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

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L'Association des cartothèques et archives cartographiques du Canada remercie le Conseil de recherches en sciences humaines du Canada pour son apport financier.

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COUVERTURE: Détail de la carte *Carta Esferica de los Reconocimientos hechos en la Costa N.O. de America en 1791 y 92 por las Goletas Sutil y Mexicana y otros Buques de S.M. [Anonyme, 1792].* Cette carte, l'originale d'aprës l'Atlas Para el Viage de las Goletas Sutil y Mexicana al Reconocimiento del Estrecho de Juan de Fuca en 1792. [Madrid]: 1802, dans le Special Collections and University Archives Division, University of British Columbia Library, a ètè reproduite dans la SÈrie de cartes fac-similès de l'ACC, Carte no. 140 (ISSN 0827-8024).

MESSAGE FROM THE (PAST) PRESIDENT

The Annual Conference this year was a great success. Vancouver offered a wonderful setting and the opportunity to meet with our WAML colleagues. Many thanks to Tim Ross and his organizing committee (Frances Woodward, Poh Chan and Janet Collins) for a job well done.

In the last Bulletin (#92, p.ii), I mentioned the letter writing campaign to inform Canadian politicians and map producing agencies of our concerns regarding access to digital geographic information. We have received a number of replies—some form letters and some more thoughtful. If you would like to see these, personally or in a future Bulletin, please let me know. The letter writing campaign continues, and names and addresses of suggested recipients (especially provincial) are still welcome.

And finally, as this is my last "Message from the President", I would like to express my deep appreciation to those ACMLA officers and committee chairs with whom I have had the opportunity to serve. ACMLA is very fortunate indeed in the calibre of its executive, and I have benefitted greatly from their knowledge and their friendship. I am particularly indebted to those stalwart souls who served during my terms as President: Robert Grandmaitre, Pat McIntyre, Shirley Harmer, Richard Pinnell and Alberta Auringer Wood. Thank you all for your guidance, cooperation and support.

Cathy Moulder

From the Editor...

It is a frequent horror, of being a novice editor, that even though proofs are carefully scrutinized it's not until the printed copy lands on your desk that the "blunders" become more apparent. In other words, I've goofed! I understand that beginning in 1994 I am to compile three issues of the *Bulletin* per year—not a problem. However, I do seem to have a problem with which months to label them. Details!!

Although simple mathematics suggests they should be labelled April, August and December, I mislabelled the last issue *January 1995* instead of *December 1994*. To avoid this, I am adopting a seasons format of Spring/Summer, Autumn, and Winter issues. This also conceals, quite nicely in fact, my tardiness in delivering any one issue (this one in particular!). I apologize for this error, but after a year I do think I finally have it right!

One more apology... to Pierre Roy, for incorrectly associating him with the Université of Québec à Chicoutimi instead of UQ à Montréal in the last Regional News column. Sorry Pierre!

Something new! ACMLA members will find a copy of the new membership brochure accompanying this issue. You are encouraged to pass this on to a "potential" new member. Extra copies of the brochure are available from Bruce Weedmark, email: bweedmark@archives.ca

Lastly, it has come to my attention that for the last two years the ACMLA Paper Award has remained stagnant. Place those thoughts on paper and you could prosper! (See page 53 for award guidelines.)

Have a great summer!

Colleen

THE *HISTORICAL ATLAS OF CANADA*: Feedback from users and the Historical Atlas of Canada Data Dissemination Project

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This paper is a version of one presented at the annual conference, Association of Canadian Map Libraries and Archives, June 8, 1994, and updated to June 1995.

Introduction

For readers not aware of the nature of the Historical *Atlas of Canada*, a brief introduction is in order. In 1970 a group of geographers and historians met in Toronto to explore the idea of publishing a major Canadian historical atlas focused on social and economic themes. Years of far-ranging discussions, draft proposals, and consultation culminated in 1979 with the award of a major research and publication grant from the Social Sciences and Humanities Research Council of Canada (SSHRCC.) This was to support the production, in separate English and French editions, of a three-volume atlas: The *Historical Atlas of Canada*. The volumes are chronologically arranged to cover Canada's development. They are:

Volume I: From the Beginning to 1800
Volume II: The Land Transformed, 1800-1891
Volume III: Addressing the Twentieth Century

Within each volume, between 58 and 66 double-page spreads, or 'plates', deal with selected themes in the historical development of the country, often with a regional focus. Each plate comprises between one and eight maps, plus graphs, tables, photographs and text blocks describing the theme and region in question. Between the atlas plates themselves, overview essays link the topics and put them in broader context. Following the body of the atlas, extensive end notes provide sources, references, and qualifying comments regarding the information found on atlas plates.

The project was directed by an executive committee, and each volume also had its own editorial board. The research for each plate was undertaken by individuals, or teams of authors, who had been invited to participate because they were at the forefront of research in the irrespective fields. More than three hundred authors and assistants from thirty universities across Canada, from departments of the federal and provincial public services, from private organizations , and from universities in the United States and Europe, contributed their specialized knowledge and talents, and the results of their research.

Headquarters for the administration and the cartographic production of these volumes was in the Cartography office of the Department of Geography at the University of Toronto. It was published by the University of Toronto Press in English, Les Presses de l'Université de Montréal in French. Volume I of the *Historical Atlas of Canada* was published in 1987, and Volume III appeared next, in 1990, because research was further advanced on it than on Volume II. In 1991, with the help of the Department of Geography, the transition was made to a mainly computerized production system. Volume II was published in October of 1993. For those interested in an examination of the process of putting the *Atlas* together, addressing the type of research done and some of the data-related issues raised en route, an article was published by Anne B. Piternick entitled "The Making of a Scholarly Research Atlas: *The Historical Atlas of Canada*" (*Reference Services Review* 22, no. 1, Spring, 1994.)

Sources of user feedback, and responses to the Historical *Atlas*

Informal responses to the Historical *Atlas* came in the form of published book reviews and articles, personal

contacts with atlas users, personal contacts with other cartographers, and business contacts. These are obviously subject to bias of various kinds. Nonetheless, one may get a "feel" for how an individual responds to the intentions of the atlas editor and designer through these isolated contacts.

Some recurring points emerged. One related to the detail of data available from the *Atlas* plates. Because of the nature of cartographic generalization, and the graphic limitations inherent in publishing a thematic atlas, inevitably micro-level data is lost—the actual numbers behind the proportional circle maps, bar and line graphs, and flow arrows so prevalent in the design of the Historical *Atlas* plates.

Other conversations indicated that information in the *Atlas* was sometimes hard to locate—the shortcoming being a lack of a comprehensive index for the volumes. Also raised was the potential for making the *Atlas* available in alternative formats, and thus to a different market—most often suggested was the idea of producing it in some configuration on CD-ROM.

The point should be made that none of these ideas were "brand new"—most had been discussed at one time or another during the production of the atlases and shelved due to lack of resources. The major conclusion which came out of these informal contacts was that the *Atlas* project needed more information on how people were using the Atlases, and what kind of supplementary information they would like to have available. As a result, the decision was made to conduct a written user survey. Before detailing that effort, some general points should be made concerning the potential use of *Historical Atlas of Canada* data.

The desirability of making a sizeable data source, such as the Historical Atlas, *available in the form of "raw" data can be argued pro and con... what kinds of control could be put into place over copyright and further dissemination of data made available in a computerized form.*

Factors relating to dissemination of H.A.C. data

A number of significant factors relate to the dissemination of data from the *Historical Atlas of Canada*, including policy and logistical concerns. A basic policy question is the desirability of making this kind of data available. Another factor is the question of rights and copyright to this data. Logistical factors include the range of data from the three volumes to be made available, and the type and format of data to be made accessible.

The desirability of making a sizeable data source, such as the *Historical Atlas*, available in the form of "raw" data can be argued pro and con. The argument in favour might say that all research data should be "free", as long as it is properly referenced and accredited. On the other hand, the data included in something such as an historical atlas have been collected, designed and presented for specific purposes of communication. Making the original data readily available could be said to invite the corruption of the cartographic design which makes its use appropriate, and the usurpation of the editorial control which puts it in the proper perspective. The slant one takes on this question greatly affects one's perception of all the other issues involved.

The question of rights and copyright to the data is a complex one. It will have to be resolved in the *Atlas'* case after a concrete proposal for the development of supplementary data products is made. One factor to benoted is that the Historical Atlas Project entered into an agreement with the National Archives of Canada to deliver all documentation after the completion of the project to create a data archive. An additional factor to consider, is what kinds of control could be put into place over copyright and further dissemination of data made available in a computerized form.

Turning to logistical issues, the first question is: for which volumes of the atlas would it be possible to produce other data products. As discussed, only Volume II of the atlas was produced using a computerized production system. Assuming the data would be made available in some computerized format, the conversion for Volume II therefore would be relatively easy, once questions of what data and what format were resolved. A much greater investment would be required to convert Volumes I and III into a similar format. Therefore a significantly higher "market demand" for Volumes I and III would have to be demonstrated to justify the greater production costs involved.

Finally, the type and format of data to be made available must be addressed. The initial question is whether a computerized atlas data set should duplicate the actual graphics created for the published volumes or not. It would be

possible to create a data set consisting of tabular data in a spreadsheet-like format, without directly relating it to the images of the maps and graphs, at all. At the other extreme, the data set could duplicate **only** the graphics of the atlas—creating essentially a scanned, computer-screen version of the published books, without any connection to supplementary data tables. Presumably the ideal solution would be to reproduce the graphics on-screen, and allow the viewer to access interactively the attribute data attached to each graphic element by visually selecting it on screen—a sophisticated graphic user-query interface. Any of these options is possible, but at wildly different costs, and involving much different production methods.

Another factor here is inherent in the nature of an atlas product—there is a geographical data element (the base map) and a thematic data element (the historical attribute information) associated with each map in the *Atlas*. Should users be able to access the geographic elements in isolation—that is, copy the base maps used to create the atlas maps? The extent to which the geographic data set should be available to viewers is another question with policy and logistical sides to it.

The *Historical Atlas of Canada* user survey

Examples of user surveys undertaken for atlases and other map products appear in the cartographic literature, but not as often as one might expect. The major reason for this probably is the diversity of the distribution and utilization network for cartographic products, and the resultant difficulty in establishing the user "population", in a statistical sense. What are the limits of the group of people using a specific cartographic product, such as an atlas or a map series? How may one contact a representative sample of this group, and administer a useful questionnaire? Map librarians are in a unique position to appreciate the problems of defining groups of users in the map use environment.

Despite these difficulties, it was decided, by Professor W.G. Dean, the Director of the Historical Atlas of Canada Project, Carl Amrhein, the Chair of the Department of Geography, and myself, to embark upon a user survey for the *Historical Atlas of Canada*. The stated purposes of this survey were:

1. *To find out the strengths and weaknesses of the existing volumes in the eyes of users*
2. *To determine the demand for supplementary sources of Atlas information (including which Volumes, what information)*
3. *To determine the preferred format(s) for these information products*
4. *To estimate what prices might be acceptable for these products*

Having decided this, the problem mentioned previously came to the forefront: the difficulty in establishing a population of users, from which to draw a sample. Being unable to strictly adhere to such a methodology, the decision was made to target assumed users of the *Atlas*, in the educational environment across the country. These groups were:

1. *Geography and History teachers at the university and high school levels*
2. *Map librarians at Canadian universities and reference libraries*
3. *Students in university courses known to make use of one of the Atlas volumes*

At this point assistance was sought in carrying out the survey from the publisher, the University of Toronto Press. They agreed to lend their experience in researching the market and knowledge of the educational publishing world to assist us in this effort. They also agreed to contribute to the cost of the survey. They proposed to combine the *Atlas* questionnaire survey with a similar effort which they were undertaking for the very successful *Dictionary of Canadian Biography*. This would require including some more general questions about respondents' computer use, and expand somewhat the groups to which the questionnaire would be sent. Gratitude must be expressed to the Press, and especially to Mr. Hamish Cameron, for their aid in carrying out the survey, and the compilation of results.

An initial design for the *Atlas* part of the questionnaire was suggested by *Atlas* staff. The U of T Press staff refined the questionnaire design substantially (see Appendix 1). First the questionnaire queries respondents on general information, and on the specifics of their computer use environment. The next page comprises five questions which relate to respondents' current and past use of the *Atlas*, including the context and specific uses made of *Atlas* information. The last page asks respondents to choose what kind of data they would like to see made available in supplementary formats, and to rate how useful each of those data types might be.

Previous to the main mailing , in order to poll students before the end of the school year, a preliminary version of the questionnaire was provided to two university courses which used a volume of the *Historical Atlas* as a

required reference source. This occurred in March and April of 1994. Of a potential user group of approximately 150 students, 46 responses were received. It was considered important to obtain students' reactions and comments, as representative of users attempting to achieve specific tasks using the *Atlas*.

The main mailing was sampled from educational institutions across Canada by a commercial mailing firm according to guidelines set by the U of T Press, aimed at targeting our specified groups. This mailing was sent out in May of 1994, with a supplementary mailing following in July. The questionnaires were addressed to the heads of the departments in question, with a request to forward the survey to the most appropriate person to respond.

SURVEY RESULTS

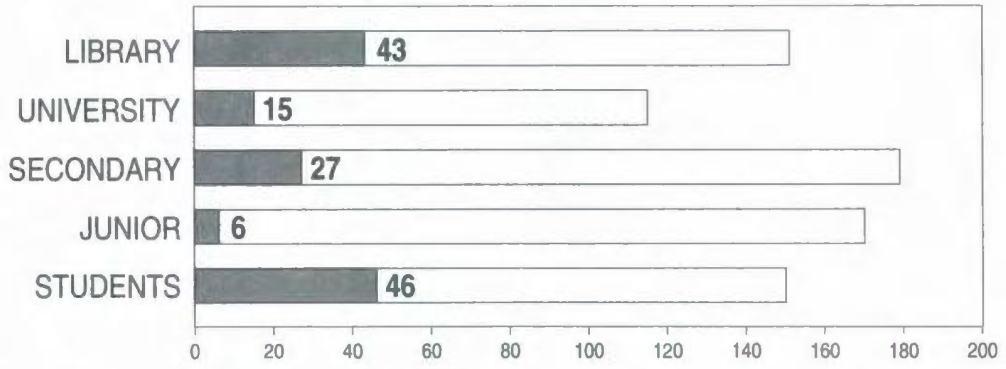
The purpose of this survey was to acquire feedback from *Atlas* users and potential users. The intention was to obtain an idea of the general proportions and tendencies regarding use in the target population. The sampling and survey methodology used was not rigorous enough to support analysis of statistical significance of responses. Therefore only actual numbers and percentages will be reported here. The accompanying tables and graphs summarize selected results of the survey. A facsimile of the survey questionnaire can be found in Appendix 1.

It is apparent that answers to some of the survey questions will be influenced by the target group or "organization type" of the respondent. Therefore, aggregate results of the survey will be skewed according to the proportions of respondents from each of the target groups. Some of the results presented, therefore, are broken down by "organization type". In other cases, aggregate numbers are presented, but the likely effect of this bias is noted.

Response to Survey

The U of T Press, which has conducted written surveys in the past, indicated that a response rate of between 10 and 20 per cent should be anticipated. Compared to this expectation, higher rates were acquired from those in the Library (28%) and Student (30%) target groups (see Figure 1). Among the main target groups in educational institutions, teachers at the Secondary school (15%) and

FIGURE 1: RESPONDENTS BY ORGANIZATION TYPE



ORGANIZATION type	Number of respondents to H.A.C. portion*/ Number sent	
LIBRARY	**43** / 151 (28%)	*(university head librarians, members ACMLA)*
UNIVERSITY	**15** / 115 (13%)	*(history and geography department chairs)*
SECONDARY schools	**27** / 179 (15%)	*(history and geog. department heads, Senior H.S.)*
JUNIOR schools	**6** / 170 (3%)	*(department heads, librarians, Elementary and Junior H.S.)*
STUDENTS	**46** / 150 (30%)	*(historical geog. university courses, using one of the Volumes)*
TOTAL	**137 / 765 (18%)**	

* Survey was packaged with survey on Dictionary of Canadian Biography, influencing proportions sent

University (13%)levels, the expected rates were achieved. The Junior school teachers were included in the survey by the Press primarily for their responses regarding the *Dictionary of Canadian Biography component* of the survey (the information in the *Historical Atlas* is not considered appropriate for teaching at this level,) and their rate of response was correspondingly low, as was expected.

The student respondents were given a preliminary version of the survey, which differed from the final version in some respects. These differences in questions and their impact on the interpretation of survey results is noted below.

General Survey Questions

The first page of the survey asked general questions about the use of computers and CD–ROM in the respondent's work environment (see Figure 2 and Appendix 1). The student groups were not asked these questions.

The results show that 99% of respondents used computers in their work, and that 91% expected to be using CD–ROM by the end of 1995. Existing rates of use of CD- ROMs at the time of the survey were 71%. This reflects the current fast–growing nature of C D–ROM technology and products in the educational sector today. Respondents were also asked which reference CDs currently in use were found most useful. Some of those cited a number of times were: *Digital Chart of the World, World Atlas, Maps'n facts, Street Atlas USA*, and encyclopedia–type products such as *Encarta, Grolier's and Compton's.*

FIGURE 2: GENERAL SURVEY QUESTIONS
(Students excluded; n = 91)

Question	NO	YES	%YES
Do you use a computer in your work	1	90	99%
Do you use CD-ROM in your work	26	65	71%
Do you expect to use CD-ROM by 1995	8	83	91%

FIGURE 3: HISTORICAL ATLAS OF CANADA QUESTIONS
(Students included; n = 137)

1. *Which volumes of the Historical Atlas have you used?*		
Volume I	97	71%
Volume II	90	65%
Volume III	91	66%
2. *How have you used the Atlas?*		
Teaching a course	30	22%
Taking a course	47	34%
Researching a specific topic	63	46%
Assisting others' research	56	41%
General reference or browsing	73	53%
3. *What specific uses have you made of Atlas Information?*		
Locating historical phenomena	86	63%
Tracing hist. development of a theme	94	69%
Discerning geographic relationships...	76	55%
Extracting numerical data...	65	47%
Visualizing quantitative relationships...	61	45%
Discovering bibliographic sources...	30	22%

***Historical Atlas of Canada* Questions about use**

The second page of the *Historical Atlas* part of the survey asked three questions about *Atlas* use (see Figure 3 and Appendix 1).

The first question asked which of the Volumes respondents had used. Greater numbers indicated that they had used Volume I than the other 2 volumes. Sales for Volume I have been significantly higher than those for Volumes III or Volume II, to date, which corresponds to this pattern of use. However, use of Volume II may be under–represented since it was published only 8 months before the time of the survey and so would not be expected to have attained full circulation.

Secondly, respondents were asked "How have you used the atlas?" This addressed the circumstances in which use had been made of the *Atlas*. Responses to this question would obviously be biased by the "organization type" of the respondent—for example, librarians would be most likely to answer "Assisting others' research." Keeping this in mind, it makes sense that the greatest proportion of respondents chose the answer to this question that crossed all occupational boundaries: "General reference or browsing."

There were 30 respondents who indicated that they had used the *Atlas* in "Teaching a course." Of these, 15 were at the Secondary school level, of a total of 27 respondents in this group (55%). Of the 15 University contacts who responded to the survey, nine indicated that they had used the *Atlas* in teaching (60%). The other six respondents using the *Atlas* for teaching did so in a Library context. This is interesting in its implications: it seems to indicate a high level of acceptance of the *Atlas for teaching purposes*, among those familiar with it.

The third question in this section was: "What specific uses have you made of *Atlas* information?" Again, the answers to this question were probably highly dependent on the respondent's "organization type", and the con-

text of use. Further analysis of responses disaggregated by organization would be necessary to determine which uses dominate among specific groups. In aggregate, the greatest number of respondents identified "Tracing historical development of a theme" as the specific use to which they put *Atlas* information. This probably reflects the "thematic" design approach of the *Atlas*, as opposed to a chronological or geographic approach.

Perspective on the specific uses to which the *Atlas* is put can be gained by reading the comments solicited at the bottom of the same page of the questionnaire, regarding the strengths and/or weaknesses of the *Atlas*. The comment "Needs a subject index", or variations on this theme, was volunteered by nine respondents. This would seem to reinforce the inference that users attempt to find information using a thematic or subject–based search strategy. Another strength of the *Atlas* reflected in the comments is its graphic design, seen in many comments such as "Wonderful visuals" or "Well illustrated."

The information content of the atlas plates was another frequent subject for "Strengths or weaknesses". The quantity of information was often mentioned: "Incredible amount of info". This was sometimes seen as a strength: "Abundance of specific thematic information;" and sometimes as a weakness: "Overwhelming with detail and information", "Too complicated sometimes."

Question 6: *Historical Atlas of Canada* data in supplementary formats

The responses to Question 6 are summarized in Figure 4. This question was intended to determine the potential demand for supplementary sources of *Atlas* information, to determine the preferred format(s) for these information products, and to estimate how much individual or organizational users might be willing to pay for these products.

The question was only partially successful in achieving these aims. Ten different data formats were suggested, and respondents asked to rate their usefulness, and select an "appropriate price." The price selection did not provide significant information, as respondents almost universally chose the lowest option offered for each data format they rated. These results might have been expected, and presumably show straight forward economic self–interest on the part of users. Frequent comments also were received about keeping prices down. Resistance to high prices of data in any format seemed to prevail.

The "usefulness rating" provided a range of responses more open to interpretation. In aggregate, the "response rate" to this question can be seen as an indicator of the level of interest among users towards the various data formats or products. The mean value of the "usefulness rating" can be seen as an indicator of the level of importance placed upon these formats or products by users.

Format option (a) (CD–ROM with searchable maps, graphics tables and text) received the best mean rating (4.0) and the highest response rate by far (70%), indicating a high level of interest and of importance was placed on it by users. The only problem with pursuing this option, of course, is the high cost of developing a fully interactive version of the *Atlas*, and the correspondingly high price that would result.

The following four options (b,c,d, and e) all dealt with non–graphic data base products on CD or diskette. These elicited luke warm response rates (34-47%), and mediocre mean usefulness ratings (1.9-2.4). Option (f), data tables and text accessible by network, also received only moderate rate of response (44%), but scored much higher in mean usefulness rating (3.4) than the previous four. There seems to be a perception among users that making data available over network links such as Internet would enhance its usefulness, compared to other, more static, formats.

The final four options (g,h,i, and j) all are print format (i.e. hard copy) products to be sold to users at generally more modest prices than the digital products listed. The level of interest in these products, reflected by response rate, was quite low for (g) (Print format data for individual plates - 28%) and moderate for the other three options (40-55%.) The mean ratings were also moderately good for the alternatives - but highest for (i) (Print format subject index.)

Question 6: Preferred formats disaggregated by organization type

It is clear that the responses to Question 6 would be affected by the occupation and needs of the user. After examining the aggregate results it was decided that breaking down the responses by "organization type" would be useful, to see whether responses varied between user groups, and if so, what implications this might have for further data products. This was done for the parts of Question 6 which evoked the strongest positive reactions - parts (a), (f) and (i), as these appeared to show the most potential for further development. Part (j) (Print format study guide) was also subjected to this analysis, despite its fairly low mean rating, since it was thought that the aggregate values might be masking a strong positive response in the teaching groups themselves. The

FIGURE 4: ATLAS DATA IN SUPPLEMENTARY FORMATS

(Students included; n = 137)

Question 6.

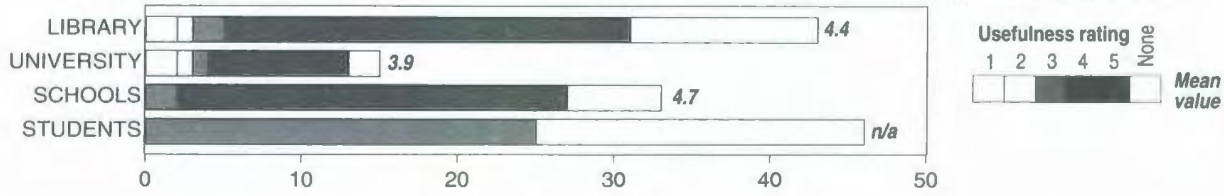
Would you like to see Atlas data made available in supplementary formats?

	Mean value*	Resp. rate**
a) CD-ROM with searchable maps, graphics, tables and text	4.0	70%
b) CD-ROM with data tables & text only (no maps or graphics)	2.3	47%
c) Diskette of data tables and text in data-base format	2.4	45%
d) Diskette of data tables and text in d-base format, with reader software	2.2	35%
e) Diskette of data tables and text in ASCII format	1.9	34%
f) Data tables and text accessible by network (CompuServe, Internet, etc.)	3.4	44%
g) Print format data tables for individual plates	3.1	28%
h) Print format data tables for all plates	3.2	45%
i) Print format subject index	3.4	55%
j) Print format teacher's study guide for selected plates	2.9	40%

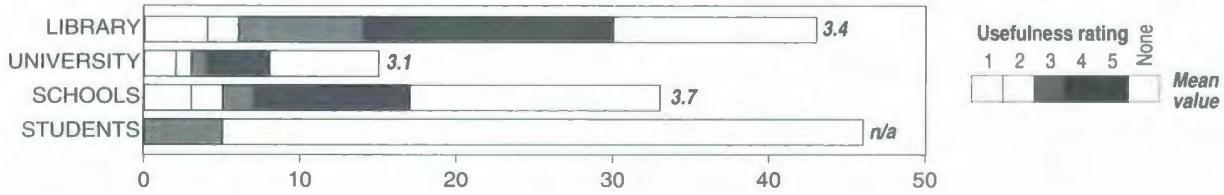
* Mean value of 'Usefulness ratings', for which 5=Very useful, 1=Not useful – indicator of level of importance to users

**Response rate: percentage of 137 respondents who replied to this question – indicator of level of interest among users

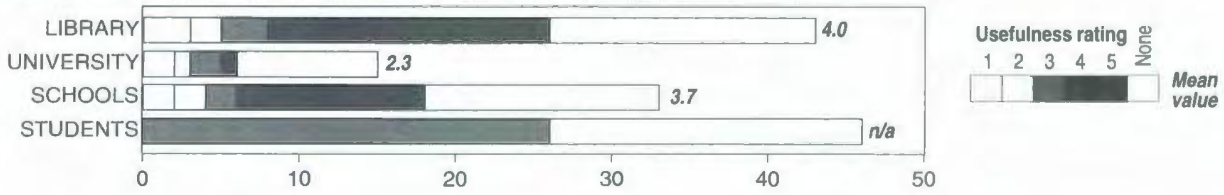
Breakdown by **ORGANIZATION TYPE** for question **6a) CD-ROM with searchable maps, graphics, tables and text**



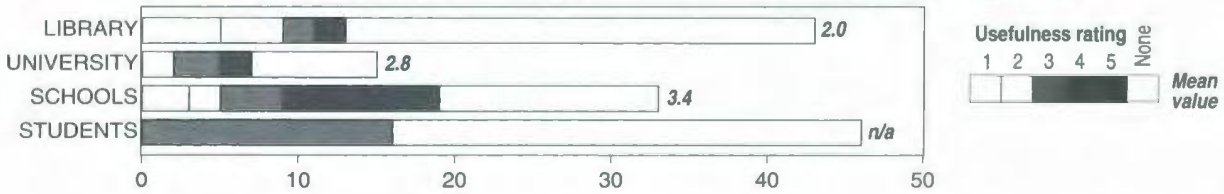
Breakdown by **ORGANIZATION TYPE** for question **6f) Data tables and text accessible by network service**



Breakdown by **ORGANIZATION TYPE** for question **6i) Print format subject index**



Breakdown by **ORGANIZATION TYPE** for question **6j) Print format teacher's study guide for selected plates**



results of this analysis are graphed in Figure 4. As previously explained, the 46 student respondents answered a early version of the questionnaire. On this they were not given a chance to rate usefulness of the various options on a scale, but merely to indicate if they thought they would be useful or not. A positive response was given an artificial rating value of 3 for the purposes of calculating mean values.

The graph for Question 6(a), the fully searchable CD, with graphics, shows an almost uniform positive response, with a fairly similar distribution between groups. The breakdown does make it clear that among the different user groups, the School teachers are the most enthusiastic in reacting to this option, with a very high response rate, and no "dissenters" among them ("dissenters" being respondents giving ratings of 1 or 2 which are towards the "Not useful" end of the scale).

For Question 6(f), data tables accessible by network, the different user groups appear to be very similar in the proportions of their responses. Overall reaction was positive, again being highest in the Schools category. In every organization type there were also a significant number of dissenters—overall 23% of respondents chose values 1 or 2. These very possibly represent the "information highway skeptics", the many people who have been turned off by the "hype" surrounding the Internet and its potential. The low response rate among the Student group also represents a low estimation of usefulness.

Question 6(i) asked about the usefulness of a print format subject index. There is some redundancy between this question and 6(a), as "searchable" implies the inclusion of some indexing system on which to search. Regarding a print format index, support was highest among the Library group, as one might expect given the orientation of their job. As previously mentioned, this stance was reinforced in some of the comments received. Support for a print index was surprisingly weak among University respondents, averaging only 2. 3 with less than half bothering to respond at all. A high proportion of Students did indicate a desire for this product.

Finally, 6(j) was analyzed to try to isolate teachers' responses to the idea of a study guide. As expected, the Schools category did support this option more strongly than any other group, with a high mean usefulness rating of 3.4. Even among teachers, however, the response was more lukewarm than might have been anticipated, with about a quarter of the respondents giving "dissenting" ratings for usefulness.

Implications for supplementary data products

The survey clearly indicates that there are people in our target groups who would be interested in using supplementary data products created from the *Historical Atlas of Canada* information archives. Enthusiasm seems to be greatest for a comprehensive CD–ROM product, which would incorporate maps, graphs and data tables. Significant levels of interest also exist for alternative data products, especially data tables and text made available by network linkages, and a subject index for all three volumes of the atlas in print or computerized format.

The fact that the life-span of the Atlas project straddled the transition from analogue to digital methods of data handling, text processing, and map production, has made the job of creating a data archive more complicated, but at the same time, enlarged its potential.

THE HISTORICAL ATLAS OF CANADA DATA DISSEMINATION PROJECT

The eventual creation of an *Historical Atlas of Canada* data archive has always been considered part of the Historical Atlas project. In its original agreement with the federal Social Sciences and Humanities Research Council of Canada in 1979, the *Atlas* agreed to deliver all documentation after the completion of the project to the National Archives of Canada, to make possible public access to the data researched and compiled for the *Atlas*. The fact that the life–span of the *Atlas* project straddled the transition from analogue to digital methods of data handling, text processing, and map production, has made the job of creating a data archive more complicated, but at the same time, enlarged its potential. In response to this, and to fulfill its original mandate, the director of the Atlas, Professor Dean, has conceived and initiated the Historical Atlas of Canada Data Dissemination Project. The results of the User Survey outlined above were also considered in defining the mandate and strategy for this project.

The Historical Atlas of Canada Data Dissemination Project consists of two parts. Part One is the compilation of a comprehensive index for the three volumes, in English. Part Two involves the design and creation of a computerized data base in a standardized format which will

be suitable for both the academic research community, schools, libraries, and the interested general public, as agreed in the original application to the SSHRCC. Both components of the Project are intended to make the *Atlas* more accessible and useful for its users. The project is being funded from revenues generated by the published atlases. This is being accomplished with the cooperation and assistance of the University of Toronto, and specifically the Department of Geography, as well as the University of Toronto Press, the publisher of the *Atlas* in English.

The subject index is being undertaken by Professor Dean himself, with some assistance budgeted, to be completed over the next two years. His intention is to create the index organized by subject classification, as well as corollary indices based on geographic location and on historical time period. The index is expected to reference information by *Atlas* Plate number, as well as quadrant of location within the plate. It will be produced in a searchable electronic format for computer use and adaptable for print publication. A number of different indexing schemes and software packages are being considered. The index will also eventually be integrated with Part Two of the project, the Data Base.

...eventually the Index and Data Base components of the Project will be integrated, so that subject-based searches of the plates in the Data Base will be possible.

The Data Base component of the Project is being undertaken at the Cartography Office of the Department of Geography, where the *Atlas* production took place. The data base format must be amenable to down-loading to a wide variety of data base or word processing software applications, and be suitable for distribution in a variety of computer media (eg.: over Internet, on disk, potentially on CD-ROM, or in hard copy form.) Initially this would comprise data for Volume II of the *Atlas*, the only one which was produced using computerized mapping techniques. This will set the pattern for the subsequent processing of *Historical Atlas of Canada* data from Volumes I and III, provided sufficient demand is demonstrated.

A two-year work plan for the Data Base has been approved and is now underway. It comprises three phases: initial analysis, a pilot project on the Internet, and finally production. The first stage analyses the needs of the project. It includes a review of the cartographic data files for Volume II and a report on their status, the evaluation of the options available for transformation and output of data files, and analysis of the options available for display of *Atlas* graphics for inclusion as "index maps" for the data base. It will establish a realistic set of design objectives for the data base, and detail a strategy to fulfill these. The second stage is a pilot project, wherein a number of *Atlas* plates (probably five) are selected for testing purposes, and a data base format is designed and tried using the Internet as a test platform. Feedback will be sought from Internet users regarding the data base format. Stage 1 and 2 are now proceeding, and the pilot project (liberally sprinkled with "Under Construction" icons) is accessible through the Geography Department Home Page at http://esker.geog.utoronto.ca. Readers' comments are welcome.

The completion of the Data Base for Volume II will proceed when a satisfactory format is determined. During the pilot project production will be proceeding on transforming data files for integration into the data base. Considering the existing resources, it is anticipated that at least half the plates of Volume II will have been input by the end of the first year. At that time a status report will be prepared, and estimates made for the completion of Volume II. Based on the experience of Year One, recommendations will also be made on how to proceed with the production of the data base for Volumes I and III.

The present working design for the Data Base is rooted in the production methods used to create volume II, and preliminary results from the initial analysis stage. It also takes into account what was learned from the User Survey. Volume II was produced primarily using the Arc Info GIS/mapping package, and Interleat publishing software, on Unix-based computers. Tabular data was entered only when necessary to feed into these packages to generate maps and charts, often being generalized or preprocessed for convenient graphic display. Some maps display locational and qualitative information, and so have no related quantitative data tables. Therefore, even though Volume II was "computerized", there is no existing comprehensive data base that can just be "tapped" for this project. Similarly, the graphics for the *Atlas* were produced as high-resolution PostScript files. These are not reproducible as screen images, both because of design choices

that were suitable for 6-colour offset printing but not suitable for a 75 pixel per inch CRT display, and because of the problems of displaying large image files on-screen (many *Atlas* plate images comprised 20-30 megabytes of disk space.) Therefore, despite the desire of users surveyed for full searchable maps and graphics, the present working design uses the plate images for index purposes only, i.e. to point and click on the graphic element of interest on a certain plate. It is designed for use in conjuction with the printed *Atlas*, to provide the data to complement its graphics , not as a replacement for it. At present the data are down-loadable as ASCII text files, rather than in any specific database or proprietary format. No graphic or coordinate based data are available for down-loading at present.

As mentioned earlier, eventually the Index and Data Base components of the Project will be integrated, so that subject-based searches of the plates in the Data Base are possible. The extension of the Data Base to include Volumes II and III will depend on the response to the effort on Volume II. The HAC Data Dissemination Project is an evolving operation, and it is hoped that continued consultation with interested persons will help it to be built successfully.

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University of Toronto Press

Note: This is a facsimile of the original questionnaire, which ran to 3 pages and left more space for answers to questions.

Dictionary of Canadian Biography

Historical Atlas of Canada

Introduction

The University of Toronto Press is the publisher of the *Dictionary of Canadian Biography* and the *Historical Atlas of Canada*. We are conducting this survey to determine how these reference works are being used and whether there is sufficient interest for us to develop electronic versions or other supplements. Your response will be very valuable in helping us reach a decision, and we appreciate any comments or suggestions you may wish to add.

Respondent information Name: Institution Position: Address:

❑ If you are not an Atlas user, but would like more information, please check here

Survey Questions

A. GENERAL

1 **Do you use CD–ROM in your work: (circle 1 or more)** No PC Mac Other

2 **Do you expect to use CD–ROM by the end of 1995?** No PC Mac Other

3 **Do you use a computer in your work?** No PC Mac Other

4 **If you are a PC user, what is your configuration?** 286 386+ DOS Windows OS2

5 **If you use CD–ROMS, what characteristics do they have?** Text Graphical interface Photos Animation Video Audio

6 **If you currently use reference CDs in your work, which ones do you find most useful:**_____

Other comments: _____

B. HISTORICAL ATLAS OF CANADA

The three volumes of the *Historical Atlas of Canada* illustrate many themes in the historical geography of Canada by means of maps, graphs, and text. Much of the data depicted in the Atlas is the result of original research and is not readily available from other published sources. We would like to know if there is interest in having this data available in other formats. The three volumes of the Atlas are currently available at a price of $95 each or $245 for the complete set.

1 **Which volumes of the Historical Atlas of Canada have you used?** *(check one or more)*

- ❑ Volume 1: From the Beginning to 1800
- ❑ Volume 2: The Land Transformed, 1800–1891
- ❑ Volume 3: Addressing the Twentieth Century

2 **How have you used the *Atlas*?** *(check and complete one or more)*

- ❑ Teaching a course Level: _____
- ❑ Taking a course Level: _____
- ❑ Researching a specific topic Topic: _____
- ❑ Assisting others' research Topic: _____
- ❑ General reference or browsing
- ❑ Other (specify) _____

3 **What specific uses have you made of *Atlas* information?** *(check one or more)*

- ❑ Locating historical phenomena
- ❑ Tracing historical development of a theme
- ❑ Extracting numerical data from maps or graphs
- ❑ Discerning geographical relationships between phenomena
- ❑ Visualizing quantitative relationships from maps or graphs
- ❑ Discovering bibliographic sources for further research
- ❑ Other (please specify) _____

4 **If you made extensive use of individual *Atlas* plates, please list them here and describe use** _____

5 **How would you describe the strengths and/or weaknesses of the *Atlas*?**_____

6 **Would you like to see Atlas data made available in supplementary formats?**
(Circle selections and appropriate price – prices refer to individual volumes, except as noted)

	5=VERY USEFUL → NOT USEFUL=1							
(a) **CD–ROM with searchable maps graphics tables and text**	5	4	3	2	1	$1000	$750	$600	$400
(b) **CD–ROM with data tables and text only (no maps or graphics)**	5	4	3	2	1	$200	$150	$100	$50
(c) **Diskette of data tables and text in data base format**	5	4	3	2	1	$200	$150	$100	$50
(d) **Diskette of data tables and text in data base format, with data base reader software included**	5	4	3	2	1	$200	$150	$100	$50
(e) **Diskette of data tables and text in ASCII format**	5	4	3	2	1	$200	$150	$100	$50
(f) **Data tables and text accessible by network or bulletin board service (Compuserve, Internet, etc.)**	5	4	3	2	1	Suggested service: _____			
(g) ***Print* format data tables for individual plates**	5	4	3	2	1	$30	$20	$15	$10
(h) ***Print* format data tables for all plates**	5	4	3	2	1	$75	$50	$30	$20
(i) ***Print* format subject index of all volumes**	5	4	3	2	1	$125	$100	$75	$50
(j) ***Print* format teacher's study guide for selected plates**	5	4	3	2	1	$75	$50	$35	$25

(k) **Other supplements** _____

7 **What specific kinds of information are you most interested in?** _____

8 **Additional comments and suggestions** _____

REPORT ON THE

DIGITAL SPATIAL LIBRARIES TELECONFERENCE, PENNSYLVANIA STATE UNIVERSITY

Richard Pinnell and Grace Welch

On Thursday, February 16, 1995 the Pennsylvania State University in University Park, Pennsylvania, organized a two-hour Digital Spatial Libraries teleconference; according to their publicity the teleconference was designed to provide practical insights to government, business, and academic professionals concerned about access to geospatial information and the evolving role of digital spatial libraries. Furthermore, the brochure goes on to state that the speakers and panel discussion "will examine the practical short-term prospects and problems of spatial data management and access."

There were two keynote speakers: Jack Dangermond, president of ESRI in Redlands, California, and Nancy Tosta, staff director for the Federal Geographic Data Committee and chief of the Branch of Geographic Data Coordination at the US Geological Survey. The four panelists included: Dr. Abler, a faculty member in the Geography Department at Penn State; Dr. Donna McKay, a GIS educator, also in the Geography Department at Penn. State; Deborah Chaney, maps and documents librarian at Penn State; and Jay Parrish, a consultant from Middletown, Pennsylvania. (RP)

In introducing the teleconference, the importance of spatial data was underlined: 80% of all digital data can be tied to a geographic location. Geo-referenced data is an important resource for libraries, and libraries can provide a coordinated infrastructure for the access and use of this spatial data. Libraries need to develop the capability to effectively exploit this information.

Ms. Tosta focussed her discussion of digital data in relation to the traditional roles of libraries: collecting, cataloguing/describing, and providing access. These roles are now changing. For example, in a networked environment, ownership of data is no longer always essential. Rather, libraries need to know where the data are located and provide the tools and connections for easy access. Libraries should clearly define what digital data they will collect such as eternal datasets and data that has different temporal values.

She observed though that libraries do have a major part to play in cataloguing and describing datasets. Currently, many datasets are not easily accessible to users because they are not catalogued. In terms of access and use of digital spatial data, libraries need to define their role because the Internet is creating new professions - navigators, searchers, filters. Will libraries be able to fulfill some of these functions or will they be assumed by the private sector. She asked the audience whether libraries would continue to be subsidized to make digital data publicly available if the private sector sees data access as their domain.

After speaking of the roles of libraries, she turned to some of the problems and issues related to digital spatial data: data integrity and accuracy; the need to archive spatial data and provide temporal data; intellectual property rights. She pointed out that the U.S. is fortunate to have a Vice President who is extremely interested in the new technology and the development of a Global Information Infrastructure. To date, the U.S. has spent $4 billion on building spatial data sets. Unfortunately, until recently, most of these datasets were not well documented or integrated. However, GIS forces interdependency; no one agency or institution can keep all of the data in one place. As part of the government's commitment to building a National Spatial Data Infrastructure (NSDI), federal agencies are now required to document all of their datasets and make them available on the Internet.

In closing she offered the following advice to libraries:

1. Get connected: libraries can play a catalyst role in bringing together local producers and users of geo-referenced data. Libraries must think spatially and develop linkages to ensure access to all types of digital spatial data, especially at the local level. Her advice: think globally, but act locally.

2. Define reasonable roles and responsibilities: libraries should be thinking about how they can organize their digital data so that it can be easily found and accessed

by the local community. Libraries might consider establishing a local node in the National Geographic Infrastructure.

3. Explore creative partnerships: for example, approach a federal agency about being a distributor for their data. (GW)

Mr. Dangermond began by stating that the US government is spending $8 to $10 billion dollars per year to produce spatial datasets such as world coastlines and other features, but that these data are not readily available. He also indicated that today there are 200,000 users of GIS around the world and that this will increase into the millions by the turn of the century. His point was that GIS should be in every library. However he posed this question: what services should the library provide other than access to data. He suggested that libraries might provide the following services: make maps, visualize (the data), analyze spatial relationships, synthesize data, measure/summarize, and aggregate (data). Unfortunately he did not explore this theme in any greater detail except to say that the St. Louis Public Library had set up standard map views which, in the library's opinion, would be looked at repetitively.

Later on in his talk he returned to the role of libraries and said that libraries should provide information about how to access data as well as providing this access, they should create standards, and should provide GIS training. Academic libraries could serve as a collection point for campus-wide spatial data; in so doing they would serve as a neutral repository for this data in a politicized environment.

He suggested that the basic hardware in a library would cost approximately $2,000 (US) per seat plus the cost of peripherals. He recommended a 486 (or better, presumably), a CD-ROM reader, Internet connection, and modem; peripherals include such things as scanning devices and colour monitors. Library staff should be trained to become familiar with: GIS concepts, ArcView software, and data stored on CD-ROM. Staff should also do practical exercises involving GIS.

He made mention several times of the importance of GIS partnerships; for example, he referred to partnerships involving GIS vendors, data suppliers, educators, business, libraries, government, and the public. Some of these GIS partners would also be GIS users in libraries: public, business, educators, research community, local and state governments. A library's role would be to get the data and broker them out; in other words, the library would serve as a collection node on a network for information resources.

Mr. Dangermond coined the term "geocy," which is a basic understanding of the spatial nature of the world. This skill set would be developed when "geographic cruising" of information becomes possible. In other words, he suggested that spatial coordinates may become a new organizing principle for many different kinds of datasets; thus the map will provide the index to much of the information stored in libraries. This organizing principle would enable a researcher to quickly access all the information (demographic, sociological, environmental, etc.) in a collection or on a network that pertains to a specific geographical area. To do this, the researcher would simply have to search the spatial metadata, which would serve as an online index to the information.

Near the end of his talk he spoke about the barriers which exist to inhibit access to GIS data. Some of these barrier forces include: privacy issues, cost recovery (i.e. government agencies want their money back), commercial interests, problems that arise from free access to the public, and so on. One interesting example he gave of the "free public access" issue was one where address matching would allow someone to identify pockets of the incidence of AIDS in a community (RP)

There was only a short time allocated for comments from a panel of four experts. It was interesting to note that one panelist, Ron Adler, pointed out that new media rarely supplants old; the new stimulates the old, suggesting that paper maps will be around for sometime to come. Ms. McKay observed that for the first time users will have access to all kinds of data from different sources and of different quality but without the traditional filters—professional cartographers and statisticians who are trained to present information graphically. Therefore, we need to think about how to educate users on how to correctly interpret the data.

Concerns were expressed about the integrity of the data and the need to have historical data. It was suggested that data should be maintained as close as possible to the producing agency, to ensure their integrity. The question of the "best data" was also raised: there should be a certifying group to identify the "best data" for a particular piece of geography. So much of spatial data that is now available is riddled with errors. GIS forces data providers to be more accurate than ever before.

It was apparent that there are no concrete answers or formulas to follow in developing GIS in libraries. However, the teleconference confirmed that libraries could have a strong role to play as an intermediary if we clearly define that role and forge the necessary partnerships to ensure our continued presence in a spatially-defined future. (GW)

REPORT ON THE 32ND ANNUAL CLINIC ON LIBRARY APPLICATIONS OF DATA PROCESSING

GIS AND LIBRARIES: PATRONS, MAPS AND SPATIAL INFORMATION

April 2-4, 1995

Report prepared by
Alberta Auringer Wood, Joan Winearls, Janet Kaufman, Grace Welch,
Richard Pinnell, Trudy Bodak, Yves Tessier, and Cheryl Woods

Editor's Note: *The following is the abridged version of the report. The complete report was previously posted to the listservers CARTA and MAPS-L. For a copy of the complete version please contact Alberta Auringer Wood at awood@morgan.ucs.mun.ca*

Workshops

On Sunday, there were two optional "workshops" and a keynote address. The first workshop was an "Overview of GIS Concepts" presented by Marc P. Armstrong, Associate Professor, Department of Geography and Program in Applied Mathematical and Computational Sciences, The University of Iowa. He used software called "GIS Tutor" to present this. The major books, journals and trade magazines in the field were listed, such as S. Aronoff's Geographic Information Systems: A Management Perspective (Ottawa: WDL Publications, 1989), Cartography and *Geographic Information Systems*, and *GIS World*. He noted that a bibliography of videos on the topic was available from the National Center for Geographic Information and Analysis. He pointed out that a number of professional organizations provide a forum for learning more about GIS through their publications and conferences, for example, the American Congress on Surveying and Mapping and the American Society for Photogrammetry and Remote Sensing with their annual conventions, the GIS/LIS meetings in the fall, and the Auto Carto symposiums every two years. For keeping up to date electronically, he gave lists of Web sites with GIS related content and also a list of sites available using MOSAIC. There is also a listserver called GIS-L which is available as a newsgroup, too (comp.infosystem.GIS). Using the GIS tutor, Dr. Armstrong defined what a GIS is, how it works, what hardware is required, something of its development, what it is made up of and some of the applications for it. He also provided some information on GPS (global positioning systems). In terms of GIS software, he pointed out that MapInfo grew out of a PC environment and is not topologically correct, while *ArcView* and *Intergraph* came from a mainframe environment and are topologically correct. One software, GRASS, was developed by a government agency.

The second "workshop" was on "Spatial Analysis in the Social Sciences" presented by Gerard Rushton, Associate Professor, Department of Geography and Program in Applied Mathematical and Computational Sciences, The University of Iowa. He defined spatial analysis as the ability to cross-correlate two or more overlays of information, such as merging a zoning map with soils and land use. By using overlaying, he felt that users could start to make information driven decisions. He pointed out the linkages between social science and spatial analysis and stated that in the 1960s geography was viewed as a spatial science while in the 1970s and 1980s it was pushed out and in the 1990s it has been rediscovered. Spatial analysis is now integrated with GIS and involves getting information about a point. To illustrate this he described a study that was the spatial analysis of the relationship between infant mortality rates and birth defect rates in Des Moines, Iowa, 1989-1992. He also discussed the use of the U.S. Bureau of the Census TIGER data and its limitations. In addition, he noted the application of interactive computer-based systems which help decision makers use data and models to solve unstructured problems about the spatial organization of activities. A benefit of the latter is providing improved information for decisions and a more rational process of location decision making. He illustrated this with an Iowa study on restructuring of school districts (not yet implemented by the state).

Describing and Cataloging GIS

Monday morning, Mary Larsgaard, Assistant Head, Map and Imagery Lab, Davidson Library, University of California, Santa Barbara spoke on "Cataloging Planetospatial Data in Digital Form". She indicated that

at UC Santa Barbara they have a policy for cataloguing all data being acquired through Project Alexandria, one of six large National Science Foundation grants for digital libraries which started in June 1994. One of the problems has been in finding a USMARC equivalency for every FGDC field. Briefly, Larsgaard indicated that cataloguing problems for data fall into four main areas. The first is physical description and tag 256 - file characteristics from chapter nine computer files. Here the dilemma is whether you define the item as a computer file or map or multi-media etc. For 256 you can only enter computer program or a similar term and the number of programs or bytes. But what is needed is other information such as colour and other graphic characteristics. The first piece of information that is requested is the size of the file and you cannot count maps as these are infinite. For tag 300 colour becomes a question of the gray scale and a palette of 1-256 colours and is often dependent on software. Under $a the number of megabytes is added. The second problem area is the question of production versus publication. A good example here is to ask if an Internet file is published. Presumably, there is also a problem here with edition or version particularly if it is always being updated.

The third problem area is that of merging with another standard such as the Federal Geographic Data Committee (FGDC) standards. These are inherently two different things. FGDC is mainly for use by data producers. Some information will only be known by the producer and not by the cataloguer. The FGDC standards are new while AACR2 and MARC come from older book-oriented traditions.

Finally, Ms. Larsgaard discussed multilevel description. The problem here is providing for tiles, which are areas adjoining each other, and for layers, or coverages of data, for these or for other areas. There can also be multiple versions of the same thing - e.g. if an aerial photo is catalogued as part of a set and then one or more are scanned, do you prepare separate records for these which would make for much more work. Subject headings are not all consistent, and there is a need for a heading for world or earth with subdivisions. For 352 $i, we also need to be able to indicate raster or vector. Bounding coordinates are essential for digital files. Local time is used for satellite data and this must be recorded somewhere. Ms. Larsgaard indicated that she had looked a bit at the Canadian rules for Geomatics cataloguing, but it is obviously time for us to look at these in some detail and start to use them for our various map data.

Michael Domaratz, Member, Federal Geographic Data Committee (FGDC) Secretariat and a Cartographer at the U.S. Geological Survey (USGS) reviewed "Metadata Standards and the FGDC". The FGDC of USGS is the national group mandated to support proper standards for medadata and the creation of the National Spatial Data Infrastructure (NSDI). The FGDC promotes the development, maintenance and management of distributed data base systems that are national in scope for geographic data. Domaratz noted that the future belongs to those who control the tools for filtering and making sense of data. It will be up to librarians to sort out how they will integrate with all the other groups involved with data, e.g. geographers, cartographers, computer scientists etc.

Content standards for digital geospatial metadata were approved in June 1994 to provide a common set of terms that will be used in describing data. Federal agencies must use these beginning in 1995. The standards answer four major questions about data - availability of data for a specified location, the fitness for use in a specified need, access routes to the data and transfer of information needed to use a set of data. The standards are based on the premise that the person best set up to prepare medadata is the producer. However, Mr. Domaratz mentioned that recording all the changes made to data could mean very lengthy records.

Mr. Domaratz noted that one of the greatest problems is knowing where to find the data - data for which the U.S. government has spent billions of dollars. To solve this the National Geospatial Data Clearinghouse (NGDC) was set up in April 1994. The records are on the Internet and the base configuration is WAIS, although some records are on gophers, WWW etc. Many federal agencies are now at work inventorying their data and mounting this on the Internet. Much of the data is also available through the Internet and vast numbers of files are already being transferred even without the Clearinghouse. For instance, now that all the DLG and DEMs for the U.S. are up on the site at Sioux Falls over 700,000 files were shipped in the first year. The USGS EROS Data Center recorded nearly 49,000 downloads in its first 3 months. Further information of FGDC initiatives is available in the FGDC Newsletter and this and a list of about 20 documents can be acquired from Publications, USGS, 590 National Center, Reston, VA 22092.

Although the Canadian contingent had heard earlier about FGDC , NSDI and the Clearinghouse the effect of the speech was to make us all realize what vast quantities of data there are in the U.S., mostly available free or at a nominal charge and to conclude that we are data-starved in Canada. Re the metadata: during discussions it became clear that we had no idea whether questions of

standards are being worked on in Canada. (JW)

Users and Interfaces

After the mid-morning break, Myke Gluck, Assistant Professor, School of Library & Information Studies, Florida State UniversitY, spoke on "Spatial Information: Users' Needs & Competencies of the General Public". He reported on the results of several studies he has conducted in public libraries with a focus on three key research questions: 1) user needs for spatial data - what are they? 2) formats and tasks requested by users, and 3) formats which users find most useful. The needs of users were categorized as facts (geographical data) and information (making the data usable). Users of spatial information acquire their knowledge procedurally, by walking around and looking at an area, as well as from representations of spatial information presented on maps. Dr. Gluck identified three broad categories of map tasks: reading (what), analysis (how) and interpretation (why).

Dr. Gluck has conducted a number of experiments to assess how fast and accurately individuals can complete a number of map tasks. He described a translation exercise in which one group of subjects were given a map and asked to describe what was represented on the map. A second group of subjects were given a description and asked to create a map based on the information contained in it. Subjects in the first group were generally unhappy with their descriptions of the data presented on the map because: they needed too many words to describe the data; it took too long to complete a good translation; and the map was too complex. Subjects in the second group were equally unhappy with their translations from text to map, although for different reasons: drawing ability; poor recall of standard symbols used on maps; and difficulty in showing temporal changes. Focus group discussions were held with the subjects who participated in the translation exercise. Participants were asked about: their major personal uses of maps and how they act to make sense of a map - what steps do they take first, second, etc.? In another study 82 subjects between the ages of 14 and 56 years were surveyed about the materials they read to assess their geospatial competencies. Dr. Gluck has concluded that experience with information increases competency with tasks to a greater degree than formal education.

The final study described by Dr. Gluck involves determining public library users' geospatial data needs by doing a content analysis of questions asked at the Tallahasee Public Library. There was considerable variation in the needs ranging across educational (course assignments), professional/career (job hunters), personal (hospital visit) and recreational (hikers/campers). Maps were only one of a variety of sources consulted by users.

The second speaker in this session was Ray Larson, Associate Professor, School of Library and Information Studies, University of California, Berkeley, who covered "Geographic Information Retrieval and Spatial Browsing". His presentation covered the following: 1) what geographic information retrieval (GIR) is, 2) geographic and spatial querying and browsing, 3) geographic and spatial indexing, and 4) a demonstration of some GIR systems and geographically indexed information. Dr. Larson described GIR as being concerned with providing access to georeferenced information sources. It includes all of the traditional areas of information retrieval research with the addition of spatially and geographically oriented indexing and retrieval. Furthermore, it combines aspects of database management systems research, user interface research, GIS research and information retrieval research.

Geographic and spatial information retrieval systems are needed to access digital libraries, which are increasing at a rapid rate, and for the next generation of online catalogues. Geographic and spatial querying both imply querying relationships within a particular coordinate system. They can be defined as queries about the spatial relationships of entities geometrically defined and located in space. Geographical coordinates are geometric relationships, i.e. distance and direction can be measured on a continuous scale (100 km east of Toronto). Spatial relations may be both geometric and topological i.e. spatially related, but without measurable distance or absolute direction (inside the city limits). There are a variety of types of spatial queries: 1) point-in-polygon: what is located at this x,y coordinate? 2) region queries: what is in this region? 3) distance and buffer zone queries: what cities lie within x miles of border of Ontario and Quebec? 4) path queries: what is the shortest route from Winnipeg to Brandon? and 5) multimedia queries using non-map georeferenced information: what are the names of farmers affected by flooding in Monterey and Santa Cruz Counties, California?

Spatial browsing combines ad hoc spatial querying with interactive displays. It has advantages and disadvantages. The former include: the accuracy of a full GIS may not be needed; a comprehensible searching metaphoris adequate for many materials. The latter include: clutter and differing scales; the need for good and accurate geographical indexing. Traditional geographic indexing which uses place names from LCSH and name authorities also present problems: names are not unique; places referred to change size, shape and names over time; there are spelling variations; some places are temporary con-

ventions (study areas, etc.). Geographic coordinates have some advantages over names: they are persistent regardless of name, political boundary or other changes; they can be simply connected to spatial browsing interfaces and GIS data; and they provide a consistent framework for GIR applications and spatial queries.

One example of a geographic and spatial indexing system is GIPSY, developed by Allison Woodruff and Chritian Plaunt. It is designed to operate on the full text of documents, extracting geographic terms and attempting to identify the coordinates of the places discussed in the text using a combination of evidence. GIPSY uses the USGS Geographic Names Information System (GNIS) and Geographic Information Retrieval and Analysis System (GIRAS) to associate names with coordinates of named places, geographic features and land use characteristics. Identified places are added as "elevations" with each place adding a weight based on its frequency in the text and database characteristics. The resulting map is analysed to identify the most likely locations and coordinates for those locations that are extracted.

Examples of GIRs are: the UC Berkeley Digital Library Project, the NSF/NASA/ARPA Digital Library Project, GRASS Links public access GIS, and the Canadian National Atlas Information System (NAISMap). Larson summarized by pointing out that: GIR and spatial browsing can provide valuable new searching mechanisms for digital and traditional libraries with georeferenced collections; automatic georeferencing is possible and can aid in retrospective conversion; and GIR and spatial browsing should be among the components of digital libraries and next-generation online catalogues.

The last speaker in the session was William Moen, Ph.D. Candidate, School of Information Studies, Syracuse University who described an innovation, "The Government Information Locator Service (GILS): Identifying, Locating, and Accessing Geographic and Spatial Data". GILS was created for a number of reasons: 1) the increase in government information in electronic format, 2) finding tools were not adequate e.g. US GPO catalogues, 3) technological advances made it possible, and 4) to enhance public access to government information. It will assist the federal government to manage its resources and users to know what is available, where it is available and how to get it. GILS is not specific to spatial data, but it will permit identification of data that is available. Mr. Moen stressed that GILS is a locator service or put another way, it is a point of entry to finding out about government information, NOT the information itself. The information may be in any format - paper, electronic, map, etc. Each record consists of 20 core data elements and metadata is provided by the producers of the data. GILS provides a uniform interface to multiple servers and sets out standards for attributes of search queries. It can be searched by titles, key words and phrases, personal names, and the record source.

GIS In Libraries I

After lunch on Monday afternoon, Brent Allison, Director, John R. Borchert Map Library, University of Minnesota presented the practical side of GIS in a map library setting. With the assistance of a Department of Education grant received in 1992, the John R. Borchert Map Library established an "Automated Cartographic Information Center" (ACIC) to meet the needs of its patrons for a variety of GIS applications. Their configuration has evolved to an 11 workstation network with access to scanning and digitizing equipment and a colour printer. The ACIC is networked through the university's backbone making it the principal campus resource for GIS information.

The ACIC is a DOS Windows and Mac operation providing to users a range of GIS and automated cartography products. Desktop mapping /GIS capabilities are provided by *Atlas GIS* (mostly used for digitizing), ArcView, and MapInfo. MapInfo is the most popular; it is easy to learn, permits layering of data and the easy production of customized maps. CD Export provides access to Tiger files in MapInfo format and Wessex permits the easy extraction of census data in a spreadsheet format. In addition, the ACIC provides a number of electronic atlases such as *PC USA, Global Explorer, MapExpert Map 'N Go.*

In the first year, printed guides were developed by graduate students for the three GIS, desktop mapping programs. These guides however, have been rarely used. In their place, online tutorials are being developed, which will embed movies showing the steps involved in creating a map. LOTUS Screen Cam ($69.00), for instance, records movements on the screen which can be incorporated in word processing documents.

Users of the ACIC must attend an orientation session before they are permitted access to the workstations. However, on-going assistance for users of the ACIC is still needed and extra student assistants had to be hired. Mr. Allison cautioned that often the requirement for ongoing support after the period of a grant is overlooked when making grant applications.

The ACIC is now involved in the development of an electronic atlas as part of ARL/GIS Literacy Project. The *ARL Electronic Atlas* is modeled after the urban atlas series

produced by the U.S. Bureau of the Census using 1970 census data. The project, which is being developed cooperatively with a number of other libraries, will create maps of major metropolitan areas using socioeconomic and environmental data from the 1990 U.S. Census. The maps will be accessible on the Internet. Mr. Allison displayed sample maps from the project, pointing out that the atlas will be of interest to the public, schools, libraries and researchers. It is anticipated that the atlas will be particularly useful for people who do not have the resources or skills to construct the maps themselves. The maps will be in "gif" format and will include the statistics used to derive the maps. A prototype of the atlas is now on the Web.

To close out this session, Christie Koontz, of the Florida Resources and Environmental Analysis Center, Institute of Science and Public Affairs, Florida State University described how GIS can be used by libraries, particularly public libraries, as a decision making tool to define their services and market areas. This capability is particularly useful in today's environment where budget considerations are forcing the consolidation of services. Many public libraries are hampered by less than optimum geographic locations for their facilities.

Until recently, library managers have had to conduct market profile studies rather haphazardly. However, GIS is changing this, permitting managers to define more precisely the size of their current market, the composition of the market (age/sex/education, etc), and predict what the future market will be. She did point out that use of GIS is not without its pitfalls: problems of data accuracy and data availability exist; sometimes data is mislabeled; and until recently, there was a steep learning curve associated with using U.S. census data.

Using an example from Evansville-Vanderburgh County Public Library, Ms. Koontz illustrated how GIS could be used to identify a new branch location. Tiger data was analyzed using GIS Plus software. She discussed a number of techniques that could be used to conduct the market analysis: assign census tracts to branches, or if more precision is required, assign block groups; zip codes can be used, or a radius of a certain value from the branch. Two miles is the radius most commonly quoted for public library services. (GW)

GIS in Libraries II

The second Monday afternoon session was led off by Dean K. Jue, Director, Spatial Analysis, Research, and Training Program; Florida Resources and Environmental Analysis Center, Institute of Science and Public Affairs, Florida State University who spoke on "Implementing GIS in the Public Library Arena". Mr. Jue contacted as many American libraries with GIS as he could. He determined that 64 libraries had GIS accessible to the public, including 13 public libraries (as of April 1995). His intention was to review library experiences in implementing GIS and to develop decision models for the implementation process. Mr. Jue identified a number of data use models including: 1) personal use model (librarians serve only as custodians of data), 2) chauffeur-driven model (librarians are GIS users for their patrons), and 3) adaptive interpersonal use model (combination of the above two). He also identified three spatial data user types: 1) map user (makes use of existing products), 2) personalized map user (makes use of existing data to produce personalized map for his/her own needs), and 3) map maker (acquires, manipulates, and analyzes data in a sophisticated manner). Based on the comments and responses he received from the 64 libraries, Jue developed a decision flow chart for implementing GIS in libraries. Key decision boxes are: adequate staffing levels? adequate equipment for GIS? are equipment, software, data secure? easy access to constituency data? (i.e., constituency identified?) are staff computer-literate? For example, libraries with inadequate staffing levels and inadequate GIS equipment are advised to implement the map user and personal use model. At the other extreme, if a library has adequate staffing and GIS equipment, has security measures in place and easy access to constituency data, then it can implement the map maker/adaptive interpersonal use (or chauffeur-driven) model.

The responding libraries offered the following advice to libraries wishing to implement GIS. Provide the supporting librarians with enough time and training to learn the software as well as to provide the proper end-user support (from 48% of the 64 responding libraries); implement the GIS in a controlled environment with controlled access and go slow and define the role of the library and librarians carefully (28%); obtain state of the art equipment, including good printer and software protection (20%); make sure staffing level is adequate to support the project (17%); develop pre-canned and relevant data sets that are easy for the casual user to access (13%).

Closing out the afternoon was "St. Louis Public Library's Electronic Atlas; Elements of a Successful GIS Application in the Public Library Environment" by Ann Watts, Coordinator, Information and Technology Services, St. Louis Public Library. The Electronic Atlas project began three years ago, using exhibit money with assistance from URISA (Urban and Regional Information Systems Association). Support for the project includes one 486 PC with 8 MB RAM and ArcView software, but no additional staff. The computer sits unattended in a public area and any-

one can sit down and use it. Library staff have prepared a finite number of pre-planned "views" using census summary tapes; Ms. Watts commented that the 80/20 rule is very relevant in this situation. Staff are willing to do reference interviews over the telephone and to prepare maps for these clients; copies of these maps are not kept by the library. Nor are patrons allowed to download information or copy files.

She made the following comments about the impact of this project upon staff. Staff get new users started and teach them how to solve problems with GIS; alternatively staff will operate the system for patrons who don't want to become directly involved. Staff do know their own limitations. Interestingly, the library has found that crib sheets do not work well; patrons prefer to ask staff for assistance rather than consulting user guides. Ms. Watts offered the following reasons for the success of the project. First, the scope of the project is limited to the local county; the library does not collect data for adjacent counties. There has been good support from "outside" people including URISA members as volunteers and staff at the Illinois State Data Center at Southern Illinois University. Cost of the project has been minimal (less than $5,000) and yet, because of leverage, the library has been able to provide a colour printer. The service has been cost effective even though the library provides colour printing at no charge to patrons. She did emphasize that such a project requires an "internal champion," someone who can work the political system from within the organization. (RHP)

Specialized GIS Applications

On Tuesday morning "The Role of Special Libraries in Emergency Preparedness and Response" was the subject of Robert Lee Chartrand's presentation which focused on the role of the library in emergency response, particularly. Mr. Chartrand is a consultant and was formerly with the Library of Congress. He stressed that libraries should plan to be ready. He mentioned several 'local areas of action'. One of these was the concern that official power centers have full government support. There should be period reviews of guidelines and a monitoring of emergency management. The role of advisory groups should be emphasized and federal/state interaction should be strengthened. It was important to make use of groups such as those involved in hotlines and services. He noted that it was important to incorporate information technology tools and techniques and to adopt recommendations of studies in the field.

The various ways in which GIS can play a role were pointed out, such as the preparation of emergency scenarios and ensuring the availability of maps, charts, and air photos. Other ways that he noted were the selective storage of local information for emergency services (e.g. fire departments) and the provision of graphic information for public presentation.

Mr. Chartrand also stated that corporations in a community have an obligation to help the local area. There are some deficiencies that exist, however: lack of access, lack of standardization, and a need to improve hardware and software compatibility. In his closing remarks, Mr. Chartrand stressed that we can help each other, and we can learn from the emergency management profession. We must ask ourselves: "Are we doing as much for our community within our profession as is possible?

This address was followed by "Spatial Access to and Display of Global Change Data: Avenues for Libraries" by Linda L. Hill, Senior Research Scientist, Center of Excellence in Space Data and Information Science, Universities Space Research Association at the Goddard Space Flight Center. She talked primarily about data that is in federal agencies, the ideal spatial retrieval system, and systems that are available that have geographic search components.

In her presentation, Ms. Hill mentioned the Global Change Data and Information System (GCDIS), a multiagency project of the Global Change Data Management Working Group within the U.S. Global Change Research Program. She distributed a handout on the current status of GCDIS and the most active departments agencies in GCDIS. She outlined the five responsibilities of its Library Information Subgroup as building an infrastructure of libraries and librarians for GCDIS implementation, evaluating GCDIS from a library user's perspective and providing user needs analysis, linking data resources to information resources for knowledge management, promoting GCDIS to libraries and developing approaches to user education, and advising on data and information processing standards and systems from the library perspective.

Ms. Hill went on to sketch her view of what an ideal spatial access information system should look like. The ideal system should include all types of data and information, specific area representations, spatial query capabilities, and translation of place names into spatial definitions. Other attributes it must have would include retrieval mechanisms that return a ranked list based on a metric of geographic similarity, ways of limiting or filtering, browsing snapshots of images, full documentation, and mechanisms for ordering data. She ended her presentation by noting and briefly describing five example systems: GC-ASK, EOSDIS, Global Change Master Directory, NOAA Marine Geology & Geophysics On-Line

Searches, and the National Geospatial Data Clearinghouse. (TB)

State and Local Initiatives in Spatial Data and GIS
This second Tuesday morning session was devoted to state and local initiatives for addressing issues in community-based spatial information uses. Two cases were presented: publication of Illinois spatial data on CD-ROM and Champaign County's electronic network.

The Illinois Department of Energy and Natural Resources with its divisions, has developed over 10 years, very comprehensive spatial digital databases at the state level. In order to make this information more accessible, many of these databases were published on C D-ROM in April 1994. This initiative reflects an attitude towards better access and sharing of spatial data by citizens and groups having an interest in Illinois people and resources. This electronic publication is intended for state and local agencies, libraries, schools, public interest groups, and the private sector. It is available free of charge (yes), except for a fee of $100 for private enterprises or individuals. Copies sold covered disk production costs.

The CD-ROM contains layers of information for different topics such as hydrography, flood zones, roads, railroads, utilities, natural areas and preserves, archaeologic probability, boundaries, landfills, wells, public water supply intakes, towns, etc. The data comes from local, state or federal sources. Most of the data is at a scale of 1:100,000, with different scales depending on the map layer, and all are in ARC/INFO format. The data are not explicitly copyrighted, but prior notice to the Department is required before redistribution.

The other local initiative presented pertains to the development of the Champaign County Network (CCNET) by the Chamber of Commerce in co-operation with the National Center for Supercomputing Applications of the University of Illinois at Champaign-Urbana. The intent was to identify applications for a county-wide network and to design a network to connect the entire county and provide a model that can be adopted in other communities. The benefits are for business and industrial firms, schools and colleges, farming, medical care, and county planning. The listing of application task forces is revealing in itself: agribusiness, community and government resources and libraries, education, health care, small business, and geographic information networks. Current network access tools include Prairienet, a dial-up modem access via telephone lines and the Internet, and the Mosaic browser. For information about CCNET, the URL is: http://www.prairienet.org/SiliconPrairie/ccnet.html.

An application for agricultural planning of GPS and GIS was brilliantly illustrated in a not so futuristic implementation of information technologies. A farmer would sample the soil for georeferenced analysis using GPS, passing this data to a GIS-based fertilization plan, and then to a GPS-governed automatic-adjusting fertilizer machine. The crop yields would be recorded, georeferenced through GPS, by the harvesting machine, and the plan for seeding the next year could be tabulated spatially! (YT)

Generalization and Summary
The Generalization Problem presented by Barbara Buttenfield, Associate Professor, Department of Geography, State University of New York at Buffalo focused on the nature of GIS data and the concepts of scale. Scale change, growth and changes of scale, adding and eliminating information due to scale, and models of growth and scale change were discussed. GIS data is customarily troublesome and the concept of scale is complicated. She spoke of three main problems: data volume, indexing and metadata content and browsing. Data volume presents the problem of a lot of memory being used for one screen of information, so you need to compress the data. Indexing focuses on data tiling and the need for better interface design. What map series and scale are appropriate? Metadata problems pertains to knowing that the data exists, determining its fitness for use and browsing capabilities. Dr. Buttenfield spoke about allometry and the scalability of phenomena and processes, not just the mathematical ratio. Her simple example was of a braided stream's detail being lost at 1:100,000 and 1:250,000 maps when compared to 1:24,000 maps. She concluded by stressing that there is a need for digital libraries and access to spatial information, a need to prepare now for growth and complexity that will surely happen and the important role that librarians and information scientists will play.

Linda C. Smith, Conference Co-Chair and Professor, Graduate School of Library and Information Science, University of Illinois at Urbana-Champaign, closed the conference with a few brief words. She noted that the talks and other presentations illustrated the challenges and opportunities offered by GIS in libraries. There will be a proceedings volume for the conference. (CW)

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1994/95 ACMLA COMMITTEE REPORTS

NOMINATION AND ELECTION COMMITTEE

Richard Pinnell, Chair
Members: Helen Clarke, Elizabeth Hamilton

Nomination forms, accompanied by the association's membership renewal notices, were sent out in early December by Bruce Weedmark, chair of the Membership Committee, to all full and honourary members (63 full and 2 honourary); the deadline for the return of these forms was March 1, 1995. Five members in good standing were nominated, one for each of the five electable positions on the Board for 1995/96.

The committee made the following two decisions, both of which were subsequently affirmed by the Board:
a) no additional nominations would be solicited, and
b) election ballots or votes of confidence would not be mailed out to the membership.
Accordingly, the five nominees are acclaimed at this time.

The committee recommends that an amount of $25 be allocated in the budget for 1995/96 to cover the costs of photocopying the nomination and, if necessary, the election forms. If these forms are distributed with the ACMLA Bulletin or with the membership renewal notices, then postage costs will be nil or negligible.

The slate of officers constituting the ACMLA Board of Directors in 1995/96 is as follows:

President:	Alberta Auringer Wood
1st VP:	Grace Welch
2nd VP:	James Boxall
Treasurer:	Pat McIntyre
Secretary:	Shirley Harmer
Past President:	Cathy Moulder (ex-officio)

AWARDS COMMITTEE

Alberta Auringer Wood, Chair
Members: Poh Chan, Pierre Lepine

There were no nominations for the Honours Award from inside or outside the committee. While one paper was suggested for consideration for the Papers Award, it was the feeling of the committee that it did not meet the criteria.

REPORT OF THE COPYRIGHT COMMITTEE

Carol Marley, Chair
Members: Pierre Roy

This year the Copyright Committee has been keeping a watching brief on the long-awaited second phase of amendments to the Copyright Act. This act has remained almost unchanged, from its adoption in 1924, until 1988. As map librarians and archivists across Canada are all too aware, the 1988 legislation did not include exemptions to the Copyright Act.

On December 22, 1994 the Canadian Heritage Minister Michel Dupuy and Industry Minister John Manley announced that legislation to amend the Copyright Act will be tabled in the House of Commons as soon as possible in 1995. "We look forward to putting in place legislation which will strike a fair balance between the rights of creators to receive remuneration for use of their works and the needs of users to have reasonable access to these works," noted Mr. Manley.

"Following extensive consultations with all interested parties, we have agreed to proceed on several key areas related to the revision of the Copyright Act. The reform will include additional rights for producers, performers and broadcasters for certain uses of their creations, exceptions for groups such as schools, libraries, archives, museums and individuals with special needs, and a royalty to compensate creators for the home taping of their works, making the home copying for sound recordings permissible," added Mr. Dupuy.

For further information contact: Eli Turk, Office of the Hon. John Manley, (613) 995-9001, or Alain Garceau, Office of the Hon. Michel Dupuy, (819) 0997-7788. The Committee will continue to inform the membership of the progress of the new revisions. We may also appear before the various groups considering the new legislation, or we might submit our views to some of the government committees, with the approval of the Executive, much as we have done in the past.

Our members will be interested in the implications for maps as set down in the draft report, "Copyright and the Information Highway," published on January 16, 1995 by the Copyright Subcommittee, Advisory Council, In-

formation Highway. For copies of this informative report, contact: Nick Heseltine, Advisory Council Information Highway Secretariat, (613) 990-6692. It is available on WWW at http://debra.dgbt.doc.ca/info-highway/ih.hmtl. Chaired by Claude Brunet who has a long association with copyright legislation in Canada, the mandate of the Subcommittee is to identify specific issues and make recommendations to the Advisory Council, on the role and impact of copyright in the context of the Information Highway. What the draft report does not do is to examine any of the measures contained in Phase II of the new copyright legislation. Rather, the report is an analysis of a broad range of issues and is intended to help focus the discussion on the future role of copyright in the context of the new digital technologies.

Some of the issues considered are: categories of works, moral rights, crown copyright, ownership, new rights, fair dealing and public education. The Subcommittee recommends that crown copyright should be maintained, but that the Crown of Right in Canada should, as a rule, place federal government information and data in the public domain, and that where crown copyright is asserted for generating revenue, licensing should be based on the principles of non- exclusivity and the recovery of no more than the marginal costs incurred in the reproduction of data.

One useful section compares and contrasts fair dealing with the U.S. fair use provisions. Fair dealing is not an exception to the rights of copyright holders. Instead it was designed to be a defence where infringement has occurred. It is most often discussed in respect of an infringement of the rights to reproduce a work. If a substantial part of a work has been reproduced, then there is an infringement. Canadian courts have decided that one could not deal fairly with an unpublished work. Also, that the production of the totality of a work is not fair dealing. On the latter point the Subcommittee recommends that the criterion should probably be revised in light of "browsing" activities on the information highway. The fair dealing provisions go on to say that if part of a work is used, the purposes for which it is used must be for private study, research, criticism, review or newspaper summary.

The U.S. fair use provisions allow for fair use of an unpublished work. Teaching and scholarship are also purposes for which one can invoke the fair use defense. U.S. courts have been given specific guidance on how to determine that a use is fair. The question of whether teaching would qualify for the fair dealing defense has been raised. The information highway will become increasingly used as a tool for teaching. The education lobby in Canada has demanded exemption from copyright. The Subcommittee itself thinks that it is probably more efficient to have specific exemptions for the benefit of educational users rather than leave interpretation to the courts.

In recent months there has been a certain amount of discussion on the list server, Carta, about browsing. Please continue to share your views, especially after having read the report.

During the past year the Committee has been called upon by librarians and archivists in Ontario to interpret copyright legislation. For example, the Archives of Ontario sought information about the legality of copying Canadian fire insurance plans. The Committee was not able to say much, beyond the fact that many of these plans would fall under copyright. Subsequently the Archives has developed a protocol detailing under what conditions this material will be provided to researchers at the Archives. This news was posted on Carta, Spring 1995. Should you need more information, Carolyn Gray would be the contact person at the Archives of Ontario.

The OCUL Map Group has also asked for advice about maps and copyright because the Ontario universities are in the process of working out agreements with CANOPY. Information has been sent to their April meeting. The situation with respect to maps is quite complicated. The Committee urges members to read past reports of the Committee, which have been published in the Bulletin, to refresh their memories of the provisions of and the progress toward copyright legislation. The Report of the Copyright Committee 1991/92 contains a bibliography of previous reports dating from 1987-91, which had been published in the Bulletin, and a summary of Bill C-60, the first section of amendments to the Copyright Act, which was passed in 1988. The 1991/92 report was distributed at the '92 AGM. It seems never to have been published and we will try to get it into the next issue of the Bulletin.

Considering the pace of collective agreements in Ontario, the Committee would welcome an Ontarian to serve and to provide information on negotiations with CANOPY.

At the risk of being repetitious, copyright in Canada is complicated, and it is no service to our membership to oversimplify it. Many of us who have been following copyright are convinced that there will be a big gap, where no answers will be forthcoming, namely in the area of non-textural materials and copyright. This will leave map librarians and archivists in terra incognita and adrift on the information highway!

MEMBERSHIP COMMITTEE

Bruce Weedmark, Chair
[Report in part]

The following is the ACMLA membership as of Dec. 31, 1994:

Full	63
Associate	22
Institutional	120
Honorary	2
Exchange	14
Legal Deposit	1

New Members:

Sandy Campbell, *University of Alberta (Full member)*
Pat Lean, Merritt, *British Columbia (Full member)*
Edward Phelps, *London, Ontario (Full member)*
Meg Raven, *Mount Saint Vincent University, Halifax, Nova Scotia (Full member)*
Lori Sugden, *University of Victoria, Victoria, British Columbia (Full member)*
Linda P. Newman, *Reno, Nevada (Associate member)*

[WELCOME all new members!]

(A list of 1995 ACMLA members appears on page 27 of this issue.)

BIBLIOGRAPHIC CONTROL COMMITTEE

Joan Winearls, Chair

Committee members: Trudy Bodak, Barbara Farrell, Glen Isaac, Pierre Lepine, Velma Parker, Grace Welch, Joan Winearls (Chair), Alberta Wood

The Committee met in Guelph on June 9th, 1994 in conjunction with the annual conference. Other discussions were conducted by e-mail since all members now have e-mail accounts.

Velma Parker received comments from several libraries on the proposed revisions to Cartographic Materials and the final proposal was sent off to LC in the summer.

The first draft of chapter 5 (cartographic materials) for RAD was finished (Two Committee members V. Parker and G. Isaac had the major responsibility for it) and sent to the committee for comment in August. Carolyn Gray did a detailed report on it for the Archives of Ontario and generally reported that it is excellent.

There was general agreement re the request from the Canadian MARC office to make certain codes in 007 obsolete (those not in AACR2R or CM). A proposal from LC to drop the G class for atlases and use map numbers instead was received with dismay by the committee. LC has not yet published the revision to G class numbers for atlases of Canada which was agreed to in 1983 by LC Geography and Map Division, the then National Map Collection and ACMLA. Standardization in this area would be useful for CARTO CANADIANA.

At the June meeting the committee discussed the question of cataloguing workshops. An earlier idea had been to propose a workshop on cataloguing geomatics and remote sensing in Vancouver. After some discussion the committee recommended a more general workshop on the handling of digitial data to include aquisition, storage, security, and cataloguing etc. This was suggested to Tim Ross at the AGM held on June 10th and was well received.

Velma Parker and other staff completed the third edition of CARTO-CANADIANA. It was prepared by ISM on microfiche and published by the National Archives of Canada/Supply and Services Canada in March, 1995. It includes all records for all Canadian cartographic materials received and catalogued by the NAC from 1960 - 1993. There are records for approximately 5000 titles in this edition, a very substantial number. The bulk of records are for federally produced maps.

There have been difficulties in pursuing the next stage of the CC project - the inclusion of records from other Canadian libraries. ISM's estimate of $50,000 to create a product from the records of NAC and 3 other major libraries is too high and suggests a lack of interest in the project on their part. In addition many of the libraries surveyed reported either very small numbers of catalogued map records or a situation in which they have not loaded all of their records into the ISM database. Without a home database from which to create a file for CC we would have enormous difficulties in preparing a fiche or CD-ROM product. Since the National Library is moving towards a new system, AMICUS which will accept map records and it is likely that NAC recordswill go into this database, we need to explore the possibility of inputting records from other map libraries into this database. This could in effect create a national union catalogue accessible to most of us via the Internet. It would also probably be feasible to create a tape from this to produce a union fiche or CD ROM product. As this report is being written, I have heard from Betty Kidd that the National Library is holding discussions with the National Archives about the possibility of issuing a CD-ROM for Canadiana which would include CARTO-CANADIANA. Needless to say the committee is

delighted by this news and it is expected that at least part of the committee will arrange a meeting shortly with the National Archives and National Library to discuss the mechanism for including records from other libraries.

The committee reviewed the terms of reference for the BCC and have submitted proposed revisions.

SECOND VICE PRESIDENT'S REPORT
Alberta Auringer Wood

As Second Vice President for the past year I have been primarily concerned with the publications aspects for the association. In addition, I have served in a liaison capacity on behalf of ACMLA with two groups, the Congress of Cartographic Information Specialists Associations (CCISA) and the International Cartographic Association (ICA) Canadian National Committee. In terms of CC ISA, I have just recently learned from Christopher Baruth, Convenor of the group, that the papers from the Map Library in Transition conference will be published in the journal *Cartographic Perspectives*. This is being done because the Library of Congress Geography and Map Division has not been able to get papers from all the speakers, and thus, could not do a proceedings volume. It will be useful to have the papers that were submitted available in this manner. In terms of the Canadian National Committee for the ICA, I attended a meeting of the committee in Ottawa last summer and have been asked to serve as a member of an Advisory Committee for the 1999 Bid for the ICA meeting. So far, we have just been asked for suggestions regarding the theme and session topics. I suggested a session topic of "Cartographic Librarianship in the Twenty-first Century".

HISTORICAL MAP SERIES COMMITTEE
Cheryl Woods, Chair

Since the last annual report, no new facsimiles have been printed. The catalogue was updated and reprinted in March 1995 and distributed to the membership in the Bulletin.

Notices about the Facsimile Map Series catalogue with updated ACMLA pubications information will appear in the next issues of SLA's *Bulletin*, *Map Collector* and *base line*. It was agreed that *Imago Mundi* was too expensive to advertise in.

Permission was given by the board at their fall executive meeting to buy $200 worth of mailing tubes. They also agreed to the increase in price of facsimiles to $5.00 each and portfolios to $125. Correspondence is on-going with *Canadian Geographic* to have some facsimile maps in their semi-annual catalogue. And a proposal has been sent to the Department of Canadian Heritage for joint publication of a larger formatted, colour Canadian Bird's Eye views series. It is this proposal that is before the board for approval.

As can be seen in the Publication Officer's financial report, facsimile sales for 1994-95 were quite successful.

ACMLA PUBLICATIONS COMMITTEE
Lorraine Dubreuil, Chair
Members: Cheryl Woods, Colleen Beard, Alberta Wood (ex-officio)

There are four members on this committee: Lorraine Dubreuil (Chair), Cheryl Woods, Colleen Beard and Alberta Wood (2nd VP, ex-officio). The committee has five projects. At least two of the present projects should be completed by the May 1995 Annual Conference.

1. Cumulated index for the Bulletin and proceedings / by Frances Woodward. STATUS: We believe that Frances will proceed with this project during 1995, and that we should have a publishable product in our hands before the 1996 conference.

2. Canadian Fire Insurance Plans in Ontario Collections / by Marcel Fortin, Lorraine Dubreuil and Cheryl Woods. STATUS: This project was published in March 1995.

3. Le Bati Montréalais en Cartes / Mapping Montreal's Built Environment : 1800-1951 / by David B. Hanna (est. 105 pages). STATUS: Camera ready copy has been prepared, but the author is doing a complete revision and update before publication. He expects to finish in April 1995. COST: Estimates for printing 200 copies are $1,600.

4. Canadian Fire Insurance Plans in Canadian Collections / by Lorraine Dubreuil and Cheryl Woods.
PROPOSAL: Cheryl and Lorraine would like to expand their published project, and prepare a full list for Canada. This would involve collecting data from the collections outside of Ontario, and editing the Ontario publication. Projected completion date would be January 1997. Approved by the Board, November 1994.

5. CD-ROM Historical Maps / by Cheryl Woods.
PROPOSAL: This would be a co-operative project between ACMLA and Department of Geography, University of Western Ontario and overseen by Cheryl Woods.

The end product will be a CD-ROM containing the 150 facsimile maps already available from ACMLA. Projected completion date is September 1995. COSTS: $3,000 (split between ACMLA and co-sponsor).

PUBLICATIONS OFFICER
FINANCIAL STATEMENT
Jan.1/94 - Dec.31/94
Louis Cardinal
[Report in part]

	Total
Publications	$1099.81
Foreign exchange	44.99
Facsimiles	5213.76
Foreign exchange	215.37
Sponsorships	460.00
TOTAL	5889.13
Net income	**$7033.93**

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REPORT ON THE MEETING OF THE CANADIAN COMMITTEE ON CATALOGUING, MARCH 24, 1995
Velma Parker

Although there was a very long agenda, the Committee managed to cover most of the items. A few were deferred to the next meeting. We had the added pleasure of having Pat Oddy (British Library and Chair of JSC) present at our meeting. She gave a short presentation on how the JSC works. There were no items which dealt specifically with cartographic materials but there were a number of general interest.

Revision to AACR2

The Bureau of Canadian Archivists representative presented a discussion paper to CCC on "Revision to AACR2 the perspective of the Planning Committee on Descriptive Standards, Bureau of Canadian Archivists". Archivists are having the same problems with rule 0.24 as are librarians. When works are being made available in a variety of physical formats, the question arises as to what should be described, the "work" or the various physical manifestations. This leads to problems in the areas of the GMD as well as physical description, to name two such problem areas.

During the discussion it was mentioned that there is a need to identify the medium as well as the format in which it is presented. For example, it is annoying to have to use the GMD for computer files for a geomatic data set. The fact that the map is in digital form does not make it any less cartographic in nature. There must be a way to present both aspects of the work. For "Rules for archival description", there is a proposal to alter the structure of the GMD (e.g., [textural records—electronic form]). The Bureau will be writing a concrete proposal for the CCC to consider at a future meeting.

Chief Source of Information for Computer Files

ALA Committee On Cataloging: Description and Access has proposed changes to 9.0B1 based on an OCLC document entitled "Guidelines for description of Internet resources" issued Dec. 2, 1992. The main proposals are to make an addition to the second sentence, and also to add a new paragraph to be inserted between the present first and second paragraphs. The proposed wording for the second sentence of paragraph one is:

> If there is no title screen, take the information from other formally presented internal evidence (e.g., main menus, program statements, first display of information, the header to the file including "Subject:" lines, information at the end of the file).

New second paragraph to be inserted:

> If the computer file is unreadable without processing, e.g., it is compressed or printer-formatted, take the information from the file after it has been uncompressed, printed out, or otherwise processed for use.

Mode of Access to Internet Resources

To give users information as the location of Internet files, ALA is proposing that "Mode of access" be used as standardized introductory wording in the notes area and that new examples be added which show the URL (Uniform Resource Locator). However, the Australians have pointed out that the URL is subject to change and so suggest that the URN (Uniform Resource Name) might be a more appropriate choice. I gather that the URN is not well established at this point. The use of the standardized introductory wording and new examples will likely be approved by the JSC. We will have to await further discussion on the URL and the URN.

Modification of Rules in Chapter 9 to Reflect Current Usage

"Disk" versus "disc"
In 9.5B1, it is proposed that the use of disk and disc be standardized to reflect usage in the industry. If this is accepted, then the examples in 9.5B1 and definitions in the glossary will be changed. "Disk" will be used for magnetic computer disks, and "disc" will be used for computer laser optical discs. Thus a new smd will be added to the list: computer optical disc. "Laser" will be deleted from those examples in which it occurs as it is now considered to be redundant.

Disk sizes
There is also a question of the intent of rule 9.5D2 where a range of disk sizes may be recorded in the physical description area. Some interpret this to mean that some of the material is on one size disk and the rest of the material is on another size disk. This was thought to be a highly unlikely occurrence. Therefore, others of us thought that this rule was designed to provide for the case where the same material is offered on two sizes of disks. CCC will request a clarification from JSC on this matter.

Guidelines for Bibliographic Description of Interactive Multimedia

This was discussed briefly. There is still felt to be a problem as the dividing line between what would be considered interactive and what would not is not perhaps as clear as it should or could be. Since the documentation has been sent to JSC for information only, there needs to be a formal request that it be placed on the table for discussion. When that is done, perhaps more concrete ideas will flow.

Computer Memory

New examples will be added in 9.3B2a using gigabytes. As there are as yet no standard abbreviations, words such as gigabytes and terrabytes will have to be written out in full.

Electronic Version of AACR2R

The publishers of AACR2 are going to create two separate electronic versions. One will be the "as published" version and the other will contain all of the changes and corrections that have been approved. The second version is now in process of being completed.

Future of AACR

A conference of cataloguing experts to reexamine the direction and principles of AACR2 is being considered by the Committee of Principals. When and if this will be held is not yet known.

Any comments or questions may be addressed to Velma Parker, Visual and Sounc Archives Division, National Archives of Canada, 344 Wellington St., Ottawa, Ont. K1A 0N3; Internet: vparker@archives.ca.

COMING VERY SOON...

from the University of Western Ontario, Serge A. Sauer Map Library

ACMLA HOME PAGE

It will include:
Brief history of the association, and objectives,
membership info, executive members, bylaws,
Committees and members
Conference dates/location,
Publications
Images of the ACML facsimiles, with ordering information
******
Members are to submit suggestions to: Cheryl Woods cawoods@uwo.ca
Stay tuned to CARTA and MAPS-L for the URL address.

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NEW BOOKS AND ATLASES

Bruce Robin

Aerial Mapping: Methods & Applications. Edgar Falkner. [Boca Raton, Fl.]: Lewis Publishers, 1994. (Mapping Sciences series) ISBN 1-56670-103-1.

Andrée Stieler Meyer & Co.: Bibliographie der Handatlanten. Jürgen Espenhorst. Schwerte [Germany]: Pangaea Verlag, 1994. 432 p. ISBN 3-930401-33-9.

Archaeology of the British Isles: With a Gazetteer of Sites in England, Wales, Scotland & Ireland. Andrew Hayes. [New York]: Saint Martin's Press, Inc, 1993. US $49.95 ISBN 0-312-10205-4.

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The Atlas of Endangered Peoples. [New York]: Facts on File, 1995. ISBN 0-8160-3283-1.

Atlas of Florence. [New York]: Marsilio Publishers, 1994. 384 p. US $185.00 ISBN 1-56886-006-4.

Atlas of Historical County Boundaries: Maine, Massachusetts, Connecticut, & Rhode Island. John H. Long. [New York]: Simon & Schuster Trade, 1994. 144 p. US $50.00 ISBN 0-13-051947-2.

Atlas of Medieval Man, Vol. 1. Colin Platt. [New York]: Saint Martin's Press, 1994. US $18.95 ISBN 0-312-11549-0.

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Basic Cartography for Students and Technicians. R.W. Anson and F.J. Ormeling, eds. London ; New York : Published on behalf of the International Cartographic Association by Elsevier Applied Science Publishers, c1993. 212 p. ISBN 0080423434.

The Canadian Atlas of Aboriginal Settlement. Alan Tremayne. Regina: Gabriel Dumont Institute of Métis Studies and Applied Research, 1994. 21 p. ISBN 0-920915-34-5.

Canadian Geographical Information Systems Source Book = Guide des sources canadiennes sur les systèmes d'information géographique. [1st ed., 1994] Ottawa: Inter-Agency Committee on Geomatics (IACG) = Comité mixte des organismes intéressés à géomatique (CMOIG), 1994. 352 p. $39.95. [Available from Geomatics Industry Association of Canada, 170 Laurier Av. W., Suite 1204, Ottawa, Ont., K1P 5V5]

Climatological atlas of snowfall and snow depth for the Northeastern United States and Southeastern Canada. Richard P. Chamber, Daniel S. Wilks, and Richard P Cember. Ithaca: Cornell University, 1993. 212 p. (Research series / Northeast Regional Climate Center; Publication no. RR93-1). US $30.00.

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Historian'sGuide to Early British Maps: A Guide to the Location of Pre 1900 Maps of the British Isles Preserved in the United Kingdom and Ireland. Helen Wallis, gen. ed. London: Royal Historical Society, 1994, 465 p. ISBN 0861931416.

Historical Atlas of Mormonism. S. Kent, Donald Q. Cannon, and Richard Jackson. [Scarborough, Ont.]: Prentice Hall Canada, 1994. $51.00 ISBN 0-13-045147-9.

The Historical Atlas of New York City: A Visual Celebration of Nearly 400 Years of New York City's History. Eric Homberger; Alice Hudson, cartographic consultant. New York: Henry Holt and Company, 1994. 192 p. ISBN 0-8050-2649-5.

Interactive and Animated Cartography. Michael P. Peterson. Eaglewood Cliffs, N.J.: Prentice-Hall, 1995. 257 p. (Prentice Hall series in geographic information science) US $54.77 ISBN 0-13-079104-0.

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Mapping Archaeological Data: A Structured Introduction to MapInfo. Ian Johnson. [Sydney: Sydney University, 1994?] 120 p. (Sydney University Archaeology Methods Series; no 3) US $28.00 ISBN 0-86758-966-3.

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Montana Atlas & Gazetteer. [Freeport, Me.]: DeLorme Mapping Co., 1994. 96 p. (Atlas & Gazetteer series) US $14.95 ISBN 0-89933-225-0.

The National Municipal Gazetteer. Henry G. McComb, ed. 5th ed. rev. Plattsburg, New York: Target Exchange Inc, 1994. 500 p. US $95.00 ISBN 1-878684-04-3.

The New State of the Earth Atlas: A Concise Survey of the Environment Through Full-Color International Maps. Joni Seager. 2nd ed. [New York]: Simon & Schuster Trade, 1995. US $16.00 ISBN 0-671-89103-0.

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The Penguin Atlas of the Diasporas. Gerard Chaliand and Jean-Pierre Rageau. A.M. Berrett, trans. [New York]: Viking Penguin, 1995. ISBN 0 670-85439-5.

Sveriges Sjökartväsende 1643-1993. Ulla Ehrensvard and Hugo Frithz. Norrköping [Sweden]: Sjoartsverket, 1993. 140 p. ISBN 91-86502-10-7 (Parallel Swedish/English text).

Thematic Mapping from Satellite Imagery: a guidebook = Cartographie thématique dérivee des images satellitaires: un guide. J. Denegre, ed. [Oxford]: Pergamon Press ; Elsevier Science, 1994. (International Cartographic Association series) US $105.00 ISBN 0-08-042351-5.

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NEW MAPS

Amy Chan

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Newfoundland & Labrador, traveller's guide to the geology. [cartography by Gary McManus et al.] Scale 1:1,000,000. [s.l.]: Canada-Newfoundland Cooperation Agreement on Mineral Development; Laval, Quebec: printed by Lawson Marden Lavel Montreal, c1994.

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REVIEWS

Carol Marley

TIMES ELECTRONIC WORLD MAP AND DATABASE. Version 1.0. London: Bartholomew/ Times Electronic Publishing Department, 1994. 45 UK ISBN 0 7028 0696 2. May be ordered from: Dept. 9T, Harper Collins Publishing, Westerhill Road, Bishopbriggs, Glasgow, G64 2QT

The *Times Electronic World Map and Database* is the latest offering from Bartholomew/ Times, a company with a well-deserved reputation for reliable and comprehensive world atlases.

For anyone accustomed to Microsoft Windows, this product will be very easy to operate, with familiar scroll bars, drop-down lists and command buttons. Many of the strengths of the *Times World Map* derive from its use of Windows attributes. The copying and printing features are particularly good, the best of any electronic atlas we have used to date. Import of a map into another document is extremely simple using the Windows functions of Cut and Paste. Some care must be exercised in selecting appropriate on-screen colours to ensure a discernible black and white print, but the resolution and quality of the output are very clear. Tables and statistical data can also be printed quickly and easily, or downloaded to disk. The only significant frustration in the reproduction features is that the map legend box does not print with the map from the screen. To capture a map intact with legend, one must save it as a Bitmap and use the Windows Cut and Paste features to copy it to another document.

Map scales available are predetermined (World, 1:64 million, 1:32 million, 1:16 million, 1:8 million, 1:4 million), and the "zoom in/zoom out" feature operates at these preset intervals. One can pan left or right (at about 1° intervals) or pan up or down (at about 30' intervals) using Windows scroll features. Facility with a mouse is a definite asset. Since numerous other library and reference tools are also migrating to Windows-based versions, many library users will find the *Times World Map* familiar and easy to access.

World maps are displayed in familiar Times Projection, which produces a pleasing screen display. All maps, political and thematic, are choropleth, based on country boundaries. Although a standard and valuable feature in paper Bartholomew Times atlases, there are no hypsometrically tinted relief maps here. Mountain ranges are rather inelegantly portrayed with hatch marks. The lack of elevation information is an unexpected deficiency in this product, as a basic physical geography map would seem a standard inclusion in a balanced world atlas.

There are some minor annoyances in the operation of this electronic atlas. The context-sensitive Hints panel was not responsive to mouse movement in the version tested. The legend box for political maps always contains a series of unexplained (and unnecessary) colour boxes, and the contents of the legend box are not specific to the map on-screen. Using the default colour palette, selection of a country causes it to turn a solid dark blue and erases all detail within its borders, although name fragments extending beyond the country boundaries remain. An extra step is necessary to redraw the detail within the selected country. In the Comparative Sizes tables, it is possible to select a feature and then choose Pinpoint or Look At for a map display. Unfortunately the Comparative Sizes window does not automatically shrink or close, so the map is not visible behind it.

On the other hand, there are some excellent features in the *Times World Map*. The presentation of statistical data in a format that looks like an index file with guide cards is logical and easy to use with a click of the mouse. The ability to select countries and any combination of desired statistical data, and then to sort this data into ascending or descending order and display it as a table or chart, is valuable for students doing comparative studies. Only one style of horizontal bar graph is possible. The Help feature is very thorough in providing definitions for statistical terms used. Both the User's Guide and the on-screen Help are well written and easy to comprehend.

The Country Information descriptions are very current and topical, and for that reason surprisingly time sensitive. For example, Canada's description mentions the federal seat redistribution following the October 1993 election and the N.A.F.T.A agreement of November 1993. The text descriptions cover physical geography, climate, politics, recent history and economy for each country in

paragraph form. 'Datacards' provide political, economic, demographic and health statistics for each country. Statistics provided in this section are also used in the generation of the world thematic maps. Unfortunately, there is no information provided on the date or the sources of any of the statistical material, either in the *Times World Map* itself or in the User's Guide. This is a considerable drawback in an educational tool where the currency and authoritativeness of the source are important.

As with any world map, there are limitations to the amount of detail provided. Even the largest scale views cannot show all cities. However, the choice of cities portrayed is puzzling and obviously not strictly a matter of scale. Hamilton, Ontario (population 451,665) is not shown at any scale. However, Waskaganish and Chisasibi, two terres réservées on James Bay (populations 1,344 and 2,306 respectively), are shown even at 1:16 million. A tip in the User's Guide (p.19) suggests that city symbol size may be used as "a quick way to estimate the population of cities and towns", but this would seem to be invalidated by assigning the same size symbol for Waskaganish, Chisasibi, Winnipeg and Quebec City! It is also interesting to note that Buffalo, New York is now farther away, perhaps to discourage cross-border shopping. This product does advertise itself as a world map and perhaps its greatest strengths are at that scale.

Of considerable value for students are the 51 thematic world maps, ranging from 'Aid Donated (as a % of GNP) to 'Work Force Employed in the Service Sector (%)'. Most themes are demographic or health-related. There are several excellent features associated with adjustment of data ranges and breakpoints for map display, which make these seemingly simple choropleth maps capable of variations in emphasis to suit the user. The colour palette is also quite extensive, with nine pre-set combinations and the potential for further custom selection. The *Times World Map* displays another admirable feature in a product offered for public use in a library: all selections revert to default upon exit.

Overall, the *Times World Map and Database* is a useful, simple and easy to operate world atlas for student use. It displays considerable technological sophistication in comparison to the first offerings in this field, but is not the final phase of development in digital geographic information tools. Rather it is a good quality milestone and worth including in a library collection as a representative and introductory electronic atlas of the world.

Cathy Moulder
Lloyd Reeds Map Collection
McMaster University
Hamilton, Ontario

TOPOGRAPHIC MAPPING OF AFRICA, ANTARCTICA, AND EURASIA. Mary Lynette Larsgaard. Western Association of Map Libraries Occasional Paper No. 14. Provo, Utah: Western Association of Map Libraries, 1993. $45 US ISBN 0-939112-29-9. Order from: WAML, c/o Richard E. Soares, P.O. Box 1667, Provo, UT 84603-1667.

"This is not a volume with which one settles down by the fireside for a cozy evening of reading, glass of cognac in hand - not unless it is a very large glass of cognac." (p.xviii). And so I took Mary Larsgaard's advice when I began to review her most recent tome, *Topographic Mapping of Africa, Antarctica, and Eurasia*. Rest assured, it was a large glass. This work could not be reviewed in isolation because it is the companion volume to Larsgaard's other work; *Topographic Mapping of the Americas, Australia, and New Zealand* (Libraries Unlimited, Inc., Littleton, Colorado, 1984 ISBN 0-87287-276-9) It is for this reason that much of the review process became comparative.

I would first suggest that readers consult the review by L. Sebert (*ACMLA Bulletin*, No. 53, Dec. 1984 pp. 42-44) to get a more detailed analysis of the first volume in this two volume set. One noticeable difference between the two volumes is that the first begins with a very good and valuable discussion of topographic maps and the methods of mapping. Considering the vast changes in mapping technologies and techniques which have occurred since the first volume was published, one might have expected that the second volume would have discussed this in more detail; and there is a final chapter in the 1993 volume which does cover recent changes. In fairness to both the subject matter and the author, it is probably best that a long analysis of the methods of topographic mapping in the latter part of this century be left for another work.

One very significant feature of this work is the exhaustive bibliography. Larsgaard has done what most would not even think of attempting. Researchers should also note that Larsgaard had the rare foresight to explain the bibliography and refer the reader to previous compilations of cartographic references. It is also interesting to note the use of Pierce Butler's quote in the second volume - "Bibliography is the geography of the book world". By combining the lists of references of both volumes, one will get a very well rounded, historic and useful source of information about cartography. This is a significant piece of work in its own right!

In a first read through it seemed that both volumes did not have enough maps showing the extent of topographic

coverage in particular places. However, the purpose of these texts is not to map out coverage, but rather to explain how and why the mapping occurred in the way it did. It is also to give a detailed listing of the various series that have been produced, when they were produced, by whom, and a whole variety of intriguing aspects on the development of topographic mapping. Turning to Africa as an example, Larsgaard includes sub-topics about mapping by colonizers - an excellent notion, and timely apropos of recent discussions centred around the world in 1492. It is also valuable from a historic perspective because the text gives a solid outline of the course of events that saw topographic mapping move from the military to civilian domains, and from the colonizers' tool to the independent nations' struggle to develop domestic mapping services.

One minor point of criticism, which would apply to the first volume as well, might be that the temporal aspects of the maps included are a little weak in the choice of choropleth shading. It is harder to see temporal progressions over space with a choice that mixes points with lines. Perhaps variations in density of points or lines only might have served better. This is a minor point, and really the only criticism I could find - although it may have been better to include tables as insets so that they would not be broken up.

To find errors or omissions in that data presented would be a daunting task; especially considering the amount of research that was done for both volumes. Also, as the author states, this work is a compilation from many sources.

Larsgaard's choice of scale is well defined (maps at 1:250,000 or greater) and well supported by explanations in both volumes. She has included a very good index and summary of findings. Finally, the purpose of these volumes is to act as a detailed reference book. In this regard, Larsgaard does a superb job after many years of effort (well over 15 years for both volumes) and should be saluted by map librarians, not to mention cartographic historians. In recommending this text, as well as thanking Larsgaard for helping to explain map librarianship to many students and neophytes through some other fine works, it is proper to leave the last word to L. Sebert from the review of the first volume (he said it best). "All map libraries need this text. This must be evident from the foregoing description, but it is best to say it."

James Boxall
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MAPPING HONG KONG: A HISTORICAL ATLAS. Hal Empson. Hong Kong : Government Information Services, 1992. 251 p. $64.50 US. May be ordered from: Hong Kong Government Information Services, Publications Office, Battery Path, Central, Hong Kong.

Are you looking for something special for that cartophile you know? Do you need some historical maps to fill in your East Asia collection? Do you have an Asian gap in your history of cartography collection?

Mapping Hong Kong is an ambitious book written by Hal Empson, former Senior Cartographer with the Hong Kong Government, a man with a deep love and understanding of maps and Hong Kong. He tells the history, in English and Chinese, with the aid of 121 maps and numerous other illustrations, from the oldest existing map of China, carved in stone in 1137 to a Landsat image, and a digitized map of 1992. In his introduction, Empson acknowledges the influences of Dutch and British cartography on the Chinese, but makes a case for the influence of Chinese cartography on western civilizations.

The atlas is divided into seven chapters: *The Shape of Hong Kong; Topographic Maps; Detailed Mapping of Central, Chan Wai and Beyond; Detailed Mapping of Kowloon; Detailed and Cadastral Mapping of the New Territories; Aerial Photography;* and *Special Maps*. The text is generally in two columns, one English, the other Chinese. Each double-spread of text has one of three 1846 views in a 7-centimetre band across the top. Two maps are generally described on each page, usually in three columns: date, plate number, description of map and source of reproduction, in English and Chinese text, with a small reproduction of the map. Other illustrations, ranging from anonymous sketches of sailing ships to reproductions of watercolours, are scattered throughout the text, especially in Chapter 1.

The second part of the atlas is composed of the reproductions of the maps described. The one line captions, in English and Chinese, give the plate number and date and a description which may include the author and title. The maps in Chapter 1 have selected places marked with numbered yellow dots, and a legend with the transliterated, English or anglicized names. In addition to these maps, the atlas begins with Jodocus Hondius' 1606 map of China, and the Chinese map of 1137, and ends with Speed's 1626 *The Kingdome of China*. The reproductions are clear and attractive. The miniature versions in the text allow the reader to see the subject of the author's

description, without having constantly to flip back and forth, and then enjoy the full-page reproductions later at leisure.

It is not altogether clear what the author intended this book to be. It is certainly an attractive "coffee-table" book, and is a fine memorial for Hong Kong, which will be reunited with China in a few years. It is an informative, if brief, history of Hong Kong and the New Territories region. It could have been an even finer book with a few additions. At the end of the introduction, Empson gives his acknowledgements with notes on copyright and quality of reproductions, and a short bibliography. A glossary and a short chronology would have been helpful. The first chapter would have been helped considerably by a key map locating the various islands and important features in the colony for those readers not intimately familiar with the area. There is no list of plates, and more importantly, there is no index. Minimal information has been given for any of the maps. Titles in captions and text usually do not match the actual titles on the maps. Scale, other than for series, and size, unless exceptional, are rarely mentioned.

No mention is made of the geological survey of Hong Kong made by Dr. Reginald W. Brock, a former director of the Geological Survey of Canada and Dean of Applied Science at the University of British Columbia. In 1923 he began a geological survey of Hong Kong which was carried out by him and other UBC geologists over a number of years. The geological map was published by the Ordnance Survey in 1935. The manuscript sent to Hong Kong in 1939 was lost during the War, and a replacement was sent from UBC in 1948. His papers relating to this survey are in the University Archives. Also absent are fire insurance plans and bird's-eye views. Were any made of Hong Kong?

Despite its flaws, this is a very interesting, useful and attractive book which deserves to be in any library with an interest in the history of cartography. It would be of interest in any libraries with significant Chinese patrons (such as in Vancouver!). It is perhaps too expensive for the average map collector to purchase, but one can always live in hope of a gift or a good sale.

Frances Woodward
Historical Maps & Cartographic Archives
University of British Columbia Library
Vancouver, Canada

FINDING AND COMMUNICATING GEOSCIENCE INFORMATION: GEOSCIENCE INFORMATION SOCIETY PROCEEDINGS, VOL. 24. Connie Wicks, ed. Alexandria, VA: Geoscience Information Society, 1994. $45 US ISBN 0-934485-22-4 ISSN 0072-1409. Available from: Geoscience Information Society, c/o American Geological Institute, 4220 King Street. Alexandria, VA 22302.

The Geoscience Information Society meets each year concurrently with the Geological Society of America. The GIS papers are presented as part of the GSA program and published separately as the GIS proceedings. Volume 24, the proceedings of the 1993 Boston meeting, includes invited papers, contributed technical papers, and contributed poster session papers. The papers are generally of high quality and range from broad syntheses to site-specific applied research.

There are several highlights. Steven Hiller's paper "Geoscience information and libraries..." supplies a good review of the state of geoscience information and offers some directions for the future. "Characteristics of geoscience serial use by faculty and students" by Michael Noga and others will be a particularly valuable paper to geoscience librarians who are facing serial cancellation or rationalization projects. It supplies a methodology for the study of serials use and also some interesting findings. The most interesting is that, at least for the three libraries studied, a larger number of serial titles are required to satisfy 80% of the needs of geoscientists than are required to satisfy 80% of the needs of researchers in other disciplines studied.

Two papers are of particular interest to map librarians. David Cobb's paper is a good review of the issues surrounding GIS and its impact on libraries. Lisa Dunn's paper on the Internet reviews some of the core terminology and issues and supplies an appendix listing geoscience resources on the Internet. Other papers deal with such diverse topics as a database related to the South Carolina continental shelf, the role of photographic archives in earth sciences, an assessment of the seismology and volcanology collection at University of Alaska, Fairbanks, and information sources on gold mining.

With the exception of an invited paper by Berlinda Kerkhof, representing Elsevier Science B.V. of The Netherlands, all of the papers are by people associated with American institutions. Most of the papers have universal interest in the field of geoscience information and some include Canadian content in their studies. However, a few are limited to U.S. subjects. For example, Craig

Schiffries "Communicating with Congress..." and Terry Maley and Bob Randolph's "Unique and geologically significant resources on public lands" will be more useful to American geoscientists and information professionals than they will be to those in Canada.

Overall, this is a useful volume, which most geoscience information professionals will want to include in their libraries.

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CANADA AND THE WORLD: AN ATLAS RESOURCE. Geoffrey J. Matthews and Robert Morrow, Jr. Scarborough, Ontario: Prentice-Hall Canada Inc., 1995. 220 p. $28 CAN ISBN 0-13-370073-9. Available from: Prentice-Hall, 1870 Birchmount Road, Scarborough, Ontario, Canada M1P 2J7

This is the second edition of *Canada and the World*. The first edition was published in 1985 and is a popular atlas in secondary schools. In hard-bound format, with full colour, on glossy paper, the atlas is a cornucopia of maps, charts, tables, photographs and text on many aspects of the physical and human geography of Canada and the world. The atlas includes a section on Canadian and international statistics, a glossary and a gazetteer. Although intended for secondary school use, the atlas fills a niche at lower level undergraduate geography courses and will be of interest to anyone with a need for an up-to-date thematic atlas. One hopes that the teacher's manual which accompanied the first edition will be revised, for the scale and nature of the revisions to this edition make the earlier manual unuseable.

The Canadian section of the atlas opens with three historical plates which examine, respectively, exploration, settlement and territorial evolution. These are followed by a series of 26 plates, each of which addresses a contemporary demographic, environmental or economic theme, including: First Nations populations, agricultural diversity, mineral resources and manufacturing. The Canadian portion of the atlas concludes with 15 large scale plates which examine six clearly defined regions in more detail - the Far North, the Near North, the Western Mountains, the Prairies, the Great Lakes - St. Lawrence region, and Atlantic Canada. Here a variety of aerial photographs, insert maps, graphs and tables document regional characteristics. Taken together, with sample topographic map sheets for each region, this section of the atlas is especially useful for classroom exercises and activities.

The remaining plates in the atlas are devoted to the rest of the world. A series of small-scale world maps (1:175,000) showing climate, physiography, population, food, trade and tourism are simply and clearly presented. The present (1992) and projected population of world cities is dramatically produced using single bars beside the urban centres on plates 101/102. Global environmental issues maps are new additions to the atlas but they could have benefitted from enlargement (plates 117/118, 119/120). On the other hand, some of the world regional maps seems unnecessarily large for the amount of information they convey. More information is generally desired on the regional maps of Canada. For example, the names of electrical generating stations, mines, pulp mills, and highways would seem to be easy to add to the appropriate maps and make them more useful and interesting.

There are some additional changes throughout the atlas from the earlier edition which are worth noting. Vibrant colours makes the new edition more eye-catching and the 37 additional photographs make the new edition considerably larger than the first edition. Some map plates remain basically the same but many new ones have been added. An environmental slant is evident in the renaming of the "Logging" plate "Forest Management" and political correctness is reflected in such new plate titles as "First Nations" (instead of "Native Peoples"). A large plate entitled "Military Power" in the 1985 edition has been replaced by a smaller inset in the new edition and First Nations names have been added to the map of Canada before 1600 (p.1). The most welcome addition to the new edition is an index to the Canadian and world sections.

There are few obvious errors or typos in the atlas but on the "Western Exploration" map showing Canada's First Nations populations (plate 314) some names such as Secwepeme, Haisla, Nisga'a, Se'Shalt, Stl'alt'imx are in the wrong location. More problematic are certain idiosyncratic features of the atlas which may present problems for some people. Regional relief maps depart from the traditional hypsochromes and use a skin-tone for the lowest elevation. This may cause initial confusion to some users and makes it difficult to use these plates in conjunction with other atlases. Curiously, the traditional hypsographic tints are used in the general "Relief" plate (pp.16-17). Colour rendition is also a problem on other plates, especially "Soils" (pp.31-32) where chernozemic

soils and brown podzols appear as almost the same tint.

But the most serious problem with this atlas is not the fault of the plates but the design and production of the book itself. Many plates extend over two pages and in these cases some information such as place names (including some of new east European countries), pie graphs and bar graphs, becomes lost in the spine of the binding. Over 45 maps are reproduced this way. This problem could have been remedied by turning some maps horizontally on single pages, by changing the layout, or by reducing the size of the maps. The *Canadian Oxford World Atlas* (1992) is a good example of how such map spreads can be handled.

Any publication in full colour and as complex as this one is beset with the problems of keeping costs down, yet ensuring a useable and attractive product. *Canada and the World* is a good atlas, with much to recommend it. One can overlook the layout and production flaws and admire the variety and abundance of information. Despite some slight blemishes, *Canada and the World* is a handsome and useful atlas, aimed at the serious student.

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ATLAS HISTORIQUE DE MONTRÉAL. Jean-Claude Robert. Montreal: Art Global et Éditions Libre Expression,1994. 167 p. $59.95 CAN ISBN 2-920718-48-7.

This atlas depicting the history of Montreal is a wonderful volume. Jean-Claude Robert, a professor of history at the University of Quebec at Montreal, has brought together a collection of maps, photographs, and diagrams, some old and some new, to portray the evolution of the City. There are forty-one colour plates which start with the last glaciation period and end with the Lansat photo of the metropolitan region in 1989.

The work is divided into six chronological periods. These are: Montreal before the city was founded; the missionary foundation of Ville Marie (1636-1663); the second foundation, (1663-1669); the gateway to the west, the fur-trading and port city (1700-1799); from town to metropolis, commercial and industrial growth (1800-1899); and finally, from Canadian metropolis to Quebec metropolis (1900 to the present). The visual materials are accompanied by a clear and brisk text, with excellent footnotes.

The *Atlas Historique* brings to light all sorts of interesting aspects of the urban growth of Montreal. Examples are the development of the Old City, the evolution of downtown, the origins of selected neighbourhoods, the original layout of the Lachine Canal, the Harbour Commissioners activities, the forces which structured industrial location, and the demographic changes which have sculpted the face of Montreal. Some facets of history have been re-interpreted, such as Herbert Ames survey of the "City Below the Hill", while other plates are direct reproductions, and evoke the times by their style and titles. The "Automobilists' Map of the Island of Montreal and District" dating from 1920, is a very fine and enjoyable example.

While the choice of themes, the illustrations and the robust text, are all very well done, the atlas has its limitations. Some of the maps have not reproduced well, or tend to be a little fuzzy. Plate 38, Montreal's downtown, while containing excellent information is a bit dim, as are some of the demographic distributions shown in Plate 39. But these are minor quibbles when set against the wealth and variety of material portrayed.

This atlas will appeal not only to students of urban development (for whom it will be invaluable) and scholarly residents of Montreal, but will excite the interest of an enormous variety of people. There is something it in for everyone, whether it is the detailing of an inner city neighbourhood or a map of the vast hinterland of Montreal in the heyday of the fur trade. At $59.95, it is an extraordinarily good buy, and would make a splendid present, and one to which the browser and the researcher will turn to, time and time again, and enjoyably learn something new.

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ATLAS ELECTRONIQUE DE L'EVOLUTION DE L'AGRICULTURE DU QUEBEC 1981-1991. Version 1,1. Projet collectif sous la coordination de Majella-J. Gauthier. Chicoutimi: Les Laboratoires de Geographie, Universite du Quebec a Chicoutimi, 1994. (For PCs on a Windows platform) For order information, contact: Les Laboratoires de geographie, Att. Majella-J. Gauthier, Departement des Sciences humaines, Universite du Quebec a Chicoutimi, 555 boul. de l'Universite, Chicoutimi, Quebec G7H 2B1

This electronic atlas consists of a series of colour maps illustrating 26 pairs of agricultural variables relating to the 97 regional municipalities of Quebec where agriculture is practised and is designed to show changes that have taken place from 1981 to 1991. The data is drawn from the 1981 and 1991 censuses, conducted by Statistics Canada, is on disk, and is accompanied by a brief descriptive booklet. The booklet outlines the objectives and methodology of the project, the design of the graphics, software used in preparing the disk, instructions on loading the disk, and a list of bibliographical references. Included in the foregoing is a list, with names, of all displayable files on the disk, a list of the 97 regional municipalities (grouped by agricultural region) that have agricultural activities within their borders, and maps of: a) the 12 agricultural regions included in the 1991 census, b) the 97 regional municipalities with agricultural activities, and c) the regional municipalities in the south of province with agricultural activities.

The files include information on land use and field crops, livestock, as well as farm capital and economic returns. For each commodity such as wheat, there are three files that provide a cartographic display of the number of hectares grown in 1991, the change in the number of hectares grown from 1981 to 1991, and the relative percentage change from 1981 to 1991. Relative change is represented in five intervals; however, the intervals chosen are variable in percentage terms and are not rounded. For example, percentage ranges such as 3.8% to 4.6% are used.

The zoom feature allows the user to examine a very specific area although the resultant image can be rather crude and difficult to interpret. The absence of tabular data requires the user to consult census tables to obtain numeri cal data. The version of the program that was examined contained an error. The data for file 52, the area of greenhouses for 1991, was missing and a duplicate of file 53, the change in area of greenhouses from 1981 to 1991, had been substituted.

Feedback from two instructors and a student indicates that at least some tabular data would be a useful addition to the atlas. Both instructors considered the atlas a useful instructional tool, especially suited for a broad survey course in economics or a course in agricultural production. The creators of this atlas hope to make it available on the internet and are working on a similar agricultural atlas on the municipal level for the Saguenay-Lac St. Jean region.

Bruce Grainger
Head, Public Services
Macdonald Campus Library of McGill University

MAPS ARE TERRITORIES: SCIENCE IS AN ATLAS. David Turnbull. Chicago: University of Chicago Press, 1994 72p. $12.95 US ISBN 0-226-81705-8.

Maps are Territories is one of the most engaging, critical, and provocative works on maps that I have read. Through cross-cultural and comparative historical examples, it challenges a number of Western ethnocentric and scientistic assumptions about what a map is, along the way showing how all maps are shaped by, and represent, particular political and practical interests. The book or "portfolio" is made up of 11 chapters or "exhibits". The visual emphasis of these terms is not only metaphorical: They prepare you for the fact that most of what will be read are maps, all of them wonderfully reproduced and placed, many of them in colour. Moreover, the book demonstrates how to read maps in critical ways. This is achieved partly through the careful choice and arrangement of supportive explanatory texts from a number of cross-cultural, literary and academic sources. Thus, for example, a Chippewa land claim map presented to Congress in 1849 is displayed along with the original accompanying text which explains how the map's animal imagery and ordering relates to Chippewa notions of tribal lineage and relations to the land.

More importantly, the portfolio makes critical theoretical and practical points about maps without using jargon and without sounding pedantic. For example, by pointing out that there is no way to gain direct unmediated experience of the world (we always experience the world through some kind of material medium including our bodies), maps are argued to be just one kind of representation through which we know and construct the world. In this sense, maps are territories. Moreover, it is argued that visual map conventions are part of a complex of "linguistic practices and social structures that are 'given', without which there can be no talk, knowledge or social relations" (page 10). Based upon this premise, Turnbull goes on to deconstruct the difference between maps and pictures in terms of subject positions and power: a picture is supposed to record the subjective creativity of a particular individual (the artist), for which reason it is customarily viewed as a medium of (visual) pleasure, not politics; in contrast, a map is supposed to register universally objective facts which have some kind of functional effect; they allow one to operational knowledge and thus exert control over a particular domain. Turnbull shows, however, that such "objective" fact and endeavors belie political (for example, state) authorship which, through less easily singularized or locatable, is nonetheless intentional and subjective. The similarity between maps as pictures is further supported by displaying a variety of maps that are also picture-like.

Using similar logic, Turnbull deconstructs Western-centric claims that non-Western "primitive" maps are indexical (they need some external explanatory referent in order to "make sense"—like the explanatory text for the Chippewa map) by showing the highly coded nature of Western cartographic systems. Topographic lines and geological conventions, for example, make no sense unless one has been initiated into the cognitive and disciplinary systems that make and use them. Thus, Western maps only "appear" nonindexical, completely objective and decipherable and, only then, to those who are situated within the realm of linguistic practices and social structures that give the various coded lines and symbols meaning. The debate over indexical and nonindexical maps is additionally tied to issues of power: those with greater technological and material means are able to impose and circulate their particular meaning systems in ways that help consolidate and extend their power.

Part of the success of this portfolio undoubtedly derives from the writer's ability to speak with great clarity and depth using language that is accessible to a broad range of audiences. Thus, despite the fact that a tremendous amount of information from a variety of sources is being communicated in relatively few pages and in imaginative ways, I never felt exasperated or lost. The overall sense was of an invitation not only to explore various spatial representations, but to have that exploration always hard back to the position and biases of those making and/or reading the maps. I personally will use the book in a graduate seminar on [Travel] -writing and Imperialism, but would feel just as comfortable using it in an introductory course in cartography or world regions, or even giving it to someone outside the academy with interests in maps or inter-relations between maps and power.

It would be noted that the portfolio was prepared with five others as part of a "Nature and human nature' course offered by the School of Humanities in Deaking University's Open Campus Program (Geelong, Australia).

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PUBLICATIONS RECEIVED

Carol Marley

ALL OVER THE MAP: AN EXTRAORDINARY ATLAS OF THE UNITED STATES FEATURING TOWNS THAT ACTUALLY EXIST! David Jouris. Berkeley, CA: Ten Speed Press, 1994. 96 p. $9.95 U.S. (pap) ISBN 0-89815-649-1. Available from: Ten Speed Press, P.O. Box 7123, Berkeley, CA 94707. Tel: (510) 559-1600, Fax: (510) 524-4588.

The title of this delightful atlas is a tipoff to its contents. The author hopes that this atlas will help make geography more enjoyable. He has achieved his purpose. A partial listing of contents gives the flavour of the atlas—artistic maps, eccentric maps further divided into curiously juxtaposed, misspelled, unimaginative, and miscellaneous maps subdivided into pessimistic, optimistic, exotic, confusing, Christmas. Nothing is done by half measures. Even the colophon has a topographical map allotted to it, the community of Type being located in Texas. Apt quotes accompany the maps; e.g. "The meek shall inherit the earth—but not the mineral rights," (with the mineral map), and "Confusion is a word we have invented for an order which is not understood," (with the confusing map). Having sampled this atlas I am eagerly awaiting Jouris' next effort, hinted at on the upcoming map, on which is located the town of Next. Quote for the map, "Even in a perfect world, where everyone was equal, I'd still own the film rights and be working on the sequel."

BOISE VALLEY ROAD ACCESS AND RECREATION GUIDE. Ian Parfitt. Scales vary. Vancouver, B.C.: Western Canada Wilderness Committee, 1994. $6 CAN for WCWC members, $6.95 CAN plus postage and GST. Available from: WCWC, 20 Water Street, Vancouver, B.C., Canada V6B 1A4. Tel: (604) 683-8220 Fax: (604) 683-8229.

The map provides access information to the Upper Boise Valley, the closest unspoiled wilderness area to Vancouver. A rough trail runs the entire length of the Pinecone Lake-Burke Mountain Study Area, currently under consideration by the B.C. government for official protection. This area contains hundreds of mountain lakes, alpine

peaks and the region's finest old growth forests, the Widgeon Slough canoe area and remote coves and beaches at Pitt Lake.

The map explains how you can visit Boise Valley. One side locates the wilderness in relation to Vancouver and various provincial parks. The other sides zooms in (scale 1:25,000) on the trail, providing legible contour lines, noting features along the trail and areas of ancient temperate rain forest. WCWC hopes that you will join their effort to demand protection for all of Vancouver's backyard wilderness. This is an excellent example of cartography used in support of environmental advocacy.

GIS APPROACH TO DIGITAL SPATIAL LIBRARIES. Redlands, CA: Environmental Systems Research Institute, 1994. 30 p.

Part of the ESRI White Papers Series, this document discusses libraries and GIS, in particular the building of a digital spatial library with GIS. The University of California at Santa Barbara Map and Imagery Laboratory, with its voluminous collection of maps, imagery and aerial photography is treated as a model project.

MIL's goals are to provide rapid access to a large volume of archival data for library users, to protect the collection from deterioration caused by direct physical handling and to promote optimal use of staff time. The intent of the project is to allow users to access collection information directly, and to apply staff time to satisfying more difficult patron support tasks such as digital integration.

A useful feature of the paper is a mini glossary providing basic terminology. Appendix A features a table merging two metadata standards relevant to a digital library of spatial data, CSSM and US Marc fields and tags (the Library of Congress's Machine Readable Cataloguing format). This paper should be in the hands of any library aspiring to collect and organize digital data. It is available for the asking. Contact ESRI, Tel: (909) 793-2853, Fax: (909) 793-5953.

ITMB publishes a large number of tourist maps. Some recent favourites are described below.

VIETNAM: AN INTERNATIONAL TRAVEL MAP. Scale: 1:1,000,000. Vancouver, B.C.: ITMB Publishing; Hanoi: Cartographic Mapping Institute, 1994. $8.95 CAN, $6.95 U.S. ISBN 0-921463-49-9.

This is a special map, developed through a joint venture between the government map office in Hanoi and a Vancouver mapping firm. Jack Joyce of ITMB, in a short essay on Vietnam's recovery, says, "If ever a map was created as a fervent dedication to the memory of those who have suffered tragedy, this is such a map." The map features the north on one side, the south on the other, and is designed to help the visitor become acquainted with the cultural and historical heritage of Vietnam. The inset city plans for central Hanoi and Saigon pinpoint places to stay, restaurants, points of interest, embassies and travel agencies. Both sides of the map are uncluttered and easy to read because they do not attempt to show all the features of this country of 71,000,000 people. For that we will have to wait for a series of regional tourist maps, promised in the future.

BERMUDA. David Sami and Chandra Ali. Scale 1:25,000. Vancouver, B.C.: ITMB, 1994. 6.95 CAN, $4.95 U.S. ISBN 0-921463-37-5.

This map will make you want to steal away to Bermuda at the earliest possible opportunity. The Bermuda Islands all appear in panoramic view on one side of the map. As much attention is given to ocean features as to those on land. Bathymetry is shown and hundreds of reefs encircling the islands (although the legend does not actually indicate a symbol for reefs). Ferry routes and distances are marked. Land side, golf courses, parks, roads, trails and beaches are demarcated. Colours range from cool blues to warm greens, with red and orange accents for roads and beaches. The map is informative, attractive and would make a good souvenir to hang on the wall, by which to remember your trip.

VANCOUVER ISLAND. David Sami and Chandra Ali. Scale 1:400,000. Vancouver, B.C.: ITMB, 1994. ISBN 1-895907-50-0.

Another attractive map by the Sami-Ali team, this is both a road map and a contour map. The level of detail is quite good. There is so much interest in development and its effect on the island's environment, that this map ought to be in any Canadian map collection.

NEPAL. Scale 1:800,000. Vancouver, B.C.: ITMB Publishing; Tenterden, England: Estate Publications, 1994. $9.95 CAN, $7.95 U.S. ISBN 0-921463-49-9.

Looking much like the Nelles map of several years ago, this lovely map shows relief, is very legible and claims

to have a better scale than any other product. There are a number of photographs of people and scenery inset on a soft yellow background. The country is portrayed in warm greens and soft blues, floating on the warm background. Other insets include maps of Kathmandu City (scale 1:15,000) and the Kathmandu Valley (scale 1:20,000). Relief, such an important feature in this mountainous country, is most attractively portrayed.

THE HAMMOND ATLAS OF THE WORLD. American ed. 3rd printing. Maplewood, N.J.: 1992. 303p. $69.95 U.S. ISBN 0-8437-1175-2.

In 1992 Hammond produced what it describes as "the flagship of a new generation—the first atlas created entirely from a digital data base." At the same time the company introduced a new map projection, Hammond's Optimal Conformal, which attempts to produce the most distortion-free map for a given area as is possible. The result is, according to Hammond, "the most accurate atlas ever produced." This atlas is informative and attractive. The colour scheme is successful, except for the 3-dimensional map of land and water surfaces, which is garish. There is a master index of 115,000 place names (latitude and longitude not given), a useful section on the history of cartography and map projections, instructions for atlas usage and a table of populations of major cities of the world with more than 100,000 inhabitants. A topical section is that on global relationships, featuring plates on environmental concerns, world population, language and religions, living standards, energy and resources, agriculture and manufacturing, climate and vegetation.

Many of you will already have a copy of this atlas in your collections, or the French version marketed by Larousse (ISBN 2-03-521100x). The atlas may also have been marketed in Canada by Oxford University Press as the *Oxford Hammond Atlas of the World* (ISBN 0-19-869222-6). The first two titles are one and the same, with the exception of the introductory pages. I bring the atlas to your attention because it is an attractive atlas and belongs in most map collections, also because it is the model upon which Hammond's Odyssey atlases are based (see below).

HAMMOND ODYSSEY ATLAS OF THE WORLD. Maplewood, N.J., 1994. 72 p. $6.95 U.S. (pap) ISBN 0-8437-1188-4.

The computer-generated maps from this recent atlas of the world show the latest political boundaries. The atlas contains a section on the flags of each country accompanied by most recent population figures, a names index with 7,000 entries and a brief history of map projections. The colour scheme for the political maps is new and pleasing. Most small format atlases have a very cluttered look because of the number of place names presented, as is the case here, although the close-ups are pretty legible e.g. Southern Africa. Many of the symbols which appear in the key are not found on the maps in this volume. They are, however, used in a companion volume.

HAMMOND ODYSSEY ATLAS OF NORTH AMERICA. Maplewood, N.J., 1994. 72 p. $6.95 U.S. (pap) ISBN 0-8437-1189-2.

Billed as covering the entire geographic area incorporated in the North American Free Trade Agreement, this companion volume to the world atlas is organized in similar fashion. Reasonably priced, these atlases will be essential reference works in homes, offices, schools and libraries.

GEOMATIC DATA SETS CATALOGUING RULES. Velma Parker, ed. Ottawa, Canada: Canadian General Standards Board and the Canadian Library Association, 1994. 84p. $65 CAN ($5.40 handling charge) Available from: CGSB Sales Centre, 222 Queen Street, Suite 1402, Ottawa, ON K1A 1G6. Fax: (613) 941-8705.

Map libraries are automating at a fast pace, and increasingly the information in these libraries is in digital, rather than paper, format. The cataloguing of this information is a challenge for librarians who are accustomed to dealing with paper-based maps and charts. In response, a committee was formed, to study the need for standards in the area of geomatics (geographically referenced computer data). The result of the committee's work is the title under review, based on the second edition revised of the *Anglo-American Cataloguing Rules*. It has the blessing of the Canadian Library Association, the American Library Association and the Library Association, joint copyright holders of AACR2R, who have licensed the Canadian General Standards Board to reproduce and modify AACR2R. No library with spatial data can afford to do without these standards. Highly recommended.

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REGIONAL NEWS

Melissa Leitch

ALBERTA

University of Alberta, Cameron Library (Sandy Campbell)

The William C. Wonders Map Collection has completed most of its move to Cameron Library. The circulating map collection, Reference collection and Atlas collection are all now located on the Main Floor with lots of natural light and much more consultation space than was available in the old location. The rare map and atlas collection, together with the aerial photographs and workspace will be located on the lower level of Cameron Library. Service to the collection will be integrated with the services of the Science and Technology Library. Reference (403) 492-7912, FAX (403) 492-2721.

BRITISH COLUMBIA

University of Victoria (Lori Sugden)

The Cartographic Resource Centre is beginning to catalogue their maps. The first twenty map cataloguing records have been entered into the Univerisity Libraries' VICTOR database on the UVVM mainframe. There are some small problems to work out but, the response has been great with some catalogued items already being borrowed.

ONTARIO

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

Two user studies were carried out, in November and March. The results of the studies showed that between 100 and 200 patrons visit the Map Library per day with the average being 112. The number of questions asked requiring assistance averaged 50 per day with time varying from a few minutes to an hour. We found it interesting that basically every other person visiting the collection needed assistance. It was not possible to do a more thorough user study for types of material used and quantity of materials, but for the most part atlases and topographic maps are the most heavily used items.

University of Ottawa (Grace Welch)

Courtesy of the University of Ottawa Continuing Education Department, G. Welch, B. Robin and F. Williams along with B. Farrell and B. Ray from Carleton participated in the February 16th Teleconference on Digital Spatial Libraries organized by the Pennsylvania State University in University Park, Pennsylvania (see report elsewhere in this issue).

The public CD-ROM workstation has been heavily used this term. New digital products recently acquired include: Automap, Times World Map and Database, E-Stat 1994, Redshift, TerrainBase CD-ROM, Hydat (stream flow data), Climate Normals Atlas.

University of Waterloo, University Map and Design Library (Richard Pinnell)

For the past six months the UMD Library has had a number of staffing problems but the situation is about to return to normal. In October the department's secretary, Denise Paquette, transferred to the Porter Library; she was replaced by Catherine Marks in November. Illness forced one of the library staff, Mary Channen, to take an extended sick leave but she returned to work at the beginning of April. There are now six full-time staff working in the UMD Library: Amy Chan, cataloguer; Ann Naese, library assistant; Rosalind Rampersad, library assistant; Catherine Marks, clerk/secretary; Mary Channen, library clerk; and myself.

For the past three months several of us have been actively involved with a number of process mission groups. We have identified five functional groupings within the Library as a whole: client services, information resources processing, information resources development, needs assessments, and infrastructure. Ten to 12 staff members have been assigned to each group and charged with the responsibility of defining a mission for that group. For example, Amy Chan is a member of the Information Resource Processing group; Ann Naese is a member of Needs Assessment; and I am part of the Client Services group. The mission statement we develop is intended to be visionary and readily understood.

NOUVELLE REGIONALES

ALBERTA

Université de l'Alberta, Bibliothèque Cameron
(Sandy Campbell)

Le déménagement de la collection de cartes William C. Wonders à la bibliothèque Cameron est presque complété. La collection de cartes, la collection de la référence et la collection d'atlas sont maintenant situés à l'étage principal et bénéficient de beaucoup plus de lumière naturuelle ainsi que de plus d'espace pour la consultation que dans l'ancien local. La collection de cartes et d'atlas rares ainsi que les photographies aériennes et l'espace de travail seront situés à l'étage inférieur de la bibliothèque Cameron. Les services liés à la collection seront intégrés aux services de la bibliothèque de sciences et technologie. Référence (403) 492-7912, Télécopieur (403) 492-2721.

COLOMBIE BRITANIQUE

Université de Victoria (Lori Sugden)

Le Centre de ressources cartographiques a commencé a catalogué les cartes. Les vingt premiers fichiers cartographiques de cataloguage ont été entrés sur la base de données VICTOR des bibliothèques de l'Université, sur l'ordinateur central UVVM. Il y a encore certains problèmes à régler mais la réception est bonne et certains documents catalogués sont déjà empruntés.

ONTARIO

Université d'Ottawa (Grace Welch)

Ce texte a été gracieusement envoyé par le département d'Études permanentes de l'Université d'Ottawa, G. Welch, B. Robin et F. Williams ainsi que B. Farrell et B. Ray de l'Université Carleton ont participé à la seizième téléconférence de février sur les bibliothèques spatiales digitales organisée par la «Pennsylvania State University », dans « University Park », Pennsylvanie (voir le rapport plus loin dans ce numéro).

La station de travail publique « CD-ROM » a été grandement utilisée pendant cette session. Les nouveaux produits digitaux récemment acquis incluent : «Automap, Times World Map et Database, E-Stat 1994, Redshift, TerrainBase CD-ROM, Hydat (stream flow data), Climate Normals Atlas».

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

Deux études sur les utilisateurs ont été réalisées en novembre et en mars. Les résultats de ces études démontrent qu'entre 100 et 200 personnes ont fréquenté la cartothèque à chaque jour avec en moyenne 112 visites. Le nombre de questions posées et exigeant de l'aide est d'environ 50 par jour avec un espacement variant entre quelques minutes à une heure. Nous avons trouvé intéressant que de façon générale, une personne sur deux venant à la collection a besoin d'aide. Il n'a pas été possible d'effectuer une étude plus en profondeur des utilisateurs en ce qui a trait au matériel et à la quantité utilisée mais essentiellement les atlas et les cartes topographiques sont les plus utilisées.

Université de Waterloo (UW), Cartothèque et bibliothèque de design de l'Universié (Richard Pinnell)

Dans les derniers six mois, la bibliothèque de l'UW a eu certains problèmes au niveau du personnel, mais la situation se règlera sous peu. En octobre dernier, la secrétaire du département, Denise Paquette, a emménagé à la bibliothèque Porter; elle a été remplacée par Catherine Marks en novembre. Mary Channen, membre du personnel à la bibliothèque a du prendre un congé de maladie prolongé, mais elle est revenue au travail au début du mois d'avril. Il y a maintenant six employés à temps plein à la bibliothèque UW : Amy Chan, catalogueuse; Ann Naese, assistante bibliothècaire; Rosalind Rampersad, assistante bibliothècaire; Catherine Marks, commis/secrétaire; Mary Channen, commis à la bibliothèque; et moi-même.

Dans les trois derniers mois, plusieurs d'entre nous se sont impliqués activement dans plusieurs groupes sur les missions et processus. Nous avons identifié cinq groupements fonctionnels à l'intérieur de la bibliothèque comme tel : les services aux clients, les processus de ressources d'information, le développement des ressources de l'information, l'évaluation des besoins et les infrastructures. Entre 10 à 12 membres du personnel ont été assignés à chaque groupe et ont eu la responsabilité de définir la mission pour ce groupe. Par exemple, Amy Chan est membre du groupe sur le processus de ressource d'information; Ann Naese est membre du groupe d'évaluation des besoins; et je fais partie du groupe des services à la clientèle. L'énoncé de mission que nous avons développé se veut visionnaire et facilement compréhensible.

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REDISTRIBUTION OF HISTORICAL TOPOGRAPHIC MAPS

• NEW AND REVISED LISTS •

**STANDARD TOPOGRAPHIC MAPS 1:250 000 and 1:500 000;
1 INCH TO 1 MILE (numbered) SERIES; 1 INCH TO 1 MILE (GRID) SERIES; AND CANADA 1:126 720.**

**STANDARD TOPOGRAPHIC MAPS, SERIES 1:250 000, 1:500 000; 1 MILLE
(feuilles numerotees) AU POUCE; 1 MILLE (feuilles aux quadrillage) AU POUCE; et CANADA 1:126 720**

The Visual and Sound Archives Division, National Archives of Canada has the following topographic maps for redistribution. These plans are available by contacting our Division at 395 Wellington Street, Ottawa, Ontario. K1A 0N3 or by calling Heather Stevens at (613) 996-7639; fax (613) 995-6575; or Internet hstevens@archives.ca

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La division des archives visuelles et sonores, Archives nationales du Canada offre les feuilles suivantes en redistribution. Pour en faire la demande, veuillez communiquer avec la division au 395 Wellington, Ottawa, Ontario, K1A 0N3,ou avec Heather Stevens au (613) 996-7639; fax (613) 995-6575; adresse electronique hstevens@archives.ca

Unless otherwise noted the plans are in fair to good condition. Sauf avis contraire, la condition des plans est bonne a passable.

~ Requests should be submitted by October 1995 ~

Standard Topographic Map 1:250 000 (NEW LISTING)

2 SW	Hamilton	1916
2 SW	Hamilton	1928 (2 copies)
8 SE	French River	1916
10 NW	Baskatong	1930
10 SW	Ottawa	1925
12 SW	Megantic	1926

Standard Topographic Map 1:500 000 (NEW LISTING)

Index, n.d.		
7	Sault Ste. Marie	1938 (3 copies)
8	Sudbury	1937
9	Nipissing	1937 (2 copies)
10	Gatineau	1939
11	Montreal and Quebec	1937 (2 copies)
12	Montmagny	1937 (2 copies)
17	Kootenay	1937 (2 copies)
20	Calgary	1925 (2 copies)
30	Hearst	1928
32	Harricanaw	1922, 1936
38	Blanc Sablon	1921
45	Jasper	1926

Canada 1 inch to 1 mile (numbered series) (NEW LISTING)

3	Niagara	1908, 1930 (2 copies)
5	Dunville	1906
7	Fort Erie	1924
9	Morrisburg	1908
10	Brockville	1908
11	Mallorytown	1926
13	Winchester	1915
17	Cornwall	1928
21	Huntingdon	1925
27	Lacolle	1920
29	Long Point	1922
32	Tillsonburg	1922
39	Bothwell	1931
42	St Clair Flats	1924 (2 copies)
51	Perch	1929
60	Wolfe Island	1926
62	Sydenham	1923
63	Bath	1923
88	St Sylvestre	1926
91	La Patrie	1924
100	Westport	1929
101	Perth	1928
108	Oshawa	1930
111	Port Hope	1930 (2 copies)
113	Disraeli	1931

Canada 1:126 720 (NEW LISTING)

NOTE: Unless otherwise noted, maps with a, b, or c added to thedate show military edition.

11 K/NE	Cape Breton Highlands Park	1939 (2 copies), 1955 (2 copies), 1961 (2 copies), 1970 ed.4, 1970 ed.5
20 P/NE	Port Mouton	1931 (2 copies)
20 P/NW	Shelburne	1933 (2 copies)
21 A/SE	Bridgewater	1938 (2 copies)
21A/SW	Rossignol	1932 (2 copies)
21 B/SE	St. Mary Bay	1931 (2 copies)
21 G/SE	Saint John	1940, 1950 (2 copies)
21 H/SW	St. Martins	1934 (2 copies)

21 I/NW	Newcastle	1936 (2 copies)
21 I/SE	Moncton	1932 (2 copies)
21 I/SW	Chipman	1935 (2 copies)
21 L/NW	Quebec	1933 (2 copies), 1939
21 M/SE	Beaupre	1931 (2 copies), 1945, 1951
31 D/NE	Bobcaygeon	1953 (2 copies)
31 D/NW	Orillia	1932, 1940, 1947
31 E/NE	Algonquin	1934, 1937 (2 copies)
31 E/NW	Sunridge	1932 (2 copies), 1937 (2 copies), 1953 (2 copies)
31 E/SE	Haliburton	1953
31 E/SW	Muskoka	1929, 1933, 1937 (2 copies), 1945 (2 copies), 1956
31 F/NE	Fort Coulonge	1936 (2 copies), 1941, 1950 (2 copies), 1957 (2 copies)
31 G/NE	Lachute	1933, 1937 (2 copies), 1948, 1957 (2 copies)
31 G/NW	Buckingham	1932, 1937, 1944, 1945, 1953 (2 copies), 1957
31 I/SW	Joliette	1951
31 J/NE	L'Ascension	1943, 1954
31 J/NW	Mont Laurier	1934 (2 copies), 1940, 1948 (2 copies)
31 J/SE	Ste-Agathe	1936, 1953b
31 J/SW	Maniwaki	1933, 1938, 1953 (2 copies)
31 K/NE	Tomasine	1933, 1939, 1950 (2 copies)
31 K/SE	Gracefield	1933, 1947 (2 copies)
31 K/SW	Chalk River	1942
31 L/NW	Tomiko	1953
31 L/SE	Mattawa	1954, 1954b
31 L/SW	North Bay	1934, 1946, 1948, 1954
31 M/NW	New Liskeard	1951, 1951b
31 M/SW	Haileybury	1951b
31 N/NE	Vimy	1936, 1948 (2 copies)
31 N/NW	Grand Lake Victoria North	1942
31 N/SE	Cabonga Reservoir	1942, 1955
31 N/SW	Grand Lake Victoria South	1942, 1954 (2 copies)
31 O/NE	Parent	1932 (2 copies), 1953
31 O/NW	Choquette	1938 (2 copies)
31 O/SE	Kempt Lake	1930, 1949b second edition (prelim.)
31 O/SW	Petawawa	1930, 1945 (2 copies), 1953
31 P/SE	La Tuque	1934 (2 copies), 1948
32 B/SW	Oskelneo	1936, 1951
32 C/NE	Cuvillier	1956 (2 copies)
32 C/NW	Landrienne	1950
32 C/SE	Doucet	1936 (2 copies)
32 C/SE	Lac Faillon	1952
32 C/SW	Senneterre	1933 (2 copies), 1947
32 D/NE	Taschereau	1932, 1950
32 D/NW	Abitibi	1932, 1947, 1953
32 D/SE	Rouyn Lake	1928 (2 copies), 1949
32 D/SW	Rouyn - Larder Lake	1927, 1948
32 E/NW	Chabbie Lake	1951 military edition, (2 copies)
32 E/SE	Mistawak Lake	1956 (2 copies)
32 E/SW	Patten River	1951 (2 copies)
41 H/NE	Byng Inlet	1931, 1937, 1947
41 H/SE	Parry Sound	1930, 1940 (2 copies), 1950
41 I/NE	Gull Lake	1939
41 I/NE	Capreol	1950
41 I/NW	Cartier	1950, 1950b, 1950c lacks header
41 I/SE (W1)	Burwash	1939
41 I/SE	Sudbury	1950, 1950b 2nd edition (2 copies)
41 I/SW	Espanola	1949
41 J/SW & K/SE	Thessalon	1940 (2 copies), 1953 (2 copies)
41 P/NE	Elk Lake	1950, 1950b (2 copies)
41 P/NW	Gogama	1951
41 P/SE	Maple Mountain	1951, 1951b
41 P/SW	Westree	1951b
42 A/NE	Iroquois Falls	1949
42 A/NW	Pamour	1949
42 A/SE	Kirkland Lake	1949
42 A/SW	Timmins	1948
42 B/NE	Elsas	1954
42 B/NW	Fire River	1956
42 B/SE	Foleyet	1954
42 B/SW	Missinaibi Lake	1956 (2 copies)
42 C/NE	Kabinakagami Lake	1956
42 C/NW	White River	1956 (2 copies), 1956b lacks header
42 C/SE	Goudreau	1957
42 C/SW	Pukaskwa River	1956 (2 copies)
42 E/NE	Longlac	1953
42 E/NW	Jellicoe	1952 (2 copies),
42 E/SE	Steel Lake	1952
42 E/SW	Roslyn Lake	1953 (2 copies)
42 G/NE	Opasatika	1954
42 G/NW	Hearst	1954 (2 copies)
42 G/SE	Kapuskasing	1955 (2 copies)
42 G/SE	Opasatika	1955 (2 copies)
42 H/NE	Montreuil Lake	1951, 1951b (2 copies)
42 H/NW	Island Falls	1951, 1951b
42 H/SE	Little Abitibi	1951, 1951b (2 copies)
42 H/SW	Smooth Rock	1951, 1951b (2 copies)
42 I/NW	Blacksmith Rapids	1936 (2 copies), 1936b
42 I/SW	Coral Rapids	1934
52 A/NW	Kaministikwia	1939 (2 copies), 1949 (2 copies)
52 A/SW	Fort William-Port Arthur	1939 (2 copies), 1953
52 K/SE	Hudson	1930
82 L/NE	Revelstoke	1932 (2 copies), 1950
82 L/NW	Shuswap	1934 (2 copies), 1945 (2 copies), 1955 (2 copies)
82 L/SW	Vernon	1951
82 N/NE	Mistaya	1931 (2 copies), 1950
82 N/SE	Yoho	1932 (2 copies), 1952 (2 copies)
82 N/SW	Glacier Park	1934 (2 copies), 1946, 1955 (2 copies), 1974
83 G/NE	Lac Ste. Anne	1953 (2 copies)
83 G/NW	Chip Lake	1952 (2 copies)
83 G/SE	Warburg	1952 (2 copies)
83 G/SW	Pembina	1952 (2 copies)
84 C/SW	Grimshaw	1949 (2 copies)

84 D/SE	Hines Creek	1950
84 D/SW	Cherry Point	1951 (2 copies)
92 B/NW & B/SW	Victoria	1941, 1941b
92 I/NE	Kamloops Lake	1928 (2 copies), 1948, 1951 (2 copies)
92 I/SE	Merritt	1930 (2 copies), 1950 (2 copies)
93 P/NE	Dawson Creek	1951 (2 copies), 1951b
93 P/NW	Moberly Lake	1951 (2 copies)
94 A/NE	Rose Prairie	1951 (2 copies)
94 A/NW	Blueberry River	1951 (2 copies)
94 A/SE	Fort St John	1953 (2 copies)
94 A/SW	Hudson Hope	1953 (2 copies)

Canada 2 miles to 1 inch

Brockville	1909, 1924
Brome	1922
Cornwall	1931
Drummond	1924 (2 copies)
Halifax	1927 (2 copies)
Kingston	1921, 1924
Lachine	913, 1925
Mallorytown	1927 (2 copies)
Niagara Peninsula	1908, 1932
Ottawa	1916, 1916b "reprinted with corrections"
Sherbrooke	1928
Thetford	1930 (2 copies)
Three Rivers	1931 (2 copies)
Toronto	1925

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The National Archives of Canada also has a large number of Canada 1:500 000 aeronautical edition and Canada 1:506 880 aeronautical edition maps for redistribution. For further information, please contact: Heather Stevens

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In the next issue...

GIS and its Impact on Libraries,
Cathy Moulder

The Early Surveys of Niagara,
Alun Hughes

Redistribution map list of Geological Survey of Canada "A" topographic maps.

1995 ACMLA/WAML Conference coverage

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Copy deadline for the Autumn issue, #94, is August 1, 1995

CANADIAN HYDROGRAPHIC SERVICE

Charts Released from October 1994 to January 1995

R-revised edition NC-new chart NE-new edition LIT-lithographic map POD-print on demand

Chart	Region	Category	Title	Date	Release Date	Print
1220	QUE	R	BAIE DES SEPT-ILES	11-Jan-95	30-Dec-94	LIT
1338	QUE	R	LAC SAINT-PIERRE A/TO LAVALTRIE	12-Dec-94	4-Nov-94	LIT
2042	CEN	NE	WELLAND CANAL - ST CATHARINES TO/ A PORT COLBORNE	7-Nov-94	7-Oct-94	LIT
2214	CEN	NC	MEAFORD	28-Oct-94	7-Oct-94	LIT
2235	CEN	R	CAPE HURD TO/A LONELY ISLAND	25-Jan-95	30-Dec-94	LIT
3002	PAC	NE	QUEEN CHARLOTTE SOUND TO DIXON ENTRANCE	11-Jan-95	16-Dec-94	LIT
3052	PAC	NE	OKANAGAN LAKE	7-Oct-94	7-Oct-94	LIT
3461	PAC	R	JUAN DE FUCA STRAIT - EASTERN PORTION/PARTIE EST	8-Dec-94	2-Dec-94	LIT
3488	PAC	NC	FRASER RIVER/FLEUVE FRASER - CRESCENT ISLAND TO/ A HARRISON MILLS	25-Jan-95	21-Oct-94	LIT
3489	PAC	NC	FRASER RIVER/FLEUVE FRASER - PATTULLO BRIDGE TO/ A CRESCENT ISLAND	25-Jan-95	21-Oct-94	LIT
3670	PAC	NE	BROKEN GROUP	18-Oct-94	21-Oct-94	LIT
3686	PAC	R	APPROACHES TO/APPROCHES A WINTER HARBOUR	13-Dec-94	2-Dec-94	LIT
3743	PAC	R	DOUGLAS CHANNEL	25-Jan-95	10-Feb-95	LIT
3784	PAC	R	KWAKSHUA CHANNEL TO/A SPIDER ISLAND AND/ ET NAMU HARBOUR	30-Jan-95	16-Dec-94	LIT
4203	ATL	R	HALIFAX HARBOUR - BLACK POINT TO/ A POINT PLEASANT	1-Dec-94	4-Nov-94	LIT
4209	ATL	NC	LOCKEPORT HARBOUR AND/ET SHELBURNE HARBOUR	10-Nov-94	21-Oct-94	LIT
4731	ATL	LM	FORTEAU BAY TO/A DOMINO RUN	25-Jan-95	16-Dec-94	LIT
4852	ATL	NC	SMITH SOUND AND/ET RANDOM SOUND	20-Dec-94	2-Dec-94	LIT
5001	ATL	LM	LABRADOR SEA/MER DU LABRADOR	1-Dec-94	4-Nov-94	LIT
8011	ATL	LM	GRAND BANK, NORTHERN PORTION/ GRAND BANC, PARTIE NORD	18-Jan-95	30-Dec-94	LIT
8012	ATL	LM	FLEMISH PASS/PASSE FLAMANDE	31-Oct-94	4-Nov-94	LIT
8013	ATL	LM	FLEMISH CAP/BONNET FLAMANDE	1-Dec-94	4-Nov-94	LIT
8014	ATL	LM	GRAND BANC/GRAND BANK - PARTIE NORD-EST/ NORTHEAST PORTION	1-Dec-94	18-Nov-94	LIT
8015	ATL	LM	FUNK ISLAND AND APPROACHES/ET LES APPROCHES	20-Dec-94	16-Dec-94	LIT
19328-A		HQ	FENRM - BATHYMETRY	29-Nov-94	2-Dec-94	POD
CAT-3	HQ	NE	GREAT LAKES/GRANDS LACS	18-Jan-95	1-Jan-94	LIT
	HQ	NE	CANADIAN TIDE AND CURRENT TABLES	8-Nov-94	2-Dec-94	LIT
			VOL. I - ATLANTIC COAST AND BAY OF FUNDY			
			VOL. II - GULF OF ST. LAWRENCE	8-Nov-94	2-Dec-94	LIT
			VOL. III - ST. LAWRENCE AND SAGUENAY RIVERS	8-Nov-94	2-Dec-94	LIT
			VOL. IV - ARCTIC AND HUDSON BAY	8-Nov-94	2-Dec-94	LIT
			VOL. V - JUAN DE FUCA STRAIT AND STRAIT OF GEORGIA	8-Nov-94	2-Dec-94	LIT
			VOL VI - BARKLEY SOUND AND DISCOVERY PASSAGE TO DIXON ENTRANCE	8-Nov-94	2-Dec-94	LIT
			VOL I - IV (ATLANTIC COAST)	10-Nov-94	2-Dec-94	LIT
			VOL V - VI (PACIFIC COAST)	10-Nov-94	2-Dec-94	LIT
	PAC	NE	INSTRUCTIONS NAUTIQUES ARTIQUE CANADIEN VOL. 1	12-Dec-94	30-Dec-94	LIT
			VOL. 3	12-Dec-94	30-Dec-94	LIT

CANCELLATIONS

Chart#	Title and Reason for Cancellation
4327	LOCKEPORT HARBOUR Cancelled by NC 4209 which was Released on 10-Nov-94.
4382	SHELBURNE HARBOUR Cancelled by NC 4209 which was Released on 10-Nov-94.
4545	SMITH AND RANDOM SOUNDS (EASTERN PART) Cancelled by NC 4852 which was Released on 20 Dec 94
4546	SMITH AND RANDOM SOUNDS (WESTERN PART) Cancelled by NC 4852 which was Released on 20 Dec 94
4570	CLARENVILLE AND APPROACHES Cancelled by NC 4852 which was Released on 20 Dec 94
A-10	QUAI/WHARF TETE-A-LA-BALEINE Cancelled by Diagram advertised in Notices to Mariners Weekly Edition #25 of 1994

GUIDELINES FOR THE ACMLA PAPERS AWARD

1. The Papers Award will consist of a monetary award of $200.00.
2. This award is to be made during the Annual Conference.
3. The award will usually, though not necessarily, be given on an annual basis.
4. Nominations for this award, while primarily the responsibility of the Awards Committee members, may be made by an individual member.
5. The papers which will be considered for this award will consist of papers which have appeared in any issue of the ACMLA Bulletin for the calendar year preceding the conference.
6. Papers appearing in the Bulletin will be eligible for consideration if they are three pages or more in length.
7. Only papers of sufficient length, appearing in the Bulletin, which are not regular features, but are instead feature articles will be considered for this award. Continued articles, and co-authored articles, shall be given full consideration.
8. Articles which are eligible by the above clauses shall be further screened by subject matter. Only articles which made a solid contribution to map librarianship, curatorship or archiveship, including cartobibliographies, shall be considered for this award.
9. The Awards Committee and its appointees, shall weigh the degree of originality, uniqueness of subject matter and the depth of research involved in the papers under consideration. The complexity of subject matter, the presentation of such by the author, and technical qualities such as grammatical construction should all be considered.
10. Papers nominated for this award, which fit the above criteria to the satisfaction of the Awards Committee, shall then be subject to evaluation by a person or persons who are not normally members of the committee.
11. The Awards Committee shall contact a person or persons of its choice and request a written evaluation of the quality exhibited by a nominated paper.
12. Upon receipt of such evaluation, the Awards Committee shall come to a unanimous decision on the choice of a recipient.
13. A report shall be made to the Executive on all papers nominated and the results of consideration by the Awards Committee one month prior to the Annual Conference.
14. To facilitate and encourage the recipient's attendance at the Annual Conference, he/she should be informed of the impending award.

GUIDELINES FOR THE ACMLA HONOURS AWARD

1. The Honours Award shall consist of a framed certificate issued by ACMLA.
2. This award is to be made during the Annual Conference.
3. The Award will not necessarily be issued every year.
4. A call for nominations shall be made in two issues of the ACMLA Bulletin during each year.
5. Nominations may be made by any individual member, including members of the Awards committee itself.
6. The recipient shall be an individual who has made an outstanding contribution in the field of map librarianship or curatorship or archiveship.
7. The recipient's contribution may be either for a specific activity or for general services and contributions such as continued membership in the Association with active participation either as an executive officer, committee chairperson, or committee member.
8. While membership in ACMLA shall normally be a prerequisite, that shall not preclude consideration of outstanding non-members.
9. An award shall preferably be awarded to a person while still active in the field, rather than at an early stage or post-retirement.
10. Probably attendance at the Annual Conference should be considered, but should not be the deciding factor.
11. To facilitate and encourage the recipient's attendance at the conference, he/she should be informed of the pending award.
12. The Awards Committee, having considered all nominations for an award, shall come to a unanimous agreement on the choice of a recipient.
13. The Awards Committee shall forward their decision to the Executive of the ACMLA for their approval one month prior to the Annual Conference.

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