Creek	1943	781A	Grand Lake	1944
717A	Marble Mountain	1943	782A	Aylmer Lake	1944
718A	Tay River	1943	783A	Hill Island Lake	1944
719A	Alexo	1943	785A	Lac Dumoine	1944
720A	Langford Creek	1943	786A	Russell Lake	1944
721A	Limestone Mountain	1943	787A	Aiken Lake	1944
722A	Callum Creek	1943	788A	Pincher Creek	1944
723A	Mikanagan Lake	1943	789A	St. Guillaume Nord	1944
724A	Dyson Creek	1943	790A	Mosquic Lake	1944 2 cop.
725A	Cowley	1943	791A	Five Finger Lake	1944
726A	Cripple Creek	1943	792A	Chinaman Lake	1944
727A	MacKay Lake	1943	793A	Portage Mountain	1944
728A	Martin Falls	1943	794A	Mount Hulcross	1944
729A	Lac de Gras	1943	795A	Commotion Creek	1944
730A	Carp Lakes	1943	796A	Lac Charland	1944
731A	Londonderry	1943	797A	Lac Maison-de-Pierre	1944
732A	Bass River	1943	798A	Glenwoodville	1944
733A	Artillery Lake	1943	799A	Gap	1944
734A	McQuesten	1943	800A	Cardston	1944
735A	Wecho River	1943	801A	Mountain View	1944
736A	Camsell River	1943	802A	Shinimikas	1944
740A	Fort Enterprise	1943	803A	Dunlevy Creek	1944
742A	Lac Bréhault	1943	804A	L'Ascension	1944 2 cop.
743A	Steamboat Rock Lake	1943 2 cop.	805A	Matawin	1944
744A	Cuoq	1944 2 cop.	806A	Lac Franchère	1944
745A	Lac Larouche	1944	808A	Oxford	1944
746A	Ste. Félicité	1944 2 cop.	812A	Pugwash	1944
747A	St. Vianney	1944 2 cop.	813A	Wentworth	1944
748A	Harper Lake	1944	814A	Mount Head	1945
749A	Grosses Roches	1943 2 cop.	815A	Waterton	1945
750A	Ward Lake	1944	817A	Malagash	1945
751A	Lac St. Amour	1943 2 cop.	818A	Parrsboro	1945
752A	Perch Lake	1944 3 cop.	819A	Turner Valley	1945
753A	Nishkotea Lake	1944	821A	Port Greville	1945
754A	Lac Joncas	1943 2 cop.	822A	Five Islands	1945
755A	Birch Lake	1943 2 cop.	826A	Cape Chignecto	1945
756A	Canimit River	1943 2 cop.	830A	Entrance	1945
757A	Shamus	1943 2 cop.	831A	Peley	1945
758A	Otanabi Lake	1944 2 cop.	833A	Sterco	1945
759A	Lac Marrias	1944 2 cop.	834A	White Creek	1945
760A	Cmatose Lake	1943 2 cop.	835A	Coaspur	1945
761A	Cawasachouane	1943 2 cop.	837A	Sherridon	1945
762A	Lac Lenotre	1943 2 cop.	839A	Tatamagouche	1945
763A	Lac La Loche	1943 2 cop.	841A	Naosap Lake	1945
764A	River Hébert	1943	846A	Ontaratue River	1945
765A	Springhill	1943	847A	Arctic Red River	1945
766A	Gaotanaga Lake	1944 2 cop.	848A	Camsell Bend	1945
767A	Anwatan Lake	1944 2 cop.	853A	Cranberry Portage	1945
768A	Abibau Lake	1943	854A	Tatamagouche- River John	1946
769A	Lac Marmette	1943 2 cop.	857A	File Lake	1945
770A	Lac Sabourin	1943 2 cop.	858A	Batty Lake	1946
771A	Antiquois Lake	1943 2 cop.	859A	Dahadinni River	1946
772A	Sauterelle	1943	860A	Wrigley	1946
773A	Cabonga	1943 2 cop.	861A	Carcajou Canyon	1946
774A	Lac Jean-Péré	1943	863A	Wiley Lake	1946
775A	Bark Lake	1944	864A	Lowe Lake	1946
776A	Rowanton	1944	865A	Tramping Lake	1946
778A	Round Lake	1944	866A	Barbara Creek	1946
779A	Aylen Lake	1944	869A	Elbow Lake	1946
780A	Cartier Lake	1944	873A	Blairmore	1946

875A	Iskwasum Lake	1946
877A	Newcastle	1946
878A	Dalehurst	1946
879A	Sunwapta	1947
880A	Nose Creek	1946
881A	Moberly Creek	1946
891A	Ross Lake	1946
892A	Herb Lake	1947
893A	Kennetcook	1947
894A	Southesk	1947
897A	Shubenacadie	1947
898A	Tumpline Lake	1946
901A	Burtts Corner	1947 2 cop.
902A	Boiestown	1947
903A	Npadogan	1947 2 cop.
904A	Athabaska Falls	1947
909A	Tofino	1947
912A	Effingham	1947
914A	Alberni Inlet	1947
915A	Buttle Lake	1947
916A	Cape Scott	1947
917A	Shushartie	1947
918A	Quatsino	1947
919A	Port McNeill	1947
920A	Minto	1947
921A	Buzz Lake	1947
923A	Donald Flats	1947
924A	Medicine Lake	1948
925A	St. Patrick Lake	1947 2 cop.
926A	Campoblo	1948
927A	Grand Manan	1948 2 cop.
928A	Barraute	1947
935A	Chalco Lake	1947
936A	Ranji Lake	1947
937A	Prelude Lake	1947 2 cop.
938A	Bennett	1948
939A	Lac Dumoine	1948 2 cop.
940A	Grande Prairie	1948
941A	Mistatim	1948
942A	Arborfield	1948
943A	High Prairie	1948
944A	Beaverlodge	1948
945A	Two Lakes	1948
946A	Pierre Greys Lakes	1948
[947A]	Lac Brûlé	1948 2 cop.
	[incorrectly shown as 974A]	
948A	McLennan	1949
949A	Blueberry Mountain	1948
950A	Russell Lake	1948 2 cop.
951A	La Motte	1948 2 cop.
952A	Pasquia	1948 2 cop.
954A	Rycroft	1948 2 cop.
955A	Nelson	1948
956A	Sturgeon	1948
957A	Etomami	1949
958A	Buckham Lake	1948
959A	Hearne Lake	1948
960A	Pointe Verte	1948
961A	Watino	1949
966A	Cumberland House	1949

967A	Ravendale	1949
972A	Point Escuminac	1948 2 cop.
974A	Upsalquitch Forks	1949
975A	Bruce Lake	1948 2 cop.
976A	Hampstead	1949
983A	McAdam	1949
984A	Forest City	1948
985A	Fosterville	1948
986A	Tabusintac River	1949
988A	Kedgwick	1949 2 cop.
990A	Kiosk	1949 2 cop.
991A	Port Radium	1949

**SECTIONAL MAPS OF THE WEST (NEW STYLE)
1 INCH TO 6 MILES**

10	Port Moody	1913 2 cop.
11	Yale	1921 2 cop.
14	Pincher Creek	1916 (no relief)
15	Lethbridge	1915, 1924 2 cop.
16	Milk River	1914
17	Cypress	1914 2 maps (no relief)
18	Wood Mountain	1916 2 cop., 1930
19	Willowbunch	1914
20	Weyburn	1924 2 cop.
21	Turtle Mountain	1922
22	Dufferin	1920
23	Emerson	1917, 1922
61	Lytton	1917 2 cop.
64	Porcupine	1914 2 maps (no relief)
65	Macleod	1916, 1923 2 cop.
66	Medicine Hat	1916, 1924
67	Maple Creek	1925 2 cop.
68	Swift Current	1916, 1924
69	Moosejaw	1921
70	Moose Mountain	1923
71	Virden	1923
72	Brandon	1921
111	Kamloops	1916 2 cop.
112	Siemous (second map shows indian and forest reserve boundaries)	1915 2 maps
113	Spillimacheen	1914 2 cop.
114	Calgary	1914 2 cop., 1926
116	Rainy Hills	1914 (no relief)
118	Ruch Lake	1914, 1925 2 cop.
119	Regina	1921
120	Qu'Appelle	1916, 1925 2 cop.
121	Riding Mountain	1913, 1919, 1942
122	Manitoba House	1913, 1919
123	Fort Alexander	1921 2 cop.
124	Oiseau	1916, 1925
162	Seymour	1914 2 cop.
163	Donald	1913, 1925 2 cop.
164	Morley	1915
164	Banff	1925 2 cop.
166	Sounding Creek	1914
169	Touchwood	1914, 1927 2 cop.
170	Yorkton	1913, 1924 2 cop.

172	Fairford	1919	370	Cumberland	1915 2 cop.
173	Washow	1918	372	Minago	1924 2 cop.
213	Athabaska (second map shows forest reserve boundaries)	1914 2 maps,	412	Wapiti	1918 2 cop.
214	Rocky Mountain House	1913	413	Iosegun	1917
215	Red Deer	1922	414	Saulteux	1914, 1922 2 cop.
216	Sullivan Lake	1915	415	Tawatinaw	1918
217	Tramping Lake	1914, 1930 2 cop.	416	La Biche	1918 2 cop.
218	Saskatoon	1920, 1927 2 cop.	417	Primrose	1915 2 cop.
219	Humbolt	1914 2 cop., 1929 2 cop.	418	La Plonge	1914
221	Swan River	1919	422	Wekusko	1918 2 cop.
222	Waterhen	1918	461	Moberly	1917
223	Berens	1917 2 cop.	463	Smoky River	1922
262	Yellowhead	1916	464	Giroux	1918 2 cop.
263	Jasper	1918 2 cop.	465	Pelican	1918
264	Peace Hills	1921	466	Landels	1917 2 cop.
267	Battleford	1915, 1928	473	Partridge Crop	1914, 1923 2 cop.
268	Carleton	1915	511	St. John	1916, 1922 cop.
270	Pasquia	1915, 1923	513	Shaftesbury	1920 2 cop.
271	Mossy Portage	1914, 1924 2 cop.	514	Atikamil	1915 2 cop.
272	Long Point	1916 2 cop.	516	McMurray	1717 2 cop.
315	Edmonton	1920, 1928	517	Methy	1919 2 cop.
316	Vermilion	1918, 1928	524	Limestone River	1915
318	Shell River	1914	563	Notikewin	1918 2 cop.
318	Big River	1925 2 cop.	564	Panny River	1916 2 cop.
319	Prince Albert North	1918	565	Birch Hills	1915 2 cop.
320	Carrot River	1916	566	McKay	1919 2 cop.
362	Simonette	1915 2 cop.	575	Port Nelson	1915 2 cop.
363	Berland	1916 2 cop.	613	Wolverine	1919 2 cop.
364	Fort Assiniboine	1917, 1930 2 cop.	614	Kokiu	1916 2 cop.
365	Victoria	1915, 1929 2 cop.	615	Waskwei	1916 2 cop.
366	Saddle Lake	1916, 1925 2 cop.	663	Mustus	1918
367	Meadow Lake	1918 2 cop.	664	Mikkwa	1918 2 cop.
368	Green Lake	1918 2 maps	665	Lake Claire	1921 2 cop.
369	Montreal Lake	1914	666	Chippewyan	1919 2 cop.
			1052	Dawson	1918 2 cop.

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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 1, 1996. Please send your nominations to: Alberta Wood, Chairperson, Awards Committee, ACMLA, Queen Elizabeth II Library, Memorial University, St. John's, Newfoundland A1B 3Y1

COMITE DES PRIX ET MERITES

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 retenu en vertu de sa participation considérable au développement de la profession qu'est celle du carto-thécaire. Sa contribution peut se quantifier de différentes façons: activités particulières ou générales, participation soutenue au sein de l'Association en tant que membre du comité d'administration, président ou 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 à celui des membres réguliers de l'ACACC auront droit à une nomination analogue.

Date d'échéance du concours: 1er mars 1996. Veuillez faire parvenir vos suggestions de candidats à Alberta Wood, Présidente, Comité des prix et mérites, ACACC, Bibliothèque Elizabeth II, Université Memorial, St-John's, Terre-Neuve A1B 3Y1

ACMLA PAPER AWARD

The Awards Committee invites nominations for the ACMLA PAPER AWARD. To be nominated for the Paper Award which carries 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 an issue of the ACMLA *Bulletin* since June 1994. 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 1, 1996. Please send your nominations to: Alberta Wood, Chairperson, Awards Committee, ACMLA, Queen Elizabeth II Library, Memorial University, St. John's, Newfoundland A1B 3Y1

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) aura publié un article d'au moins trois pages au sein d'une édition du *Bulletin* de nouvelles de l'ACACC, émise à la suite du dernier congrès. Le comité recherche principalement des articles, dont les carto-bibliographies, qui alimentent et soutiennent le développement de la discipline. Les articles seront jugés selon les critères d'originalité du thème choisis et du niveau de recherche.

Date d'échéance du concours: 1er mars 1996. Veuillez faire parvenir vos suggestions de candidats à Alberta Wood, Présidente, Comité des prix et mérites, ACACC, Bibliothèque Elizabeth II, Université Memorial, St-John's, Terre-Neuve A1B 3Y1