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BULLETIN

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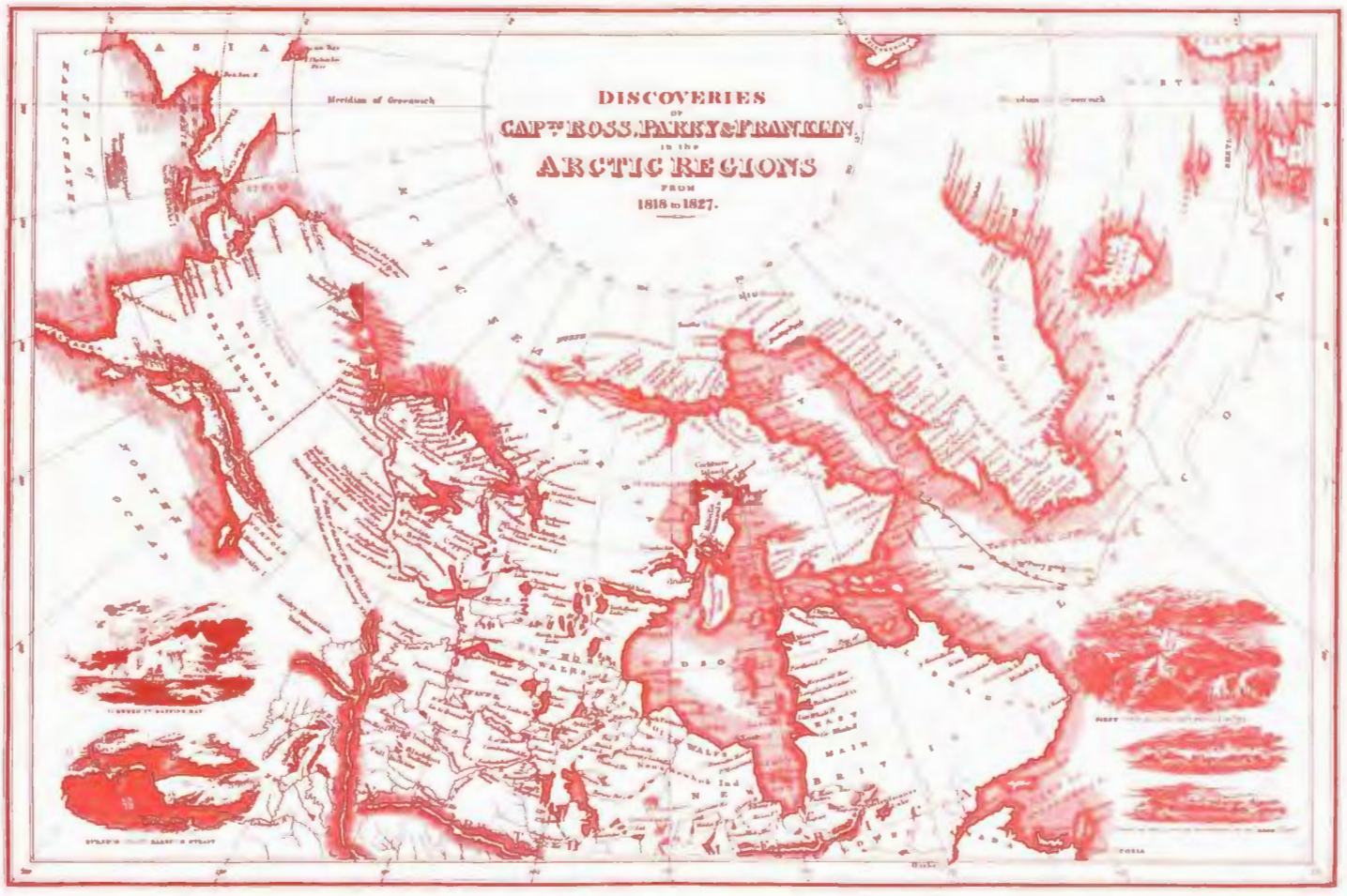

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BULLETIN STAFF/COLLABORATEURS

EDITORIAL COMMENT

Why should I do all the work and write an editorial.....how much better to let these photographs speak for themselves. They capture conference delegates at work and at play; in large groups and in gatherings of two or three. But all were delegates to the A.C.M.L. conference in Vancouver.

Last but not at all least let me express my thanks to the irrepressible old salt, John Spittle, for his generosity and consideration to so many of us during the conference. Most of the photographs on this page and on pages iv and 112 are his.

Richard Hugh Pinnell
Bulletin Editor

PROCEEDINGS
OF THE
ASSOCIATION OF CANADIAN MAP LIBRARIES
17TH ANNUAL CONFERENCE
PAPERS

THE MAPPING OF NORTHERN ONTARIO

Colonel Lou Sebert
Ottawa, Ontario

Northern Ontario has always been a very difficult country from the point of view of surveying and mapping. Probably the last part of Canada to be covered by the federal 1:50,000 series will be the Hudson Bay Lowlands in the northwest part of Ontario. The maps of this area have been placed at the end of this vast project because of the difficulty in surveying this enormous swampland. The remainder of Northern Ontario is not quite as inhospitable as the great swamp--in fact it is often a wild and beautiful country--but it is rocky, covered with forest, and relatively flat, attributes that make it a difficult region to survey.

The mapping of Northern Ontario, of course, started in the 17th century. The 1631-32 expedition of Thomas James into James Bay and along the Hudson Bay coast is thought to be the first European sighting of that rather desolate shore. The southern limit of Northern Ontario is generally defined as a line from the Ottawa River up the Mattawa River to Lake Nipissing and thence down the French River to Georgian Bay, and from there through Lake Huron and Lake Superior to the international boundary to the west of Thunder Bay. The first part of this line, i.e. from the Ottawa River to Georgian Bay, was the route taken by Champlain on his explorations in 1615. The remainder of the line is a continuation of the canoe route used by the voyageurs on their journeys to and from the far west, and as a consequence this route and the land immediately adjacent to it has been known from earliest times.

The interior of Northern Ontario is of much more recent knowledge. Philip Turnor, the Hudson's Bay Company surveyor, explored the Albany, Moose, and Abitibi Rivers between 1780 and 1785 and demonstrated that it was possible to reach both Lake Superior and the Upper Ottawa River from Hudson Bay; but these routes never achieved much importance. The maps of the early 19th century displayed Turnor's explorations but showed little other topographic detail of Northern Ontario.

It was not until about 1850 that the people of the province that would soon become Ontario began to realize that they, collectively, were the inheritors of Northern Ontario, a large tract of land about which they knew next to nothing. By 1850 the township surveys of Southern Ontario were approaching Lake Nipissing, and the officials in the Crown Lands Department of the Province of Canada realized that some plan was needed for the surveying and development of the lands that lay beyond Lake Nipissing and Lake Huron.

In Southern Ontario the first townships had been laid out to front on the shores of Lake Ontario and Lake Erie and along the banks of the St. Lawrence and Ottawa Rivers. This plan was sensible in that it provided the early settlers with easy access to their land, good fishing, and abundant water. Northern Ontario would need a different plan. What little

exploration had been carried out in the area indicated that little of the country was suitable for agricultural settlement. However, the potential of the region for forest development was obvious and there were many indications that mining would become a profitable industry. With these thoughts in mind, the Crown Land officials considered the various options available to them for the exploration and development of Northern Ontario.

The year was 1855, and during the previous seventy-five years a succession of Canadian government officials had watched their American counterparts use a system of land survey that was considerably different from any in use in Canada. It was based on a grid of carefully surveyed base lines and meridians that controlled the position of rows of six-mile square townships. The advantage in such a system lay in its regularity. Long control lines could be set out by the most experienced government surveyors while the actual subdivision of townships could be left to younger, less experienced men. The survey posts placed on the control lines could be used to check the work of the township subdividers, and thus the quality of the whole system could be kept at a high level. But probably the most important attribute of the American system was the fact that during the survey of the control lines, a detailed exploration of the land could be made. This would disclose the suitability of the terrain for settlement and show where townships should be opened and where the land should be left in a wild state. Because the American system was regular, the spaces left between opened townships could be filled with standard townships at some future date when the development of the country warranted such action. Such a system seemed ideal for Northern Ontario.

As a consequence of these deliberations it was decided, in early 1856, that an exploratory survey would be carried out during the coming summer. It would be based on the American system but with minor modifications to make it more suitable for Canadian conditions. It was in this regard that Joseph Cauchon, Commissioner for Crown Lands, wrote to Albert Pellew Salter offering him the appointment of officer-in-charge of this survey.

Salter was an Englishman who had come to Canada in 1834 at the age of eighteen. For a time he taught school in the town of Sandwich on the Detroit River, but during these teaching years he studied surveying and civil engineering. In 1844 he qualified as a provincial land surveyor and began practicing his profession in Chatham. In 1854 he was engaged by the government to make an exploratory trip through the country to the north of Lake Huron and to report on the usefulness of the land and its potential, if any, for settlement. With his experience Salter was the natural choice for this new and important survey.

In Cauchon's letter of instruction, Salter was told that the survey would consist, first of all, of a base line to be run from a point on the north shore of Lake Nipissing westward to Lake Superior. This westward line would be stepped northward in increments of six miles as required to keep it well back from the shore of Lake Huron. At each 18-mile point along the base, short meridian lines, not more than twelve miles in length, would be run. No townships would be laid out but Salter's report, to be submitted at the completion of the work, would contain detailed information on the quality of the land and its suitability for settlement.

There was, however, to be one important difference between Salter's survey and the American practice for the same type of work. To understand this difference, some thought must be given to the problems of subdividing very

large tracts of land. When the Americans were faced with this problem in 1784, they decided that their system would be based on six-mile square townships laid out along guide lines that would run due east-west and north-south. Such an orientation would facilitate the surveying; moreover, there is a human tendency to want boundaries such as farm fences and roads to run in the cardinal directions. Had it not been almost essential to front the townships of Southern Ontario on the shores of lakes and navigable rivers, no doubt a system more like the American would have evolved. But when the survey of Northern Ontario was contemplated the only accessible shoreline was roughly east-west, so the benefits of the American system seemed all the more obvious.

However, the adoption of north-south and east-west lines creates its own problems. To begin with, true north-south lines (meridians) are not parallel; they converge toward the north pole. This means that townships that have meridians as sidelines will invariably be narrower along the north boundary than they are along the south. This narrowing is slight but measurable. For example, at 46°N latitude, where Salter was to begin his work, a six-mile "square" township is about fifteen metres narrower at the top than at the bottom. If a column of townships is set out between the same meridians, the narrowing effect is of course cumulative (see Figure 1).

The east-west lines (i.e. the base lines) in the American system also present difficulties. A true east-west line is a parallel of latitude and, as such, is a curved line when laid out on the ground. Curved lines are difficult to survey, but if it is considered important to keep the chequer-board of townships lined up in the cardinal directions this curve in the east-west lines must be accommodated. Also, if it is considered essential to use meridians for the sidelines of townships and still have all townships approximately the same size, then some method must be found for compensating for the converging of north-south lines. The American solution was typically methodical. Base lines would be surveyed as curves despite the fact that this presents certain survey difficulties. Meridians would be used as township sidelines. Townships would start being exactly six miles wide and they would be allowed to converge for four townships (i.e. twenty-four miles) whereupon the six-mile width would again be measured out. This restitution of the true width of the township would cause a jog in the meridians, but this could not be helped. The parallel along which the jogs occurred was, and still is, called a correction line.

When the facts of life in the American system were studied in the Crown Lands Department, someone, possibly Salter himself, suggested that Northern Ontario was not quite ready for such a refined survey system. For one thing, curved lines are difficult to survey at the best of times, but they would be especially difficult in the rocky, heavily forested country through which Salter's survey would have to run. While the overall benefits of the American system were acknowledged, it was agreed that a simpler system sould have to suffice for the initial surveys of Northern Ontario. It was therefore decided that Salter's east-west lines (his base lines) would be run as straight lines. They would start due west and, as they would not follow the curve of latitude, such lines would fall off slightly to the southwest. As this falling off from due west would be less than two degrees by the time Lake Superior was reached, the deviation would hardly be noticeable.

The result of this decision is that in Northern Ontario a regular system of

Figure 1a : The American six-mile square township system.

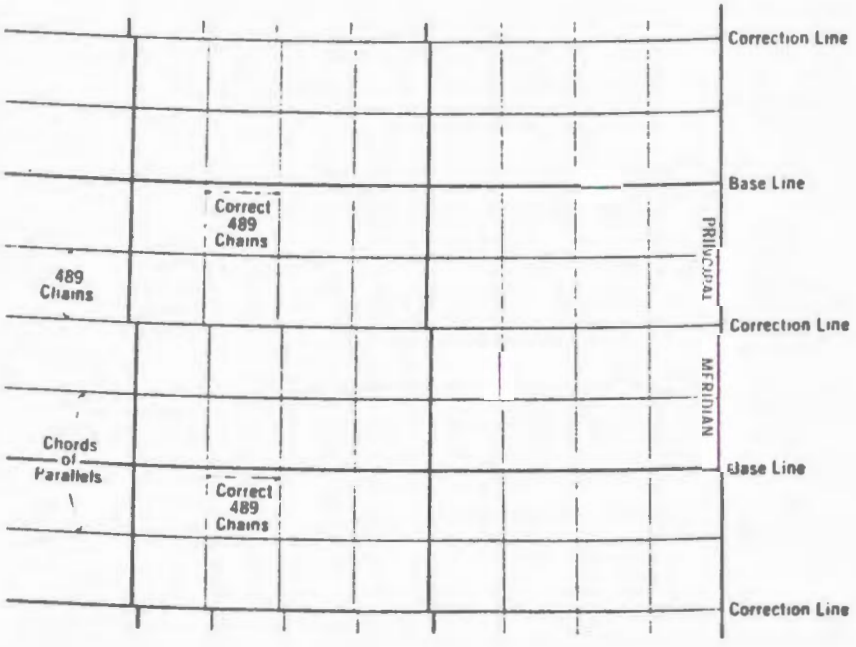

Figure 1b : The Dominion Land Survey system of townships. In this system the standard width of a township is 489 chains (i.e. six miles plus six road allowances of 1.5 chains).

ranges, correction lines, and methodically numbered townships did not develop. Because Salter's Base Line was a straight line and his so-called meridians were at right angles to his base, there was no convergence of meridians and consequently no need for correction lines. Lest anyone think that this might be an advantage, it must be pointed out that eventually control lines have to be surveyed. Because it is impossible to carry out absolutely accurate surveys when running township outlines there will inevitably be a lack of conformity between the old work and the new control lines. This lack of conformity will not be methodical and calculated as it is on the correction lines of the prairie surveys, but will be random and as such will not provide an easy check on the accuracy of the previous work. Also, as north-south lines deviate from true north they become difficult to check by astronomic observation. Taken all in all, there can be no doubt that the methodical prairie system was superior to that originally adopted for Northern Ontario, and eventually many of the provisions of the prairie system were incorporated into the Ontario system.

The survey system in the older parts of northeastern Ontario is particularly confusing because every surveyor who was commissioned to run an east-west line of more than two townships appears to have been allowed to call his line of survey a base line. Thus the part of Ontario lying to the east of the 86th meridian and south of the 49th parallel has a rather confusing jumble of jogs and "filler townships" where the lines from one base line do not quite meet those from the next.

As the survey of the province progressed northward and westward in the 20th century, the advantages of the prairie system became apparent. As shown in Figure 2, the meridians and base lines became more regularly spaced, and deflection angles were turned to keep base lines on a given parallel of latitude.

As has been mentioned, the results of these surveys were not used to produce large scale township maps but were kept on file in the Surveyor-General's office in neatly copied field books. Due to the specifications governing note-keeping, these books are really large-scale strip maps drawn of the country along each line of survey (see Figure 3). The country is depicted and labelled as to forest cover and soil or rock composition, as far on each side of the line as the surveyor could see. In many cases it is evident that he or his assistant walked a considerable distance to the right or left of the line to investigate the land more thoroughly.

In subdivided townships the survey lines were spaced one mile apart and thus no major feature (lake, stream, or swamp) would be missed. Where only township outlines were run, as was generally the case after the turn of the century, small lakes might be overlooked but streams and rivers would be accurately depicted. In the north of the province where, after 1934, it became the custom to survey only the control base lines and meridians, the recorded topography was sketchy; the rivers and streams encountered during the survey were recorded only by their width, depth, and direction of flow. But by the time this practice was adopted, aerial photography was coming into use, and the field notes taken on the control lines were sufficient for the plotting of the very useful Ontario government series of planimetric maps of the north country drawn at 1:126,720 (2 miles to the inch).

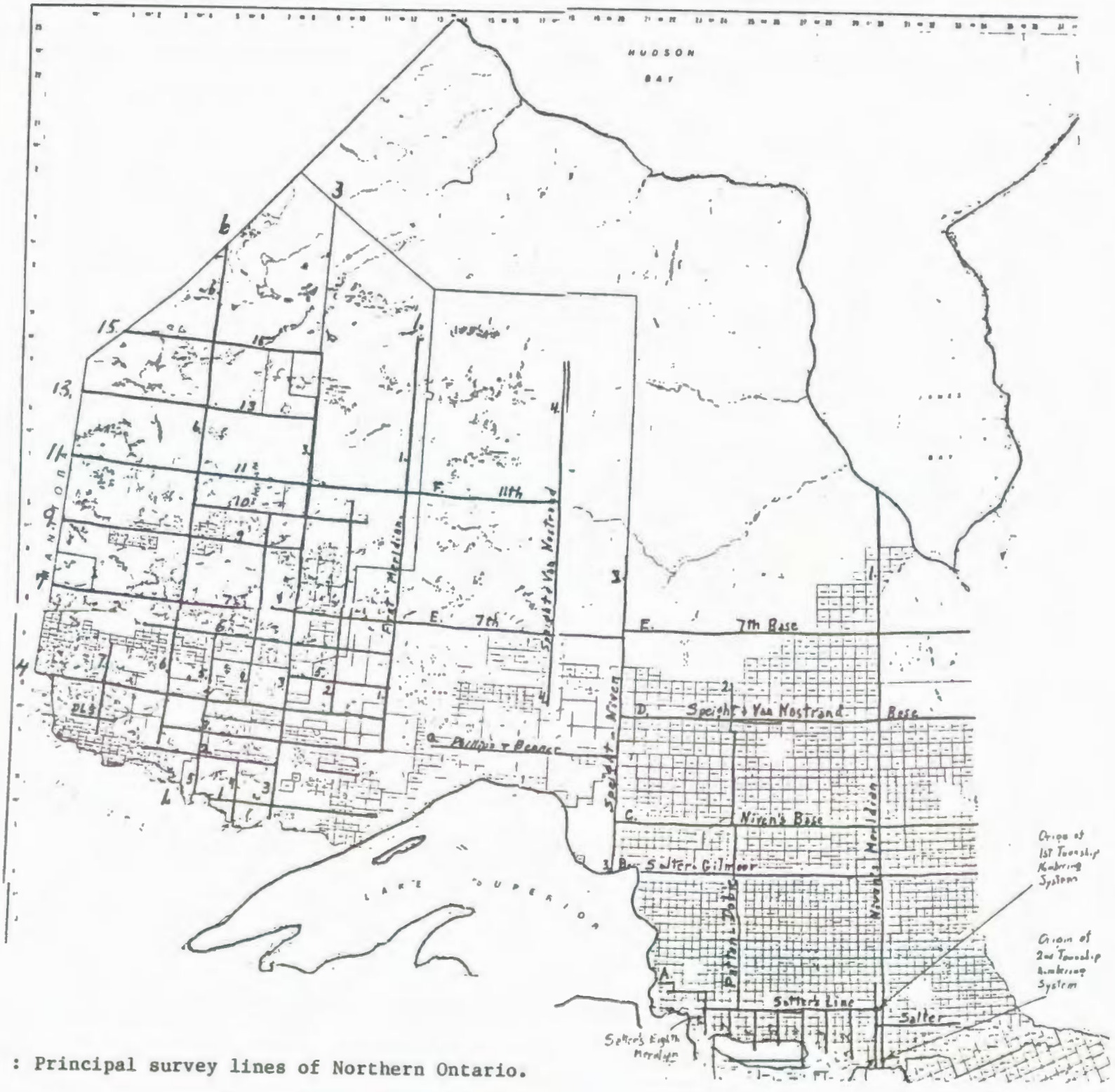

Figure 2 : Principal survey lines of Northern Ontario.

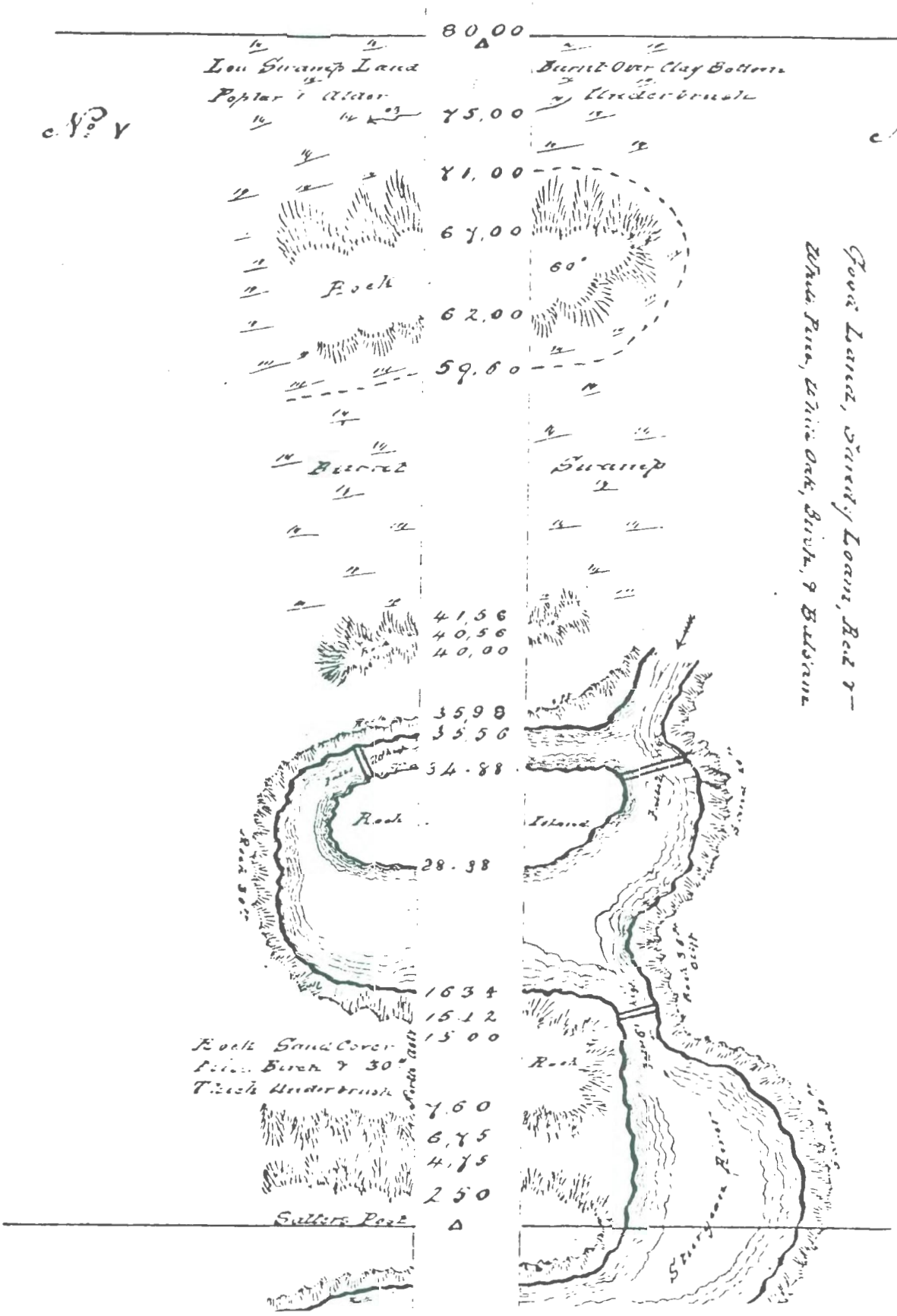

Figure 3 : Example of a page from a surveyor's field book.

Understanding the Maps of Northern Ontario

Some knowledge of the township surveys of Northern Ontario is necessary if full value is to be gained from the maps of the area. To begin with, five different township patterns were used at various times between 1859, when such surveys were started, and 1934, when they were stopped. Three of these patterns were for six-mile square townships and two for townships that were nine-miles square. All were laid out in rows and columns with their outlines in or close to the cardinal directions. Each type of pattern reveals something of the history or nature of the country that it covers.

640 Acre Section Pattern 2. Despite its number, this was the first pattern of township used in Northern Ontario. In layout (illustrated in Figure 4) it is identical to the American township in that there are no fixed road allowances but 5 percent of each section is reserved by the government for use as required in road building. The sections are numbered in the American fashion from the north-east corner of the township zigzagging westward and southward. [The Canadian practice is to start in the south-east corner and work westward and northward.] This pattern of township was used from 1859 until 1874 during which time thirty-nine townships were surveyed. The name comes from the number of acres in each square-mile section.

640 Acre Section Pattern 1. This pattern, shown in Figure 5, was introduced into northwestern Ontario in 1872 in the Rainy River District by the Department of the Interior of the federal government. At the time, the western boundary of the province was not fixed, and the federal government thought this area was in the Keewatin District of the Northwest Territories. The pattern of township used was identical to that being used at the time on the Prairies. The 49th parallel was surveyed and labelled the First Base Line, and twenty-four miles to the south, the Second Base Line South was surveyed and so labelled on federal maps of the area. The townships were numbered north and south from the 49th parallel while the ranges were numbered east from the Principal Meridian near Winnipeg. Correction lines were surveyed as appropriate. This survey was discontinued in 1876 after twenty-one townships had been surveyed. The federal surveyors went back to the Prairies and the Provincial Land Surveyors took over the work.

640 Acre Section Pattern 3. In 1872 it was decided to stop using the American township pattern. Ontario surveyors were never completely happy with the square section of land divided into four square quarter-section farm lots. They much preferred a system of concession lines with rows of lots running east-west across the township. Figure 6 shows the pattern developed in 1872 to retain the six-mile square township and still provide concessions. Each lot was half-a-mile wide and a mile deep, and two lots were considered a section. The less rigorous survey requirements of this pattern were appropriate to the survey of wild and rocky land, and it was in such country that this pattern was used almost exclusively. It was employed right to the end of the township surveys in 1934, and by that year, 432 townships had been laid out using this pattern.

1800 Acre Section Township. About the year 1900, the Ontario government decided that two areas in Northern Ontario known as the Little Clay Belt (near New Liskeard) and the Great Clay Belt (in the Kapuskasing-Cochrane area) should be opened to farming. An experimental farm near Kapuskasing

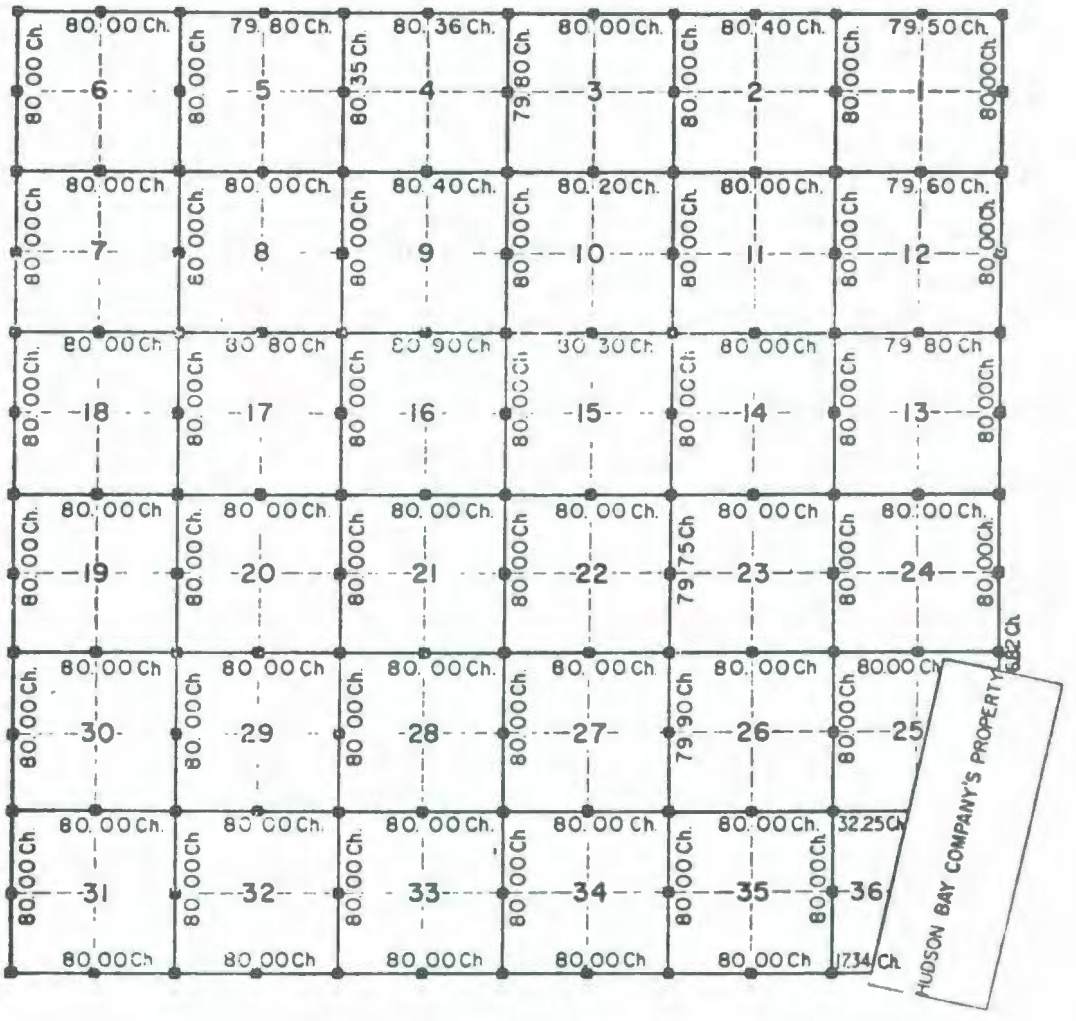

Figure 4 : The 640 Acre Section system, pattern 2. The perimeter of all sections was surveyed and survey markers were posted at the points marked with black squares. In theory the sides were exactly 80 chains, but the surveyor would return the actual measurements made on closing the section outline.

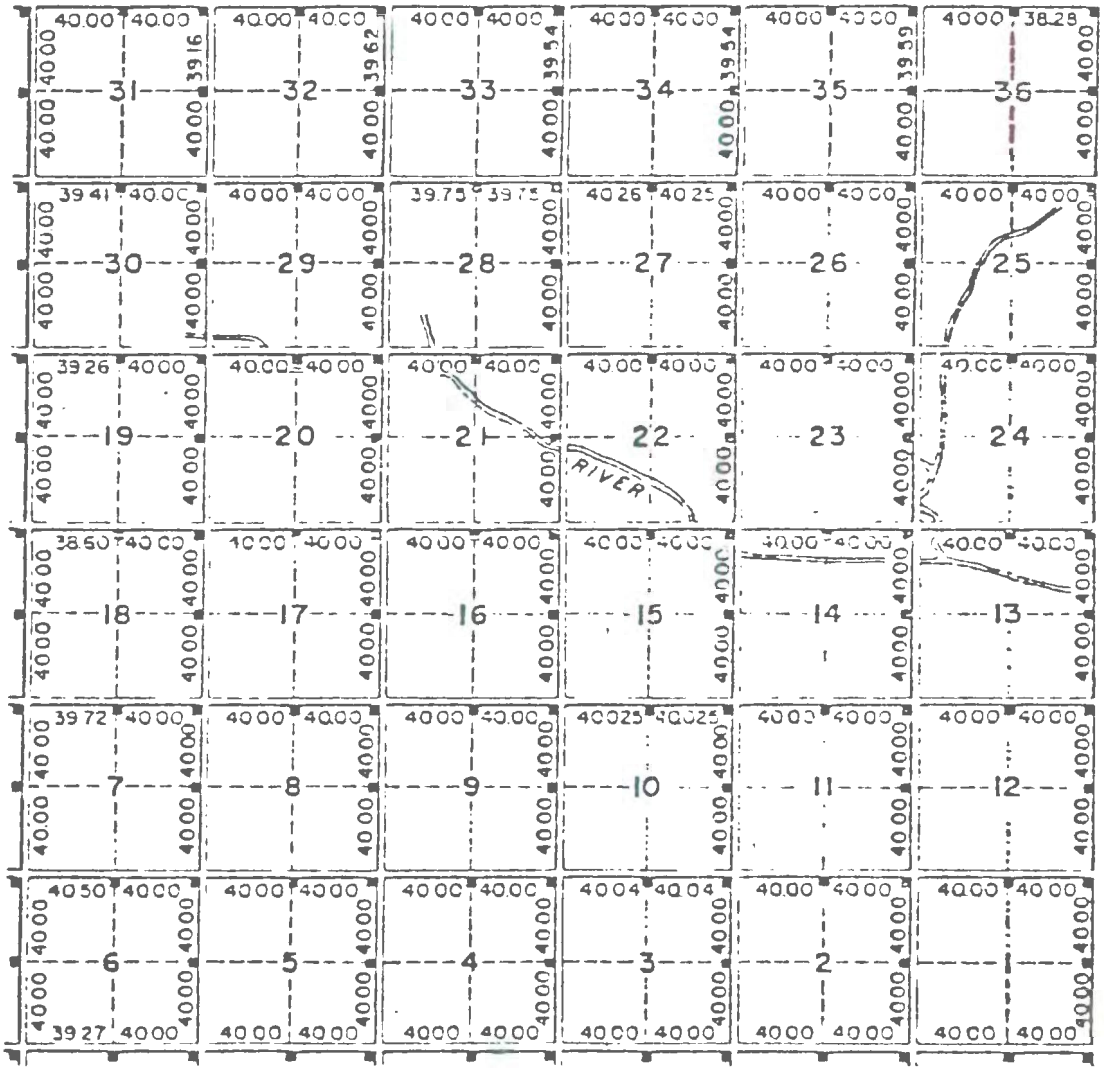

Figure 5 : The 640 Acre Section system, pattern 1. The six-mile township was subdivided into sections one-mile square with allowance for roads provided. Survey markers were usually posted at the points marked with black squares.

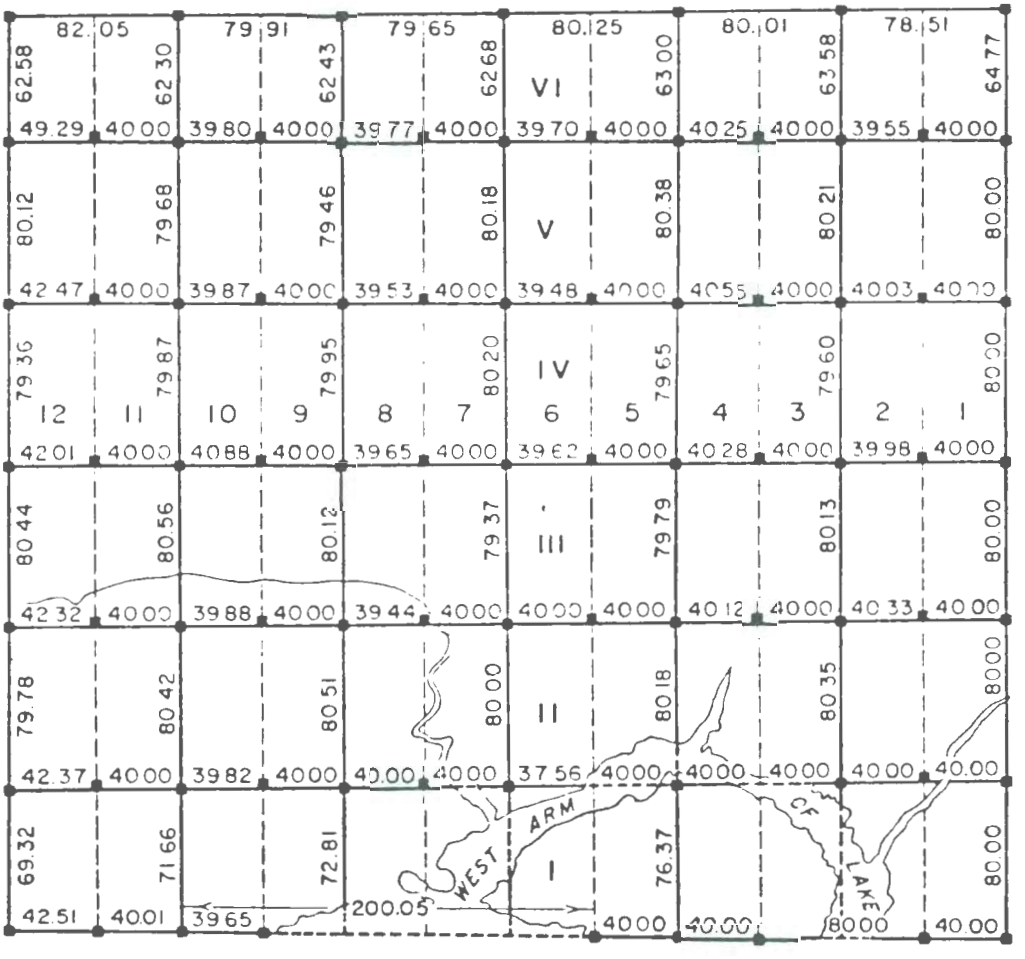

Figure 6 : The 640 Acre Section system, pattern 3. In this system concession lines and the sidelines of sections were surveyed but the half section lines were marked only by a single post on the concession line. The irregular lot measurements shown in this example result from the township being fitted in between two previously surveyed baselines. Lots would normally measure 40 by 80 chains.

had found that a northern strain of wheat would do well in the climate of the region and that with some guidance farmers could contend with the heavy, moist soil. The recently completed National Transcontinental Railway which ran through the Great Clay Belt would provide transportation to markets in the south. Consequently, the surveying of townships in the area began in 1903.

It was almost immediately apparent that the 640 Acre Section Pattern 3 township was not suitable for the region. In an area so far from markets, large farms were a necessity. But in the small six-mile square township there were too few families to share the cost of township services such as road building and schools. Narrower lots were wanted to reduce the cost of roads per farm and to bring neighbours closer together. For these and similar reasons the pattern shown in Figure 7 was developed. The name derives from the fact that in the original survey the perimeter of twelve lots, each 150 acres, was surveyed as a section. During the period from 1906 to 1932, fifty-three townships were surveyed.

1200 Acre Section Township. In 1917 a modification was made in the 1800 Acre Section pattern to reduce the lot size to 100 acres. This pattern was used for only five townships, all of which are of farm land in the Cochrane District. It was not designed to promote a return to smaller farms but rather the opposite, to encourage the operation of large farms consisting of multiples of 100 acres. The experiment was evidently not considered a success and the pattern was dropped after the 1918 survey season. Figure 8 illustrates this pattern.

Township Numbering and Naming

In Southern Ontario, townships have always been named, and although this is the practice in Northern Ontario today, different numbering systems were used in the past. When Salter finished his survey in 1857 he named the meridian line running north at longitude 81°11' the Principal Meridian. His original base line runs west from this meridian at latitude 46°32'. He considered the intersection of these two lines to be the origin of his township numbering system. Following the American custom, the north-south columns of townships were called ranges and were numbered east and west from the Principal Meridian. The east-west rows of townships were numbered north and south from the origin. For example, on old maps the township today called Esten was in 1860 designated as "Range 12 West, Township 3 South."

This numbering system did not survive. In 1898, Alexander Niven surveyed a long meridian line which was one township to the east of Salter's Principal Meridian. As Niven's line stretched far to the north and in fact was eventually pushed through to the shore of James Bay, it was considered more suitable as a reference meridian. A new point of origin was selected on this meridian just to the north of the shore of Georgian Bay, and all townships were renumbered. Esten Township became Township 13 Range 4 because for some unaccountable reason the ranges in Ontario were at this point considered to run east and est.

Later in the 20th century it was found administratively more convenient to number townships serially in blocks, so many of the township numbers were changed again. But today this is academic becasue in 1974 all numbered townships were given names.

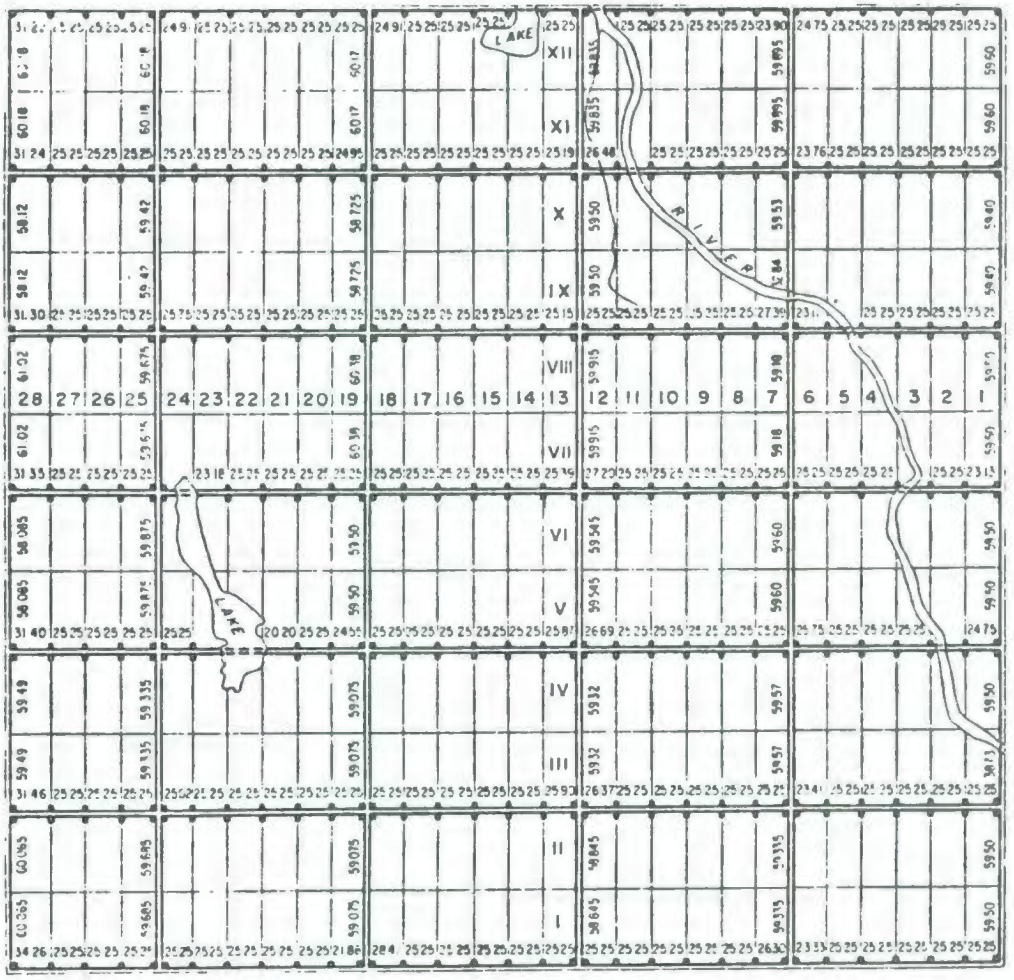

Figure 7 : The 1800 Acre Section system. Regular lots are 25.25 chains in width by 59.50 chains in depth. The township is nine-miles square.

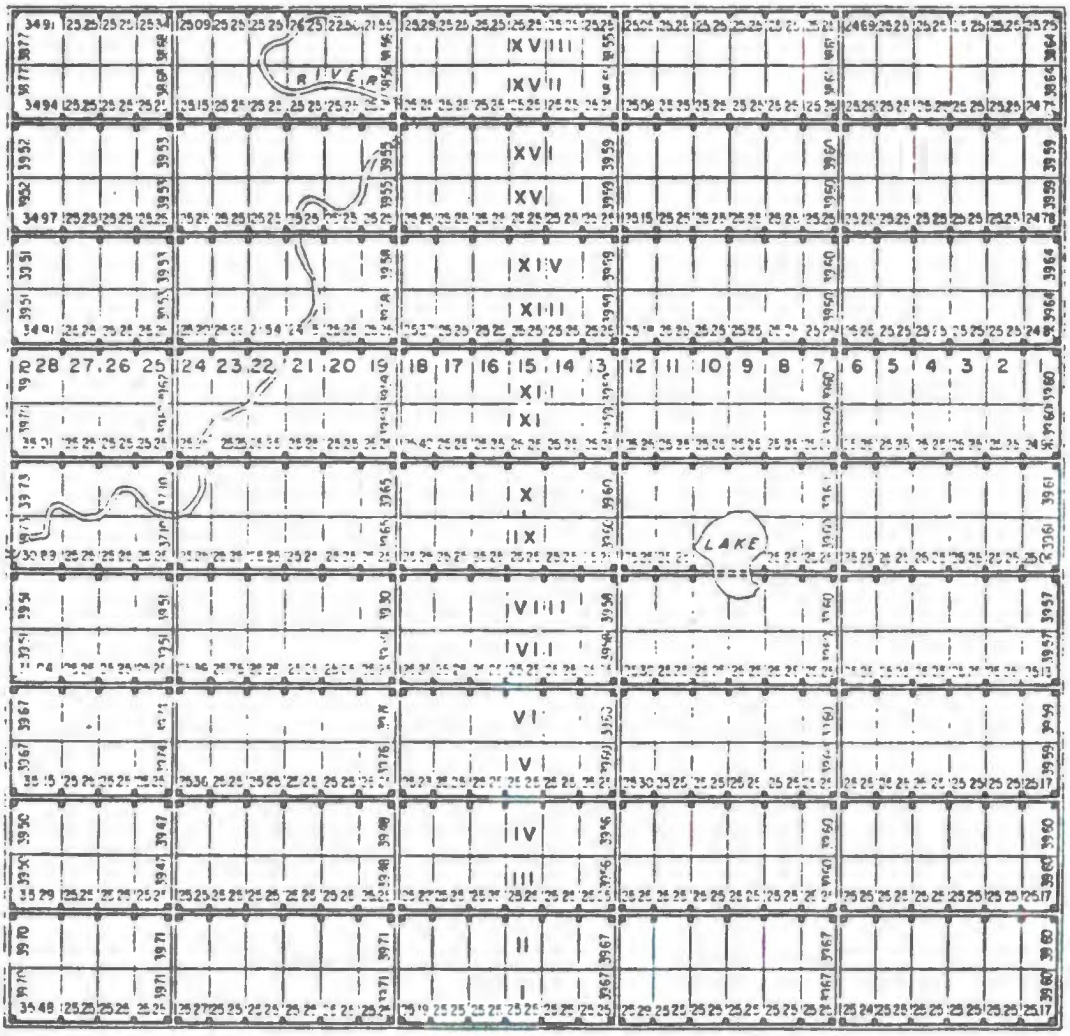

Figure 8 : The 1200 Acre Section system. Regular lots are 25.25 chains in width and 39.60 chains in depth. Road allowances are one chain between each alternate concession and every sixth lot and along the township boundaries.

Numbered Base Lines and Meridians

In the northeast of the province it was the custom to name the base lines and meridians after the surveyor who carried out the survey. Bestowing such an honour on humble surveyors must have disturbed the staid civil servants in Toronto for when surveys were carrried out in the northwest portion of the province (i.e. to the west of longitude 89°) the custom was dropped, and meridians were numbered in succession from east to west and base lines from south to north. This system is illustrated in Figure 2. Tables I and II give a short description of these lines and mention the surveyors or survey companies that carried them out.

Current Maps of Northern Ontario

Today the important federal map series for Northern Ontario are the 1:250,000 series, which gives complete coverage, and the 1:50,000 series, which is only partially complete but which is scheduled for completion in 1990. The provincial coverage is complete in the small-scale, 7-sheet series at 1:600,000. Partial coverage is provided by the 1:126,720 series, which is in the process of being converted to the metric 1:100,000 scale. The Ontario Base Mapping (OBM) series at 1:20,000 and 1:10,000 has really only begun in Northern Ontario but in time these series will replace the Ontario Forest Resource Inventory (OFRI) maps which over the years have been published at 1:15,840. Index maps for the federal series are available from the Canada Map Office and for the provincial mapping, from the Ministry of Natural Resources.

TABLE 1

CONTROL LINES EAST OF THE FIRST MERIDIAN

Meridians

1. Niven's Meridian -- Southern part surveyed by A. Niven in 1898 and extended to James Bay by Beatty and Beatty in 1932.

2. Patten-Dobie Line -- Surveyed north from Salter's Base Line by T.J. Patten in 1890. Extended northward by Patten in 1909 and by J.S. Dobie in 1909/10.

3. Speight-Niven Meridian -- This is the boundary between Algoma and Thunder Bay. The survey was commenced by Speight in 1902 and continued northward by Niven in 1907.

4. Speight and Van Nostrand Meridian -- Commenced by Speight and Van Nostrand in 1925. Continued northward by Pierce in 1953 and by Marshall, Macklin and Monaghan in 1958. This meridian forms the boundary between Cochrane and Kenora.

Base Lines

A. Salter's Line -- Surveyed eastward from Sturgeon River to Lake Superior by A.P. Salter in 1856/57.

B. Salter-Gilmour Line -- This line was run eastward from Michipicoten Bay

to the Montreal River in 1866. Extended eastward by H. Beatty in 1911.

C. Niven's Base Line -- Surveyed in 1899/1900 by A. Niven.

D. Speight and Van Nostrand Base Line -- Commenced by Speight and Van Nostrand in 1905 by surveying west from Niven's Meridian. In 1919 it was extended eastward by H. Beatty and westward by N.B. MacRostie.

E. 7th Base Line -- This is the only base line that extends right across the province. The part east of the 3rd Meridian was surveyed by Beatty and Beatty in 1927/31.

F. 11th Base Line -- The part of this base line between the 1st Meridian and the Speight and Van Nostrand Meridian was surveyed by Phillips and Gavin in 1953.

G. Phillips and Benner Base Line -- Surveyed in 1916/17 by Phillips and Benner.

TABLE 2

CONTROL LINES FROM THE FIRST MERIDIAN TO THE WEST

Meridians

1st Meridian -- Surveyed by Phillips and Benner between 1918 and 1920. Continued northward by Phillips and Gavin in 1952.

2nd Meridian -- Surveyed by Phillips and Benner in 1923.

3rd Meridian -- This is the boundary between Kenora and Thunder Bay. It was commenced by A. Niven in 1890. It was continued northward by J.A. Dobie in 1919 and by F.C. McKergow in 1953.

4th Meridian -- Commenced by A. Niven in 1897. Continued northward by Speight and Van Nostrand in 1929.

5th Meridian -- Surveyed by A. Niven in 1893 and 1897, with the southerly portion being surveyed by D.J. Gillen in 1929.

6th Meridian -- Southern part surveyed by A. Niven between 1894 and 1897. In 1956 and 1957 it was extended to the Manitoba boundary by F.C. McKergow.

7th Meridian -- Surveyed by A. Niven in 1895.

Base Lines

1st Base Line -- Surveyed by H. de Q. Sewell in 1888.

2nd Base Line -- West part surveyed by A. Niven in 1891/92. East part surveyed by T. Fawcett in 1907.

3rd Base Line -- Surveyed by K.G. Ross in 1925.

4th Base Line -- Surveyed by K.G. Ross in 1921.

5th Base Line -- Surveyed by K.G. Ross in 1922.

6th Base Line -- Surveyed by K.G. Ross in 1923.

7th Base Line -- West of the 3rd Meridian surveyed by Phillips and Benner in 1927/28; east of the 3rd Meridian by Beatty and Beatty in 1927/29.

9th Base Line -- Surveyed by Speight and Van Nostrand in 1926.

10th Base Line -- Surveyed east from the 6th Meridian by Beatty and Beatty in 1926, and continued east to the 3rd Meridian by Phillips and Benner.

11th Base Line -- Surveyed westward from the 3rd Meridian by J.S. Dobie in 1919. Extended westward by K.G. Ross in 1920 and by F.C. McKergow in 1952. Extended eastward from 3rd Meridian by K.G. Ross in 1920 and by Phillips and Gavin in 1953.

13th Base Line -- Surveyed eastward from the Manitoba border by F.C. McKergow in 1953, and from the 6th to 3rd Meridians by Marshall, Macklin and Monaghan in 1954.

15th Base Line -- Surveyed by F.C. McKergow between 1954 and 1956.

Note: The 7th Base Line runs for over 625 miles across the province from the Manitoba to the Quebec borders. The longest meridian is the 6th, which runs north from the 3rd Base Line to the Manitoba border, a distance of over 400 miles.

Dominion land Surveyors ran a short base line along the 49th parallel, eastward from the Lake of the Woods. This line controls the DLS townships in that area.

* * *

THE USE OF MAPS IN THE STUDY OF PLACE NAMES

Professor G.P.V. Akrigg (retired)
University of British Columbia
English Department
Vancouver, B.C.

I find it most agreeable to have been assigned for my subject maps and place names, for it was with maps that my long-continuing interest in toponyms began. The year was 1933 and I was enduring, at Calgary Normal School, that suffocating boredom which engulfs any bright boy or girl condemned to a year of what passes for teacher training. But Calgary Normal School did have one thing going for it. In an era when high school libraries were unknown, it did have a room called a library, housing a modest collection of books. And there for the first time I met a real atlas, the Times Atlas of the World.

How I enjoyed myself poring over its pages. What fascinated me most were the names, the wonderful names of places. In those days I lived on exactly thirty dollars a month--twenty-five for my room and board, another two dollars and fifty cents to my landlady to do my laundry, and a final two dollars and fifty cents for everything else, including my social life. Fortunately, I discovered a supplementary source of income--The Calgary Herald ran a "Poet's Corner" and paid a whole dollar for any poem they printed. The competition was deadly among the hungry, depression-beaten bards of southern Alberta, but four times I won acceptance, and once my winner was a set of verses on the names that I had found in the Times Atlas of the World.

Over the years I faintly hear the adolescent rhymes and rhythms:

> I want to sail past the Arrogant Reef,
> See Nil Desperandum, and travel in brief
> From the Gulf of Siam to Blue Mud Bay,
> Finding new marvels all of the way,
> While sailing the Malay seas.

I had learned a truth set down centuries earlier by Sir Francis Bacon:

> Name, though it seem but a superficial and outward matter, yet it carrieth much impression and enchantment.

After that I was plainly fated to become either a geographer or a professor of English. Well, I joined the English Department at U.B.C. and married a girl who had done her graduating essay on "Cariboo Place Names." Over the years we two addicts collected place name origins until, in 1969, we published the first book to deal, on a province-wide basis, with the place names of British Columbia. It has gone through three editions and has sold over 20,000 copies. Now that girl and I are working on a successor to it.

To my subject: maps and names. The two are most intimately connected, topography and toponymy being twins. Let us take an example. An interesting feature of toponymy here in British Columbia, as elsewhere, is the use of a theme to provide a whole set of names in an area. Thus in the Pantheon Range we have Manitou Peak, Osiris Peak, Mount Thor, Mount Vishnu, and Mount Zeus. Another group of associated names is found in the Cariboo, where we find Italia Lake, Corsica Lake, and Sicily Lake. Why these particular names? Look at the map of the area and we see that Corsica and Sicily Lakes get their names from their position relative to Italia Lake,

which itself very much resembles Italy in its shape. To take a less reputable example, Dr. Neal Carter liked to point out that the map of Knight Inlet cast an interesting light on the names of the Lady Islands, Clapp Passage and the Doctor Islets.

Old maps can provide the toponymist with unexpected pieces of information which may be available nowhere else. Let me illustrate with an anecdote. One of the procedures used by my wife and myself is to watch the obituary columns for the deaths of old-timers. Often the survivors listed in these notices include octogenarian or even nonagenarian brothers or sisters. These we contact after a decent interval. Some twenty years ago we read in the newspaper that an ancient Mr. Duck of Monte Creek had perished when his cabin burnt down and that he was survived by a brother. The Duck family, we knew, were among the first white settlers in the area and so, a few months later, we wrote to the surviving brother and got from him the story of the naming of Monte Creek and Monte Lake. Apparently, back in the times of the Cariboo Gold Rush, Mr. Duck's great-uncle came to the Kamloops area looking for a ranch to buy with his gold. A "Spaniard" (as a Mexican was then called) named Monte had a spread east of Kamloops. He was a fugitive from the American law and had a feeling that it was about time to sell out and move on. Mr. Duck related how his great-uncle had poured the gold dust out of his poke and into Monte's open palm and had thus acquired the Monte Creek ranch.

Fine! We had a Monte Creek entry for our book. But after the latter was published we received a disquieting letter from Mary Balf, then the curator of the Kamloops Museum. She had in her keeping account books of the Hudson's Bay Company post at Kamloops in the 1860s and she could not find any mention of Monte in them, yet surely any rancher in the area would have had to do business with the Hudson's Bay Company. From then on we watched sharply for another explanation for the naming of Monte Creek, and after a year or two we found one on a map. That map was the one printed about 1858 by J.J. Le Count in A.C. Anderson's Handbook and Map to the Gold Region of Frazer's and Thompson's Rivers. (Figure 1). There we have "Monteé" [sic] printed where the creek runs northward into the South Thompson River. At once everything became clear--the old Hudson's Bay brigade route from northern B.C. to Fort Vancouver on the lower Columbia had followed Monte Creek to the crest of that height of land which separates the Okanagan from the South Thompson basin. "Monteé" was the French word "Montée," signifying a rise, a slope, or an ascent, and referred to the climb here.

Before leaving the Anderson map, I would like to direct your attention to a more general aspect of it--the remarkably high proportion of French names which it contains. This is a map compiled towards the end of the fur trade era. Now, though the Hudson's Bay Company's officers were predominantly Scottish, its hired hands, the engagés, were predominantly French and, being more numerous, they had frequently established French place names. All this changed, of course, when anglophone settlers thoroughly anglicized British Columbia. But just notice the situation in 1858:

R. aux Chapeaux (today's Hat Creek)
Mauvais Rocher
Lac des Chicots (today's Stump Lake)
La Grimace (Bad Reception) R. = Spius (Twisted) Creek
Rocher de la Biche
Camp du Poulain (Colt Camp)
Bouleau (Birch) R. (today's Bolean Creek)

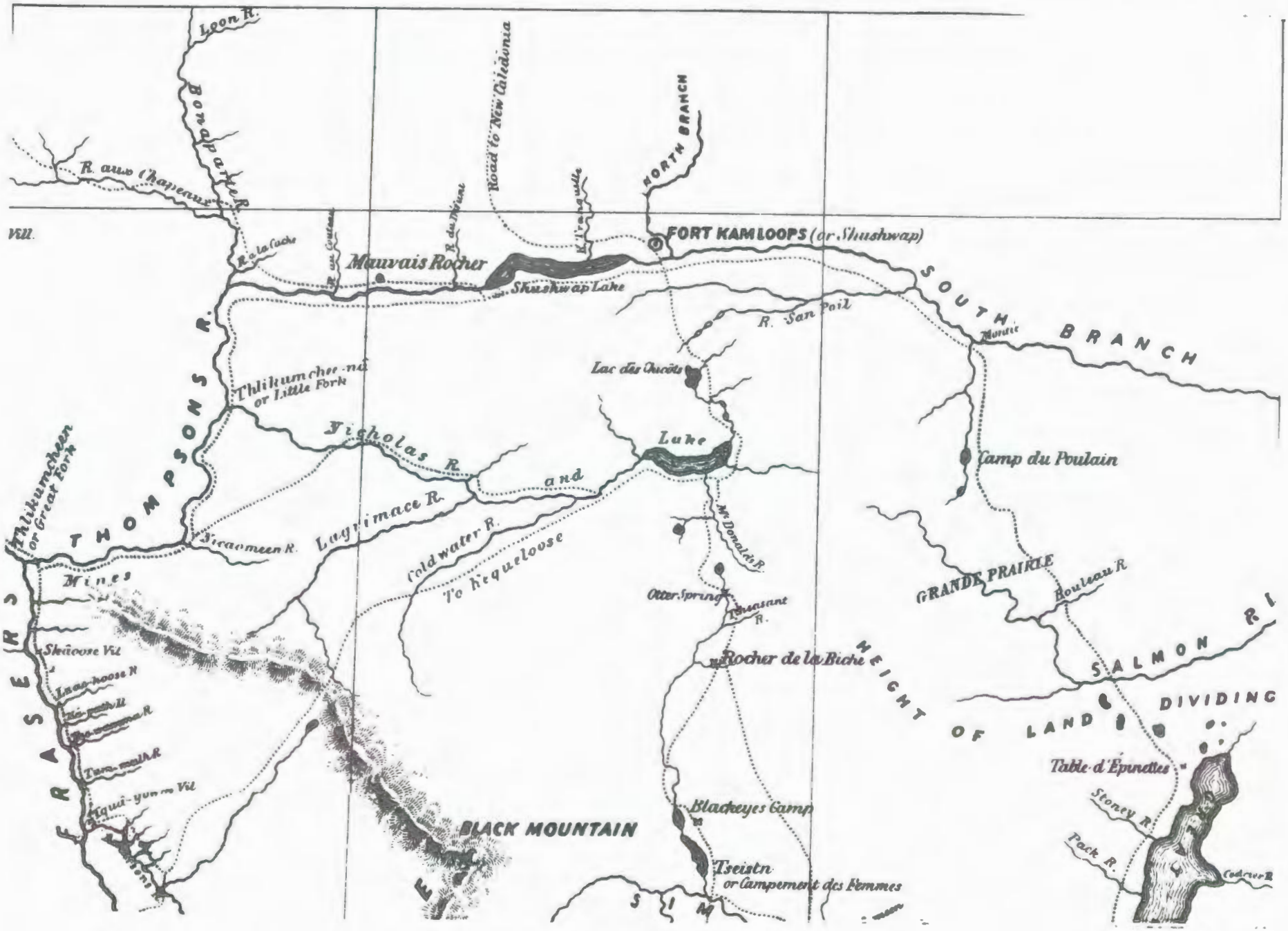

Figure 1 : A.C. Anderson's map (ca. 1859) showing the location of Monte (Monteé) Creek.

Of course we still have a number of French names around B.C., such as Lac la Hache and what we call Tee-John, which some of you may recognize as the French for "Yellowhead."

Old maps have a way of demolishing claims and theories. Take the matter of Walter Moberly and his "discovery" that the Eagle Pass provides a route from Shuswap Lake to the Columbia River near today's Revelstoke. Moberly has left an account of his great find:

> In the summer of 1865, I was exploring the Gold range of mountains for the Government of British Columbia, to see if there was any pass through them. I arrived at the Eagle River, and on top of a tree near its mouth I saw a nest full of eaglets, and two old birds on a limb of the same tree. I had nothing but a small revolver in the shape of firearms; this I discharged eight or ten times at the nest, but could not knock it down. The two old birds, after circling around the nest, flew up the valley to the river; it struck me then, if I followed them, I might find the much wished-for pass. I explored the valley two or three weeks afterwards, and having been successful in finding a good pass, I thought the most appropriate name I could give it was the "Eagle Pass." (The Rocks and Rivers of British Columbia, London, 1885, p. 39.)

But Moberly was not the first man, or even the first white man, to learn that there was a pass here. The evidence is supplied by a map of 1827 drawn by Archibald McDonald of the Hudson's Bay Company and preserved in the H.B.C. archives. One can burn out one's eyes trying to decipher a xerox of the original, so I supply a redrawing (Figure 2) by the invaluable R.C. Harris, who had added in brackets some modern identifications.

For historians of toponymy the McDonald map is a fascinating item. Some of the oldest names in the province's interior are already in place: Pavilion and the Bonaparte River. Trout Creek at Summerland is there as Trout River. Deadman Creek is there but with the name of the dead man: "river chivrette where he was killed." Other names have disappeared: "choo choo ach" (Chu Chua?) for Adams Lake and "Riviere Jacques" for Trepanier Creek--was Jacques the trepanner or the trepannee?

By the way, there are some old names which are not on the maps but ought to be. The fishermen used to call a snug cove on Nootka Island "God's Pocket" but some sixty or so years ago an unimaginative official ruled out the name as "too bizarre" and it was made into Haven Cove. Another God's Pocket up in the Queen Charlottes was renamed Pocket Cove. How lucky the Newfoundlanders are that they never had a civil servant change the name of Come By Chance to "Fortuitous Circumstance"!

Almost as interesting as the McDonald map is a chart of the southwest coast of Vancouver Island prepared by another H.B.C. officer, Charles Edward Stuart, apparently for the use of H.M.S. Virago. Virago, a paddle-wheel sloop about the size of a modern corvette, rather a large ship for her day, arrived at Esquimalt on 18 April 1853. Her first assignment was to make a cruise to the Queen Charlotte Islands to see if there had been any further American activity there after the abortive gold rush of the previous year. Early in the cruise the officers of H.M.S. Virago became aware that their latest Admiralty chart of Vancouver Island and its adjacent waters (Chart 1917), dated February 1849, was pathetically inadequate. This gave the impression that the eastern shores of Mayne, Galiano, and Gabriola Islands were all part of the east coast of Vancouver Island. Great was the

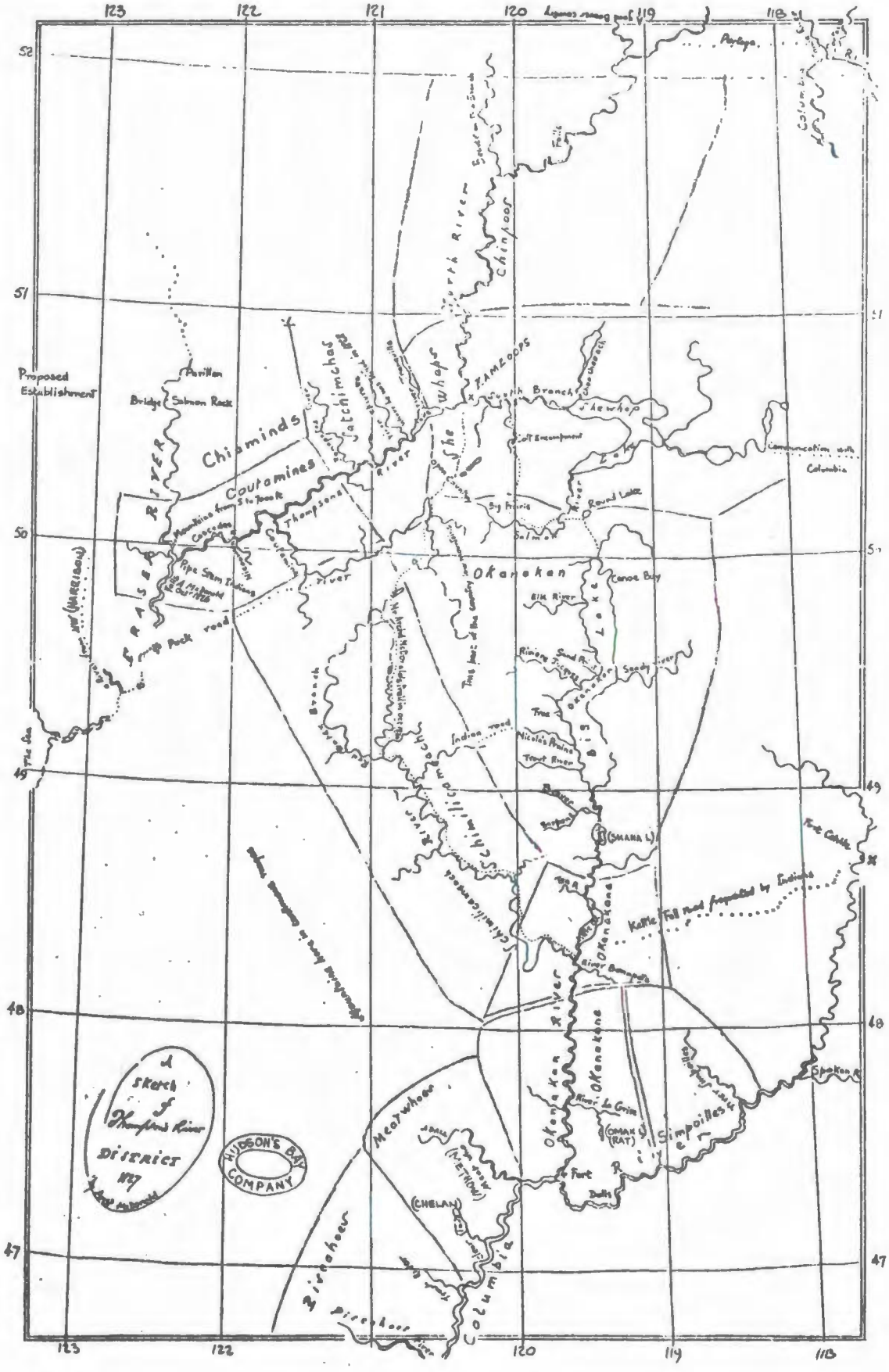

Figure 2 : R.C. Harris' version of Archibald McDonald's map (1827) showing the location of the pass from Shuswap Lake to the Columbia River.

interest of the Virago's master when he learned not only of the existence of these islands but of the broad waterway, Trincomali Channel, which lies to the west between them and Vancouver Island.

The wonder is that with navigational aids such as Chart 1917, Virago, as she journeyed north, suffered nothing worse than a grounding in Porlier Pass. What saved her was that the Hudson's Bay Company obligingly supplied a pilot in the person of Captain Stuart of the company's maritime department, who had years of experience in taking such vessels as the Cadboro and the Beaver up and down the coast, supplying the forts and trading directly with the Indians. Not the least of Stuart's services was providing the Royal Navy with the chart shown here (Figure 3), reproduced from the copy that G.H. Inskip, master (i.e. navigating officer) of Virago, enclosed at the back of his Remark Book for 1853.

I shall never forget the surprise that I experienced when I first saw Stuart's chart. Here were not the familiar names given by Richards in the late 1850s and early 1860s. Instead I had before me a whole set of older names:

Ranfurley Island (Saltspring)
Hills Island (Prevost)
Stevenson Island (part of the Penders)
Halliday Island (Mayne + Pender)
Kilmorey Island (Galiano)
Trincomalee Island (Valdes)
Portland Island (Mudge)

Some of these names may date from the visit of H.M.S. Portland to Esquimalt in 1851, others to that of H.M.S. Trincomalee in 1853. Hills Island may possibly be named after Virago's paymaster. But who was Ranfurley of Ranfurley Island and why was Galiano Island names Kilmorey?

A few remarks before I conclude. I have said nothing about maps and the Indian names in our province, but maps can be important in unexpected ways here. Let me illustrate. Years ago Mrs. Akrigg and I interviewed Chief James Sewid, asking about the Indian place names in his home area around Alert Bay. We were surprised how often he declared ignorance about the names we mentioned. Matters changed when we pointed out the places on maps. The white man's spellings and hence our pronunciations had been so inaccurate as to be incomprehensible. Only when he saw the locations could he make the connections.

With reference to the Indians, I may make mention of something a little unusual, the toponymical maps devised by Franz Boas for his book on Geographical Names of the Kwakiutle Indians. Here he had the problem of fitting a great number of complicated linguistic spellings into a very small space. The accompanying illustration (Figure 4) will show how toponymy and mapping were wedded in his solution.

When one is doing toponymical research, it is essential to have an adequate set of maps on hand. One never knows when a map will shed a light or correct an error. Recently, reading a transcript of a manuscript journal, I found a reference to Matia, Lucia, and Patos Islands south of Saturna. A look at the map--ah, but there is no Lucia Island there. For Lucia read Susia! Often the student of toponymy is confronted with entirely different accounts of a name's origin. In such cases, a quick look at an old map will sometimes show that the name had appeared topographically well before the claimed namesake settled in the area or before the occurrence of the

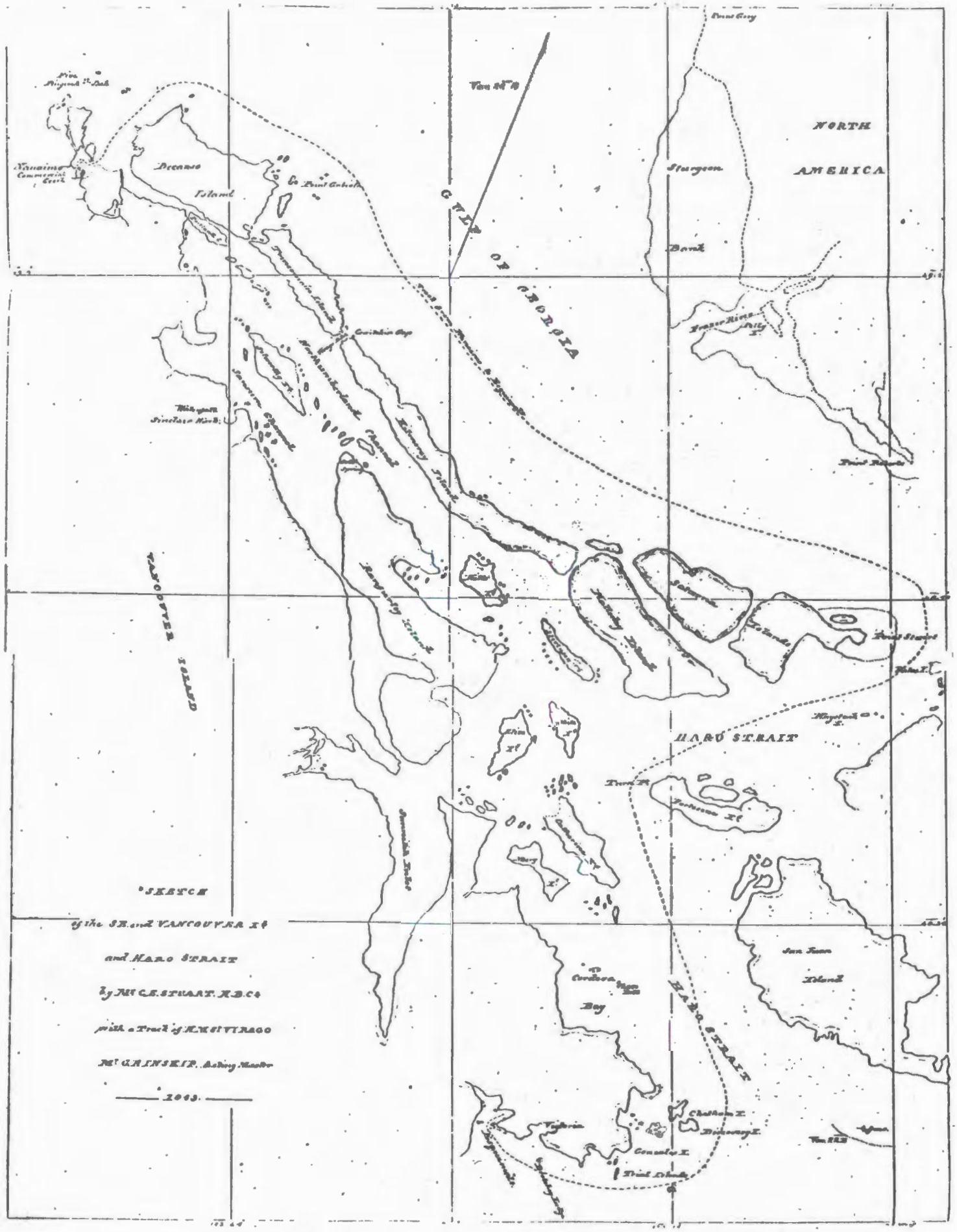

Figure 3 : Captain C.E. Stuart's chart of the southwest coast of Vancouver Island. This map was reproduced in 1855 by G.H. Inskip, master of Virago.

event alleged to be commemorated by the name. Thus maps eliminate fallacious explanations.

Looking for place name origins, one of course uses printed and manuscript sources, and one talks to old-timers. Thus we can learn why a name was chosen and where it came from. But if the question is when names came into use, old maps become invaluable and often they offer the only clue to the identity of the namer.

* * *

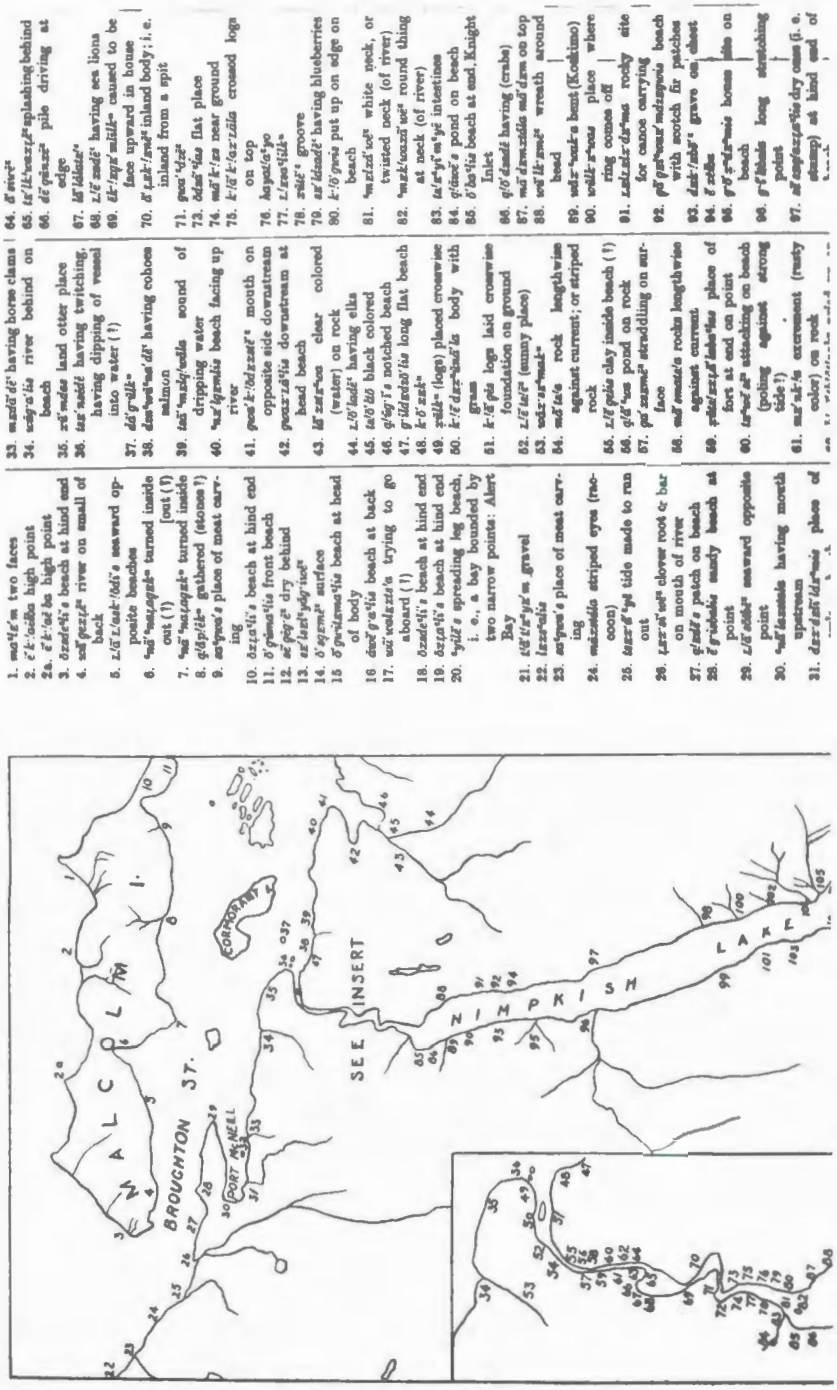

Figure 4 : A toponymical map devised by Franz Boas for his book on the geographical names of the Kwakiutle Indians.

MAPPING THE BRITISH COLUMBIA CENSUS, 1881

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The purpose of this paper is to report on some work I have been engaged in for the Historical Atlas of Canada project. I should add immediately that this work is still in progress; the paper represents an interim report and not a review of a task completed. In brief, this task is to prepare a map of the distribution of the population of British Columbia on the basis of the recently released manuscript rolls of the 1881 Census of Canada. I will endeavour, therefore, to outline the various steps in the preparation of this map--at least as far as presently completed.

Before embarking upon this process, though, I think it will be helpful, in order to establish a context for the work, to say something about two related topics: the condition of British Columbia at the time of the census and the significance of the census itself. The second of these topics is a good deal more straightforward, so let me begin there.

The 1881 census is of particular importance in the history of British Columbia. Entering Confederation in 1871, too late to participate in the census of that year, it was not until 1881 that the province was the subject of a full and formal enumeration for the first time.[1] The public release of the manuscript rolls (unfortunately, only the nominal rolls have survived) represents a new data set of the first order against which to test and amplify our understanding of early provincial history.[2] The more so since the census, by happy coincidence, took place at the very beginning of a dramatic change in the province--the construction of the Canadian Pacific Railway. In sum then, the 1881 census represents a documentary landmark: a cross-section of a society at the end of an era, and, in a sense, a symbol of the future--the integration of the Cordillera into a Canadian framework.[3]

British Columbia: Historical Background

As is well known, British Columbia was created as a political entity out of the vortex of the gold rushes beginning in 1858.[4] The sudden and substantial influx of miners shattered the Hudson's Bay Company regime and restricted the scope of, but did not eliminate, the fur trade itself.[5] Over the next fifteen years the lure of gold, reported and rumoured, drew miners, speculators, merchants, and the curious to examine the watersheds of most of the principal river systems in the province. In locations where gold was discovered in any quantity, population flowed in--varying in numbers from a few hundred to several thousands. With equal certainty, although less haste, the population of these areas dwindled as the supply of readily accessible placer gold was extracted. Mining activity, and hence population, fluctuated considerably: from one year to the next, from season to season, and from one area to another.[6] It should be added as a final point that the population was ethnically diverse, including a significant number of Chinese.

It was the Fraser River system which provided both the initial focus of activity in 1858 and the most enduring centre--the Cariboo. Lesser rushes affected parts of the Columbia watershed [Kootenay or Wild Horse Creek

(1864), Big Bend (1865), Rock Creek (1859)], Peace River-Omineca (1870), Stikine River (1863), and the Liard system. It was the rush to the Liard system, or the Cassiar rush as it is more commonly known, that provided the final placer mining excitement in 1874.[7] Thereafter placer mining, and with it the provincial economy, underwent a period of retrenchment.[8]

Directly and indirectly the gold rushes had a number of enduring results. Here it will suffice to limit attention to three of these which had implications for the settlement pattern of British Columbia. First, the gold mining economy necessitated a substantial elaboration of the transportation system. The most significant step was the construction of the Cariboo Waggon Road, which linked Yale, the limit of water navigation on the lower Fraser, with Barkerville in the Cariboo, a distance of some 400 miles.[9] This central artery was supplemented by a number of trails, of varying quality, utility, and endurance, and a system of coastal shipping which tied the mainland to Vancouver Island, with less frequent access to the northern coast. These improvements notwithstanding, entry to a substantial portion of the southeastern part of the province remained, in 1880 as in 1860, far easier from the United States than from coastal British Columbia. Much of the north remained inaccessible from anywhere.

Second, the gold rushes served to stimulate the development of what were to become the other staple industries of British Columbia: lumbering, fishing, coal mining, and agriculture.[10] The mechanisms involved varied between sectors and from one region to another. The extent of the stimulus should not, however, be overstated; problems abounded--technology, labour supply, finance, and access to markets, to name but a few. Nevertheless, the first sketchy outlines of an industrial system had been etched upon the landscape, albeit unevenly and very faintly. The CPR, of course, would be a major force in shaping the future of these developments.

The third major impact of the gold rush era was the creation of Victoria as the principal port, commercial, and administrative centre in British Columbia. In this respect, the growth of the city represented a thread of continuity with the preceding Hudson's Bay Company regime. By 1881 Victoria was approximately four times the size of its nearest urban rival, the erstwhile colonial capital and Fraser River port of New Westminster.[11] The pattern of south coastal dominance of the economy and polity was well established before the arrival of the CPR.

The preceding remarks have excluded one very significant feature of British Columbian society: the indigenous or native population. It is important to recall that in 1881 the native population was still in a position of absolute numerical majority, counting nearly 52 percent of the total. To be sure, this population was in the process of decline (absolutely and relatively), sometimes drastically so, and was unevenly distributed and internally fragmented.[12] Nonetheless, for considerable portions of the province, the native peoples were in a substantial majority, and in some areas they were the only inhabitants.

To sum up, at the time of the 1881 census, British Columbia was sparsely and unevenly populated, with native peoples still the majority. A poorly developed urban hierarchy was centred in the southwestern coastal area and the economy dependent upon resource extraction. Of these resources, placer gold remained of primary importance, and the transportation system had been largely shaped by its requirements.

The Problem of the Census

With this rather cursory historical background in place, the nature of the problem comes more clearly into focus. In brief, it will be recalled that this was to produce a map of the population of British Columbia on the basis of the 1881 manuscript census rolls. More specifically, the map should represent the principal ethnic divisions of the time--native Indians, "white," and Chinese--and be as detailed as the constraints of atlas reproduction permit. Further specification of the content of this task requires a brief review of the principal data source, the census itself.

Figure 1 is a simplified transcription of a sample page of the manuscript roll. This shows that identification of the three ethnic groupings is quite straightforward--the more so since the vast majority of the native population were enumerated on what was essentially a separate roll. If this aspect of the task is simple and clear, the same cannot be said with respect to determining the geographical location of these populations. Indeed, it is the limited amount of spatial information in the census rolls that presents the principal difficulty for the would-be cartographer. Obviously, this is an issue of no small import, requiring further elaboration.

For the purposes of the 1881 census, British Columbia was divided into but five enumeration districts, of which one was Greater Victoria. These districts, in turn, were subdivided into subdistricts--a total of twenty-six, with five of these comprising the Greater Victoria district.[13] In other words, almost the entire province was covered by twenty-one subdistricts. The significance of this lies in the fact that, apart from the identification of tribal groups on the Indian roll and some occasional comments in the "remarks" column, this represents the extent of the locational information available in the census. An example may serve to draw the point more dramatically. New Westminster census district covered an area of 463,356 km^2 (178,910 sq. mi.) and was divided into four subdistricts: a) North, b) South, c) Cassiar and Northern Interior, and d) Coast of the Mainland.[14] This last subdistrict covered the entire coastal area from the 49th parallel to the Alaska border, although in the case of the Indian roll a further eleven subdivisions were employed. As a final point, it is clear that some segments of the population did not stay in one place for very long. Thus, of the residence of one inhabitant of the Kootenay subdistrict, the enumerator recorded that he "camped under a tree." Given these limitations, the manuscript census rolls alone are obviously an inadequate data source for detailed mapping.[15]

Other Data Sources and Methodology

As a preliminary step towards integrating supplementary data sources with the census it was necessary to partially transcribe the census material. This was not quite the onerous task it might appear as it was possible to restrict the scope of the operation in a number of ways. Transcription was limited to the name, occupation, sex, and ethnic group of each head of household, together with the number, ethnic origin, and sex of any dependents. In addition, the city of Victoria, comprised of three census subdistricts, could be handled as a simple aggregate since location was already sufficiently precise. Finally, for the native population, I restricted transcription to page by page totals of males and females, aggregating these on the basis of the tribal groupings indicated in the

CENSUS 1881-RECENSEMENT

RECENSEMENT 1881-CENSUS

Province of British Columbia District No. 189 Yale S. District of Lytton, Cache Ck Spence's Bridge & Kamloops

PAGE 1 Robert M. Clemitson Enumerator

SCHEDULE No. 1 Nominal Return of the Living

PAGE 1

	Housing Numbered in the Order of Visitation	Names	Sex	Age	Born Last 12 Month	Country or Province of Origin	Religion	Origin	Occupation	Married/Widowed	Instruction	Infirmities	Dates of Operations and Remarks
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
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Figure 1 : A simplified transcription of a sample page from the 1881 census of British Columbia.

manuscript.

With this revised list at hand it was possible to turn to additional data sources in the quest for more precise locational information. Here the single most useful source was the Directory of British Columbia for 1882-1883--the data presumably being collected at approximately the same time as that included in the census.[16] A name by name comparison of the directory listings with the transcribed census material was then undertaken. This was supplemented, where appropriate, by checking with the published provincial voters lists of the period. These steps were successful in establishing the basic outline of the settlement pattern in most census subdistricts. The procedure, figuratively speaking, delimited the skeleton of the figure, but it left many details of the body uncertain. In part, this was a reflection of the selectivity of the directory (women, for example, are almost entirely absent, as are the Chinese), as well as the vagueness of some of the locational information.

The next step was to turn to the land records since these would provide greater spatial precision. This task was greatly facilitated by what is known as Laing's List; this is a compilation of government land transactions--pre-emptions, applications to purchase, and crown grants--taking place during the colonial period.[17] The list is alphabetical by region so that comparison with the working body of data was straightforward. Laing's List was further supplemented, for areas of continuing uncertainty, by consulting surviving assessment rolls of the Land Recording districts.

In terms of locating these land-holdings "on the ground," so to speak--that is, determining the district lot numbers--the most useful source proved to be a set of maps known as the Pre-Emptors series. These were produced by the provincial government at a variety of different scales between 1903 and 1939 and covered regions of settlement and potential settlement.[18] For present purposes, they have the great merit of clearly identifying the location and number of each surveyed district lot. I should just add here that the chronological numbering system and the rather ad hoc surveying method in British Columbia, as compared to the rationality of the township and range system, for example, makes locating any particular lot more difficult than may seem apparent.

At this stage it became necessary to refer back to the census itself and utilize the manner in which it was undertaken. The 1881 census does not portray the population of British Columbia at a single point in time. Rather it is the product of the information gathered by a number of travelling enumerators, whose journeys covered much of 1881 and even extended into 1882, in one or two instances. Hence the list of each enumerator is chronological in structure, with the end of each day's activities indicated in the "remarks" column by date and signature (see Figure 1). In other words, it was now possible, with the additional information gathered, to trace out the approximate route, day by day, for most enumerators (see Figure 2). The importance of this step is that it facilitated the interpolation, with a reasonable degree of accuracy, of some of those people, for whatever reason, not appearing in directory listings or the land records. Consultation of the Pre-Emptors series was also helpful in this operation.[19]

Had the population of British Columbia been confined to urban and agricultural pursuits and been all "white" in ethnic composition, this

would complete my story. But, as already indicated in the introduction, this was far from the case. A number of additional lines of inquiry thus became necessary. These may be reviewed under the headings of the three different groups to which they were addressed: the mining population, the Chinese, and the native peoples.

For subjective as well as objective reasons the population of British Columbia dependent upon placer mining was mobile and transient in nature (as well as overwhelmingly male). Some, presumably the more affluent and/or the more permanent members of mining communities, do appear in the directory listings or on the voters lists. But many did not. Recourse to further sources of data was evidently required.

The annual reports of the Minister of Mines provide useful aggregate information for the period under review. A table of the number of miners working on the principal creeks was published each year. In addition, the resident Gold Commissioner supplied a written report on the activities in his region during the year. For the more important mining areas, these accounts are a source of further detail. But for many of the less significant regions the reports are usually perfunctory and of little value. The annual reports were consulted for the years 1880 to 1882.

One set of manuscript records was also examined--the claim books and reports of various Gold Commissioners.[20] Two factors limited the utility of these records. First, they are incomplete. Second, filing a claim on a particular creek did not necessarily imply residence there. Some individuals, for example, filed claims on more than one location during the 1881 mining season. In sum, the information concerning the mining population was not as complete as might have been desired. This necessitated additional reliance, and on a less secure foundation, on the interpolation technique. For some localities, what can only be termed a best estimate--or guess, hopefully an educated one--was the result.

Turning now to the Chinese population, a number of the difficulties just discussed arise once again, only in a more acute form. In part, of course, this is a function of the involvement of a significant portion of the Chinese population in the placer mining industry. For this group, however, I have been unable to trace individuals from the census rolls to other data sources. Given the vagaries of the transliteration of Chinese names into Anglicized forms, together with the prevailing climate of racism, this came as no great surprise. As a consequence, the location of the Chinese population has been determined largely from the aggregate data and the descriptions of the Minister of Mines annual reports, together with the interpolation technique. Of necessity, a degree of uncertainty must remain, both in terms of location and numbers.

A rather different set of problems was presented by the native population. As already indicated, the native population was enumerated on a separate roll and in a somewhat different manner, with each tribal grouping named.[21] Occasionally this information is supplemented by some comments about the location of the group but not in any consistent manner. The problem, then, becomes one of identifying the tribal group--the uncertainties of Anglicization are important here--and then linking it to a particular location. One further difficulty arises most clearly with respect to the native population: the enumerators did not visit, and hence count, all of the tribal groups. In part this was a product of the resistance of some of the native peoples who, it would appear, regarded the census enumerator as

yet another manifestation of, or vehicle for, "white" intrusion. Comments identifying the census with attempts to prohibit the potlatch or the renewed introduction of disease (smallpox) are recorded as the reasons for some tribes refusing enumeration.[22] In other areas the native population was just too remote from the existent pattern of white settlement and transportation. Some groups seem, quite simply, to have been missed--possibly as a result of seasonal migrations.

The Handbook of Canadian Indians, prepared under the auspices of the Geographic Board in 1912, was of considerable value in overcoming some of the difficulties just outlined.[23] Not only does the Handbook contain entries on the tribal groupings of British Columbia and their "villages," but two appendices were also of particular interest: a list of synonyms of Indian tribal names and a schedule of Indian reserves. The value of the first of these appendices should be readily apparent. The second led to the examination of another source which greatly simplified the process of determining the location of the various groups.

I am refering here to the four-volume report of the Royal Commission on Indian Affairs in British Columbia published in 1916.[24] Among a good deal of other information, these volumes contain a more detailed listing of the Indian reserves of the province and, significantly, a series of maps of these reserves. For each Indian agency, a map shows the location of each reserve in existence at the time of the Royal Commission, as well as the new reserves and reductions, or cut-offs, suggested by the commissioners. In so far as it is safe to assume that these reserves included sites that would have been occupied in 1881, these sources, together with the census, provide a solid foundation for mapping. Nonetheless, in part to test the reliability of this assumption, as well as attempting to resolve certain areas of ambiguity and uncertainty, it seemed advisable to pursue the trail of alternative sources a step or two further.

One obvious additional source is the annual reports of the Department of Indian Affairs. These were consulted for the years 1880 to 1883. While a certain amount of additional information was obtained, these reports were subject to many of the same lacunae as the census itself--this not surprising given the fact that many of the enumerators for the census were DIA representatives.

The final potential data source was far more open ended in nature: ethnographic accounts. Given the substantial quantity of such literature available, inquiries were restricted in two ways. I considered only those accounts which were broadly contemporary with the census enumeration and those concerning groups or areas apparently omitted or whose identity remained uncertain.[25] It would be pleasant to record that these steps resolved all remaining difficulties. Unfortunately, such a claim would be premature. As a final note, I should just add that the interpolation technique also played a role in this section--as a mechanism of last resort.

Conclusion

Rather than pursue the technicalities of map contruction (problems of scale, level of aggregation, dot size), I would like to conclude with some brief comments on the project as a whole and on the census itself. I should say immediately that the task of producing a map has proved to be a good deal more complex (and interesting) than I had anticipated at the

outset. To a certain extent this has been a product of my own making, but not entirely. Like many researchers given a relatively free rein, I became fascinated by the details of the task, overstepping the limits required to produce, in this case, a small-scale map. On the other hand, I think that some of the difficulties encountered were also a reflection of the nature of British Columbian society in 1881.

Although an established political entity, British Columbia was by no means an integrated geographical unit--at least in the terms of its cultural geography. A new and still-fragmented society, its population was very unevenly, but not randomly, implanted upon the landscape. Some segments of the population had begun the slow process of establishing local roots, others retained something of the itinerant quality of visitors or sojourners. As a result, knowledge and understanding of the habitat was often partial and uncertain. For the native peoples, of course, the situation was different. Long familiar with their own environments, their uncertainty was the product of the growing "white" influx.

As these remarks suggest, British Columbia was founded in diversity. It was not simply the ethnic divisions which were important but also the pronounced regional variations--physical and cultural. Think, for example, of the commercial city of Victoria, the growing cattle ranches of the Nicola region, the empty valleys of the Kootenays, the declining mining camps of the Cariboo, and the bustle of the lower Nass River during the oolichan run. It is difficult, if not impossible, to do justice to this range of people and places, be it in a descriptive phrase or some common thread of understanding or explanation. As a geographer, though, I would suggest that maps should be an integral part of any understandings we may develop.

The census reflects this diversity and much more besides. But it is also the product of this same set of conditions, with the added complication of the involvement of the federal government centred some 3,000 miles away. All of this is simply a means of saying that the census must be used with some caution: it contains errors and omissions which are not random in nature. In many ways it is the most fascinating documentary source we have, but, as I hope I have indicated, it does not always yield its fruits easily.

Notes

[1]There had been earlier attempts at collecting some basic information on the population and economy of British Columbia in the colonial period--most notably for inclusion in the Blue Books, the annual reports of the Governor to the Secretary of State for the Colonies. In addition, H.E. Langevin prepared a report for the Canadian parliament on the eve of the entry of British Columbia into Confederation. This was published as Sessional Paper no. 10 in 1872. None of these efforts were comparable in scope to the decennial census.

[2]For an example of the use of the 1881 census data in this manner, see Ben Moffat, A Community of Working Men; The Residential Environment of Early Nanaimo, British Columbia, 1875-1891, M.A. thesis, Dept. of Geography, U.B.C., 1982.

[3]Construction of the British Columbia section of the CPR began in the Fraser Canyon in 1881. The construction crews were enumerated in District

189, Yale; Subdistrict a.

[4]Gold was discovered as early as 1852 on the Queen Charlotte Islands, but the ensuing brief flurry of activity was without historical significance.

[5]Data on the value of the fur trade are uncertain. In 1870 exports of furs and hides amounted to $177,094 or 10.1% of the provincial total; in 1881 the comparable figures were $350,615 and 15.5%. It is not known how much agricultural production contributed to these figures--see below under note 8.

[6]Placer mining was a spring to fall activity, as was recognised by the official closed season when claims did not need to be represented on the ground. The length of the closed season was at the discretion of the local Gold Commissioner. Particularly during the early years, much of the mining population retreated to the more salubrious climes of the coastal areas for the winter months.

[7]The Atlin rush did not take place until 1898, but this may be viewed as an adjunct of the rush of 1897 to the Klondike.

[8]The data on the value of placer mining production are estimates only. The official figures for five-year periods to 1881 are shown below and may be taken as reasonable indicators of the trends of activity:

1858-1861	$7,214,731	1872-1876	$9,021,991
1862-1866	16,459,627	1877-1881	6,234,008
1867-1871	9,765,214		

The continuing importance of mining to the provincial economy is suggested by the figures for provincial exports for the year ending 30 June 1881:

Commodity	$	% of Total
Mining (inc. coal)	1,317,079	58.4
Fisheries	403,170	17.9
Forest	162,747	7.2
Animals	350,615	15.5
Agriculture	1,335	0.1
Manufactures	20,620	0.9
Miscellaneous	187	0.0
Total	2,255,753	

[9]Built at a cost of approximately $1,250,000 between 1861 and 1865. Sections of the road were destroyed during the construction of the CPR through the Fraser Canyon.

[10]An unsuccessful attempt at lode mining had been made in the Cariboo, but successful prosecution of this industry had to await the approach of rail transportation--to the Kootenay region, in particular.

[11]The population of Greater Victoria in 1881 was 7,301; that of New Westminster approximately 1,500. No other settlement had a population in excess of 1,000.

[12]For estimates of the population in the pre-colonial and colonial periods, see W. Duff, The Indian History of British Columbia, Victoria, Provincial Museum of Anthropology Memoir No. 5, 1964. Accounts of the changing relationships between the native peoples and the emergent white society are provided by R. Fisher, Contact and Conflict, Indian-European Relations in British Columbia, 1774-1890, Vancouver, U.B.C Press, 1977; and R. Knight, Indians at Work: An Informal History of Native Indian Labour in British Columbia, 1858-1930, Vancouver, New Star Books, 1978.

[13]See Figure 1. This transcription is for District 189, Yale; Subdistrict b, covering the area of Lytton, Cache Creek, Spence's Bridge, and Kamloops.

[14]These data are taken from the published version of the 1881 census.

[15]Census District 189, Yale; Subdistrict e, p. 5.

[16]Robert T. Williams, The Williams Official British Columbia Directory, 1882-1883, Victoria, 1883.

[17]F.W. Laing, Colonial Farm Settlers on the Mainland of British Columbia, 1858-1871, MSS. PABC and Special Collections, U.B.C.

[18]These were published, primarily, by the British Columbia Department of Lands and Forests. The dates refer only to the first issuance of maps for particular areas; later editions, including more recent information on land status, were issued for most areas. For the present study, it was the earliest maps which were of greatest interest.

[19]Some local histories were also helpful in this process.

[20]These are located in the PABC and are indexed under the Minister of Mines collection of government records.

[21]Tribal grouping is a rather imprecise term. It is used here, not in the sense of implying anything about the level of social organization, but simply as a label for the groups as they are identified in the census.

[22]See, for example, District 187, New Westminster; Subdistrict d, Coast of the Mainland; Division 2, Bella Bella, pp. 11-13. The Kimsquit were estimated to number 180 people; the Weekeno about 200, and the Bella Coola Sinerclum about 120. The respective reasons for the lack of enumeration were as follows:-

> Kimsquit--"Unable to obtain census on account of distance."
> Weekeno--"The Chiefs would not allow the census to be taken as they thought it would be the means of stopping the heathen practices of dancing, giving away property etc."
> Bella Coola Sinerclum--"They would not allow the census to be taken, as--they say--the last time the census of their people was taken the white men sent the small pox among them, and they nearly all died."

[23]Canada, House of Commons, Supplement to the Annual Report of the Department of Marine and Fisheries, Sessional Paper No. 21a. The Handbook was also issued separately and has subsequently been reproduced in facsimile form by Coles.

[24]British Columbia, Report of the Royal Commission on Indian Affairs for the Province of British Columbia, Victoria, Acme Press, 1916. The commission was established by Order in Council, dated 27 November 1912, and held hearings throughout the province.

[25]Examples of the types of accounts falling within these categories are: some of the reports of the Jessup North Pacific Expedition; the ethnographic works of A.G. Morice; and some of the early reports of the Geological Survey of Canada on British Columbia.

* * *

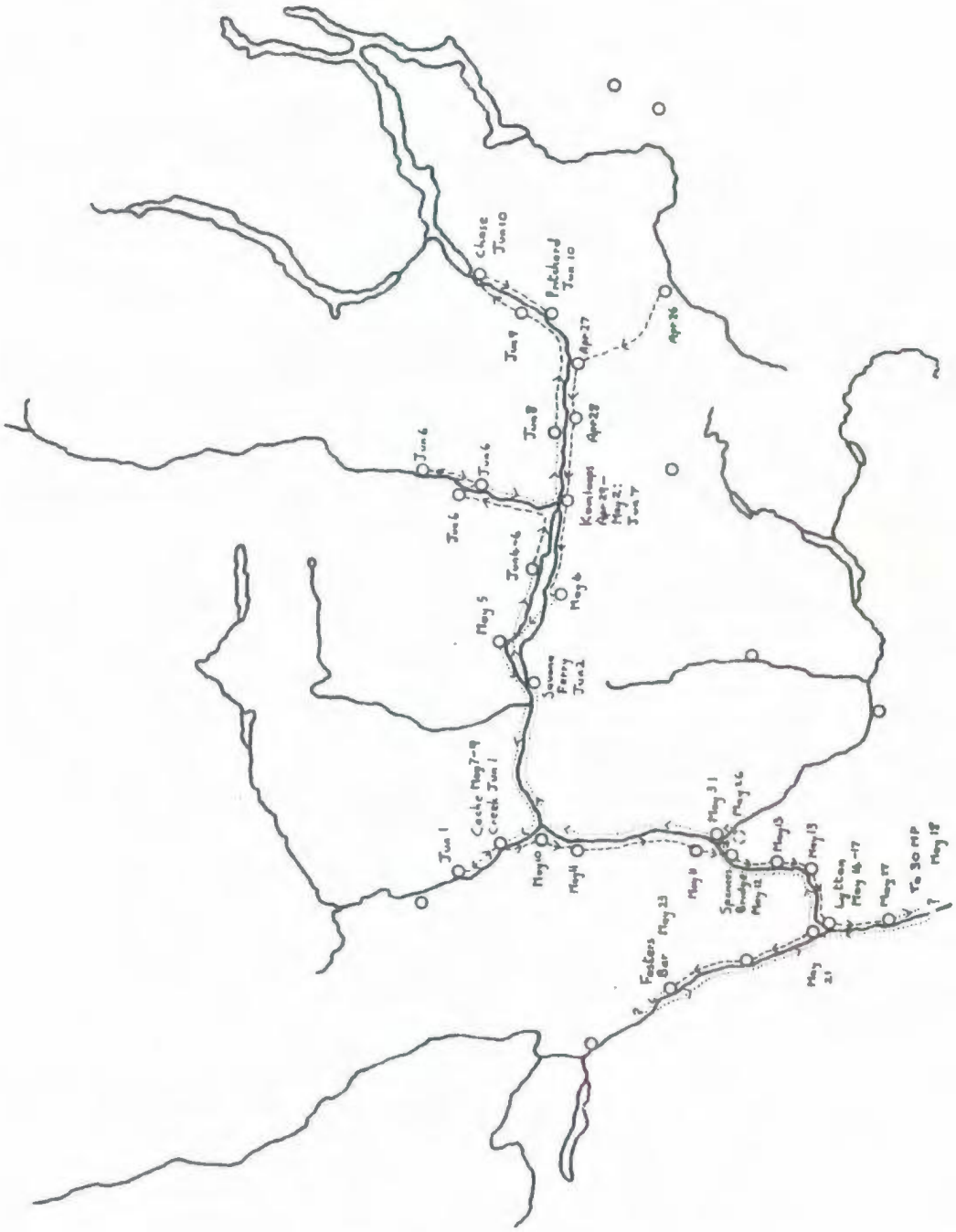

Figure 2 : The approximate route of a census enumerator (1881 census of British Columbia).

THE USE OF FIRE INSURANCE PLANS IN THE HERITAGE CONSERVATION OF INDUSTRIAL BUILDINGS; BRITISH COLUMBIA CANNERIES--A TEST CASE

Duncan Stacey
Parks Canada
Vancouver, B.C.

This talk will for the most part be a slide show to illustrate the importance of fire insurance maps and other related documents in the study of industrial history using British Columbia's canneries as a test case.

Fire insurance maps provide architects and architectural historians with the dimensions, location, construction, and fire records of the building under consideration. For the industrial historian, however, they are even more informative, revealing also boiler location and construction, the location of fire hazard areas of the industrial process, production line machinery, crew quarters, labour force statistics, and water supply areas. This information enables the industrial historian with base data to partially reconstruct the productive process, i.e. production line layout, and with other supportive documents to totally reconstruct the production line layout for given time periods. By comparing the states of technology for these time periods it is possible to understand the evolution of the productive process, a key to the study of industrial history. Once the industrial process is understood it is much easier to study the social history of an industry and the interrelationship of man and the machine.

Other supportive documents and sources often overlooked by business historians and archivists include the following.

1. insurance appraisals
   - -building layout plans
   - -machinery line layouts
   - -description and construction of buildings
   - -description, size, serial number, maker of machinery
   - -photographs of plant

2. aerial photographs

3. hydrographic surveys

4. company records
   - -invoices, machinery, construction material, labour
   - -machinery, building blueprints
   - -repair and renewal (R.R.) records
   - -photographs
   - -labour contracts
   - -plant correspondence
   - -suppliers' catalogs

5. private journals
   - -daily journals of linemen, managers, foremen

6. government reports
   a) inspections
   - -steam, gas, electric, building, fire
   - -health--especially in food processing plants
   - -workmen's compensation

b) permits
-building, pressure vessels (e.g. boilers)

7. machinery and building material suppliers and repairmen
-machine shop records, invoices, blueprints
-engineering firms

The combination of fire insurance records with the above mentioned supportive documents provides a key to industrial history. Plant and machinery can be dated and the industrial production processes described for given time periods, thereby interpreting the evolution of an industrial process, a key to industrial history. In most cases this evolution explains why industrial structures are designed in a certain way at a given time. The change from the "L" shape to a square or rectangular design in British Columbia's canneries is but one example of how industrial structures are built to meet the demands of the industrial process they house. Other examples include breweries, sawmills, railway roundhouse structures, shipyards, and sugar refineries. These structures merit as much attention as parliament buildings and the great houses of this province. Without industry many of those great houses could never have been built.

APPENDIX 1

LIST OF SLIDES (PARTIAL) AND SOURCES

B.C. Fire Insurance Plans: from U.B.C. Special Collections

Alert Bay 1915
Namu 1923
Wadhams 1915
Tallheo 1923
Bones Bay 1923
Gulf of Georgia 1911 and circa 1946
B.C. Sugar Refining Company Ltd. 1925
Eburne Sawmills Ltd. 1933
Sterling Shipyard Ltd. 1947
CPR Roundhouse 1928
Canadian Western Cooperage Ltd. 1940

B.C. Boiler or Pressure Vessel Inspection Reports: from U.B.C. Special Collections

#44979-BC 1941
#13P 1022-B.C. 1956

Canadian Fishing Company, Gulf of Georgia Records: from U.B.C. Special Collections

Daily Report 1927
Floorplan, salmon canning line, 1928, General Appraisal Co.
Repairs and Renewals, 1928
China Contract, 1929
Fraser River Piledriving Company Ltd. invoice, 1929
Employment contract, 1929
Fish Cannery Survey #106, 1925

Appraisement for Gulf of Georgia Plant, 1930, General Appraisal Co.
Floorplan, herring canning line, 1940, General Appraisal Co.
Repairs and Renewals, 1969

* * *

EDUCATIONAL LITERATURE

University Map Library

Department of Geography
Brock University

LOCATION

Geography Department, East Block, Room ~~C311~~ C306
688-5550 Extension 468

COLLECTION

The University Map Library contains over 40,000 map sheets, 14,000 aerial photographs and more than 300 atlases. The main features of the Collection are outlined below:

Maps

A complete set of Federal (NTS) topographic maps of Canada and good topographic map coverage of other parts of the world, especially the United States, United Kingdom and selected European and African countries.

Numerous special-purpose maps, particularly for Canada; these include historical, geological, soil, hydrographic and road maps.

Wall maps and class sets of maps for use in lectures and seminars.

Outline base maps of all parts of the world, for those who wish to construct their own maps.

Aerial Photographs

Aerial photographs of the Niagara Region dating back to 1921 and satellite imagery of Southern Ontario.

Class sets of aerial photographs for use in labs.

Atlases

A wide variety of atlases: world, national, regional and special purpose; these include the Atlas of Canada, Canadian provincial atlases and a selection of early atlases.

Other Materials

The Map Library also houses a number of journals, reports and government documents of particular relevance to the study of geography.

HOURS OF SERVICE

September to May

Monday to Thursday	- 9:00 am - 7:00 pm
Friday	- 9:00 am - 4:00 pm
Saturday & Sunday	- CLOSED

June to August
Monday to Friday - 9:00 am - 4:00 pm

Variations to these hours are posted on the Map Library door.

OPEN STACK POLICY

Most materials are shelved in open stack areas. This means that all Map Library users can browse and select material at their leisure.

ACCESS

Maps and atlases are classified according to the American Geographical Society system and can be accessed through index maps or the card catalogue.

Flightline indexes permit access to aerial photographs and satellite imagery.

Special listings are available for wall maps, outline maps and journals.

Government documents are accessible through Author, Title and Title Key Word Listings. Listings also indicate when duplicate copies of documents are available in the University Library.

BORROWER ELIGIBILITY

Anyone holding a valid Brock University Service Card or an Alumni Card is eligible to borrow from the Map Library; other persons may be permitted to borrow at the discretion of the University Map Library Supervisor.

BORROWING

Loan Period

The normal loan period is one week. Renewals are possible, but must be made in person with the item to be borrowed in hand.

Certain materials, such as atlases, may be signed out only under special circumstances.

Return and Overdues

Borrowers are notified about overdue material by telephone, and will be charged a fine, repair/replacement costs for damaged/lost material.

SERVICES AND FACILITIES

Map Library personnel are available at all times to assist in locating materials, to advise on how to use maps and aerial photographs, and to provide information regarding purchase of maps and aerial photographs.

Items not in the Map Library can be obtained through Interlibrary Loan; alternatively, if the need justifies it, they can be purchased for the Collection.

Tours of the Map Library can be provided, and wall displays on specific areas or themes can be mounted at the request of instructors.

The Map Library is equipped with work tables and light tables, and basic equipment for map and airphoto use. Other facilities and equipment are available in the cartography laboratories.

The orientation flyer reproduced on this and the preceding three pages was prepared by Mrs. Olga Slachta, map librarian at Brock University.

The Bulletin will highlight the literature of a different institution in each future issue, under the heading "Educational Literature." The objectives of this program are two-fold: first, to reproduce examples of a variety of educational documents for the benefit of those who contemplate preparing or revising their own and, secondly, to provide interesting, useful information on the nature (i.e. size, strengths, loan policy, etc.) of map-oriented institutions.

* * *

PROCEEDINGS
OF THE
ASSOCIATION OF CANADIAN MAP LIBRARIES
17TH ANNUAL CONFERENCE
REPORTS

DEPARTMENT OF THE ENVIRONMENT (CANADA) LANDS DIRECTORATE MAPPING ACTIVITIES IN THE PACIFIC AND YUKON REGION 1982/83

Mike Romaine
Lands Directorate
Vancouver, B.C.

Introduction

The Department of Environment performs a number of functions--researcher, resource manager, forecaster and climate advisor, environmental emergency coordinator, environmental advocate and educator. These undertakings in turn either involve or are dependent upon the collection, analysis, and presentation of data. The resulting information is presented in a myriad of forms--reports, tables, graphs, charts, and map manuscripts.

Over the last several years there has been increased interest in the development of various computerized systems for data management and display with respect to mapping activities. Conventional cartographic methods are frequently supplemented or being replaced by computerized systems which, when operational, can offer greater flexibility in the interactive analysis and presentation of mapped information.

Mapping Activities in the Pacific and Yukon Region

Environment Canada is broken into five Services; namely, the Atmospheric Environment Service (AES), the Canadian Forestry Service (CFS), the Environmental Protection Service (EPS), Parks Canada (PC), and the Environmental Conservation Service (ECS). ECS is further subdivided into the Canadian Wildlife Service (CWS), the Inland Waters Directorate (IWD), and the Lands Directorate (LD).

The following provides a brief overview of selected and major mapping activities within Environment Canada.

1) Canadian Forestry Service

a) Forest Inventory - Yukon Territory
A joint three-year forest inventory program is being initiated by the Canadian Forest Service and the Yukon Forest Service. Mapping of forest land will be at a scale of 1:250,000. Approximately six maps will be produced per year.

b) Ecological Mapping - Yukon Territory
Vegetation mapping is being conducted at a scale of 1:250,000 for selected areas around southern Yukon communities.

c) Insect and Disease Surveys
This ongoing program identifies and maps areas of outbreaks.

This information is provided in an annual report on the subject.

2) Environmental Protection Service

A shoreline protection and clean-up manual is currently in preparation for Vancouver Harbour. Information is to be presented at three levels of detail:

- 1:250,000 scale showing areas of sensitivity
- 1:50,000 scale showing access points and logistics important for emergency oil spill situations
- 1:5,000-1:8,000 scale--high priority areas along with specific recommendations.

The intent of the manual is to provide a guide to users in the preparation of their own documents.

A similar manual to that described above has been prepared for the coastal area between Esquimalt and Bamfield on the west coast of Vancouver Island.

3) Canadian Wildlife Service

a) Wetland Mapping Program
A wetland mapping and designation program has been initiated. The purpose of this program is to identify the most important habitats which require protection. At present, a research mapping project has been initiated to investigate the use and role of remote sensing in identifying habitat types.

b) Sea Bird Atlas
This document for the Pacific Coast has just been published. Further work of this type is being considered for selected west coast areas.

4) Lands Directorate

a) Federal Land Use Monitoring Program
This program is focussed on urban-centred regions with populations over 25,000. A five-year cycle of mapping is planned.

The following table provides a summary of urban-centred regions in B.C. which are to be mapped at 1:50,000. An analysis of land use change will be documented in report form.

TABLE 1 - URBAN CENTRED REGIONS IN B.C. TO BE MAPPED
(Scale of Mapping is 1:50,000)

Centre	1966 Cyle	1971 Cycle	1976 Cycle	1981 Cycle
	Done by C.L.I. staff using C.L.I. classification	Done under contract through unsolicited proposal using C.L.I. classification	Done using C.L.I. classification	Using new classification (see Working Paper No.17)
1. Vancouver	Completed	1971	Completed	Mapping 70% done

Centre	1966 Cyle	1971 Cycle	1976 Cycle	1981 Cycle
	Done by C.L.I. staff using C.L.I. classification	Done under contract through unsolicited proposal using C.L.I. classification	Done using C.L.I. classification	Using new classification (see Working Paper No.17)
2. Victoria	"	1972	"	Mapping 50% done
3. Nanaimo	Completed	Not done	Completed	Planned for 1983
4. Port Alberni	"	Not done	"	To be done by March 31/83
5. Chilliwack	"	Not done	"	Completed
6. Kelowna	"	Not done	"	Completed
7. Kamloops	"	Not done	To be done by March 31/83	To be done by March 31/83
8. Prince George	"	Not done	Completed	Planned for 1983

As a component of the Canada Land Use Monitoring Program, a study is being conducted on special resource lands. The Okanagan fruitlands is the first area to be studied. Mapping has been done at 1:50,000. A report on this study will be published in 1983.

b) Ecodistrict Mapping

Plans are to map the southern Yukon area at a scale of 1:500,000--five maps are to be produced during 1983. The current priority is the Mackenzie Mountain area.

The northern half of British Columbia is also being mapped at generalized scales. An ecoregion map (1:1,000,000) should be completed with one or two years. Ecodistrict level (1:500,000) mapping has also been initiated for coastal and northern areas of B.C. The schedule is to have sixteen first-draft maps prepared during the current calendar year.

c) Baseline Studies - Coastal Resources Folio Project

The Coastal Resources Folio project is currently the largest departmental mapping program. Priority coastal areas are being mapped at scales of 1:50,000 for a variety of physical, biological, and human use themes. More detailed maps at scales of 1:5,000-1:15,840 are also being prepared for selected estuarine/embayment areas.

In addition, maps at scales ranging from 1:250,000 to 1:500,000 are being assembled for the entire coast in order to present information in forms suitable for strategic and coast-wide planning purposes.

To date, two coastal resource folios have been published respectively covering the east and south coasts of Vancouver Island. Combined, these two folios contain 160 maps at 1:50,000 and 35 maps at 1:15,840.

Work on other coastal areas is presently progressing according to the following schedule:

Area	Folio Content	Date of Completion	Total # of Theme Maps
East Coast of Vancouver Island	9 (1:50,000) base maps 15 themes	November 1981	124
South Coast of Vancouver Island	3 (1:50,000) base maps	February 1983	39
Lower Mainland (Gibsons Landing-Redonda Islands)	4 (1:50,000) base maps 17 themes	June 1983	68
Barkley Sound	2 (1:50,000) base maps 15 themes	Winter 1983/84	30
Prince Rupert	7 (1:50,000) base maps 15 themes	Summer 1984	105
Southwest Coast of Vancouver Island	2 (1:50,000) base maps 13 themes	Summer 1984	26
Johnstone Strait	4 (1:50,000) base maps 16 themes	Fall 1984	36
Kitimat	2 (1:50,000) base maps 15 themes	Fall 1984	30
Queen Charlotte Islands	18 (1:50,000) base maps 15 themes	Winter 1985	270
Other areas	15 (1:50,000) base maps 15 themes	1986	225
		Total Number of Maps	953

* * *

MINISTRY OF THE ENVIRONMENT (B.C.) SURVEYS AND RESOURCE MAPPING BRANCH 1982/83

Don F. Pearson
Surveys and Resource Mapping Branch
Victoria, B.C.

Introduction

This is a brief resume of the current status and trends of the surveys and base and derived mapping programs of the Surveys and Resource Mapping Branch. Aspects of the branch's activities of particular interest or value to map librarians will be summarized.

Organization

The Surveys and Resource Mapping Branch is part of the British Columbia Ministry of Environment. A staff of approximately 220 is split among five major sections of which four--Administration, Surveys, Mapping, and Program Policy and Planning are specifically concerned with map distribution, field surveys, and production of base and lithographed maps. The fifth--Terrestrial Studies--is the leading ministry producer of thematic reports and maps.

Administration Section

Besides maintaining the branch's personnel and financial records the Administration Section is responsible for MAPS-B.C. (the map and air photo sales and distribution office) as well as a thematic map library. The two units currently operate in physically separate quarters, MAPS-B.C. at 553 Superior Street and the map library at 777 Broughton Street. However there are plans to amalgamate the two in a downtown Victoria location. Each has issued a catalogue of publications. In addition, MAPS-B.C. recently completed a set of more than 900 annotated diazo fiche indexes covering nearly 40 years of British Columbia block air photography and 1400 fiche indexes of special project flying since 1972. They contain information on scale, date of photography, and plotted flight lines showing roll and frame numbers.

Program Policy and Planning Section

This section does not physically produce maps. However, it is responsible for program planning and coordination, contract management, and a base mapping data bank which is distributed as a catalogue and directory. These show available provincial bases at scales of 1:2,000; 1:2,500; 1:5,000; 1:10,000; and 1:20,000.

Survey Section

The Survey Section establishes and upgrades the provincial control survey network, integrated surveys, and associated data records. It is also actively involved in maintenance and demarcation of our boundaries with the Province of Alberta and the Yukon and Northwest Territories. Data on the precise vertical and horizontal position of control points for surveys and resource mapping is held in this section.

Mapping Section

This section, the largest in the branch, is involved in in-house production of base maps, lithographed (derived) maps and special project mapping. Topographic (contour) compilation, cadastral compilation (lots and subdivisions), base compilation for special projects, fairdrawing for lithographic reproduction, toponymic recording, and computer-assisted mapping (digital mapping) are its chief activities.

Provincially published litho sheets consist of a general series at 1:1,000,000 and smaller, regional maps at 1:600,000, Provincial Park sheets at various scales, special geographic series, regional maps and 1:100,000 N.T.S.-indexed "land status" sheets. These are listed in the Map and Air Photo Catalogue and price list distributed through MAPS-B.C.

Terrestrial Studies Section

Most of the remaining activities of the branch are related to Terrestrial Studies, which is administered by an assistant branch director. Thematic maps and reports generated by Terrestrial Studies are distributed through a map library which also distributes a catalogue of available publications. This section is concerned with soils, surficial geology, plant ecology, wildlife habitat capability, and thematic mapping for the Ministry of Environment. It was formerly known as the Resource Analysis Branch of Terrestrial Studies Branch.

Programs

There are three major pillars in the Surveys and Resource Mapping Branch range of programs: a) base mapping, b) litho (derived), and c) special projects. Supporting activities include air photography and digital mapping.

a) Base Mapping

Since 1979 emphasis has been placed on a new generation of provincial base maps which, when complete, will replace the former interim map series at 20-chain and 40-chain scales produced from the late 1940s into the 1960s. Major emphasis is on 1:20,000 "resource" bases and 1:5,000 scale "regional" coverage. The objectives of this program are:

1. To develop and promote uniform cartographic accuracy and content.
2. To develop a data dictionary of uniform terminology and standards.
3. To define a uniform classification identifier system that uniquely defines and locates each map.
4. To reduce duplication of compilation, maintenance, and revision.
5. To promote the use of standard base maps and facilitate data exchange.

To stimulate these objectives an interministerial Mapping Program Steering Committee has been established. It is the forum through which the base mapping program evolves, and issues related to production and

distribution are studied and resolved.

Base mapping may be generated at large scale 1:2,000, 1:2,500, and 1:5,000 or intermediate scales of 1:10,000 and 1:20,000.

Large scale maps are produced in-house (i.e. using branch personnel and resources) or through 60/40 cost-sharing contracts with municipalities or regional districts (60 percent of production costs contributed by the province and 40 by the regional district or municipality). Sheets are plotted in three separations or layers: a) planimetry, including drainage, buildings, U.T.M. grid, and toponymy; b) cadastral lots, sections, subdivisions, rights of way; and c) topography (contours). The planimetric layer is common to all base maps but the cadastral or contour layers are not available universally. Large scale specifications are currently being examined with a view to production of five separations; drainage, other planimetry (roads, buildings), toponymy, cadastral, and contours.

During the 1982/83 fiscal year approximately 475 large scale bases were produced.

Medium scale 1:20,000 and 1:10,000 coverage is planned for the entire province below a designated frontier line crossing northwestern British Columbia. At this time, production is entirely through in-house resources. Sheets are produced by either original mapping from aerial photography, conversion and updating of 20 or 40-chain interim sheets of acceptable accuracy, or conversion of 1A-rated 1:50,000 National Topographic Series bases. This series will be used chiefly outside heavily populated areas and is generally referred to as the "resource series."

Approximately 650 medium scale sheets are generated annually. Three separations are made: planimetry, cadastral (district lots and sections but not subdivisions), and contours. The planimetric layer is common to all sheets. Both large and medium scale base sheets are available in black and white "diazo" prints from mylar bases.

b) Lithographed (Derived) Mapping

Most map libraries use and are familiar with the provincial lithograph series. About five or ten new sheets are published each year and it is planned to extend block 1:100,000 coverage to the entire province below the federal "wilderness line." Recent innovations include the publication of two recreational maps--West Coast Trail (WCT2) and Bowron Lake Canoe Route (CR1) on special water resistant paper. The new Wells Gray Park sheet PSWG-3 is a particularly attractive fold-out map printed on two side to achieve economy of scale and cost.

c) Special Projects

Special projects are strictly limited to a small number of projects that are custom-tailored for a particular use. They do not necessarily conform to standards of scale, content, or coverage and fall into such categories as small scale maps for specific clients, air photo mosaics, or large scale monochrome maps on local datums.

Air Photography

This is not considered to be a separate program but is one of the key activities necessary for the production of maps and special projects. Distribution of provincial government photography takes place through the office of MAPS-B.C. Beginning in 1983 all aerial photography required by government ministries will be channelled through private contractors. The province will index, process, and annotate the film for future reproduction and distribution.

Digital Mapping

Early in 1982 the Surveys and Resource Mapping Branch introduced a new methodology for map production with the installation of five interactive graphic display units with peripheral hardware. Typically, there are three entry points for digital graphics technology in the map production sequence: primary, secondary, and tertiary.

Primary data capture implies encoding of map detail directly from source. In topographic mapping, this would mean the use of electronic stadia methods in the field or direct digitization from aerial photographs or virtual images reconstructed from computer compatible tapes (CCTs) in a digital stereo restitution instrument. The stereo restitution instrument may either be analogue retrofitted with encoders or so-called analytical plotters. In cadastral compilations, primary data capture implies the reconstruction of cadastral geometry using the power of the computer system. Such operations tend to be batch oriented for cadastre.

Secondary data capture is based on encoding analogue data in the form of a compilation manuscript which is one generation removed from the original data source. Secondary data capture is commonly pursued on digitizing tables outfitted with CRT devices provided to echo the input.

Tertiary data capture in map production tends to be identical to secondary data capture with the exception that the base being digitized has been fairdrawn and is usually two stages removed from the original data source. Because the input source is a high quality graphic product itself, there is a hope that tertiary data capture will be automated through the use of scanners, automatic line following devices, and character recognition systems.

At present, digital maps are being compiled through the last two entry points only. However, plans are underway to initiate primary data capture through reprogramming and reallocating some existing system resources.

Only medium scale base maps are being digitized at this time because that is where the province's public-sector demand is highest. However, the technological advantages of computer assited digital mapping and data exchange make it particularly attractive for applications in the realm of map library work. The space and storage advantages of video display, print-outs, and tape and disc data storage when combined with microfilm and microfiche reader/printers will revolutionize the function and design of future map libraries.

* * *

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New York, New York 10017
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University of Oregon Library
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Pennsylvania State University
University Park
Pennsylvania 16802, U.S.A.

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Philadelphia, Pennsylvania 19103
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University of South Carolina
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Columbia, South Carolina 29208
U.S.A.

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Dallas, Texas 75201
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Charlottesville, Virginia 22901
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Map Library
Western Washington University
Bellingham, Washington 98225
U.S.A.

University of Washington Libraries
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Seattle, Washington 98195
U.S.A.

Newspaper-Periodical Unit
State Historical Society of Wisconsin
816 State Street
Madison, Wisconsin 53706
U.S.A.

Serials Department
Library School Library
University of Wisconsin
Rm. 4207D, 600 N. Park Street
Madison, Wisconsin 53706
U.S.A.

American Geographical Society Collection
Univ. of Wisconsin Library
P.O. Box 604
Milwaukee, Wisconsin 53201
U.S.A.

Serials Section
Milwaukee Public Library
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Madison, Wisconsin 53706
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[Editor's note: The preceding membership list was typed from a printout generated by the system used by A.C.M.L. to produce its address labels. Because the character set of this system includes upper case letters only, we were unable to identify French accent marks; these diacriticals have not been included in the membership list above. We apologize for any inconvenience this may cause.]

* * *

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compiled by Karen Young
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Morisset Library
Ottawa, Ontario

Contributors: MU - Memorial University Map Library
OOU - University of Ottawa Map Library
UBC - University of British Columbia Map Library
UT - University of Toronto Map Library

NORTH AMERICA - Maps

CANADA

UT Facsimile / Association of Canadian Map Libraries = Fac-similé / Association des cartothèques canadiennes.
No. 48 - Merkatorkai a Karta s'verovostochnoi chasti sibirii, Ledovitago moira, vostochnogo okeana i s'verozad nykh beregov' Ameriki ... / G.A. Sarychev.
No 56 - Pas-Kaart, vande zee-Kusten van Terra Nova met de Byleggende Zee-Kusten van Francia Nova Canada en Accadie van C. de Sables ... / Joannes van Keulen.
No. 81-82 - La grande rivière de Canada / Levée et dressée par Deshayes.
No. 84 - Carte géographique de la Nouvelle France ... 1612.
No. 86 - Le Canada, ou Nouvelle France ... / par N. Sanson.

OOU Carte de la Nouvelle France 1632 / Samuel de Champlain.

Alberta

OOU Ecoregions of Alberta / W.L. Strong and K.R. Leggat. - Edmonton : Energy and Natural Resources, 1981.

UT Surficial geology, Alberta Foothills and Rocky Mountains / geology by L.A. Bayrock and T.H.F. Reimchen ; and Reimchen Surficial Geology Ltd. ; drafted by Drafting Services, Alberta Research Council. - Scale 1:250,000 (W120°--W118°/N54°30'--N53°15'). - Edmonton : Alberta Environment ; Alberta Research Council, 1980.
6 maps

British Columbia

UT [Biophysical maps of the Greater Vancouver Regional District] / A. Abrams ... [et al.]. - Scale 1:50,000. - [Victoria?] : Ministry of Environment. Resource Analysis Branch, 1979.

MU Geology of the Mt. Richards Area Vancouver, British Columbia. - Scale 1:15,840. - Victoria : Ministry of Energy, Mines & Petroleum Resources, 1980.

Nova Scotia

UT Tectonic map of the province of Nova Scotia / by J. Duncan Keppie; cartography by Maritime Resource Management Service. - Scale 1:500,000 ; Transverse Mercator proj. (W66°30'--W59°30'/47°--N43°20'). - [Halifax] : N.S. Dept. of Mines and Energy, 1982.

UT Yarmouth, "Ocean gateway to beautiful Nova Scotia". - Scale [ca 1:13,500]. - Yarmouth : Yarmouth county Tourist Assoc. Bureau, [1981?].

Newfoundland

MU Land and infrastructure mapping program: St. John's. - Ottawa: C.M.H.C., n.d.

Ontario

OOU Land use in Ottawa-Carleton. Report to planning committee / Regional Municipality of Ottawa-Carleton. - Planning Dept., 1982.

OOU Lake Superior Provincial Park. - Scale 1:126,720. - Toronto : Ontario Ministry of Natural Resources, 1982.

OOU Ontario's principal mineral areas / Ontario Ministry of Natural Resources. - Toronto : Ontario Ministry of Natural Resources, 1982.
In: Information on Ontario's Mineral Resources Minifacts, April 3, 1982.

UT Orienteering map of Point Pelée National Park / Fieldwork : Megan Piercy ; artwork Leigh Bailey ; produced by Orienteering Ontario. - Scale 1:20,000. - Willowdale : Orienteering Ontario, 1982.

UT Town of Markham, existing land use 1977. - Scale [ca 1:24,000]. - [Newmarket] : Regional Municipality of York, Planning Dept., [1977].

UT City of Toronto property data map. - Scale 1:2,000. - [Toronto] : Dept. of Public Works, City Surveyor, [1981].

UT Toronto Transit Commission surface routes within the City of Toronto, Jan. 1, 1981. - Scale 1:24,000. - [Toronto] : City of Toronto, Planning and Development, 1981.

UT Underground pedestrian mall system, downtown [Toronto]. - Rev. [ed.]. - [Toronto] : City of Toronto Planning and Development Dept., 1980.

Prince Edward Island

UT Frost map of Prince Edward Island / frost risk classification by A. Bootsma, P.E.I. Department of Agriculture and Forestry, Technical Services Branch ; Cartography by Maritime Resource Management Service. - Scale 1:125,000 (W64°30'--W61°55'/N47°05'--N45°55'). - Charlottetown : P.E.I. Dept. of Agriculture and Forestry ; Ottawa: Land Resource Research Institute, Agriculture Canada, 1980.

Quebec

UT, OOU, MU — Champlain map of the Northeast coast of North America, 1607 / a facsimile from the Library of Congress. - Scale [ca 1:1,500,000]. - Washington : Library of Congress, 1981.

UNITED STATES

OOU, MU — Carte des Etats-Unis suivant le traité de paix de 1783 [facsimilé] / Jean Lattre. - Chicago : Newberry Library, n.d.

MU — Digital colored residual and regional Bouguer Gravity maps of the conterminous United States / T.G. Hildenbrand, N.W. Simpson et al. - Reston, Virginia : U.S. Geological Survey, n.d. (Paper No. OF 82-0284)

UBC — Maritime production and transportation of petroleum. - Scale 1:38,000,000 at the equator. - Washington, D.C. : Dept. of State, Office of the Geographer, 1981.

California

OOU — Bird's-eye-view of the city of San Francisco 1868 [Facsimile]. - Chicago : Newberry Library, n.d.

UT — Earthquake faults of California / B.V. Terry. - Scale [ca 1:1,267,200] (W125°--W114°/N42°--N32°45'). - Van Nuys, Ca. : Varna Enterprises, 1980.

Idaho

UT — Nezperce National Forest, Idaho, forest travel plan / compiled in the Regional Office. - Scale [ca 1:170,000] (W116°45'--W114°27'/N46°23'--N45°10'). - Missoula, Mont. : U.S. Forest Service, 1981.

Illinois

OOU — The city of Chicago 1892. - [Facsimile]. - Chicago : Newberry Library, n.d.

Louisiana

OOU — Carte de la Louisiane et du cours du Mississippi 1718. - [Facsimile] / Guillaume Delisle. - Chicago : Newberry Library n.d.

Massachusetts

OOU — Seismicity map of the state of Massachusetts / C.W. Stover. - Reston, Virginia : U.S. Geological Survey, 1981.

Missouri

UT — Outdoor map of Missouri. - Scale [ca 1:850,000]. - [Jefferson City] : Conservation Dept., 1980.

New Mexico

UT Geothermal resources of New Mexico 1980 / geothermal data compiled by the New Mexico Energy Institute at New Mexico University ; map produced by the National Geophysical and Solar-Terrestrial Data Center, National Oceanic and Atmospheric Administration for the Division of Geothermal Energy, United States Dept. of Energy; geothermal data ... compiled and interpreted by Chandler A. Swanberg. - Scale 1:500,000 ; Lambert Conformal Conic proj. (W109°--W103°/N37°--N32°). - New Mexico : New Mexico Energy Institute, 1980.

UBC A physiographic diagram of New Mexico / by Edgar Bingham. - Scale [ca 1:135,000]. - [Emory, Va. : Emory and Henry College], 1982.
Obtainable from Iron Mountain Press, Box D, Emory, Va. 24327

New York

OOU, MU New York: map of midtown Manhattan. - Axonometric proj. - New York : Anderson Isometric maps, 1981.

UT Vingboons map of Manhatten, 1639 / a facsimile from the Library of Congress. - Scale [ca 1:170,000], - Washington : Library of Congress, 1981.

MU Correlation of the Silurian and Devonian rocks in New York state / by Lawrence V. Rickard. - Albany : University of the State of New York, 1975.
(Map and chart series ; no. 24)

Ohio

OOU Glacial map of Ohio / Richard P. Goldthwait and George White. - Scale 1:500,000. - Reston, Va. : U.S. Geological Survey, 1982.
(I-0316)

Pennsylvania

UT Center city, Philadelphia / David Alan Fox. - Scale [ca 1:5,000]. - [Philadelphia : David A. Fox], 1981.

OOU Geologic map of Pennsylvania. - Scale 1:250,000. - Harrisburg : Dept. of Environmental Resources, 1980.

South Dakota

UT Badlands National Park, South Dakota / produced by the United States Geological Survey in cooperation with the National Park Services. - Scale 1:50,000 ; Universal Transverse Mercator proj. (W102°55'--W101°52'30"/N43°56'--N43°28'). - Reston, Va. : U.S. Geological Survey, 1981.

Washington

OOU Plan of the city of Washington in the Territory of Columbia ... - [Facsimile]. - Washington, D.C. : National Ocean Survey, n.d.

BELIZE

OOU Belize. - Scale 1:250,000. - Tolworth : D.O.S., 1980.
1 map on 2 sheets.

MEXICO

UT Mexico en sus manos. - Scales differ. - [Mexico City] : Detenal, [197-?].
11 maps

CARIBBEAN AREA - Maps

UT Geologic-tectonic map of the Caribbean region / by J.E. Case and T.L. Holcombe ; prepared in cooperation with the United States Naval Oceanographic Office and the United States Naval Ocean Research and Development Activity. - Scale 1:2,500,000 ; Mercator proj. (W93°--W54°/N24°--N5°). - Reston, Va. : U.S. Dept. of the Interior, Geological Survey, 1980.

ANTIGUA

OOU Antigua. - Scale 1:100,000. - St. John's : D.O.S., 1980.

GRENADA

OOU Grenada. - Scale 1:150,000. - St. George's : D.O.S., 1980.

MARTINIQUE

UBC Carte écologique de la Martinique à 1:75,000. - Scale 1:75,000. - Grenoble : Université de Grenoble, Laboratoire de botanique et biologie végétale, 1978.

SOUTH AMERICA - Maps

UT Geologic map of South America / compiled by Gus H. Goudarzi. - Scale 1:15,000,000 (W91°--W35°/N12°--S56°). - Reston, Va. : U.S. Dept. of the Interior, Geological Survey, 1977 (1980 printing).
1 map
(Miscellaneous Field Studies ; map MF-868A)

BRAZIL

UT [The continental margin of Brazil]. - Scale [ca 1:3,800,000] ; Mercator proj. (W60°--W30°/N10°--S34°). - Tulsa : American Association of Petroleum Geologists, 1978-79.
4 maps.

COLOMBIA

OOU Departamento del Atlantico / Republica de Colombia, Ministerio de Hacienda y Credito Publico ; Subdireccion cartografica Instituto. Geografico Augustin Codazzi. - Scale 1:100,000. - Bogota : Ministerio de Hacienda y Credito Publico, 1978.

PERU

MU Peru, central jungle. - Scale 1:100,000. - Washington, D.C. : World Bank, 1982.
(Map no. 1, Landsat Imagery Maps)

EUROPE - Maps

MU Carte géologique simplifiée des Alpes occidentales du Lèman à Digne / M. Gidon. - Echelle 1:200,000. - Orléans, France : B.R.G.M., 1977.

UT Das Erdgas - Verbundsystem in Europa / bearbeiter : H. Schoneich, Niedersachsischis Landesamt fur Bodenforschung. - Scale 1:1,650,000 (W5°--E35°/N70°--N35°). - Essen : Verlag Gluckauf GmbH, 1980.

UT Des Europaische Elektrizitats - Verbundsystem / bearbeitung : Dipl Ing. Artur Schnug nach Unterlagen der Deutschen Verbundgesselschafte. V. - Scale 1:1,650,000 (W5°--E35°/N70°--N35°). - Essen : Verlag Gluckauf GmbH, 1978.

MU Photo mosaique Landsat Alpes-Côte d'Azur / BECIP. - Echelle 1:500,000. - Orléans, France : B.R.G.M., n.d.

BELGIUM

OOU Dispersion et relations de niveau élémentaire des noyaux d'habitat en Belgique 1980 / rédaction H. Van der Haegen et M. Pattyn. - Echelle [1:500,000]. - Leuven, Belgique : Institut voor Sociale en Economische Geografie, [198-?].

FRANCE

MU La France vue de satellite. - Echelle 1:1,800,000. - Orléans, France : B.R.G.M., n.d.

OOU Téléanalyse diachronique de la région d'Aix en Provence. Classification supervisée des Scènes Landsat du 29-10-75 et du 19-06-76 / Pierre Oliva, Michel Albuisson et André Husson. - Paris : C.E.R.C.G. : Institut de Géographie, 1982.
Périodique Méditerranée No. 3-4 1982 "Développement et environnement dans la région P.A.C.A."

GERMANY (FEDERAL REPUBLIC)

UT Munchen; City Karte Munchen. - 8 aufl. - Scale 1:14,000 - 1:25,000 ; Hyperboloid proj. [and] 1:7,500. - Hamburg : Falk-Verlag, [1981?].

UT The Rhine from Mainz to Cologne. - Scale indeterminable. - Dortmund : Cramers Kunstanstalt, [1981?].

GREAT BRITAIN

MU Glasgow city plan. - Scale 1:20,000. - Edinburgh : John Bartholomew & Son Ltd., 1982.

MU Hampshire - 250 years of map making in the county of Hampshire: 1575-1826. - Kent, England : Harry Margary, n.d.
(Large scale 18th century maps of English counties)

UT Soil survey of England and Wales, grassland suitability / head of Soil Survey, D. Mackney ; compiled by T.R. Harrod and A.J. Thomasson ; drawn by Cartographic Dept. of the Soil Survey of England and Wales. - Scale 1:1,000,000 (W6°--E2°/N56°--N50°). - Southampton : Ordnance Survey, 1980.

IRELAND

MU Dublin - Dublin County, 1760 and Dublin City, 1756 / John Rocque. - Kent, England : Harry Margary, n.d.

AFRICA - Maps

MU Cultural map of Africa. - Scale 1:20,000,000. - Edinburgh : John Bartholomew & Son Ltd., 1982.

ZIMBABWE

UT Street map of Greater Bulawayo / produced under the direction of the Director of Military Survey, Ministry of Defense, United Kingdom. - Ed. 2-T-GSGS. - Scale 1:33,333. - London : Director of Military, 1978.

EURASIA - Maps

UT Tektonichskaia Karta Severnoi Evrazii = Tectonic map of Northern Eurasia / A.V. Peive ; A.L. Yanshin. - Scale 1:5,000,000 (W19°--W160°/N86°--N20°). - Moskva : Akademiia Naus SSSR, Geologicheskii Institut, 1980.
1 map on 8 sheets

ASIA - Maps

BAHRAIN

UT The Oxford map of Bahrain with city map of Manamah. - Scale 1:10,000 and 1:57,750. - Beirut : G projects in association with Oxford University Press, 1980.
2 maps on 1 sheet

BANGLADESH

MU Bangladesh - Landsat imagery maps. - Scale 1:500,000. - Washington, D.C. : World Bank, Resource Planning Unit, Agriculture & Rural Development, 1981.

BURMA

MU Burma land cover / Land Use Association. - Scale 1:1,000,000. - Washington, D.C. : World Bank, 1976.
(Map No. 13 Landsat Imagery Maps)

IRAN

UT Mineral distribution map of Iran / compiled by N. Taghizadeh and M.A. Mallakpour ; cartography by Cartographic Section of Geological Survey of Iran. - Scale 1:2,500,000 (E44°--E64°/N40°--N25°). - Tehran : Geological Survey of Iran, Ministry of Industry and Mines, 1976.

KOREA

OOU The map of Korea. - Scale 1:1,100,000. - [s.l.] : Chungang Map & Chart Service, 1981.

PAKISTAN

UBC Pakistan major ethnic groups. - Scale 1:14,000,000. - [Washington, D.C. : Central Intelligence Agency], 1980.

SOVIET UNION

UT Moscow. - Scale [ca 1:15,500]. - Moscow : Main Administration of Geodesy & Cartography under the Council of Ministers of the U.S.S.R., 1980.

OCEANIA - Maps

AUSTRALIA

OOU Australia aboriginal land and population. - Scale 1:5,000,000. - Canberra : Division of National Mapping, 1982.
(Australia 1:5,000,000 map series). Series also published in the Atlas of Australian Resources, third series.

OOU Australia energy resources 1981. - Scale 1:10,000,000. - Canberra : Division of National Mapping, 1981.
(Small scale thematic map series)

OOU Australia forestry reserves. - Scale 1:5,000,000. - Canberra : Division of National Mapping, 1982.
(Australia 1:5,000,000 map series). Series also published in the Atlas of Australian Resources, third series.

OOU Australia land use. - Scale 1:5,000,000. - Canberra : Division of National Mapping, 1979.
(Australia 1:5,000,000 map series). Series also published in the Atlas of Australian Resources, third series.

OOU Australia nature conservation reserves. - 2nd edition. - Scale 1:5,000,000. - Canberra : Division of National Mapping, 1980.
(Australia 1:5,000,000 map series). Series also published in the Atlas of Australian Resources, third series.

UT Local government areas of New South Wales; statistical divisions and statistical subdivisions of New South Wales. - Scale [ca 1:6,400,000]. - Sydney : Australian Bureau of Statistics, 1981.

OCEANS - Maps

MU World ocean floor panorama. - Scale 1:23,320,300. - N.Y. : Marie Tharp Oceanographic Cartographer, 1977.

ATLANTIC OCEAN

MU Brown's Bank, German Bank, Emerald & Western Bank, Esquiman Channel. - Scales 1:250,000 and 1:75,000. - St. John's Nfld. : NORDCO Ltd., 1982/83.

MEDITERRANEAN SEA

UT Prunes chart of the Mediterranean Sea and Western Europe, 1559 / a facsimile from the Library of Congress. - Scale [ca 1:7,000,000]. - Washington, D.C. : Library of Congress, 1981.

ANTARCTICA - Maps

MU Circumpolar characteristics of Antarctic waters / A.L. Gordon and R.D. Goldberg. - New York : American Geographical Society, 1970.
(Antarctic map folio series ; folio 13)

WORLD - Maps

WORLD (Series)

OOU Historic Urban Plans [facsimiles]. - Ithaca, New York : Historic Urban Plans.
9 maps: Bristol, 1581
Buffalo, 1851
Cartagena, 1599
Erie, 1836
Madrid, 1812
Moscow, 1549
Toronto, 1854
Vienna, 1750
Zurich, 1642

WORLD

UT Agnese map of the world, ca 1544 / a facsimile from the Library of Congress. - Scale indeterminable. - [Washington, D.C. : Library of Congress, 1981].

OOU The American Radio Relay League Amateur Radio map of the world. - Scale [1:45,9000,000] ; Modified Equidistant proj. - Newington, Conn. : American Radio Relay League, 1980.

OOU Continental drift since late Carboniferous. - Ottawa : Energy, Mines & Resources, 1983.
(Open File 82-34).

MARS - Maps

UT Atlas of Mars 1:500,000 topographic series / Department of the Interior, United States Geological Survey prepared for the National Aeronautics and Space Administration. - Scale 1:500,000 ; Orthographic proj. - Reston, Va. : U.S. Geological Survey, 1980.

WORLD - Atlases

OOU Atlas of the Holocaust / Martin Gilbert. - N.Y. : MacMillan, 1982.
ISBN 002543380-6 $18.99

OOU Atlas of the 20th century / Richard Natkiel. - New York : Facts on File, Inc., 1982.

NORTH AMERICA - Atlases

CANADA

MU Canadian Atlantic offshore fishery atlas / edited by D.J. Scarratt. - Rev. ed. - Ottawa : Minister of Supply and Services, 1982, c1980.

(Canadian special publication of fisheries and aquatic sciences ; 47 (Revised)).
ISBN 0660111535

Nova Scotia

MU Nova Scotia fisheries atlas / prepared by Maritime Resource Management Service. - [Halifax, N.S.] : Nova Scotia Department of Fisheries, 1982.

Prince Edward Island

UBC Illustrated historical atlas of Prince Edward Island. - Belleville : Mika Pub. Co., 1977.
ISBN 0919302386

UNITED STATES

UBC Coastal waterbird colonies, Maine to Virginia, 1977: an atlas showing colony locations and species ... - Washington, D.C. : Fish and Wildlife Service, Office of Biological Services, 1979.

MU Consumer energy atlas / prepared by Fraser Associates ; prepared for U.S. Department of Energy, Office of Consumer Affairs. - Washington, D.C. : The Office : For sale by the Supt. of Docs., U.S. G.P.O., [1980].

SOUTH AMERICA & CARIBBEAN AREA - Atlases

CARIBBEAN AREA

OOU Caribbean history in maps / Peter Ashdown. - N.Y. : Longman, 1980.

CHILE

UBC Atlas regionalizado de Chile. - 2nd ed. - Chili : Instituto Geografico Militar, 1981.

VENEZUELA

UBC Atlas of Venezuela. - 2nd ed. - Caracas : Ministerio del Ambiente y de los Recursos Naturales Renovables, Direccion General, 1979.

EUROPE - Atlases

OOU, UBC Geological atlas of western and central Europe / Peter Ziegler. - Netherlands : Elsevier, 1982.

BELGIUM

UBC Sociaal-geografische atlas van Brussel-Hoofstad = Atlas socio-géographique de Bruxelles - Capitale. - Antwerpen : DeSikkel-De Nederlandsche Boekhandel, 1978.
(Studies en documenten ; 11).

GREAT BRITAIN

UBC Atlas of the seas around the British Isles. - [London] : Ministry of Agriculture, Fisheries and Food, 1981.

SPAIN

UBC Atlas grafico de Espana: Sintesis geografica, politica, historica y economica / Victoriano Imbert. - Madrid : Aguilar, 1980.
Atlas grafico de Espana: indice general de toponimos. - Madrid : Aguilar, 1980.

AFRICA - Atlases

OOU Economic atlas of South Africa / Institute for Cartographic Analysis. - Stellenbosh : Institute for Cartographic Analysis, 1981.

OCEANS - Atlases

MU Geologo-geofizicheskii atlas Indiiskogo okeana = Geological-geophysical atlas of the Indian Ocean / glavnoe upravlenie geodezii i kartografii pri Sovete Ministrov SSSR ; [glav. redaktor G.B. Udinstev]. - Moskva : GUGK ; Oxford : Pergamon Press, 1975.

BOOKS

GENERAL BOOKS

UBC Resource mapping / Robert Hugh Reid. - Victoria : British Columbia Ministry of Environment, Assessment and Planning Division, 1981.

OOU Schéma d'aménagement, concept préliminarie. Communauté urbaine de Montréal. Document de consultation / Communauté urbaine de Montréal, Service de la planification du territoire, 1982.

REFERENCE Books

MU History of Portuguese cartography. - Lisboa : Junta de Investigaçoes do Ultramar, 1969-71.

MU Singapore in thematic maps : an annotated carto-bibliography / by Chiang Tao-chang. - Singapore : Nanyang University, 1979.
(Research project series ; no. 10)

TRAVEL BOOKS

MU AA around Britain's Seaside / Automobile Association, U.K., n.d.

MU AA Town Plans / Automobile Association, U.K., n.d.

OOU China, a country study / Frederica M. Bunge and Rinn-Sup Shinn. - Washington : Superintendent of Documents. U.S. Government Printing Office, 1981.
(Area Handbook Series)

UBC Hiking trails of Nova Scotia / [revised by Ike Whitehead]. - 4th ed. - Halifax : Canadian Hostelling Association, [1980?].

OOU Parchemin de l'Outaouais québecois guide touristique / Société d'aménagement de l'Outaouais, 1981.

DICTIONARIES AND GAZETTEERS

MU Gazetteer of El Salvador : names approved by the United States Board on Geographic Names / prepared by Edward S. Szymanski and Gerd Quinting. - Washington, D.C. : Defense Mapping Agency, 1982.

MU Geographical features in Canada named for surveyors = Accidents géographiques au Canada nommés en l'honneur d'arpenteurs / T. Jolicoeur and Keith Fraser. - Ottawa : Geographical Branch, Dept. of Mines and Technical Surveys, 1966.
(Gazetteer of Canada special supplement ; no. 2)

HISTORY

OOU The French mapping of North America, 1600-1760 / Conrad E. Heidenreich and Edward H. Dahl. - Berkhamsted, Herts : Abacus Press, 1982.

PLACE NAMES BOOKS

MU Family names of the island of Newfoundland / by E.R. Seary, with the assistance of Sheila M.P. Lynch. - St. John's : Memorial University of Newfoundland, 1977, 1978 printing.

UBC Place names of Manitoba / Penny, Hamm. - Saskatoon : Western Producer Prairie Books, 1980.
ISBN 0888330677

MU Places rated almanac : your guide to finding the best places to live in America / Richard Boyer & David Savageau. - Chicago : Rand McNally, 1981.
ISBN 052888030

UBC Ryder's standard geographic reference : the United States of America. - Denver : Ryder Geosystems, 1981.
ISBN 0941784002

UBC What's in a name : the story behind Saskatchewan place names / Edmund T. Pete Russell. - 3rd ed., expanded and rev. - Saskatoon : Western Producer Prairie Books, 1980.
ISBN 088330537

MU Yukon : places & names / R.C. Couts. - Sidney, B.C. : Gray's Pub. Ltd., c1980.
ISBN 0888260857

* * *

NEW PUBLICATIONS

CANADIAN FISHERMEN'S CHARTS

The following news release from NORDCO in St. John's, Newfoundland, is dated 21 October 1982. NORDCO Limited is undertaking, with the support of the Department of Fisheries and Oceans, a project to produce specialised charts for use by fishermen. These charts are to be compiled using information from a large number of experienced fishing skippers. The charts are intended to pinpoint areas where fishing is generally unsuccessful because of excessive damage to nets and gear. The chart will show points where fishermen have ripped otter trawls, snagged gillnets or longlines and should enable other fishermen to avoid unnecessary damage. Only obstructions which have been pinpointed on more than one occasion will be mapped. Typical obstructions that will be mapped are wrecks, rock outcrops, boulders and debris.

In a report produced in 1981, NORDCO estimated that replacement of damaged gear cost the Newfoundland fleet about $18 million and the fleet in the Maritimes about $24 million dollars per year. It is intended that these costs should be reduced by making available charts showing rough ground and other hazards to fishermen.

During October and November, NORDCO field workers will be travelling in Nova Scotia and western Newfoundland collecting data from fishermen for the first charts which are to cover part of the Bay of Fundy, Brown's Bank, Banquereau Bank and the northeast Gulf of St. Lawrence. Many skippers have already volunteered information but if others would like to contribute we would appreciate it if they would contact NORDCO Limited in St. John's,Newfoundland.

The information gathered will be prepared over the winter and it is anticipated that these initial charts will be available in early spring 1983. It is intended that these charts be the first in a series of 1:250,000 charts for the Canadian Atlantic Coast and that when these are completed a further series of 1:100,000 charts be produced for some special areas.

NORDCO Limited is a consulting company with a fisheries division undertaking research and development for the fishing industry and government.

This follow-up release from NORDCO is dated 21 January 1983.

The pilot project to produce the first of a new series of Canadian Fishermen's Charts is on schedule with release of the first charts planned for late February.

Field work in November resulted in collection of information from about thirty experienced fishing skippers. This information has allowed us to plot positions of eighty-seven wrecks and 482 other obstructions to fishing gear use, on the first three 1:250,000 scale charts.

A two colour chart of the Emerald Bank, on the Scotian Shelf, shows 178 obstructions, the Loran C 5930 lattice, the geology of the sea bottom, and sea bottom contours. A similar 1:250,000 chart has been produced for the Northern Gulf of St. Lawrence showing the Loran lattice for the new transmitter at St. Lewis, Labrador, scheduled for service, and a great improvement in Loran capability in the area in 1983.

The area of Brown's and German Banks is covered by a 1:250,000 scale chart while part of the nearshore area of this chart has been expanded as a 1:75,000 scale chart. For the nearshore area of southwest Nova Scotia, two 1:50,000 scale plotting sheets have been produced which show only the coastline and Loran C lattice.

It is expected that these (711 x 1016 mm) obstructions charts will help fishermen reduce damage to their gear, reduce time and fuel wasted, allow fishing between areas of rough ground and encourage them to explore new grounds. With continued input from fishermen NORDCO intends that they will be updated each time that significant numbers of new obstructions have been noted.

The (660 x 1011 mm) plotting charts will allow fishermen to plot accurately their fishing positions, find set gear quickly, and maximize use of their Loran C or navigation plotters.

This pilot project has been supported by the Department of Fisheries and Oceans and it is intended that NORDCO will be producing other charts to complete the series over the next few years. Examples of these initial charts are being distributed to provincial and federal fisheries officers. They should be available for sale to fishermen in February or March from fish plants, gear suppliers, or NORDCO Limited in St. John's. The charts retail for $30.00 and will be forwarded C.O.D.

For further information contact Chris Campbell at (709) 364-1200 or write NORDCO Ltd., P.O. Box 8833, St. John's, Newfoundland A1B 3T2.

* * *

FOLDED MAPS FROM CANADA MAP OFFICE

The following notice was received from the Map Office in April 1983.

Topographical maps in a flat or folded format (24.77 cm x 11.43 cm) are available for the 1:250,000 map series and the published 1:50,000 maps in

the following N.T.S. primary quadrangles.

N.T.S. index 1
N.T.S. quadrangles: 1, 2, 10, 11, 20, 21, 22, 30, 31,* 32, 40, 41, 42, 52.

N.T.S, index 2
N.T.S. quadrangles: 52, 62, 63, 72, 73, 82, 83, 84, 85, 92,* 93, 94, 95, 102, 103, 104, 105.

Please specify either flat or folded maps when placing an order for maps in the series described above.

* example: 31 G/5 folded
92 G/6 flat

* * *

HISTORICAL MAP SOCIETY OF B.C.

The publications of the Historical Map Society are as follows:

1) Facsimile map
Epner, Gustavus. Map of the gold regions in British Columbia; compiled from sketches and information by His Excellency James Douglas, C.B., Governor of British Columbia and Vancouver Island--and from data obtained from the most intelligent and reliable miners, by Gust. Epner (1862).

Lith. Britton & Co., San Francisco.
1" = 22m; 46 x 36 cm
Lith.: relief by hachure.
Inset: Routes of communication with the Cariboo Mines.
Price: $3 each.

2) Notecards of A.C. Anderson's 1858 map entitled Map showing the different routes of communication with the gold region on Frasers River.

Either plain (no message) or with Christmas greeting.
5¼" x 7¼" Price: 50¢ each.

These publications may be ordered from the society, care of: 3794 West 24th Avenue, Vancouver, B.C. V6S 1L6.

* * *

B.C. ORIENTEERING MAPS

The following maps are available (as of November 1982) from the Orienteering Association of B.C., 1200 Hornby Street, Vancouver, B.C. V6Z 2E2. Two-colour maps are 30¢ each; others are 60¢.

Area	Date of Printing	Scale	No. Colours
Aspen Grove, Merritt	May 1981	1:15,000	5

Area	Date of Printing	Scale	No. Colours
Black Mountain, W. Vancouver	Aug 1977	1:10,000	4
Blue Mountain, Haney	July 1978	1:10,000	4
Brandywine, Whistler	July 1980	1:10,000	5
Camp Barnard, Sooke	June 1980	1:5,000	4
Campbell Valley, Aldergrove	Nov 1981	1:20,000	4
Central Park, Burnaby	Nov 1980	1:5,000	4
Clasbaoneechek, Pr. George	July 1981	1:10,000	4
Crescent Park, Surrey	May 1980	1:5,000	4
Edgewood, Pr. George	Sept 1979	1:5,000	4
Hollyburn Mt., W. Vancouver	Aug 1978	1:15,000	4
Knox Mt., Kelowna	July 1980	1:10,000	4
Lighthouse Pk, W. Vancouver	Sept 1979	1:5,000	4
Lundbom Lake, Marritt	July 1980	1:15,000	5
McQueen Lake, Kamloops	July 1981	1:15,000	5
Mundy Park, Coquitlam	Sept 1979	1:10,000	4
Newcastle Is., Nanaimo	May 1978	1:10,000	2
Paradise Meadows, Courtenay	July 1981	1:10,000	4
Redwood Park, Surrey	1980	1:5,000	2
Robert Burnaby Park	1977	1:5,000	4
Stanley Park, Vancouver	1976	1:10,000	4
Seymour Prov. Park., N. Vancouver	1975	1:15,000	4
Thetis Lake Pk, Victoria	April 1977	1:10,000	4
U.E.L., Vancouver	Sept 1979	1:20,000	4
U.B.C. Research Forest, Haney	1976	1:10,000	2
White Lake, Penticton	July 1982	1:10,000	5
(Map Making Legend)	1977		6

* * *

NATIONAL ATLAS OF CANADA

The National Atlas of Canada is a major output of the National Geographical Mapping program. It provides a vehicle and publishing medium for the full spectrum of geographical information as a whole.

The new 5th edition will be an open-ended, continuing geographical system. To date, nineteen maps have been printed (in both official languages). Maps forthcoming in 1984 include:

Canada - Oil Pipelines
Canada - Time Zones
Canada - Solar Radiation

* * *

DMA CANCELS SERIES 1301

The U.S. Defense Mapping Agency advises in a notice signed by Margaret L. Gluth, Chief, Customer Services and Sales, that its series 1301 (world coverage at 1:1,000,000) has been cancelled. A suggested substitute is the Operational Navigation Chart series published by the National Ocean Survey.

* * *

REVIEWS

Thompson, Morris M., 1912-. Maps for America; Cartographic Products of the U.S. Geological Survey and Others. Reston, Va.: U.S. Geological Survey, 1979. 265 p., 203 fig. (maps, part col.), bibliog., index, glossary, appendix. $11.00 U.S. (For sale by Supt. of Docs., U.S. Gov't Printing Office, Washington, DC 20402, stock number 024-001-03145-1,LC 79-404).

This profusely illustrated USGS centennial publication is a reference book of major importance to people who use, make, or are just interested in maps. It covers types of maps, map content and detail, scales and symbols, some history and future considerations and, importantly, who produces U.S. maps and where they are available. It is not a technical production specification manual for, as the author says in the preface: "Procedures are described only to the extent needed for an understanding of map content."

There are ten chapters: (1) Development of American Mapping, (2) Kinds of Maps and Kinds of Map Data, (3) Characteristics of Geological Survey Maps, (4) Natural and Cultural Features on Topographic Maps, (5) Boundaries, Names, and Marginalia, (6) Map Maintenance and Accuracy Standards, (7) Geological Survey Cartographic Products, (8) Maps from Other Agencies, (9) Cartographic Information Sources, and (10) Future Trends in Cartography.

The historical chapter briefly chronicles early (from 1807) government map making and clarifies the rather "fuzzy" beginning of the USGS and its present day mapping mandate. Chapter 2 is a godsend since it explains the types of maps produced, the producer, and where to get them.

Topographic map content and marginal surround is thoroughly dealt with in chapters 4 and 5. These 68 pages (25 percent of the book) explain in detail the reference symbols for natural and cultural features and the criteria for their establishment and use. Also explained is the legal state boundary/subdivision system and the standards for marginalia. The inclusion of the "United States National Map Accuracy Standards" in chapter 6 and the table "Features Shown on Topographical Maps" in chapter 7 add to the usefulness of the book.

Chapter 8 contains information on mapping programs other than those of the USGS. Thompson states: "These other programs complement, supplement and intertwine with the Geological Survey program; they are, in general, equally important and their products are of high quality." Enough said.

In Chapter 10, the author deals warily with future trends and particularly with computerization, and probably rightly so since the rash of incursions into automation in the late 1970s was fraught with untold stories of partial success and total failure.

This easily read book has 265 pages including eight tables and 203 figures, the majority in colour. Additionally, there is: an appendix on Map Projections, Reference Systems and Geodetic Control; a list of mapping agencies; a glossary of cartographic terminology, and an index. The printing quality is good, and the subtle use of colour both for illustrations, chapter headings, and page numbers is aesthetically pleasing.

Obviously Thompson compiled a massive amount of data, generalized the less significant information and placed emphasis on important features, and has oriented this publication to a wide audience. This book would be a useful addition to map libraries and should have wide appeal to scholars, topographers, geographers, practicing cartographers, and those who simply like maps. At $11.00 U.S. it is a steal.

J.G. Roberts
Superintendent of Cartography
Geological Survey of Canada
Ottawa, Ontario

* * *

Cuff, David J., and Mattson, Mark T. Thematic Maps: Their Design and Production. New York and London: Methuen, 1982. iv, 169 p., illus. (University Paperback 774) $17.95. (0-416-33500-4 pbk.; 82-8216)

Those who are attracted to the main title of this book--Thematic Maps--might be led to assume that it is concerned with the evolution of such maps and the ways in which they have changed with time. If so, they will be disappointed because the emphasis of the text is on the matters subsumed in the remainder of the title--Their Design and Production.

As the authors point out in the introduction, it is "the process of thematic map making...which provides the rationale for...this book" and as a prelude to arriving at this approach they mention a number of publications in the preface. Among these are Maps for Books and Theses by Hodgkiss, Maps and Diagrams by Monkhouse and Wilkinson, Statistical Mapping by Dickinson, and Elements of Cartography by Robinson, Sale, and Morrison to all of which Thematic Maps bears some resemblance.

Thus, the book is not about thematic maps but thematic mapping which, in the view of the authors, is a process that involves three operations--the graphic and verbal content, presentation of the map, and reproduction and production. The work is therefore divided into three parts covering each of these and between them they deal with such familiar topics as symbolizing qualitative and ranked data, dot maps, isolines, scatter diagrams, the applications of map projections, and computer-aided maps. There is also a chapter on the use of space, layout, and compilation; but the authors do not always practice what they preach, as many of the illustrations occupy far too much space in view of the amount of detail they embrace.

However, all of the illustrations, oversize or not, are beautifully clear. They are executed in black and white with shades of grey where needed although, like the work of many other modern cartographers, an indication of latitude and longitude or directional orientation receives rather cavalier treatment. Mercifully however, the reader is not exposed to the extremes to which some cartograms are taken nowadays, the general approach being reasonably orthodox.

The text is equally clearly expressed with no attempt at erudition, and

with the appendix of Additional Readings, there is no doubt that the book will be a useful alternative to the several which are available to those producing cartographical illustrations for papers and theses. But its application to map librarianship is marginal.

N.L. Nicholson
University of Western Ontario
London, Ontario

(See also page 87)

* * *

Greer, Deon C. et al. Atlas of Utah. Ogden, Utah: Weber State College, 1981. xvii, 300 p. $45.00. (0-842-1831-1; 81-675069) (Distributed by Brigham Young University Press, Provo, Utah)

The Atlas of Utah is a beautiful volume, with maps supplemented by numerous full-page color photographs (as well as black and white ones) of the cultural and physical landscape of Utah. The volume is organized into seven categories: Reference, The Land, The People, Social Institutions, Government, The Economy, and Recreation. The Atlas easily passed my personal, though quasi-scientific tests of what such an atlas of Utah should provide. These include the following:

(1) The Atlas is attractive. It invites attention.
(2) It has an adequate gazetteer. For example, I recalled from my college years at Utah State University in Logan the names of small towns and locations, i.e. Mantua, Amalga, and Garden City. I could locate them in the Atlas.
(3) Reading the Atlas gives one a visual "feeling" about the state. It is almost like being there. The picture of the "rock barn" in the snow on page 71 is far more than a barn in the snow; it is the deep roots of agriculture enmeshed in the trees and snow-covered machinery. Such evocative material is supplemented by maps of climatic zones, hours of sunshine, normal temperatures, and potential evapotranspiration.
(4) The Atlas includes an account of the history of the state as well as an up-to-date picture of the economy and demographic trends. A postscript on page 273 brings us current information from the 1980 U.S. census. Other information which I found interesting included air quality, the value of the fast-food industry, major uranium deposits, and how the residents of the counties voted in the presidential elections 1896 to 1976,

I found no flaws in the quality of the maps. The shading and colours are excellent, while the statistical information is easily interpreted. As mentioned above, there is a gazetteer. There is also a full bibliography, an index, and a page of corrections.

The Atlas of Utah is a welcome supplement to any library or private collection. The section on recreation will make it additionally valuable to vacationers off to the mountains or deserts for scenery and sports. It is an absolute necessity for all Utah fans.

William H. Allderdice
Memorial University of Newfoundland
Department of Geography
St. John's, Newfoundland

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Larsgaard, Mary Lynette, issue editor. "Map Librarianship and Map Collections," Library Trends, vol. 29, no. 3, Winter 1981, pp. 371-562 (entire issue). $5.00. (Available from the Journals Department, University of Illinois Press, 54E Gregory Drive, Box 5081, Station A, Champaign, IL 61820.)

The Winter 1981 (volume 29, number 3) issue of Library Trends is devoted to the theme "Map librarianship and map collections." The volume is edited by Mary Lynette Larsgaard and published by the University of Illinois Graduate School of Library and Information Science. The volume contains an introduction by Mary Larsgaard and twelve articles by well known map librarians. The articles cover such subjects as acquisitions, micro-cartography and cartographic data bases, cataloguing and classification, administration, academic map libraries, and other topics of interest to the practicing map librarian. The issue also contains three survey articles detailing map collections in the United States, New Zealand, and Australia.

One again we have a very refreshing volume from the pen (albeit the editorial pen) of Mary Larsgaard. This reviewer always delights in the chuckles obtained from her humourous insights into what others usually take so seriously. My present pursuit of a degree in library science leads me daily through articles, periodicals, reviews, and monographs on the subject, but it is only when I come back to my first love, that of map librarianship, that I notice the humour and comradery of the writings.

Humour aside, the Winter 1981 volume of Library Trends, devoted to the field of map librarianship and map collections, is a welcome addition to the literature of our chosen profession. I must admit that, once begun, I could not put the book down! The article entitled "Microcartography and cartographic data bases" by Larry Cruse was particularly interesting as it brings us up-to-date and coherently describes the automated state of the art which is quickly overcoming what many of us knew as traditional cartography and cartographic products. As keepers of the cartographic record, wherever we are, we must be aware of these changes and be prepared to swim with the tide, even though we fear being drowned. Developments are taking place so rapidly that we must be aware of all of their possibilities. This article, together with its extensive and excellent bibliography should be mandatory for all map librarians in all areas of the discipline from academic to archival. In the conclusion of her article "Education for map librarianship," Mary Larsgaard points out that "it is all too easy, in the calm and serenity of the library, to ignore what goes on outside the window. It is also professionally fatal, for what happens outside will soon slouch through the doors of even the most chryselephantined of ivory towers." This conclusion, I think, aptly indicates why we must read and reread articles such as this one by Larry Cruse.

Other articles in this volume are more traditional in their subject matter but are still, nonetheless, pertinent to our understanding of our profession. There is always the need for those entering the field as newcomers to have as wide a range of articles as possible to use as starting points and reference works for their day-to-day work. This is such a volume. Each article reiterates a truth long known but perhaps forgotten and presents new material for us to chew on and assess.

John Schroeder's article "Perspectives of map cataloguing and

classification," though now dated a little since the publication in 1982 of Cartographic Materials: A manual of interpretation for AACR2, gives us many things to think about. Classification, especially, is always a thorny issue. In one paragraph Mr. Schroeder presents both the dilemma and a suggestion for a solution. "Every librarian should use the classification system that best meets his or her total classification requirements." Pause--"There, that solves my problem!" "However, map librarians participating in or changing to automated cooperative map cataloguing programs should consciously reevaluate the effectiveness of their classification system." Pause--"Oh, what should I do now?" The article then gives a loud hurrah for the acceptance of the LC "G" classification as the "standard classification system for map records input into MARC format-compatable systems." But, surely, we have reached the stage in automated procedures where we need not necessarily use the "standard classification system" in-house unless it suits our situation perfectly. We should be able to use the classification system which suits our purposes and also apply the standard classification system for the cooperative projects in which we become involved. Heresy, you say!

The articles which I found least useful were the surveys of map library collections. The statistics are interesting and we can gain satisfaction from the growth of our profession over the past decade. But, do the results of these questionnaires and their analysis really add anything to our knowledge that we did not gain during coffee break at the last map library conference?

Mention should be made in closing of the newest subject to enter the field, "Security in map collections." This is an interesting subject to start considering.

From the point of view of a freelance map librarian, consulting for others on the conceptions, organization, and management of map libraries, I found this volume a godsend. I am sure that many others in the field will feel its usefulness as well.

Karen Lochhead, President
Cartographic Research Services
Ottawa, Ontario

* * *

Cuff, David J. and Mattson, Mark T. Thematic Maps Instructor's Manual. New York and London: Methuen, 1982.
30 p. (ISBN 0-416-34320-1)

The authors have also prepared an instructor's manual, the larger part of which is devoted to fourteen exercises. The objective of each of them is to produce a thematic map based on one particular technique such as selecting an appropriate spot symbol. The second part of the manual lists data sources for exercises in mapping. These might be useful for map librarians who wish to build a limited library of such material for it is often to them that students turn for assistance in their hunt for such data.

N.L. Nicholson

* * *

NEWS AND COMMUNICATIONS

A.C.M.L. BOARD OF DIRECTORS, 1983/84

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STANDING COMMITTEE ON PUBLICATIONS

As discussed at the 1983 A.C.M.L. conference, a permanent standing committee known as the Standing Committee on Publications is to be formed, with a mandate to advise and assist in all A.C.M.L. publishing activties.

This committee is to be composed of the following members:

2nd Vice President
A.C.M.L. Bulletin Editor
Publications Officer
President (ex-officio)
Two members of the association

The two members' positions are currently vacant. Would anyone wishing to join this committee please contact:

Tim Ross
Provincial Archives of Manitoba
200 Vaughan St.
Winnipeg, Manitoba
R3C 0V8
(204) 944-3971

* * *

MAPPING TORONTO'S FIRST CENTURY, 1787-1884

The exhibition, "Mapping Toronto's First Century, 1787-1884," will bring together for the first time in Toronto sixty of the most important original manuscript and printed maps depicting the city's growth. The exhibition is being prepared in honour of Toronto's Sesquicentennial in 1984.

The exhibit is being assembled from many archival, museum, and library sources: the Public Archives of Canada, Ontario Archives, City of Toronto Archives, University of Toronto Archives, Toronto Historical Board, the Canadiana Gallery, Metropolitan Toronto Library, and the Fisher Rare Books Library (University of Toronto). Important maps will also come from less well known working-map collections: Ontario Ministry of Natural Resources Survey Records, City of Toronto Registry Office, and modern successors to major nineteenth-century surveying firms. Approximately sixty maps will be supplemented by some portraits and contemporary views.

The exhibition will have two distinct but complementary foci: the techniques, purposes and makers of the maps, and the understanding of Toronto's physical development revealed by analysis of their content. The basic order of the items will be chronological, with some concessions to the better illustration of certain themes. The principal chronological subdivisions will be:

1) 1787-1820, Establishment and growth of the original town surveys

2) 1820-1850, Gradual expansion of growth patterns beyond the original town surveys

3) 1850-1862, The boom of the 1850s

4) 1862-1884, The emerging metropolis

Some dominant themes will persist throughout the exhibition, principally:

1) the framework established by government and private surveys,

2) the growth of the built-up area,

3) the changing suburban hinterland.

Other themes will be more restricted in chronological scope due either to changing contemporary mapping interests or the emergence of new urban phenomena to be mapped. Among these themes are the military presence and the distribution of utilities and amenities.

Happily, in the interests of scholarly significance, several attributes such as innovative technique, the work of a major map-maker, and content illustrative of a typical or special process or event in the city's development frequently co-existed in the same map. In the interest of general appeal, other important selection criteria were: visual impact, ease of interpretation, and wide representation of different sections of the city.

The maps will vary widely in size, scale, and purpose, ranging from some portraying the entire city to others showing one small subdivision plan, and including official surveys, military plans, advertising flyers, and insurance atlas plates. The first will be a simple outline of the Toronto Purchase of 1787; the last will be painstakingly detailed plates from Goad's Atlas of 1884.

A catalogue is being planned to accompany the exhibition. It will contain an introductory summary of the periods and themes outlined above, in order to establish the context of the individual exhibits. Each item will be discussed in a separate section headed by full bibliographic data, amplified in most cases by brief references to its cartographic significance and to the career of the cartographer or printer involved. This will be followed by a discussion of the content, both as evidence of some aspects of development in itself and as part of an evolving process in relation to other maps in the exhibition and, in some instances, to maps that could not be included. If possible, the catalogue will be published as a fully illustrated volume for distribution to a wider market.

The exhibition will be at the Canadiana Gallery, Royal Ontario Museum, Toronto, from December 15, 1983 to March 30, 1984.

The exhibition is sponsored by the Toronto Historical Board and the Royal Ontario Museum with a grant in support from the McLean Foundation.

Guest curators: Isobel Ganton, historical geographer, Ph.D pending, University of Toronto; Joan Winearls, Map Librarian, University of Toronto.

* * *

N.T.S. DISCARDS--B.C. PROVINCIAL ARCHIVES

The following memorandum was addressed to A.C.M.L. conference delegates in Vancouver. However, I'm sure that David would respond to requests from a broader audience.

The Map Collection of the Provincial Archives of British Columbia is currently discarding many N.T.S. 1:50,000 and 1:63,360 sheets--duplicates of British Columbia sheets and unwanted Yukon and Northwest Territories maps. Most of the British Columbia sheets are non-current editions.

The National Map Collection is unable to absorb these maps, and we are unable to list them. If you would like any of these maps, please send your want-list to:

Library and Maps Section
Attn: David R. Chamberlin
Provincial Archives of British Columbia
Parliament Buildings
Victoria, B.C.
V8V 1X4

Notify me before August 31. These maps will be discarded after that date.

David R. Chamberlin
Head, Library and Maps Section
Provincial Archives of B.C.

* * *

CANADIAN CATALOGUING COMMITTEE MEETING,

The Canadian Cataloguing Committee (CCC) met in Hull at the National Library on May 30 and 31, 1983. The A.C.M.L. had to respond to three issues on the agenda: the meeting that discussed the revision of the section on maps of Canada in the Library of Congress classification, schedule G; the correspondence between B. Tucker, Library of Congress, and H. Stibbe, general editor of Cartographic materials : a manual of interpretation for AACR 2, concerning the wording for rule 3D2; and changes to chapter 3 concerning materials for the visually handicapped.

The report on the meeting to revise the Library of Congress (LC) G schedule for maps of Canada was an iteration of that which had been submitted to the Bulletin by Velma Parker and was published in number 46, March 1983, p. 69.

The problem with the manual rule 3D2 was the difference in phraseology used by B. Tucker in the LC proposal to the Joint Steering Committee (JSC) for the revision of AACR 2 rule 3.3D2. The resolution to this problem of phrasing was proposed by Frances Hinton, chairman of the JSC, in a memorandum of February 15, 1983. This proposal was acceptable to all parties: B. Tucker, the editors of Cartographic materials, and the CCC. The text of the proposal follows.

3.3D2. For celestial charts, give as coordinates the right ascension of the item, or the right ascensions of the western and eastern limits of its collective coverage, and the declination of the centre of the item, or the northern and southern limits of its collective coverage.

Designate the right ascension by RA, followed by the hours and, when necessary, minutes and seconds of the twenty-four hour clock.

Designate the declination by Decl., followed by the degrees (°) and, when necessary, minutes (') and seconds (") of the sexagesimal system (360° circle), using a plus sign (+) for the northern celestial hemisphere and a minus sign (-) for the southern celestial hemisphere.

Separate right ascensions and declinations from each other by a diagonal slash, not preceded or followed by a space. When two right ascensions are given, record both separated by the word to. When two declinations are given, record both separated by the word to.

When coordinates are given, always give the statement of equinox also. Express the equinox as a year preceded by a semicolon and the abbreviation eq. Add a statement for the epoch when it is known to differ from the equinox, separating the two with a comma and designating the epoch by the word epoch.

(RA 16 hr. 30 min. to 19 hr. 30 min./Decl. -16° to -49° ; eq. 1950, epoch 1948.5)
(RA 16 hr./Decl. -23° ; eq. 1950)
(RA 2 hr./Decl. +30° ; eq. 1950)
(RA 2 hr. 00 min. to 2 hr. 30 min./Decl. -30° to -45° ; eq. 1950)

For charts centred on a pole, indicate the declination limit.

(Centred at South Pole/Decl. limit -60°)

For atlases or collections of charts arranged in declination zones, give the declination limits of each zone, but omit the statement of right ascension because it varies for each zone. If the zones are numerous, record the first few zones in order to show the pattern and then the mark of omission and the last zone.

(Zones +90° to +81°, +81° to +63°, +63° to +45° ; eq. 1950)
(Zones +90° to +81°, +81° to +63°, ... -81° to -90° ; eq. 1950)

Materials for the visually handicapped have been a subject for intense discussion during the last few CCC meetings. These materials are dealt with inadequately in AACR 2, as well as in Cartographic materials. The CCC has been responsible for preparing a package of rule changes in order to incorporate such materials more adequately in AACR 2. The proposal for rule 3.5B1 and the manual rule 5B1 disagree. However, the committee voted overwhelmingly in favour of the changes advocated for revising 3.5B1. The modification for 3.5C4 (manual rule 5C4) is the same as that which appears in the manual.

If the revision of AACR 2, 3.5B1, is accepted by the JSC, there occurs the problem of revising and modifying rules in the manual in order to keep it up-to-date. This is a problem that will have to be resolved by the Anglo-American Cataloguing Committee for Cartographic Materials, which is responsible for the compilation of the manual.

Vivien Cartmell

* * *

GENERAL BATHYMETRIC CHART OF THE OCEANS (CORRECTION)

In a report on the "Canadian Hydrographic Service Charting Programs," on pages 33-7 of A.C.M.L. Bulletin 45 (December 1982), there was a description of the planned "boxed set" of all the nineteen sheets of the 5th edition of GEBCO and the statement that "this set will be made available to libraries and educational establishments."

The only libraries which will receive the boxed set automatically are those which are now depositaries of CHS charts. The price of the boxed sets will be $100; they should be available for distribution during the last quarter of 1983. The last sheet in the GEBCO series, the single sheet of the world, is expected to go to press in August.

Orders, accompanied by a remittance, may be sent to:

Hydrographic Chart Distribution Office,
Department of Fisheries and Oceans
P.O. Box 8080,
Ottawa, Ontario
K1G 0H6

S.B. MacPhee
Director General
Canadian Hydrographic Service

* * *

ASSOCIATION OF CANADIAN MAP LIBRARIES
ANNUAL BUSINESS MEETING
MINUTES OF MEETING

Vancouver, B.C.: 7 June 1983, 2:00 p.m.

1. The 17th Annual Business Meeting of the Association of Canadian Map Libraries was held at the Vancouver School of Theology in Vancouver, B.C., on 7 June 1983. A quorum having been established, the meeting was called to order at 2:15 p.m. The president was in the chair.

2. AGENDA

   The agenda was approved as circulated, with the following change: in item 9, "Library of Congress Subject Headings users meeting" was corrected to read "Library of Congress Class G Schedule users meeting."

3. MINUTES

   The minutes of the 16th Annual Business Meeting of 18 August 1982 were approved as printed in A.C.M.L. Bulletin 44.
   (E. Hamilton, Alberta Auringer Wood)

4. PRESIDENT'S REPORT

   The president presented a verbal report on the activities of the Board of Directors to supplement the letter from the president printed in

A.C.M.L. Bulletin 45. Specifically brought to the attention of the members was the request from CASLIS for liaison with A.C.M.L. and the provision at Auto-Carto VI for an A.C.M.L. presence.

5. REPORT OF THE 1ST VICE PRESIDENT

The 1st vice president first relayed the information that A.C.M.L. Bulletin 46 had been delayed in the printing stage for one full month to await tardy committee reports. The 1st vice president indicated to chairpersons of committees that this situation was definitely less than acceptable. The following committee reports were then presented by the 1st vice president:

i) Conference Committee 1984: The report printed in A.C.M.L. Bulletin 46 and the verbal supplemental report were accepted as presented. The preliminary conference program was distributed and suggestions or comments welcomed.

ii) Conservation Committee: The report printed in A.C.M.L. Bulletin 46 was accepted as printed. The chairperson asked for volunteers to serve on the committee.

iii) Remuneration Committee: The report printed in A.C.M.L. Bulletin 46 was accepted as printed with the following corrections: that the name of the committee on p. 86 be changed from "Constitution Committee" to "Remuneration Committee" and that Kate Donkin be indicated as chairperson of that committee. It was agreed that the Remuneration Committee should be asked to consider whether the association can vote monies to remunerate a member serving as a board member for work undertaken, and present their report in the A.C.M.L. Bulletin.

iv) Map User Advisory Committee: The report printed in A.C.M.L. Bulletin 46 was accepted as printed. The chairperson requested volunteers and suggestions from members in fulfilling the terms of reference of the committee.

It was moved, that if a member of A.C.M.L. is also a member of the Topographical Survey Map Design Committee, he or she be ex-officio a member of the Map User Advisory Committee of the A.C.M.L.
(L. Sebert, H. Stibbe) Carried.

v) Rules of Procedure Committee: The report printed in A.C.M.L. Bulletin 46 was accepted as printed and the committee thanked for a job well done.

It was moved, that the Rules of Procedure, as presented in the report of the Rules of Procedures Committee in A.C.M.L. Bulletin 46 be adopted as the Rules of Procedure for the Association of Canadian Map Libraries.
(E. Hamilton, Bob Batchelder) Carried.

The following reports were not printed in the A.C.M.L. Bulletin 46.

vi) Committee to Represent A.C.M.L. on the AACC(CM): No report, verbal or written, was received from this committee. The co-chairpersons will be asked to provide a report for the next issue of the

A.C.M.L. Bulletin.

vii) Awards Committee: A report was read from the floor and the proposals of the committee opened for discussion. It was agreed that the committee would take comments made during the discussion into consideration in preparing their next report and make a budget request for producing certificates of service to the 1st vice president.

viii) Conference Committee 1983: A verbal report was made, indicating that a full report would be forthcoming following the end of the conference.

ix) Copyright Committee: No report was received from this committee.

x) Membership Committee: The 1st vice president announced that a chairperson for this committee had only recently been appointed after several unsuccessful attempts. Flora Francis has nobly agreed to chair this committee and will be reporting on progress.

6. REPORT OF THE 2ND VICE PRESIDENT

i) Publications Guidelines Committee: The report of the Publications Guidelines Committee was accepted as circulated at the meeting.

It was moved, that a permanent, standing committee be established in accordance with By-law 12.1 to be designated as the Standing Committee on Publications, superseding all other committees of that name, to deal with all aspects of A.C.M.L. publishing activity and that this committee should meet at least once a year at the annual conference; and

that the terms of reference of the Standing Committee on Publications be:

i) to recommend publishing policies and changes to policy to the association through the Board of Directors;

ii) to advise and assist in all publishing activities;

iii) to review and make recommendations on publications proposals, subject to final approval of the Board of Directors;

iv) to promote and distribute publications of the association; and

v) to promote and maintain high standards of A.C.M.L. publications;

and that the Standing Committee on Publications be composed of the following members:

2nd vice president
A.C.M.L. Bulletin editor
Publications officer
Two members of the association

President (ex-officio)
(E. Hamilton, Bob Batchelder) Carried.

It was further moved, that the following be adopted as the official publications policy of the Association of Canadian Map Libraries:

1. that ensuring the publication of the A.C.M.L. Bulletin be the first priority of the publication activity of the association;

2. that all publications bearing the A.C.M.L. imprint or receiving funding from the association should attempt to:

   i) promote interest in and knowledge of maps and map-related materials;

   ii) further the professional knowledge of its members; and

   iii) encourage high standards in every phase of the organization, administration, and development of map libraries by:

      a) providing for discussion of mutual problems;
      b) exchanging information on experiences, ideas, and methods;
      c) establishing and improving standards of professional services in this field;

3. that the A.C.M.L. imprint be restricted to those publications which have been approved in writing for publication by the Board of Directors, acting on behalf of the association, and have the express written authorization of the board to use the association imprint; and

4. that the association have first consideration for the publication of any work produced by an A.C.M.L. committee.
(E. Hamilton, Hugo Stibbe) Carried.

ii) Historical Maps Committee: Edward Dahl read a report from the Historical Maps Committee; the report was accepted as read, with thanks to those involved in the project.

Following a ten-minute break, the meeting reconvened.

iii) A.C.M.L. Bulletin: R. Pinnell, the editor of the A.C.M.L. Bulletin, presented a verbal report acknowledging the efforts of Karen Finn, Alberta Auringer Wood, Flora Francis, and Janet Allin, along with Serge Sauer and Pierre Lépine. He noted that the mailing survey that was done following the 16th Annual Business Meeting indicated that it normally took about one week for the A.C.M.L. Bulletin to reach its destination using first class mail. He is still looking for volunteers for the position of Map Review Editor and the Ontario regional editor.

iv) Union List of Atlases for the Atlantic Provinces: A verbal report was presented. Progress is being made, and a more complete report will be printed in the A.C.M.L. Bulletin shortly.

v) Essays on Canadian Cartology: Norman Nicholson presented a report on the project, "Essays on Canadian Cartology," to supplement the report in the A.C.M.L. Bulletin 46. The report was accepted as presented.

vi) Early Canadian Topographic Map Series: L. Dubreuil gave a verbal update to the report printed in A.C.M.L. Bulletin 46. Work is proceeding on schedule.

vii) Directory of Canadian Map Collections (update): L. Dubreuil gave a summary presentation of the report printed in A.C.M.L. Bulletin 46. The report was accepted as presented. L. Dubreuil will consider the feasibility of including institutions that were not in the 3rd edition of the Directory.

7. TREASURER'S REPORT

i) Treasurer's Report: It was moved that the treasurer's report and supporting documents be approved as circulated.
(T. Naraynsingh, E. Hamilton) Carried.

ii) Auditors: It was moved that the firm of Deloitte, Haskins and Sells be approved as auditors for the association for the 1983 year.
(T. Naraynsingh, E. Hamilton) Carried.

iii) Membership Report: The membership report was accepted as circulated. It was suggested that members be asked to provide their institutional addresses and to indicate if this institutional address could be used for delivery of A.C.M.L. mail. This might serve to keep mailing costs down by making use of IUTS and interoffice mail services.

8. OLD BUSINESS

i) Transfer of A.C.M.L. Archives to PAC: William MacKinnon reported that the transfer of the records is just about complete and that the physical transfer is imminent. Members who still have records in their possession are asked to contact Bill as soon as possible.

ii) Publication of Accessions List, Surveys and Mapping Branch (EMR): E. Hamilton reported that, following a resolution made at the 16th Annual Business Meeting, the Surveys and Mapping Branch, Canada Dept. of Energy, Mines and Resources, had been contacted to urge that an accessions list be published by that branch. A response from the Surveys and Mapping Branch appeared in A.C.M.L. Bulletin 46 and a letter was received by the secretary with similar content.

iii) Membership Fees: It was moved that the resolution relating to membership fees and its amendment be taken from the table.
(Kirk MacDonald, R. Whistance-Smith)

It was moved that the motion relating to membership fees be withdrawn.
(T. Naraynsingh, W. MacKinnon) Carried.

iv) Committee Budgetary Process: It was agreed that the Rules of

Procedure adopted by the association would require committee chairpersons to submit reports and budgets on an annual basis thereby satisfying concerns expressed at the 16th Annual Business Meeting regarding obligations of committees.

v) National Union Catalogue Committee: It was agreed that, as the committee has been inactive for the past year and the original terms of reference for this committee may no longer be appropriate, this committee be dissolved.

9. NEW BUSINESS

i) "To Live or Let Die" - Status of Committees Report: The report on the status of A.C.M.L. committees prepared by William MacKinnon was approved as circulated. In keeping with the report, the following resolution was made:

Be it resolved that, as the work of the following committees has been completed or otherwise terminated, the following committees be dissolved:

Advertising Committee on Preservation of Archival Maps
Bibliography Committee
Committee on Canadian Map Resources
Committee on Education in Map Librarianship
Layouts Committee
Manual Committee
Committee on Map Exchange Agreements
Maps in Thesis Committee
National Union Catalogue (Maps) Committee
Newsletter Committee
Publications Committee
Publications Guidelines Committee
Rules and Procedures Committee
Salary Survey Committee
Committee on the Standarization of Placement and Content of Bibliographic Information on Maps

(W. MacKinnon, E. Hamilton) Carried.

ii) Library of Congress G Schedule Users Meeting: H. Stibbe reported on the workshop on the LC G Schedule, which took place in February 1983. A report on the meeting will be forthcoming; a note on its availability will appear in the A.C.M.L. Bulletin.

iii) AACC(CM) and Copyright: H. Stibbe reported on a problem of copyright that he had noticed with the manual; a lawyer, provided for by the association (or by the copyright holders), will advise H. Stibbe on how best to ensure the rights of the participating groups.

iv) IFLA Representation: H. Stibbe noted that his term on the IFLA Geography and Map Division will be up within two years and that the association should encourage association numbers to check with their institutions to see if new representation can be sent. The cost of a member's institution would be between $2,000.00 and $4,000.00 annually. H. Stibbe stressed the importance of the work of IFLA and the importance for the association of representation at

IFLA conferences.

10. NOMINATIONS AND ELECTIONS COMMITTEE REPORT

i) Bob Batchelder read the report of the Nominations and Elections Committee on behalf of the other committee members (Len Gottselig and Maureen Wilson) and announced the results of the election. The Board of Directors for 1983/84 will be:

President:	William MacKinnon
1st Vice President:	Ron Whistance-Smith
2nd Vice President:	Tim Ross
Secretary:	Karen Young
Treasurer:	Velma Parker
Past-President:	Thomas Nagy

ii) It was moved, that the members of the Nominations and Elections Committee for 1983 be congratulated on offering the membership a full slate of candidates with good representation from the various areas of the country, and be thanked for a job extraordinarily well done.
(E. Hamilton, W. MacKinnon) Carried.

11. RESOLUTIONS

i) In recognition of the superb organization and planning that went into the 17th Annual Conference of the Association of Canadian Map Libraries, it is resolved that the following persons be thanked for their efforts in making this conference a success:

Conference Committee 1983
Frances Woodward
Maureen Wilson
Jack Corse

The staff members in the Map Division, University of British Columbia, in the Special Collections Division, University of British Columbia, and in the Map Collection, Simon Fraser University

The Historical Map Society

The speakers and the session chairpersons

And last, but not least, John Spittle, for showing us Vancouver hospitality at its best!
(R. Whistance-Smith, E. Hamilton) Carried.

ii) It was moved, that special thanks be expressed to Elizabeth Hamilton for performance beyond the call of duty during her terms in office as secretary.
(W. MacKinnon, T. Nagy) Carried.

There being no further business, the 17th Annual Business Meeting of the Association of Canadian Map Libraries adjourned at 5:30 p.m.

Elizabeth Hamilton
Secretary, A.C.M.L.

* * *

ASSOCIATION OF CANADIAN MAP LIBRARIES
COMMITTEE REPORTS AND
OTHER REPORTS

AUDITORS' REPORT
25 April 1983

To the Members of
the Association of Canadian Map Libraries:

We have examined the statement of receipts and disbursements of the Association of Canadian Map Libraries for the year ended December 31, 1982. Our examination was made in accordance with generally accepted auditing standards and, accordingly, included such tests and other procedures as we considered necessary in the circumstances, except as explained in the following paragraph.

In common with many non-profit organizations, the association derives part of its receipts in the form of contributions from the general public which are not susceptible to complete audit verification. Accordingly, our verification of such receipts was limited to testing of recorded amounts recorded in the records of the association.

In our opinion, except for the effect of adjustments, if any, which we may have determined to be necessary had all receipts been susceptible to complete audit verification, this statement presents fairly the receipts and disbursements of the association for the year ended December 31, 1982 classified on a basis consistent with that of the previous year.

STATMENT OF RECEIPTS AND DISBURSEMENTS
YEAR ENDED DECEMBER 31, 1982

	General Bank Account	Publication Sales Bank Account	Savings Account and Term Deposits	Total
Balance, January 1, 1982	$ 1,060	$ 4,368	$13,001	$18,429
Receipts				
Memberships				
1982	4,724	-	-	4,724
1983	448	-	-	448
Sale of publications	-	15,394	-	15,394
Foreign exchange	258	236	-	494
Other refunds	26	-	-	26
Interest	-	597	1,970	2,567
Conference account	410	-	-	410
	5,866	16,227	1,970	24,063
	6,926	20,595	14,971	42,492
Disbursements				
Bulletins - Schedule 1	5,554	-	-	5,554
Conferences	-	-	200	200
Filing fees	30	-	-	30

	General Bank Account	Publication Sales Bank Account	Savings Account and Term Deposits	Total
Gifts	355	-	-	355
Historical Maps Committee	6,437	-	-	6,437
IFLA membership	320	-	-	320
NCC chronicle	100	-	-	100
Nominations committee	450	-	-	450
Other	91	13	-	104
Photocopying & mailing	436	-	-	436
Printing	565	-	-	565
Professional fees	650	-	-	650
Publications officer	604	-	-	604
Telephone	584	-	-	584
Travel	1,657			1,657
	17,833	13	200	18,046
Excess of Receipts Over Disbursements	(10,907)	20,582	14,771	24,446
Transfers Between Bank Accounts	11,841	(7,800)	(4,041)	-
Balance, December 31, 1982	$ 934	$12,782	$10,730	$24,446

SCHEDULE 1

Schedule of Bulletin Costs
Year Ended December 31, 1982

Bulletin No. 39		$ 103
Bulletin No. 40		
Word Processing	$300	
Printing	678	
Mailing	107	1,085
Bulletin No. 41		
Word Processing	300	
Printing	663	
Mailing	208	1,171
Bulletin No. 42		
Word Processing	308	
Printing	728	
Mailing	191	1,227
Bulletin No. 43		
Word Processing	404	
Printing	712	
Mailing	183	1,299

Bulletin No. 44		
Word Processing	433	
Mailing	236	669
		$5,554

Deloitte, Haskins & Sells
Auditors

* * *

ESSAYS ON CANADIAN CARTOLOGY
PROGRESS REPORT
(10 May 1983)

The editors now have a list of twenty articles, plus an introduction and a concluding article (the latter to be produced after all other contributions are in hand)--a total of twenty-two authors. It must be remembered that this material consists only of papers and articles published in A.C.M.L. Proceedings and the A.C.M.L. Bulletin. This we must stress in response to inquiries and offers to include material published elsewhere or yet unpublished.

In preparing this material for publication the editors are following a fairly elaborate procedure:

1. An attempt is made to contact all authors; this proved to be a lengthy and sometimes difficult process. The project is outlined and permission to reprint is requested.

2. Once permission is obtained, the editors review the article, making suggestions regarding the length of material, possible abbreviations or additions, footnoting, and illustrations and have the whole article re-typed on a word processor and retained on memory disc.

3. If advance permission to do certain editorial changes is not obtained beforehand, the author is provided with an edited version for final approval.

4. Illustrations present a major problem. Many of the early articles were published without any graphics since this was considered expensive or technically difficult or even impossible. Now the attempt is made to obtain the original illustrations or select with the author the illustrations which are most appropriate from the point of view of the relevancy to the content and their technical qualities (suitability for reductions, one-colour offset reproduction, etc.).

On the financial side it should be noted that thus far all the costs--typing, xeroxing, word-processor operation, mailing, and telephone bills were covered by the University of Western Ontario. As far as the final printing is concerned, a detailed proposal will be prepared for the A.C.M.L. executive later this year, outlining the various ways in which the book could be produced and the costs involved.

There are all indications that this publication will meet a fairly active demand for material of this type and that it will turn out to be another successful A.C.M.L. publication.

Norman L. Nicholson
Serge A. Sauer

* * *

HISTORICAL MAPS COMMITTEE
1982/83

"...to preserve and popularize cartographic Canadiana..."

The activities of the Historical Maps Committee during the past twelve months included the publication of five maps (96-100) and the production ot the second folio, with four introductory pages, 50 maps (51-100), and a hard cover. The prototype of Folio-II was shown at the last A.C.M.L. conference in Ottawa, but the items mentioned here were not included in the previous report of the Historical Maps Committee.

During the twelve month period ending in May 1983, close to 5000 maps were sold, for the sum of over $13,000 (approximately $10,000 net). Although the monetary aspect is only one of the concerns of this committee, a correction ought to be made regarding a report published in A.C.M.L. Bulletin 45 concerning the financial contribution from the sales of facsimile maps and the two folios. Over the last few years this income amounted not to one third, as reported in the Bulletin but to two thirds of the total funds received by A.C.M.L. from all sources. In this regard, the committee is pleased with its contribution to the A.C.M.L. treasury and hopes to continue its sales efforts.

Equally important, or perhaps even more important, are the results achieved by the committee in terms of its original aim--"...to preserve and popularize cartographic Canadiana..." In many parts of this country and through various channels, maps are being distributed and are finding their place in private homes, in school classrooms, in archives and museums, in municipal offices, and, of course, in academic and public libraries. The scope of this impact is too great to be measured accurately and may only be guessed at, as favourable comments are received from various quarters.

Of similar interest to the association are the contacts with some sixty institutions, such as provincial archives, universities, and private firms, which have taken part in this project as sponsors and have later continued their co-operation as distributors of A.C.M.L. maps. We know of at least two sponsors who have been presenting A.C.M.L. maps to students as awards for scholastic achievement. At the Canadian Library Association's conference in Winnipeg in May, one of our maps will be presented as a prize at the CLA banquet.

Members of the Historical Maps Committee have been asked: does the publication of map no. 100 signify the end of the project? Although this is, and has been for some time, the longest series of facsimile maps ever

published in Canadian history, our task is far from being completed. There are multitudes of important maps which have never been reproduced in facsimile form and are relatively unknown and practically unavailable. And there are still institutions and organizations interested in sponsoring new maps. One of the potential co-sponsors is the Western Association of Map Libraries. From this aspect, the project has great potential, which should be utilized as much as possible.

With all these considerations in mind, the Historical Maps Committee is planning to produce another printing of maps, probably six to eight items, in the fall of 1983.

In closing, again, as in the past years, our sincere thanks to all A.C.M.L. members and friends who are taking part in this project.

Serge A. Sauer
Chairman
Historical Maps Committee

* * *

MEMBERSHIP STATUS
(to 31 May 1983)

Full members		
paid		73
outstanding		12
Associate members		
paid		25
outstanding		4
Institutional members (Canadian)		
paid		76
outstanding		7
Institutional	members	(other)
paid		46
outstanding		7
Honourary members		2
Exchange		11
TOTAL		263
Cancellations		
Full members		2
Institutional members		2
TOTAL		4

Tara Naraynsingh
Treasurer, A.C.M.L.

* * *

NOMINATIONS COMMITTEE REPORT

The Nominations Committee thanks all those members who allowed their names to be nominated for positions on the A.C.M.L. Board. The only acclamation occurred in the treasurer's position.

In standing for election, these people have indicated a strong desire to participate actively, and the committee requests that the incoming board offer them ongoing positions to ensure that their enthusiasm is not dissipated or transferred to another organization.

This election has been conducted according to the constitution. The tremendous assistance given to the committee by the secretary is truly appreciated. The smoothness of the election is due to Elizabeth Hamilton.

And now the results:

President: Bill MacKinnon
1st Vice President: Ron Whistance-Smith
2nd Vice President: Tim Ross
Secretary: Karen Young
Treasurer: Velma Parker
Past-President: Tom Nagy.

Congratulations to the new board!

Bob Batchelder
Chairman

* * *

PUBLICATIONS REPORT
June 1983

From January 1st to May 31st, 1983, we sold $5,874.16 in publications. The sales of facsimiles by Serge Sauer in London and myself, along with the Guide for a Small Map Collection, were the two areas where sales escalated. Facsimile map numbers 1, 5, 10, 12, 17, 29, 34, and 57 are now out of print. The sales of the Directory of Canadian Map Collections are continuing, with approximately 250 copies left.

There are approximately 190 copies of the Guide in stock and, if sales continue, I expect it will become out of print within the next year. Therefore, a decision concerning a reprint should be made. I also think that a small leaflet listing all the facsimiles and publications should be prepared. It could be used for conferences, insertions with letters, and orders.

Bruce Weedmark
Publications Officer

* * *

PUBLICATIONS GUIDELINES COMMITTEE (Final Report)

June 1983

In the course of its work, the Publications Guidelines Committee had a great deal of help from interested and concerned members of the association. Without this assistance, the work of the Publications Guidelines Committee could not have been done. It is this type of concern and interest which will be critical in ensuring the smooth production of the A.C.M.L. Bulletin and of A.C.M.L. occasional publications in future years.

In considering the final form of this report, the preamble of the report by the Rules of Procedures Committee as printed in A.C.M.L. Bulletin 46 was of invaluable aid. The purpose in considering the various facets of A.C.M.L. activity should be to "enhance the smooth operation of the association," not to stifle the work of the association. For that reason, the recommendations of this committee are deliberately short and loosely worded. What is being proposed is a structure or a subsidiary unit which will concern itself with association publications. Within this unit, guidelines will serve best to handle the wide variety of activity relating to publication. To enhance their actual usefulness, these guidelines and procedures will not be engraved on stone, but will be left fluid, to change as the association changes.

Following consideration of the various submissions made, therefore, it is recommended that a permanent, standing committee be established in accordance with By-law 12.1 to be designated as the Standing Committee on Publications, superseding all other committees of that name, to deal with all aspects of A.C.M.L. publishing activity, and that this committee should meet at least once a year at the annual conference; and

that the terms of reference of the Standing Committee on Publications be:

i) to recommend publishing policies and changes to policy to the association through the Board of Directors;

ii) to advise and assist in all publishing activities;

iii) to review and make recommendations on publications proposals, subject to final approval of the Board of Directors;

iv) to promote and distribute publications of the association; and

v) to promote and maintain high standards of A.C.M.L. publications;

and that the Standing Committee on Publications be composed of the following members:

2nd vice president
A.C.M.L. Bulletin editor
Publications officer
Two members of the association
President (ex-officio)

It is recommended that this committee, in order to carry out its work, establish a sub-committee as provided for in the by-laws, to oversee the

production of the occasional publications of the association.

In carrying out its responsibilities during this and ensuing years, working guidelines and procedures for handling proposed publications should evolve; the comments and suggestions made by members (as included in the interim report of this committee, the list of suggested changes, and other submissions made to the committee) could be used as a starting point.

Finally, it is recommended that the following be adopted as the official publications policy of the association:

I that ensuring the publication of the A.C.M.L. Bulletin be the first priority of the publication activity of the association;

II that all publications bearing the A.C.M.L. imprint or receiving funding from the association should attempt to:

i) promote interest in and knowledge of maps and map-related materials;

ii) further the professional knowledge of its members; and

iii) encourage high standards in every phase of the organization, administration, and development of map libraries by:

a) providing for discussion of mutual problems;
b) exchanging information on experiences, ideas, and methods;
c) establishing and improving standards of professional services in this field;

III that the A.C.M.L. imprint be restricted to those publications which have been approved in writing for publication by the Board of Directors, acting on behalf of the association, and have the express written authorization of the board to use the association imprint; and

IV that the association have first consideration for the publication of any work produced by an A.C.M.L. committee.

In submitting this report, the committee would like once again to thank all those who submitted verbal and written comments and suggestions, both within the association and members of other associations. The report could not have been written without this guidance and aid.

Elizabeth Hamilton
Chairperson

* * *

TREASURER'S INTERIM REPORT
Jan 1, 1983-May 31, 1983

Revenue				
Membership		4,019.26		
Publications		6,044.67		
Exchange		210.01		
Conference 1982		448.17		
Refunds		165.31	.....	10,887.42
Expenditures				
Historical maps		467.82		
Bulletin 44				
Word processing	48.00			
Printing	948.19			
Mailing	111.52	1,107.71		
Bulletin 45				
Word processing	400.00			
Mailing	315.51	715.51		
Bulletin 46				
Word processing	440.00			
Mailing	350.00	790.00		
Conference 1983		200.00		
Conference 1984		300.00		
Conference speaker (travel)		362.00		
Travel and expenses (exec.)		2,582.45		
Telephone calls (exec. & editor)		333.48		
Nominations Committee		102.68		
Publications Officer		379.13		
Incorporation fees		30.00		
IFLA dues		360.00		
LC Class 'G' revision workshop		1,300.00		
Photocopy and postage		101.22		
Refunds (publications)		150.00		
Miscellaneous		84.41		
Bank charges		2.50	.....	9,368.91
Excess of revenue over expenditures				1,518.51

APPENDIX A

Balance as of Dec. 31, 1982	24,443.37
plus	1,518.51
Balance as of May 31, 1983	25,961.88

APPENDIX B

Disposition of funds

Savings account	20,639.26
Chequing account	509.30
Publications account	4,813.32
TOTAL	25,961.88

Tara Naraynsingh
Treasurer, A.C.M.L.

* * *

A.C.M.L. 1983 CONFERENCE REGISTRANTS

Margot Allingham
2181 West 48th Avenue
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V6M 2P6

Bob Batchelder
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Chairman, Historical Maps Committee
Map Library, Department of Geography
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