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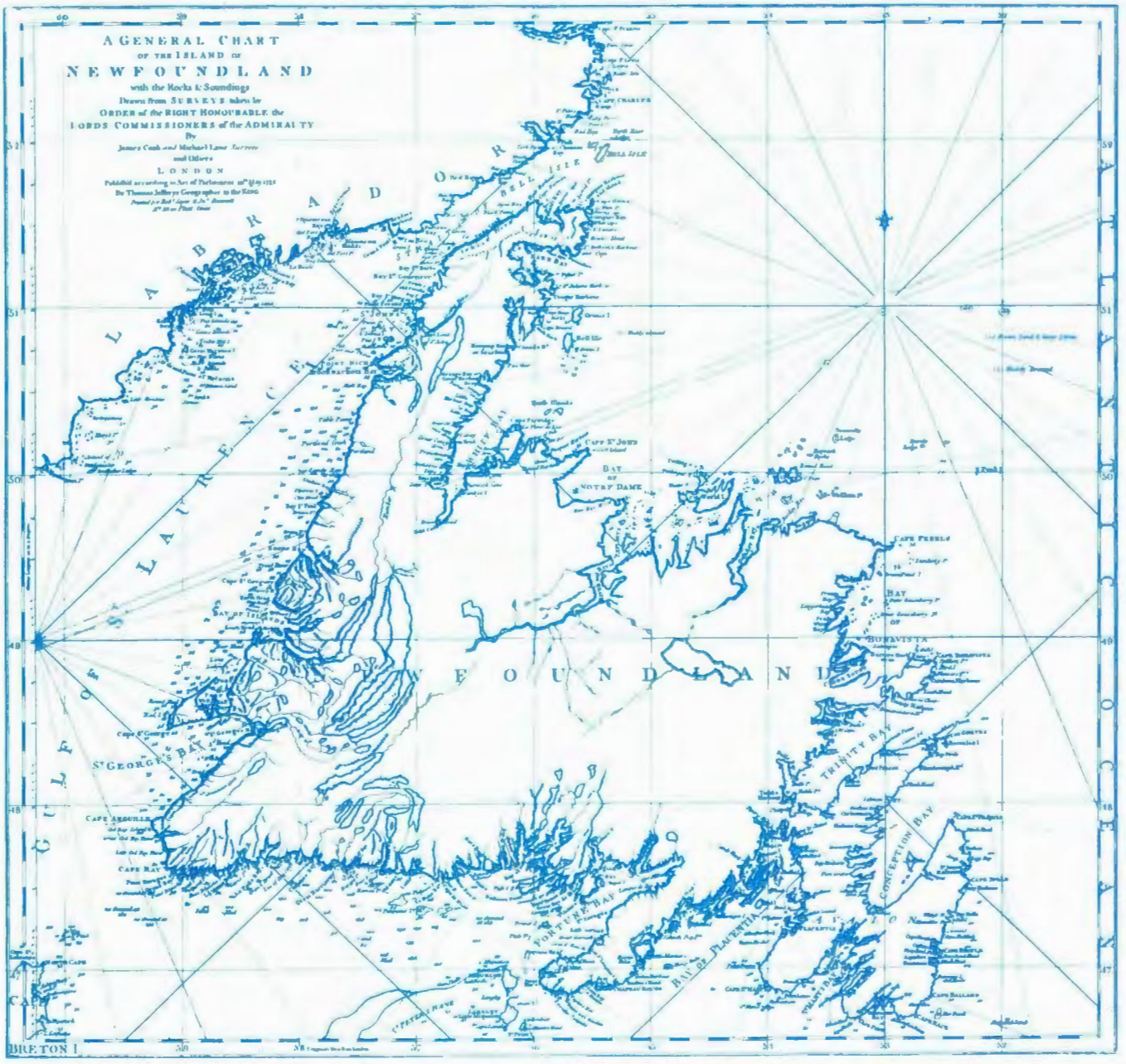
ASSOCIATION OF CANADIAN MAP LIBRARIES

BULLETIN

ASSOCIATION DES CARTOTHEQUES CANADIENNES



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ASSOCIATION OF CANADIAN MAP LIBRARIES

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

Full (Canadian map field)	$15.00
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Members receive quarterly the A.C.M.L. Bulletin, the official journal of the Association.

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Views expressed in the Bulletin are those of the contributors and do not necessarily reflect the views of the Association.

ASSOCIATION DES CARTOTHÈQUES CANADIENNES

Peuvent devenir MEMBRES de l'Association des cartothèques canadiennes tout individu et toute institution qui s'intéressent aux cartes ainsi qu'aux objectifs de l'Association. La cotisation annuelle est la suivante:

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Les opinions exprimées dans le Bulletin sont celles des collaborateurs et ne correspondent pas nécessairement a celles de l'Association.

COVER / COUVERTURE

Jefferys, T. A General Chart of the Island of Newfoundland. London, 1775

This map, an original of which is in the National Map Collection, PAC, has been reproduced as Facsimile Map No. 99 by the Association of Canadian Map Libraries and is availablefrom the association for $3.00.

Cette carte dont une original se trouve à la Collection nationale de cartes et plans, Archives publiques du Canada a été reproduite en fac-similé (carte no 99) par l'Association des cartothèques canadiennes et est disponible de l'association au coût de $3.00.

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EDITORIAL COMMENT

This is the first of two issues devoted largely although not exclusively to the proceedings of the 16th Annual A.C.M.L. Conference (16-20 August 1982) held at the Public Archives of Canada in Ottawa. The papers in this issue are printed in the order in which they were presented, beginning with the Official Welcome by Dr. W.I. Smith and concluding with my report of map-cataloguing activity at the University of Waterloo.

Although there was a very interesting panel discussion and debate between map producers and map curators on Wednesday morning, I was able to obtain the text of only one of the presentations--that by Paul Beullac of Châtelain Inc. Speaking for the map-curator side were: Kate Donkin, Vivien Cartmell, Karen Lochhead, and Maureen Wilson. Map producers were represented by: Don Anderson (Canada Energy, Mines and Resources), Wendy Simpson-Lewis (Lands Directorate, Canada Department of the Environment), Paul Beullac (Châtelain Inc., a private mep-publishing firm in Cowansville, Quebec), and Knowles Payne (Municipality of the City of Ottawa).

The map curators emphasized the need for more contact and better communication with map producers. Individual comments and concerns were as follows:

- producers should publish catalogues or lists of their maps;
- the National Atlas of Canada (5th ed.) should be available in bound form;
- cartographic textual information should be printed in the margin or on the verso of the map;
- curators have difficulty organizing maps into meaningful series;
- a map users' advisory committee (of map librarians?) should be established to advise and provide feedback to map producers;
- there is a lack of regional mapping in Canada;
- there is a need for a national bibliography of Canadian maps.

The map producers felt that map librarians were very slow to respond to requests for feedback concerning their map products. Don Anderson stated that map librarians must comment on map design, especially with regard to N.T.S. 1:50,000 and 1:250,000. He suggested that a forum for map users be established; his department would be most cooperative. Wendy Simpson-Lewis commented that the Lands Directorate is always very open to suggestions regarding the content, physical design, and durability of its various publications.

Paul Beullac's paper will be printed in the next issue of the Bulletin. Mr. Payne gave a very informative talk on the production of the Official City Street Map of Ottawa at 1:5,000. This map is produced in three different styles: black on white, 3-colour, and solid buff.

For those of you who were unable to attend this year's conference, perhaps these photographs will give you a feeling for the mood of the gathering. Several of them were taken during the reception and banquet at Nate's Restaurant in Ottawa; others show delegates enjoying themselves aboard a boat on the Ottawa River.

Richard Hugh Pinnell
Editor, A.C.M.L. Bulletin

Bill MacKinnon and Thomas Nagy

Serge Sauer and Thomas Nagy

Joan Winearls and Lou Sebert (?)

Stanley Stevens

A few of the ladies!

A few of the gentlemen!

PROCEEDINGS
OF THE
ASSOCIATION OF CANADIAN MAP LIBRARIES
16TH ANNUAL CONFERENCE

OFFICIAL WELCOME

Dr. W.I. Smith
Dominion Archivist
Public Archives of Canada

May I very warmly, on behalf of the Public Archives of Canada, welcome you to the sixteenth annual conference of the Association of Canadian Map Libraries. The Public Archives is pleased to welcome your association for the third time in its history. The years of these three conferences have been special ones in the history of this department--the first being 1967, Canada's centennial, the same year that your association held its founding meeting; the second, 1972, was the year of the Public Archives' centenary; and this, the third, 1982, is the 75th anniversary of the National Map Collection. These facts certainly illustrate the close relationship which has existed between the association and the National Map Collection, a relationship which we value and which we trust will continue well into the future.

The present National Map Collection, with holdings of approximately 1,000,000 items and with a staff of twenty-four persons, bears little resemblance to the Map Room established in 1907, which consisted of a few thousand maps and a staff of one man. The remarkable development in the National Map Collection, I know, has been paralleled on a smaller scale in many of the map collections which you represent. The field of map custodianship in the 1970s and 1980s has been both developing and progressive; I have seen evidence of this progress on many occasions in the last decade. Perhaps I might mention a few. The phenomenal growth of your own association and its accomplishments--your facsimile map program, the four editions of the directory, the Guide for a Small Map Collection, your excellent quarterly Bulletin are evidence of an active and interested membership. The soon-to-be-published Cartographic materials: A manual of interpretation for AACR 2 (note: to be published by the American Library Association), will provide, after many years of hard work, uniform cataloguing rules on an international level. A third example is the recent activity in cartographic archives. In recent months, both the Society of American Archivists and the Association of Canadian Archivists have published major works in the field of cartographic archives--Ralph Ehrenberg's manual Maps and Architectural Drawings in the S.A.A.'s Basic Manual Series and issue number 13 of Archivaria on cartographic archives. The two cartographic archivists' seminars hosted by the National Map Collection and the third being planned for March 1983 are further evidence of this activity.

We are especially pleased that you will be present at the opening of the exhibition this evening. The staff of the National Map Collection has worked very hard in selecting and putting together an exhibition of approximately 100 of its "treasures." The opening of the exhibition has been purposely scheduled so that the delegates to this conference could attend.

I have noted in your list of delegates that some of you have come great

distances--The Netherlands, Turkey, South Africa, as well as many locations in the United States and from all areas of Canada. I trust that you will enjoy your stay at the Public Archives of Canada and the City of Ottawa. Although your program is very busy, the organizers have arranged several events to enable you to view the local scene--the Whitewater Raft Tour yesterday and the cruise on the Ottawa River on Thursday. The Ottawa River influenced the development of this city in that it was a voyaguer route and the key to the lumbering activity in the early years of Bytown. I know that you will enjoy the leisurely cruise. Take time to see more of Canada's beautiful capital city, if you can.

With best wishes for a productive and enjoyable meeting. Thank you.

* * *

PERSPECTIVES ON COOPERATION FROM AN INTERNATIONAL POINT OF VIEW

Dr. E.H. van de Waal
Geographisch Institut
State University
Utrecht, Netherlands

Introduction

In this paper I will discuss the function of international professional organisations in the supply of cartographic information. Particularly in these times of drastic cuts in expenditure, there will be no money available for international cooperation unless it proves its usefulness. The question arising immediately is: "Useful to whom?," which lands us right in the middle of the most pressing problem in international organisations during times of economic depression. International professional organisations in particular have few resources of their own. For their functioning they are almost completely dependent on the goodwill and sympathy of institutions on national and local levels, that will have to supply the necessary money and manpower.

The personal zest of active members is very important in this respect. Without their energy, very few international organisations would be able to keep on working. Regular meetings of working groups are indispensable to the progress of the work of the organisations. Very often individual members of such working groups lack the financial means to attend the meetings. On top of this, the members are expected to invest their time to come up with contributions and solutions, so as to present a practical result in the end. This means that the institutions employing such persons often have to bear the cost of travel and loss of working-time.

Considering the complexity of this kind of professional activity and the special knowledge and experience it requires, continuity has become an important prerequisite to maintain international contacts. Continuity is even more important because such contacts are hardly institutionalised, so that personal relations are very important. An international organisation is hardly conceivable without a bureau employing staff that tackles the management aspects of international cooperation. However, the greater part of the work remains to be done by people employed in institutions all over the world, busy with their own day-to-day work supplying (in this case) cartographic information.

With a view to fund raising, it will be necessary that international cooperation directs itself to subjects that have a demonstrable usefulness in practice. For this we need a policy supporting projects directed to local problems of daily practice. While drafting a policy for an international organisation, however, a sound theoretical consideration of developments in the profession should not be omitted. By emphasising the theoretical professional background, international organisations can play a role in anticipating future developments. For instance, they can develop standards which prevent the squandering of resources.

Against a background of concepts accepted within the International Federation of Library Associations and particularly in its Geography and Map Libraries Section, I will explain the current policies and projects of this section. Although the section's Standing Committee values continuity, it also realises that the section must always be open to new concepts and

developments. The more so, because the section is small and its program relatively overburdened. This meeting of the A.C.M.L., an outstanding example of a national professional organisation, where map librarians and map producers can meet, provides an ideal opportunity to test the practical applicability of the section's program. I would like to invite all of you to give your comments at the end of this talk or afterwards. I expect that this A.C.M.L. conference, with its attractive program, will have a stimulating effect upon the activities of the G & ML Section. Contacts between the two groups could not be easier since Mr. Hugo Stibbe is the section's present chairman.

Terms of Reference and the Medium-Term Program of the G & ML Section

The data concerning this subject were taken from an article by Dr. Helen Wallis: "Section of Geography and Map Libraries," published in the IFLA Journal, Vol. 7, No. 3, p. 274-279. Helen Wallis was the section's secretary from its foundation in 1969 until 1977. Chairmen during that period were Dr. Walter Ristow and Dr. Ib Kejlbo consecutively. From 1977 to 1981, Dr. Wallis was the third chairperson.

The section's terms of reference are:

- to promote and encourage the production of bibliographies, directories and glossaries in its field;
- to promote, encourage, and improve the training of map librarians;
- to consider the care of geographical and cartographic collections;
- to encourage the organisation of national bodies concerned with geography and map libraries.

For an international organisation it is necessary to publish. Within the section, the Newsletter has an important function in this respect. Newsletters are distributed among all members and all persons who have expressed a wish to be put on the mailing list. Other reports and publications are mentioned in the article above. The article also contains a summary of the section's Medium-Term Program, approved during the 1981 conference in Leipzig. The management of the section is in the hands of a Standing Committee, which consists of twelve persons at the moment. The actual professional work is being done within working groups, of which a summary follows together with an indication of their activities in the program.

I - World Directory of Map Collections
II - Workshop for Practical Map Curatorship in Developing Countries
III - Geography and Map Library Equipment and Space Management
IV - ISBD(CM) Review Committee
V - ICA-IFLA Interassociational Working Group

These working groups are engaged in the Medium-Term Program activities as follows:

1. Education and Training
   a) After the Workshop for Practical Map Curatorship in Developing Countries (25 August - 8 September 1981) it was decided that similar workshops will be organised in developing countries. A second workshop is planned in 1984 in Kenya; a third in 1985 in Manila. (W.G. II)
   b) Preparation of a Manual of Map Curatorship. This manual will also serve as a basis for the workshops mentioned under a). (W.G. II)

c) Preparation of an audiovisual program (tape/slide training set) in connection with the manual mentioned under b). (W.G. II)

2. Documentation and Standardisation
   a) Preparation of the second enlarged edition of the World Directory of Map Collections, to be published in 1982. (W.G. I)
   b) Revision of the ISBD(CM) according to the programme of the Office for UBC. (W.G. IV)
   c) Revision of the chapters relating to cartographic materials in UNIMARC according to the programme of the Office for UBC. (Not yet in an operational stage)
   d) Preparation of a handbook of examples as a guide to ISBD(CM) and UNIMARC. (Not yet in an operational stage)
3. Liaison Activities with External Organisations
   a) An interassociational working group has been set up between ICA and IFLA to coordinate activities in fields of mutual interest. (W.G. V)
   b) Extension of these activities to other organisations such as FID and the International Society for Photogrammetry and Remote Sensing. (W.G. V)
4. Map Management and Physical Planning. (W.G. III)

Theoretical Background to the Section's Activities

More often than not, theoretical principles evolve gradually while practical work is being done. In the initial stage it is primarily necessary to solve pressing practical problems, and only afterwards is there time to reconsider and conceive the vision that will influence all consecutive actions. From the section's terms of reference, in its initial stage it is clear that essentially basic information was needed. First and foremost, inventories were needed of map materials, map collections, and professional vocabulary. Also, there proved to be a lack of specialised professional knowledge. From the terms of reference it can be seen that map librarianship is looked upon as a profession in its own right.

Gradually the term map librarian changed to map curator. It proved to be of little consequence whether one was employed in a map collection in a library or in a map collection in an archives, museum, or other institution. The job was the same, taking care of the collection and answering questions from the public. The most revolutionary development in the professional ideology I judge to be the decision to include not only maps but all images of the earth at any scale. In this way the ISBD(Maps) became the ISBD(Cartographic Materials). [Those of you who are not familiar with the IFLA terminology can translate materials by documents.] The informative value of different kinds of images of the world and other celestial bodies proved to have so much in common that it would have been unwise to provide for maps exclusively.

The awareness that all cartographic materials are related became even stronger when the chapter "Cartographic Materials" in UNIMARC was being drafted. UNIMARC is the IFLA standard for exchange of bibliographic data in machine-readable form. It appeared that cartographic and other image processing techniques determine to a great extent the information that can be obtained from cartographic documents.

The general points of view of the G & ML Section can be summarized as follows:

- map curatorship is a developing profession with special characteristics;
- cartographic documents are important sources of information that should be made accessible to the general public;
- the supply of cartographic information is a process involving map producers and map curators as well as map users.

The International Approach

Not all cooperative efforts lead to positive results. Against the advantage of combining resources stands the disadvantage of the extra effort needed for communication, which becomes more of a strain as the cooperative project grows wider. Cooperation on an international level means generalisation to a great extent; on this level only general matters can be dealt with. International organisation can be crippled by communication difficulties, conflicting interests, and by lack of links with reality.

On the other hand, our world tends to become smaller. We are forced to cooperate because we share this one world and because many problems can no longer be solved nationally. One example is the need to exchange bibliographic data, as we are fully occupied with the documentation of our own national output of publications. That is why the ISBDs and UNIMARC were developed.

International professional organisations can have enormous influence on developments in their field. Within the structure they provide, experts have an opportunity to meet and exchange ideas, and interested persons can take stock of new developments. In a less direct way, national and local changes in policy may be effected, thanks to the status and authority of these international organisations. Policy makers on national and local levels are usually quite prepared to follow international developments, particularly if these enable them to solve problems at home by providing international directives, standards, and examples of solutions.

The G & ML Section is very much involved with the supply of cartographic information on an international level and has international contacts with documentalists, cartographers, remote sensing specialists, and the International Organisation for Standardisation (ISO). In 1979, the IFLA Secretariat appointed me as liaison officer for cartography. In 1980, at the section's Standing Committee meeting in Manila and at the 6th General Assembly of ICA, in Tokyo, a joint ICA-IFLA working group was established. A first result of the ICA-IFLA Liaison is that in the second edition of the Multilingual Dictionary of Technical Terms in Cartography (MDTTC) the terms and definitions of the IFLA ISBD(CM) will be included as an appendix. This is a significant achievement because in the MDTTC the definition of terms such as title differ very much from the meaning these terms usually have in documentation. With the MDTTC definitions in hand, it will be much easier to bring definitions of terms used in cartography and documentation closer together in national standards as well. This task would have been much more difficult without the international example.

I will give one more example of a solution on a national level that was influenced by international cooperation. In the past, several International Standard Book Number national agencies have opposed the use of ISBNs on maps. Until the time that a final solution for cartographic materials is achieved, the International ISBN-Office will advise its

national agencies to allocate ISBNs to be printed on maps. It can be reported that the Dutch ISO Committee, which was to prepare an International Standard Cartographic Number, has decided to abandon the attempt for the time being. The principal reason is that the administration of such a special number would create insuperable difficulties. A second reason is the bar code. The Universal Product Code and the European Article Number, in the form of bar codes to be read by optical readers, can also contain an ISBN. The Dutch ISO Committee has proposed to the Advisory Panel of the International ISBN-Office that it draft an ISO standard for the application of ISBNs for cartographic materials. This draft will be presented to the joint ICA-IFLA working group for comments.

IFLA, as an international organisation, also pays a lot of attention to cartographic information-supply in developing countries. Accordingly, the G & ML Section was encouraged to undertake the organisation of a Workshop on Practical Map Curatorship in Developing Countries. This effort was carried through enthusiastically by many members of the section, receiving assistance from various directions. Special acknowledgements should be made to ICA and A.C.M.L. The cordial relationship between ICA and IFLA was once again stated during the lecture presented by ICA president Prof. Dr. F.J. Ormeling when the workshop visited ITC at Enschede. A.C.M.L. earned our gratitude by providing many valuable materials. It was a happy circumstance that just then their Guide for a Small Map Collection was published, so that a copy could be handed out to our workshop participants. For the next workshops we hope to be able to count on such cooperation again.

The workshop also taught us that in developing countries the nature of problems does not differ much from problems here, although map curatorship is in its very first stage there and the organisational structure of professional bodies very weak indeed. However, it is not my intention to suggest that they should simply follow the example of more advanced countries. A leading position often turns into the opposite by the law of inertia, and the necessity to use one's resources wisely forces one to be creative. This creativity may even lead to innovations and solutions that can be used in more well-to-do countries. An actual example from the field of cartography is screen printing, which in the past produced maps of rather poor quality. In countries where there is no money to spend on expensive off-set presses, methods were developed to apply screen printing in such a way that the products are no longer second to those of off-set printing. Screen printing nowadays plays an important part in the modernisation of cartographic reproduction.

The most important contribution of international professional organisations may well be that they introduce people to other opinions and ideas, detached from daily tasks, national and local policies, and routine procedures.

Some Results of International Cooperation in the Netherlands

To conclude, I will give some examples of developments in cartographic information-supply in the Netherlands that were clearly influenced by international contacts.

The Dutch Working Group for Map Curatorship was modelled on the A.C.M.L., which I came to know through Hugo Stibbe. In 1976, I participated in the

London (Ontario) conference and I was impressed to see what map librarians can achieve when they are united. In the Netherlands the number of map librarians is so limited that it was obvious we should try to associate ourselves with the Dutch Society for Cartography. Initially, the society's members were not overly enthusiastic to welcome "documentalists," but after some explanation and a meeting concerning marginal information on our most important maps, the road was clear to our becoming an active working group of the cartographic society.

Considering the theme of this conference "Map producers and Map collections: Perspectives on cooperation," I cannot resist the temptation to show once again the following diagram (Figure 1). This diagram was first published in my paper "Documentational Aspects of Cartographic Materials," presented at the ICA conference in Washington in 1978 and published in the ITC Journal, 1978-2, p.284-294. It outlines the connection between map producers and documentalists, both groups being parts of one and the same process. The map margin is the area where map producer and map user meet and from which the documentalist has to take his data. Without a legend or information concerning basic data and map production, the user will not be able to understand the cartographic information. Without certain facts such as title and availability, the documentalist will not be able to prepare a bibliographic description, so that it becomes very difficult to retrieve the map. When bibliographic data are published on a map in the proper manner, they also supply important information to those who are primarily interested in the cartographic information contained in the map image.

As a consequence of our first meeting between map curators and map producers, the margin of the Dutch Soil Map was soon adapted. In the meantime, several of the official Dutch map series have been provided with new margins in cooperation with documentalists, e.g. the Water Management Map and the Topographical Map 1:25,000. An adaptation of the Geological Map is under consideration.

Speaking of the influence of international contacts, I cannot but mention the Dutch Union Map Catalogue. Its contacts with the Library of Congress started when the DUMC wished to use the Map Marc format as a basis. Its Canadian contacts began when Hugo Stibbe stayed in Utrecht for some time to do research in connection with his doctoral thesis on Marc Maps. The DUMC has profited much from its contacts with IFLA, the Library of Congress, and the National Map Collection in Ottawa; they saved us much money and many disappointments. The DUMC was involved with the setting up of the ISBD(CM) and UNIMARC and was therefore able to go along with changes at a very early stage. Though the project will remain in its research phase until 1984, it has been publishing the Bibliography of Maps Published in the Netherlands (in Dutch) for some years now. It has also published the Map Catalogue of the Netherlands Soil Survey Institute. Map producers may be interested to know that this catalogue generated a considerable profit for the NSSI. Map sales increased after the catalogue was published and the machine processing for this particular application became less time-consuming. Starting this year, both publications will be in accordance with ISBD(CM) rules.

In 1984, the DUMC will become a part of the general Dutch automated catalogue system as a fully operational project. We owe it to the existence of an ISBD for cartographic materials that special provisions are being made for cartographic documents. The same applies to the Dutch

Cataloguing Rules for Cartographic Materials, which will be published in August 1982. These rules also take the draft of "Cartographic Materials: A Manual of Interpretation for AACR 2" into account.

Analogous with the IFLA World Directory of Map Collections (Verlag Dokumentation Publishers, Munchen, 1976) the Dutch Working Group for Map Curatorship compiled a directory of Dutch map collections. For the assembling of data for this Gids van Kaartenverzameling in Nederland (Amersfoort : NVK ; Alphen a/d Rijn : Canaletto, 1980), the questionnaires completed for the second edition of the World Directory were used.

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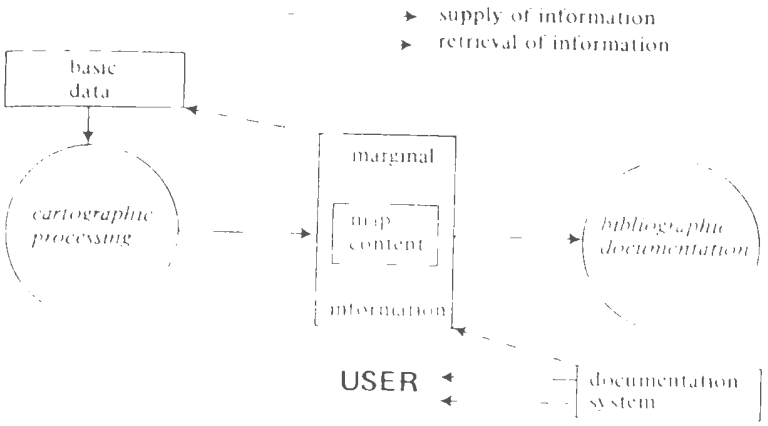

Figure 1. Cartographic information flow.

CATALOGUING MAP SERIES

Karen Lochhead, President
Cartographic Research Services
Ottawa, Ontario

In keeping with the theme of our conference, "Map Producers and Map Collections: Perspectives on co-operation," I would like to present my experiences, ideas, and suggestions which may contribute, in some small measure, to this dialogue.

As a map cataloguer, I am presently engaged by the National Map Collection on a project to research and provide catalogue information for all map series produced in Canada, either federally or provincially. This work has been underway for about two years, initially on a part-time basis, but is presently being undertaken by a team of two map librarians and one cartographer. Since no attempt has before been made in Canada to tackle this entire body of information using current library science cataloguing codes, practices, or techniques, the project presents a great number of challenges.

Briefly, the project consists of initially identifying, with the help of National Map Collection staff, the groups of maps to be catalogued. These groups must then be sorted into meaningful series. Let me give you an example. If we begin with all of the charts produced by the Canadian Hydrographic Service since its inception, it is obvious that there must be more than one series within this large group of charts. Our initial task then is to decide how such a group of maps or charts is to be divided into coherent series, where the dividing lines are, and what parameters are to be used to reach a satisfactory conclusion. Herein lie many of the challenges of the task.

Once the initial identification has taken place, the process continues with detailed research into the publishing history, development, extent, imprint, sheet coverage, title, statement of responsibility, current status of each series, and so on.

When all possible information has been gathered, the descriptive cataloguing, assigning of access points, and classification occurs. Finally the maps are returned to the collection carrying new call numbers and replaced in classification order. All newly catalogued material is then identified in a specific way for the staff of the NMC. The catalogue entries are then finally verified, typed, and placed in the card catalogue.

One thing I must point out here is that the level of cataloguing being carried out is that called first-level cataloguing. In other words, the research and descriptive cataloguing pertain to the series as a whole but not to the individual sheets of each series. Second-level cataloguing will come later when an automated catalogue support system is fully in place in the NMC.

For those not entirely familiar with recent developments in the field of cartographic documentation, I would like to give you a brief explanation of the tools we use. One must first point out, especially to map producers, that in documenting or cataloguing a certain cartographic product, the chief source of information about this product (whether in single or multiple parts) is, and I emphasize this, the cartographic document itself

including the container or wrapper. In the book world, the chief source of information about an author's work is the title page of that work itself. [The implications of this basic rule of documentation, will, I hope become more clear as this paper continues.]

I must digress here a little to show how recent changes have influenced the work I am doing. To retain perspective on any changing field, one needs benchmarks. In my case, two important benchmarks which remind me of the changes which have taken place in the field of cartographic documentation are: B.C. and A.C. or Before Children and After Children.

Those of you who know me from long ago in the centennial year when the A.C.M.L. was first organized in this very room, may remember an old A.C.M.L. committee which I chaired entitled, if I recall correctly, "Placement of Marginal Information on Maps." At that time I remember puzzling at my typewriter and wishing that map librarians had more standards with which we could convince map producers to put on their maps the information we required for our work.

When, in 1973 I finally succumbed to the work load of two baby boys and took an undetermined leave of absence, map librarians were still searching for these standards. In 1980, however, when I returned to the field of map librarianship after giving a healthy start to three sons, the standards had arrived: ISBDs, MARC, IFLA-UBC, AACR 2. [All these acronyms were floated at me by Hugo Stibbe in our first few conversations concerning this cataloguing project and I must admit I remember listening to Hugo in silence for two or three days as he explained these developments to me. Those of you, again, who know me well may wonder how I managed to sit for three days and say nothing. It wasn't easy.]

Therefore, in case there are some of you who are not familiar with these acronyms, let me explain what they are. Standards and standardization are now the order of the day, and with the publication of ISBD(CM) by IFLA in 1977 the standards for map documentation had begun to arrive. Within IFLA or the International Federation of Library Associations and Institutions there is the Office for UBC or Universal Bibliographic Control. This office co-ordinates the work of the working groups within IFlA who prepare the standards and then publishes standards for cataloguing various types of materials. One of these standards is the ISBD(CM) or International Standard Bibliographic Description for Cartographic Materials. These ISBDs contain standards for describing bibliographic elements such as title, author, and publishing information and include standard order and punctuation which, when used correctly, should make compatible all bibliographic descriptions of cartographic material.

Another document which is very important to the map documentalist is the Anglo-American Cataloguing Rules, second edition, otherwise known as AACR 2. This tome, published in 1978, provides for the first time standardized cataloguing rules for cartographic materials. This document is called a cataloguing code and is to cataloguers the Bible for all types of materials throughout the English-speaking world. As well it has been translated into French and, perhaps, will be translated into other languages. Chapter 3 of AACR 2 deals exlusively with cartographic materials.

In addition there is soon to be published A Manual of Interpretation of AACR 2 for Cartographic Materials. This manual will elucidate and enlarge upon AACR 2's basic rules. This manual is being steered by a large

international committee but the task of writing has fallen to the staff of the National Map Collection, who should be congratulated for their monumental effort. [For the purposes of my work a copy of the manual has been available in draft form.]

Having indicated that there are now ample standards for carrying out the cataloguing process, let me indicate, through examples, some of the problems encountered in this work.

I mentioned earlier, one of the initial problems was to identify which groups of maps actually constitute a series from a documentational point of view. For Canada, background information in this area is very scarce, being limited to one or two texts describing surveying and mapping techniques and developments in a general way; the Bibliographie Cartographique Internationale, which lists some Canadian series from 1946-1975; pamphlets, brochures, and/or indexes issued by map producers. But what the map producer considers a series is not necessarily what the map documentalist considers a series. For example, the Surveys and Mapping Branch of the Department of Energy, Mines and Resources for some time considered that the topographic series produced at a scale of 1:50,000 was really a continuation, at a different scale, of the topographic series produced at a scale of 1:63,360. To the map cataloguer, these must necessarily be two distinct series and must be documented as such. But where does one of these series end and the other begin? And what are these series to be called? Do they have exact titles? Does the more recent series begin with new editions of each sheet? One would expect so, but this is not the case. Sheets published in first, second, or third editions at the first scale may continue in second, third, or fourth editions after the scale-change. After all, the producer is not really changing the sheet lines of these maps when he changes scale and hence he sees it as the same map and therefore the same series.

Another very basic difficulty lies in determining the title of a particular series of maps. All maps or map series have titles, you say. What then, is the exact title, taken from the maps themselves? Remember the group of maps we know of as hydrographic charts? Charts!? Has the chart producer ever thought about this? Perhaps he is not even aware that there is a need for a "title proper" or a "uniform title" for his charts.

However, the producer presumably would not be producing maps unless there was an audience or user waiting for his product. But how does the user find out about this product if he does not live next door to the map sales office? If he consults a library or map collection is he likely to find the information he is looking for? Only if the maps are properly catalogued or somehow correctly referenced in this collection. And this correct documnentation leads us directly back to the information which the map producer has put on his maps.

According to the cataloguing standards now is use for maps, there are strict parameters for establishing the title, as there are for author or statement of responsibility (who was responsible for compiling this map) or publisher or scale or date and all other elements of bibliographic description. For example, the rules for title tell us to take the "title proper" from the cartographic item itself. Otherwise, if the title has to be made up, it must appear in the descriptive catalogue entry in square brackets. Can you really believe that the Canadian hydrographic charts have no "title proper?" Such is actually the case; hydrographic charts

have sheet titles but since 1903 when the first chart was produced in Canada by the Canadian Hydrographic Service itself, without the aid of the British Admiralty, there has never been a consistent overall title for this group of maps. I have searched high and low through the charts themselves and then through catalogues of nautical charts since the 1930s and have found no consistently used series title.

How can the map cataloguer help the map producer and how can the map producer help the map cataloguer. In other words, how can we co-operate? Back to the theme of our meeting. I feel very strongly that the time has come here in Canada for the map producers to stand up and take notice of the literature concerned with cartographic documentation, to begin to meet on a professional working level, and to consult with map documentalists throughout the design and printing stages of their map production processes. It is only if we explore our common interests and concerns at the pre-publication stage, that the map producers will begin to stop hearing us complain.

I recently presented a paper with a similar theme to the Canadian Cartographic Association's meeting with the Ontario Institute of Chartered Cartographers at Sir Sanford Fleming College in Lindsay. Much to my pleasure I was contacted, after my paper was presented, by Professor Gerald McGrath of Queen's University, Department of Geography, who was interested in this theme and who suggested that he would be interested in discussing the possibility of arranging for a common meeting ground in the form of a working session of perhaps one or two days duration, where map producers and map documentalists could come together to explore common concerns. This seminar will probably be organized sometime in 1984. To illustrate one small contribution such a meeting might produce, let me point out one or two things which are now common practice in the world of book publishing and book cataloguing. You are all aware that all currently published books contain on the verso of their title page Cataloguing in Publication Data (CIP), prepared by a national bibliographic agency.

This CIP information constitutes a preliminary catalogue record containing the title of the work, the main entry (or the main access point under which this work will be found in a library card catalogue), and added entries or other access points such as subject, author, or title under which this book might also be located in a card catalogue. All of this cataloguing information is prepared by cataloguers in the national bibliographic agency of the country in which the book is published. [In the U.S. this is the Library of Congress; in Canada, the National Library; in the U.K., the British Library.] This work is carried out before publication takes place and so can be included in the book for the use of all libraries when the book is published.

Another piece of information is the ISBN or International Standard Book Number, a numbering system which is administered by the national bibliographic agency in conjection with all book publishers. This ISBN provides a unique identifier for each book, especially in an automated retrieval system. These practices are defined by regulation and the information must be included in all books published by commercial publishers. I realize that most maps in series are published by government publishers, rather than by commercial publishers, but this might in fact make co-operation toward some sort of Cartographic Cataloguing in Publication Data even easier, i.e. government working with government.

Incidentally, because the National Library does not collect cartographic materials, the National Map Collection of the Public Archives of Canada, while recognizing that it is not the national bibliographic agency considers itself responsible for compiling and maintaining national standard bibliographic records for cartographic materials. Perhaps it could as well administer a cartographic CIP program as a subagent for the national agency. If such a program were instituted, map librarians would be saved much of the agony of the cataloguing process, and map producers would have very straightforward bibliographic data to include on their maps before publication. In any case, map producers are still unconvinced. Let me give some additional examples of the kinds of information we require to properly and adequately document the maps they produce.

Take the title, for example. In AACR 2 and the Manual of Interpretation of AACR 2 for Cartographic Materials, literally pages and pages of rules are given to help the cataloguer establish the title of the item in hand. These rules are not so complex if the title is shown on the work but become more complex when trying to explain to the cataloguer how to construct a unique title if the necessary elements of title are scattered across the face of the map or if there is no title or title-elements on the map. In what order do you place these elements: National Topographic system (or is it N.T.S.?), 1:50,000, Canada? Do you title the maps as they appeared when the series was first published--series often go on for many years and changes occur in such elements as title or publisher during those years--or do you take the title from the most current maps? How do you compose a title for a group of maps which the publisher includes in a preliminary paper series which includes many maps with "A" numbers, published by the Geological Survey of Canada after 1935? Or Preliminary Series maps published from 1956 onwards? Who is the publisher when the maps give the three elements Environment Canada, Department of the Environment, Ministère de l'environment? What does the producer intend the map to be called when the map gives one title and the accompanying index shows another title? I leave these questions with you.

In conclusion, let me say how exciting it is to be involved in this cataloguing project at a time when the field of map cataloguing has come of age; what a pleasure it is for me to be associated with the National Map Collection once again and how I appreciate this opportunity to be part of the Association of Canadian Map Libraries after such a long absence.

* * *

TELIDON AND MAPS: A LIBRARY EXPERIMENT

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Introduction

The work that I have been doing with Telidon and maps over the last few months has arisen out of Carleton Library's participation in the iNET project. Just a few short months ago few of us at Carleton had even heard of iNET. Over a brief period of time in January and February we received a rapid course of informal instruction gained mainly from trekking around Ottawa at roughly weekly intervals from the Department of Communications, to Informart, to Bell Canada and back again, in order to view samples of Telidon systems already in operation. Meeting followed meeting, and eventually it was decided that, in addition to contributing Carleton's on-line catalogue 'CATSUP' to the iNET project, two specifically Telidon applications would be developed: one to explain the use of the microfiche catalogues and the other to provide a guide to resources for African studies at Carleton. The latter was to be a joint project of the Documents Division and the Map Library.

Today I want to talk to you about the maps component of this last project. In order to do this, however, it is necessary to provide some background to iNET itself and to explain briefly Telidon's characteristics and methodology. My talk will therefore fall into three parts. The first will deal with iNET, the second with Telidon, and the third with the maps we are creating for Telidon.

iNET

The word iNET stands for "intelligent telecommunications network." The concept is one of a central computer acting as a "gateway" to link individual and physically distant host computers each operating on its own system. These systems, without the "gateway," would be incompatible with one another.

The basic objective of iNET is to simplify the exchange of information stored in the computers of various institutions in a wide variety of locations. To this end the system is adapted to the use of inexperienced users: only one log-on procedure is required to reach remote databases; the query language is "user friendly," providing different levels of explanation for beginners and experts; on-line directories of services and individuals are provided, and identified users may transmit messages to one another using the Envoy 100 electronic mail system. Each user has a unique (but modifiable) profile denoting which data bases may be used as well as a password and I.D. number.

The iNET system has been developed by the Computer Communications Group of the Trans-Canada Telephone System and is an outgrowth of the Telidon technology developed in recent years at the Department of Communications. A one-year field trial lasting from July 1982 to July 1983 has recently started. For the trial, 400 terminals have been made available to users and information providers (I.P.s). Of these, 150 are alphanumeric or ASCII terminals with which libraries are already familiar. A further 250 are

alphageometric or Telidon-type terminals which can portray graphics as well as text. Fifty per cent of these are colour terminals similar to home television sets and the rest are small black and white displayphones. Carleton Library has use of thirteen terminals. During the trial there are no charges to participants, but subsequently charges will be made both for information storage and for access.

A variety of "common interest groups" are participating in the trial. On the commercial side there is one representative from each major segment of the commercial world--travel agents (The Bay Travel), oil companies (Gulf), banks (the Royal Bank), real estate agents (A.E. LePage), for example. Governments are represented by the Federal Government and the Quebec Ministry of Justice. Libraries--the Bibliographic Interest Group--are represented by the National Library, CISTI, the libraries of the Université du Québec, and Carleton, Guelph and Waterloo Universities. Such a diverse group of participants supply a wide range of data bases for consultation.

The libraries are primarily interested in participation in order to determine the extent to which the new communications technology can make access to library resources easier. On the practical level immediate access is gained to each other's systems and data bases for shared cataloguing and for on-line searching in reference work. Electronic mail can be used to improve interlibrary loan services. And it will be possible to experiment with the use of consumer and business information data bases to see if they help in providing up-to-date reference service.

In addition to these advantages, iNET provides the opportunity to develop videotex instructional and educational packages to test how useful the methodology can be in introducing the library and its services to students, publicising the library and university, and in otherwise serving the university and the community. This is where the microfiche and African studies applications fit in.

What then is Telidon and what is its significance for maps and map collections?

Telidon

Telidon is one of several videotex systems, such as the British PRESTEL or the French ANTIOPE, developed in the western world in recent years. It uses a modem (modulator-demodulator or black box) to translate pages of graphics, or combined graphics and text, into computer language. Each screen-ful or page of information may then be transmitted by a standard communication medium such as telephone or cable to a central computer for storage in a data base. Information may subsequently be retrieved by a user at a remote alphageometric terminal.

Telidon's capabilities for portraying high quality graphics are demonstrably superior to those of the earlier (and successfully operating) British PRESTEL system. It is these graphic qualities which make it interesting for those of us concerned with maps. The earlier system used what is known as an alpha-mosaic form of picture construction. The term is self-explanatory, and one needs only the mental image of a Roman mosaic to visualize the effect upon maps: diagonal or sloping lines such as are required by map boundaries have a jagged appearance, especially when the building blocks of the mosaic are relatively large. In addition, each element in a picture created by this system has to be stored separately so

that complex graphics are costly in computer storage time.

Telidon, in contrast, uses picture description instructions (PDI's) for each point, line, rectangle, arc and polygon entered. That is, it breaks down an image into its basic geometric elements, and the picture is created by overlaying objects one upon the other. This has the added advantage of requiring less computer storage space and less time to reconstruct the image when it is retrieved.

As a result of these advantages, considerable claims have been made by enthusiasts regarding the potential of Telidon for portraying maps and for use in map collections. In a recent paper published in the June 1982 WAML Information Bulletin, Minilusic states unequivocally: "Its (Telidon's) powerful graphics and text capabilities make it ideal for map libraries as an interactive cataloguing and display system."

Maps in the Carleton African Studies Package

Having seen and heard the claims for Telidon's potential, an important personal and secondary objective of the map section of our project came to be to make my own preliminary assessment of maps on Telidon using the hardware and software at hand at Carleton. I wanted to give preliminary consideration to such questions as: how useful is the medium in helping to explain the classification of a map collection? can it be used to decipher a complex graphic map index? will it be useful in cataloguing or, alternatively, in providing easier access to those areas of a map collection where cataloguing has not been accomplished? will it be of use for acquisitions or for interlibrary loan? These are questions far too broad to be answered in one single experiment, especially one which has a primary and more immediate practical objective. However, it was with such questions in mind that a number of pages were incorporated into the total package.

For a basic test I wanted maps which showed:

1. A major geographical area.
2. The area divided into major regions.
3. The area divided into smaller units or countries.
4. One or more major regions on a larger scale divided into countries.
5. The area subdivided into overlapping rectangular areas to indicate the geographical extent of areas shown on regional maps, for example, wallmaps or travel maps.
6. The area showing point locations together with an alphabetical index of city maps.
7. A map showing a relatively complex graphic index.

In addition, the importance of certain design considerations had already become clear although the answers to the questions had certainly not.

First, how much information can be placed effectively on the page? This is dependent, not only on the technical capabilities of the hardware and software, which are considerable and steadily improving, but also upon perceptual and behavioural considerations associated with reading complex visual messages from a small screen. Such studies as have already been conducted regarding the amount of information shwon on a single page have been particularly related to the quantity and legibility of text. They have led to the rules for page construction that were supplied to iNET participants:

Page format rules apply to all pages, index/menu and document, to be stored on the videotex database computer.

The maximum size of a page is 20 lines x 40 characters (200 x 256 pixels) in the smallest character size (5 x 7 pixels). The available space for I.P. content is 18 lines x 38 characters to allow for different standard videotex systems. The bottom line is reserved for system and error messages and is not to be used for I.P. content.

Eighteen lines by 38 characters is not very much space, especially if one considers that the Information Provider must also be identified on each page and routing instructions to the user provided. If one takes a good portion of this space for a map there is not much room left for descriptive or explanatory text. And if the map itself is small how best can labelling on the map be achieved?

This leads to the second question: how can the graphics and text on a page be interlinked? Many examples of Telidon pages I had seen seemed to me to use graphics merely as illustrations rather than as an integral part of the meaning of the page. Such illustrations rapidly become redundant and annoying to the user.

Third, how much detail is really essential to the meaning of a particular message--or can the basically schematic nature of the picture construction method be used instead to clarify the message?

Fourth, the graphic is reconstructed in front of the user in the sequence in which it was input. How can the time-wasting aspects of this be minimised and the positive animation and dynamic potential exploited?

Fifth, there is the question of colour. Eight colours (including black and white) and six greys are technically possible and certain cross hatch patterns are available to produce mixed tones. But how many classes or colours are effective on any one page? And can complex colour combinations as, for example, in chorochromatic or choropleth maps be read adequately from the small screen? And if too many or the wrong colours are used will they show up on the black and white displayphone?

The displayphone does not offer a full-colour scale. Text and graphics are displayed in shades of grey. For proper page design, it is important for I.P.s to know how the full Telidon colours show up on a displayphone. The colour correspondence is as follows:

Telidon	Displayphone
Black	Grey 7
Blue	Grey 6
Red	Grey 5
Purple	Grey 4
Green	Grey 3
Cyan	Grey 2
Yellow	Grey 1
White	Grey 0

Therefore, a red rectangle on a grey 5 background would show up on a Telidon terminal but would blend in with the background on a displayphone.

The project is not yet complete and you can see that so for more questions have been raised than have been answered. Any long-term conclusions about the usefulness and the value of Telidon will, I think, have to wait until a later date.

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VIDEO DISCS AND MAPS

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Video Disc Systems

The Public Archives, like other government departments, is faced with the ever growing problem of where and how to store the masses of material that are accessioned each year. In 1978, the Public Archives decided to investigate alternative methods of storage. The method chosen was a laser-encoded, optical video disc. This is a short summary of the pilot project and the results that were obtained.

Before beginning to describe the system we should have a clear understanding of what a laser-encoded video disc is. In the production of a video disc, the original material is assembled onto a support material such as 35mm or 16mm videotape, either 2" quad or 2" helical, 1", or cassettes; one could also use slides. Once the material has been assembled as mentioned, this support material is then sent to a factory where various steps are taken, including the transferring of the images on the support material to a glass plate; this plate is then processed and becomes the master. From this master a stamper is created. From the stamper duplicate discs are pressed. These discs hold 54,000 images per side and two audio tracks, and you can have either stereo sound or a different language on each track. Transmissive discs are transparent thus giving the laser beam access to both sides without the need to take the disc out of the player. One can display any of the 108,000 images within about four seconds.

The primary reason for selecting the video disc as a storage media is its large storage capacity. For example, one side of a disc can carry the following: a 400,000 entry dictionary at 50 words per entry; 40,000 pages of a textual material; 1,000 programs for a small computer (if the disc is digitally encoded); 5,000 still photographs; 8 hours of narrated film strip presentations with 2 images per minute; or 12 minutes of standard television motion sequences. The chief scientist of Xerox Corporation said in 1978 that by the middle of the 1980s that the entire contents of 18 million volumes of the Library of Cangress could be stored on 100 discs. Other factors were the longevity and stability of the information being stored and the random access capability. Video discs that have been digitally encoded can be replicated without loss or degradation of any kind at any point in time by the use of error-correcting coding.

The system that we put together for our pilot project consisted of a Thomson CSF Model 3620 Videodisc player, a Vectorgraphic microprocessor, a Hewlett Packard terminal, and a Sony television monitor. A small computer search program was written to demonstrate the capability of doing a computerized search using key words to find individual images.

In the preparation of the disc, all the divisions at the Public Archives were asked to select various items from their collections that they would like to see on the disc. These items included prints, paintings, drawings, manuscripts, medals, photographs (black and white and colour), and motion picture film (black and white, colour, 16mm and 35mm). Since there was a great variety of shapes and sizes to contend with, we knew that there would be a problem with resolution. To overcome this problem, each object was measured in width and length and a printer's glass was used to determine the finest line for resolution. These figures were fed into a computer and

gave us the number of images required for each object; this also enabled us to read text from a printed page that we would not normally be able to do. These frames, arranged in the form of a matrix for each item, had to have a special set of rules made so that having found the desired frames, it would be a simple matter to access the rows and colums using the specially marked arrow keys on the terminal. This key information would form the basis of the information software package for the computer.

All the objectives of the pilot program were acheived. It has been demonstrated that a wide variety of material can be stored on a video disc and retreived using computer access. The colour stability and the audio quality are very good. The compactness of the storage medium has been demonstrated by the ability to store 108,000 images on a very thin plastic disc. We also have the capability of producing hard copy prints from the image being displayed on the monitor.

The conclusions and recommendations of this project were presented to our Senior Management Committee in November 1980 and at that meeting it was agreed that further study was required. Two of the divisons in the Archives Branch were selected and an in depth cost-effective study conducted. These results were encouraging and again presented to the Senior Management Committee. It was then agreed that the video disc project would continue. A departmental Video Disc Committee was established and a policy paper was prepared. The next phase will be the development of an operational system which will be used in two application areas so that the operational aspects can be evaluated.

There are now quite a few companies involved in the production of video disc equipment including RCA, Phillips North America, Phillips of Holland, Burroughs, Drexler Corp, Quixote Corp, and Sony. The Public Archives will be able to draw on the expertise of these companies in order to develop a system meeting its own requirements.

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REMOTELY SENSED IMAGERY IN A RESEARCH MAP LIBRARY

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Remotely sensed imagery is a new and challenging frontier for information science. For many years, some research libraries have collected conventional aerial photography for small geographic areas or specific physical features. However, due to the storage problems associated with the large quantity of photographs this required, the limited number of trained library service people, and the lack of uniform bibliographic information for remotely sensed data, imagery has not been collected systematically or repetitively.

Satellite imagery and aerial photography are now being demanded as essential research materials. This has resulted from academic institutions developing curricula using or supporting remote sensing as a new science. Libraries must be responsive to this new technology and confront the realities of collecting, accessing, and servicing these vital information resources. Only by using compatible bibliographic systems, networking, and inter-university sharing can libraries offset the high financial impact of providing needed imagery to researchers.

Remote sensing technology is generating new data formats that support broad education emphases. It is moving libraries into a new era of collecting media. This resource material is interdisciplinary. It is available to all researchers in formats that lend themselves to applications in almost every subject field. It is objective data that can be subjected to the researchers own interpretation. The information contained in these materials has become a necessity for scientists and managers who deal with the dynamic aspects of the Earth's political, social and physical environment.

To meet the academic needs of the University, a prototype library department was built at the University of California, Santa Barbara (UCSB). The Map and Imagery Laboratory at UCSB is an 11,000 square foot facility comprised of a Remote Sensing and Cartographic Laboratory and Library Collection of more than 1.7 million images, maps, and related materials. In response to many academic needs and research interests, this facility was custom-designed to make interdisciplinary use of the collections and laboratory equipment. Using maps and imagery together increases their effectiveness as informational resources. During 1981, the facility aided research and teaching in more than 35 academic disciplines. The map collection provides cartographic coverage of the world at many varying scales. Subjects emphasized in this collection are the physical and biological sciences, topography, oceanography, land use, environmental conditions, urban planning, and resource development. The imagery collection contains 1.5 million photographic frames ranging from standard black and white prints to color infrared and radar transparencies. It also contains 16mm microfilm copies of NASA and USGS photography of the United States. Multispectral 70mm imagery covering a sequence of years is available for much of the world in Landsat 2 transparencies. The collection also maintains a 16mm microfilm file of Landsat 1,2, and 3 (band 5) imagery.

The laboratory provides students and researchers, in all subject fields, access to its remote sensing and cartographic equipment along with individualized training on the instrumentation. Included among these instruments are: monocular and stereo Zoom Transfer Scopes, four types of zoom stereoscopes, a multispectral additive color viewer, a high resolution film viewer, Map-O-Graphs, Polaroid and Hasselblad copy camera systems, various types of manual and electronic planimeters, several variable intensity and standard light tables, and complete drafting stations. CRT and hard copy terminals serve as the laboratory's link to the United States EROS Data Center's Image File, the Campus Computer Center, and the Computer Science Lab.

It has been proposed that this Library Laboratory become the University of California Imagery Resource Center. This will result in these additional services to researchers: (1) Computerized and manual information searches by geographic area and access to remote sensing materials in the UCSB and other participating collections. (2) Development of new and innovative uses of the Center's collections, equipment and computing capabilities for (a) research, (b) the production of new imagery and graphic products, and (c) the design or modification of software for data analysis and collection indexing. (3) Interlibrary loan of designated materials to other facilities with approved handling capabilities. (4) Formal workshops, short courses, and seminars on remote sensing as a tool for both basic and applied research through the use of the Center's equipment. (5) Acting as a prototype to other organizations needing assistance in handling remote sensing materials.

LANDSAT Consortium

Early in 1981 the United States Department of Agriculture's Aerial Photography Field Office awarded, through competition, their collections of Landsat imagery to four educational institutions which had shown exceptional interest in the development and use of remotely sensed imagery. The recipients of this unparalleled gift, valued in excess of $30,000,000 were: the Map & Imagery Laboratory at the University of California, Santa Barbara; the American Geographic Society Collection in the Golda Meir Library at the University of Wisconsin, Milwaukee; the Geography Department at Oregon State University; and the University of Arizona's Library.

To make all components of the Landsat gift available to more university researchers, the Map & Imagery Laboratory initiated the formation of a cooperative resource-sharing network comprised of the recipients of the imagery. At the first meeting of the consortium, held at the University of California - Santa Barbara, the mechanisms for loaning, storing, handling, and reproducing the imagery were discussed. The principal advantages for the establishment of this consortium are adopting common accessing methods for the awarded imagery and the cooperative sharing of the materials.

At the organizational meeting held in August 1981, several issues were addressed in order to effectively coordinate the imagery collections.

1) The area and date scope of each collection had to be determined and a composite inventory made. The USDA Landsat imagery gift was comprised of MSS and RBV scenes processed at Goddard Space Center and reproduced as second generation negative images. With the initial success of Landsat 1, various countries decided to build their own Landsat Satellite Receiving

Stations. This permitted them to receive data directly from the satellites and process it according to their needs. After these stations became operational, the United States recorded only selected satellite data for the areas served by these foreign stations. The various dates for the activation of non-U.S. receiving stations had to be established in order to determine the extent of foreign coverage in the consortium member's collections. It was also noted that researchers could obtain additional information about non-U.S. Landsat coverage through the individual receiving stations or from cooperative service networks, such as Europe's EARTHNET.

2) The members also had to agree on accepted methods of handling the rolls of negative imagery, particularly in a library atmosphere. Researchers normally prefer to use imagery in a positive format. Several ways of converting the negative imagery to a positive format were outlined. Some of the methods discussed were: contact printing, photographing the 70mm negative image with negative copy film to produce a positive photograph, and contracting with a commercial photographic reproduction firm. It was decided that each collection would choose the system that best met the user's needs providing the original negative was not damaged. Recovering the monetary charges for the reproduction services would be the responsibility of the collection holding the needed material.

3) It was imperative that each collection use a common indexing system for the Landsat imagery. The method decided upon is based on the Worldwide Reference System (WRS) developed by the United States' EROS Data Center. This system was chosen because it had a proven service record and was based on EROS' MicroCatalog which is available to all consortium participants. Each institution would need a minimal monetary investment to control their own collection and yet have bibliographic access to the others. Since this system is in wide use within the United States as well as other countries, patrons from other institutions could use the same referencing system when requesting information about the collections' contents from the consortium members.

The Landsat Worldwide Reference System (WRS) was constructed so that all images from Landsats 1, 2, and 3 could be organized and accessed using a global location method. An indiviual image is known as a 'scene'. Each scene has a predetermined geographic point as its approximate center. This point is designated by an intersection of the northeast to southwest path of the satellite and a right angle position known as the row. These intersects represent a position on the earth where an image is taken on each successive pass of the satellite. The EROS MicroCatalog is arranged by these predetermined path and row intersects thereby allowing a user to search for the availability of imagery in a particular area. Once a user has determined that an image exists and meets the desired technical criteria, a second file known as the MicroImage Catalog may be consulted. This file consists of actual 16mm images of each scene within the desired path - row locality. From this product a user can determine for himself if the image is acceptable or whether clouds or other factors make it unusable. Once identified, the image may be used at the collections of the consortium members or may be purchased from the agency holding the original data. There are similar retrieval and viewing systems for imagery available through Canada's Center for Remote Sensing and Europe's EARTHNET.

The delay in distribution of current microfiles produced by EROS is its weakest point. Updating the MicroCatalog can take three months or more.

An alternative, but more costly method, is to have a computer link directly into their main database. Such a link exists between UCSB's Map and Imagery Laboratory and the EROS Data Center. This telecommunications link provides the most current information on available imagery. It also allows quicker and more flexible searching. EROS' data base is known as INORAC (INquiry, ORder, and ACcounting) and provides the user with several methods of searching by geographic coordinates. Searches provided under this system can be refined by factors such as the quality of image, the amount of cloudcover, the scale, formats, dates, and producer. The database system is not limited to the imagery from Landsat; it also provides information on several other kinds of remote sensing photographic products from various United States government producers. INORAC also provides information on special products, such as color composites of Landsat, that will not appear in the MicroCatalog if they were generated after the original imagery information was entered into the microfile database.

Overview of Satellite Imagery

Detecting the nature or condition of something without actually touching it is called "remote sensing." The term is usually restricted to methods that employ electromagnetic energy, such as light, heat, and radio waves, as the means of detecting and measuring characteristics of objects. Electromagnetic energy refers to all energy that moves with the velocity of light in a harmonic wave pattern. Our eyes are one of the most common examples of obtaining remotely sensed information. "Remote sensors" are the mechanical or electronic devices which collect physical information from a distant source. Some sensors, primarily the cameras, utilize visible energy; others use types of radiant energy, such as x-rays and radar, which cannot be seen by the human eye. All of these energy wavelengths together make up the "electromagnetic spectrum." Radiant energy is the common denominator to all remote sensors. Theoretically, sensors can be designed to discriminate between discrete radiant energy levels; the problem, however, is in determining the individual energy response under all atmospheric conditions for the object that is to be detected.

In the early 1960s, the United States Manned Spacecraft Program gave the general public their first look at the Earth using remote sensing systems capable of detecting considerable detail on the Earth's surface. These new high altitude satellite observation platforms provided man with the opportunity to obtain a new synoptic perspective of his planet's environments. Information obtained from this new technology has enabled scientists and planners to more sensibly develop and utilize the Earth's limited resources. Prior to the development of satellite imagery, resource planners had to rely on photographs taken from low to medium altitude aircraft. Relying on that type of photography had two limitations for large area analysis. First, each photographic image covered only a relatively small geographical area resulting in many images being needed to survey a defined study site. Second, the identification of ground features was confined to those that would register on film functioning in the visible range of the electromagnetic spectrum. Scientists realized that a broader perspective could be gained by stepping farther away from the planet and by extending imaging capabilities beyond man's visual range.

Remotely sensed satellite imagery, as a viable information tool for research, was born when a picture of the Earth was obtained from space in 1959. The systematic use of remotely sensed satellite imagery came in the

early 1960s with the launching of the TIROS and NIMBUS meteorological satellites.

Also in the 1960s the Gemini and Apollo astronauts, using handheld cameras, illustrated some of the scientific benefits to be gained by observing the planet's surfaces from space. On the Apollo 9 mission, four Hasselblad 70mm cameras were successfully used in tandem to image the southern part of the United States. Using different photographic filters, the film in each camera was sensitized to separate spectral wavelengths of light. This Apollo experiment demonstrated the usefulness of imaging the Earth in multiple spectral ranges. The same multispectral principle was adoped for the Earth Resources Satellites imaging systems.

The first ERTS Satellite was orbited in 1972 to study the feasibility of examining earth resources from space. Before the launching of ERTS-2, the Earth Resource Satellites were renamed "Landsat" to differentiate them from "Seasat," the oceanographic satellite. The Landsat program was generated principally for the U.S. Department of Agriculture and the Geological Survey to acquire information about the Earth's surface and inventory the planet's resources. Up to 1972 this type of data had been acquired primarily by low to medium altitude aircraft using conventional camera systems and standard films. Landsat offered an exciting new perspective. Imagery received from Landsats 1, 2, and 3 has formed the basis of international interdisciplinary terrestrial research. Landsat data is an alternative research tool that can be afforded by the most distressed national economies.

Landsat satellites were not designed to use conventional cameras. Because of their high operational altitude, 570 miles (912 kilometers), electronic digital information gathering systems were employed to provide broader spectral sensitivities; they also had the added advantage of being integratable with other computerized geographic information files. These satellites carry two remote sensing imaging systems. The primary sensor is the Multispectral Scanning System (MSS) which is a direct descendant of the Scanning Radiometers flown aboard the NIMBUS and TIROS meteorological satellites. The second system consists of Return Beam Vidicon (RBV) cameras which were developed from the television cameras used on the first TIROS satellites. The nature of the spacecraft orbit enables the entire globe to be imaged once every 18 days on a continuous cycle. This new synoptic view from space allows up to 13,000 square miles (33,800 square kilometers) of the Earth to be imaged in one photograph. Moreover, this can be done repetitively. Researchers and scientific groups in over 130 nations have been benefiting from the information obtained from Landsat imagery.

Landsat data provides a new window through which man can view the world. This perspective has focused attention on the need for more meaningful international cooperation and information sharing in order to better manage the Earth's limited resources. A single satellite image conveys as much information as thousands of written words; it is a veritable encyclopedia. Supported by ancillary data, each image represents a universe of up to date information from which the user can select the part that deals with his interest.

Before illustrating how these new imagery products have impacted a variety of disciplines, it is important to recall that the satellite's imaging systems record only selected portions of the electromagnetic spectrum;

these divisions are known as "bands." By using a particular band or a combination, a researcher may identify or derive information about a feature or object on the Earth's surface. Moreover, this can be done in the context of a synoptic view of a large area. The following selected examples provide a brief summary of the interdisciplinary nature of this new informational tool.

The world's agricultural community has benefited from the use of Landsat imagery to help in the identification of diseased or insect-infested crops, enabling their early isolation and treatment. The repetitive cycle of Landsat coverage enables agonomists to study the success of the treatment or monitor the spread of the disease. Scientists are also using this data to measure the cropland acreage, assess the crops under cultivation, and predict crop yield. Soils are being succesfully classified and mapped from satellite data which enables governments to plan and manage more effectively their land use and development. Mapping the natural vegetation of large areas has led to improved range management, prediction of the fuel loads in high risk fire areas, estimation of seasonal availability of food for wildlife, and preservation of natural resource areas. Forestry researchers are using the data to estimate timber volume, locate areas with erosional potential due to logging operations, and provide supplemental planning tools for preservation and reforestation. Hydrologists throughout the world are detecting potential ground water resources, determining watershed areas, estimating water runoff from snowpack for urban and agricultural development, and making flood assessment surveys using several dates of Landsat imagery. Geologists are successfully using the satellite data to identify tectonic features on the earth, assist in mineral and petroleum exploration by identifying and directing attention to various geologic anomalies, and aid in the construction of more accurate geologic mapping. Geographers are using Landsat digital data to map information about areas of the world where no such mapping has ever been done. Other such diverse disciplines as epidemiology and computer science are also benefiting from Landsat data. These few illustrations are intended to alert library administrators to the broad user community and the need for subject specialists technically qualified in remote sensing to collect, access, and service this new data format.

The spectacular achievements of Landsats 1, 2, and 3 in carrying out the Earth Resources Remote Sensing Mission have prompted the United States, Europe, Japan, as well as the general worldwide user community to develop new remote sensor capabilities. One of NASA's new sensing instruments is called the Thematic Mapper, which is aboard Landsat D. This sensing system has major performance improvements over those in the first three satellites. First, its ground resolution is 30 meters, 2.5 times better than the 80-meter resolution of Landsats 1 2, and 3. Second, the imaging wavelengths selected are directed more towards specific user needs. The SPOT satellite system being developed in Europe is reported to have 30 meter resolution; the launch date is scheduled for 1984. Japan's ERS - 1 is planned to have a resolution of 10 meters. These new and more cost effective systems will expand, on a global dimension, the kind of detailed and timely information needed by decision makers and researchers concerned with the future of a nation.

It is the responsibility of libraries to organize and service information resources. If they are to fulfill this mission, they must accept satellite imagery and, indeed, all remote sensing data, as legitimate and necessary library materials. Persons who are technically competent in remote sensing

must be recruited to collect, bibliographically control, and service this media. Proper viewing and storage facilities must be incorporated into library service centers. Collecting remote sensing is an expensive and challenging endeavor; only through networking may participating libraries hope to be responsive to the teaching and research community they support.

* * *

DOBIS/LIBIS AND CARTOGRAPHIC MATERIALS AT UNIVERSITY LIBRARIES IN ALBERTA

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This paper will give you an introduction to DOBIS/LIBIS installation at the University of Calgary Libraries and how it affects cartographic materials. DOBIS/LIBIS is an on-line integrated group of computer programmes which will handle all library operations. The DOBIS group handles public inquiry and cataloguing and the LIBIS group handles circulation and acquistions functions. The system was developed in Europe and is available from IBM.

There are three versions of DOBIS/LIBIS. The National Library of Canada has developed its own version,[1] which has been in use primarily for cataloguing and the National Union Catalogue. Five other federal government libraries use DOBIS in a network environment for both cataloguing and public access and the British Columbia Union Catalogue has been seriously considering use of this version. Centennial College in Toronto uses another version of DOBIS to catalogue centrally books purchased by all community colleges in Ontario. Ryerson Polytechnical Institute also uses LIBIS for circulation and acquisitions. The IBM version is being used at the following university libraries in North America: Alberta, Calgary, California at San Diego; and the following public libraries: Hamilton, Ontario and Austin, Texas. There are about twenty-five installations in the world in the following countries: Ireland, Germany, Belgium, Italy, France, Switzerland, Saudi Arabia and South Africa. Those using the IBM version hold periodic User Group Meetings. The IBM version is still being enhanced and is being updated continuously. Thus, those institutions using the IBM version do not significantly change the system as it will lessen their ability to accept programme updates.

The University of Alberta Library is investigating DOBIS/LIBIS as a pilot project. The University of Calgary Libraries is working with them to allow for maximum cooperation, but we are committed to its use and are presently planning its implementation for circulation, acquistions, cataloguing, and public inquiry.

Because it is an on-line system, information going into DOBIS will be handled only once, and all appropriate files will be updated instantaneously. Because of the authority file structure an entry does not need to be re-entered each time it is used for different records. It is only called up and checked for appropriateness. The record number is then attached to that entry. Should a change be required to that entry, it can easily be done and all the records will be attached to the new version of the entry. Information is only entered into the system once. A short version record created in the acquisitions stage will be enhanced during the cataloguing stage.

Technically, the system consists of a number of access point files (each access point is tagged with the appropriate document control number) and a bibliographic file subdivided into primary and secondary sections (each bibliographic document is tagged with the appropriate access point pointer to locate the appropriate access point).

Access point files consist of the following: names, titles, subjects, classification numbers, miscellaneous numbers, document control numbers, LC card numbers, and shelf list. Titles and a portion of the names file (corporate and conference entries) are permuted on key words automatically, i.e. the system creates extra entries for these terms and attaches the document control number to those terms. The subject file is not permuted (a permutation program is available but we are not planning to use it). The name, title, and subject access point files can contain cross references. The miscellaneous numbers file can include grid references such as NTS (National Topographic System grid) or IMW (International Map of the World grid), or any similar system. These access point files are tied to the bibliographic files, and the document control number assigned to the bibliographic entry is tagged to each appropriate entry in the access point file.

The bibliographic file is divided into two sections--primary and secondary. The primary bibliographic file contains the access point pointer (the system's locational reference or address for access points) for the first name, first title, and date of publication information. It is this information that appears on a short information display, i.e. the display seen by the user after selecting an access point and the display from which the user selects the item which attracts his attention.

The secondary bibliographic file contains the bulk of the bibliographic information including the access point pointers for the remaining name and title entries, subject headings, classification numbers, document control numbers, miscellaneous numbers, and LC card numbers. The information in the secondary bibliographic file is combined with that from the primary bibliographic file to show the full information display for the item desired by the user. The user will have selected the entry of interest from the short bibliographic information display and will request that the full bibliographic information be shown. Information on copies available can then be quickly displayed.

Local files can be attached to these system level files. It is this feature which allows DOBIS to facilitate networking between libraries. The local or individual library can accept the system level bibliographic file and maintain only a local copy file. Or, the local library can create a local catalogue containing information supplementing or replacing information in the system catalogue.

DOBIS is based on MARC format and is fully compatible with MARC. But DOBIS does not require that records follow the full MARC format and allows records to vary from the complete MARC format to non-MARC format. MARC coding (tags and indicators) is displayed in the form of tables, and the coding is done by the system as the cataloguer chooses numbers from the displayed tables. The cataloguer does not work with the dollar sign (etc.) or numbers. DOBIS does not yet accept all MARC format tags. Some of the special tags created for cartographic materials are not yet accepted:

034 - a coded version of 255 (following)

255 - mathematical data area--contains textual description of scale, projection, coordinates, zone, and equinox

The user communicates with the system through "menus." The DOBIS/LIBIS system is user-friendly. The system asks a question by providing a list of options on the screen. This numbered list of options is called a menu. The user types in the desired number and the system performs the required

coding and displays the next menu guiding the user through the cataloguing or search function. An experienced user can use chain commands to group responses to the upcoming menus. The system will process the group of commands and then display the menu remaining. This feature allows menu-displays to be by-passed.

Within the structure of DOBIS, we have considerable flexibility to change and add to certain menu elements. We cannot change or introduce new codes (tags), but we can customize the subfield coding. We are not creating a new version of DOBIS/LIBIS as the National Library did. We are using the IBM version which is being continuously upgraded and we do not want to hinder our acceptance of future releases.

Following the text are examples of a number of these menus. These are from the test package on which we are practicing. We are enhancing many of these menus to reflect the concerns at both the University of Calgary and the University of Alberta Libraries.

Figure 1 is the first menu for the in-house user. A number is chosen to move into the searching, acquisitions, periodicals/serials, or cataloguing function. Selecting 1 results in the menu shown in Figure 2. Here the user would chose an appropriate file and the following menu would request the search term.

Figure 3 is the screen appearing if 4 was chosen in Figure 1. It shows the various cataloguing functions. Choice of 1 will lead you to screen 4 (Figure 4).

This screen illustrates the type of access point files (1-8); series entries (9, 10) which are placed in access point files 1 or 2 respectively but which are separated for different handling and coding; notes (11) into which the bibliographic record's other information is placed (i.e. the information not normally used for searching; see Figures 7A and 7B); dates and defaults (12) contains the dates of publication information; coded information directing the system to either the monograph or serials fixed fields (13); and leader fields (14) MARC-style coding. Cartographic material is not yet a choice, and we cannot add it; this level of change can only be included in a system update from IBM. Relationships (15) is a method of linking series entries to copy entries; cross references (16) refers to access-point cross references; titles with search (17) is a method of adding meaningful but not bibliographically related titles as access points to the document entry.

Many of the cataloguing functions relate to choice of access points. Should the access point be already entered in the file, then that entry is accepted as an appropriate entry. Otherwise, the entry will have to be entered completely. Searching access point files often requires only a small portion of the entry to be typed in.

Figures 5 and 6 illustrate how the system assists the user in assigning MARC type coding for name entries.

Figures 7A and 7B illustrate coding possibilities for the notes field. This area will not be searchable on-line. Coding in this area will, for the present, highlight scale and projection information so it can be machine-located and manipulated, and placed in the proper fields when it is created. We will also be including in 1: remainder of title, our general

material designation, scale, and projection information. We will not generally include longitude/latitude information unless it is not obvious from other information in the record. The coding of menus such as types of notes is a portion of the system we can easily change and thus adapt DOBIS/LIBIS to our specific needs.

Figure 8 is the menu appearing in response to the choice of 2 on Figure 3. This screen allows the user to change access point files and delete documents.

Figure 9, in its four parts (A-D), illustrates a record for cartographic material. The first main paragraph on 9A includes the first title input and the remainder-of-title note. Publisher and date follow. (Place and publisher are inverted to allow for successful searching in the publisher access file.) The collation note follows. The next paragraph lists the various access point files and their respective entries.

Figure 9B includes classification numbers and the complete notes field. The system allows fourteen classification numbers which are not to be confused with the document's call number which appears in the copy file (9C and 9D). We can use the classification numbers appropriate to ensure that this document is listed in patron-expected locations.

Figure 9C includes document-specific information and allows for various notes to be included on the document's location and use. You also see that this copy is numbered 1246 while the bibliographic record is numbered 1245. Figure 9D will show the location and call number for all copies of this document. Copies could also be avilable in the Geology Library and Government Publications area.

This document's appearance on other output such as a typed card or Computer Output Microfilm catalogue would differ according to the print instructions for these formats. We are presently planning printing a shelf list card only and COM catalogues will be periodically issued for various purposes. DOBIS/LIBIS will be primarily an on-line catalogue for everyone.

Implementation

The preceding part of this paper has given you an idea of how DOBIS works and how the user interacts with it. We will now discuss the problem of implementation.

The university is giving the library considerable support. A team of seven programmers are preparing the system with minor modifications and ensuring that the system is debugged. They are also working out the problems involved in moving from our present automated system TESA. Of the present thirty DOBIS installations in the world, we will be an exception because of our plans to load a complex retrospective bibliographic file into DOBIS. The Hamilton Public Library, which is using DOBIS for circulation, has successfully loaded a smaller retrospective file of UTLAS records.

The Library has about 350,000 records in TESA. TESA is an automated system developed in the late 1960s by the University of Saskatoon. It is a batch system used by Cataloguing and Acquisitions for derivation of MARC records and for catalogue card and order form production. An automated circulation system is run separately, and it is older than the TESA system.

Because of its vintage, TESA records are simpler. Coding in TESA will be used to manipulate TESA records into the appropriate location in DOBIS. These records will not be of the same quality as records created after the DOBIS implementation. Thus, after the TESA records are in DOBIS, they will require upgrading, a chore which will no doubt keep us busy.

Cartographic records were not designed to be fully compatible with other records in TESA. A batch system does not require that but DOBIS, as an on-line system, requires that very strong consideration be given to access point compatibility. Access point consistency is very important because the machine is unable to display items that vary slightly from the one requested. Enabling the library patron to see cartographic material included in the machine's response to his query is a very important consideration for us to remember.

Cartographic records make up about 15,000 of the 350,000 records in TESA. These records will not have the following major characteristics:

1. AACR 2 format
2. LC-style subject headings (presently we use subject headings from the American Geographic Society)
3. searchable fields for scale, projection, date.
4. NTS access points in the new location (i.e. the other number access point file); these are presently in the subject field.

All of the above will require that these pre-DOBIS records receive some on-line editorial work. Of the four, the second is easiest to correct. Because of the access point file structure, we can quickly upgrade the terms used to appropriate LC terms or appropriate non-LC terms if LC terminology is inadequate. As the access points have the bibliographic document control number attached, these references will stay with the new form of the subject heading, and the new form of the subject heading will appear when that bibliographic document is called up.

Items one, three, and four will require changes to each bibliographic entry and will be very time consuming. They will be upgraded according to user needs and time available.

DOBIS will allow us to create better records with more access points. TESA allowed only six subject access points while DOBIS allows fourteen. NTS and IMW references will leave the subject file and be moved into a more appropriate file. Creation of extra area/scale/date entries is easier because we are treating it as a uniform title, and DOBIS allows fourteen title entries.

Scale and projection will be repeated in the record until DOBIS is upgraded to allow fields 034 and 255. Special notes (see Figure 7) will be used to allow this information to be machine-locatable.

Cartographic material requires area as a very necessary access point. LC subject headings have not treated area as an independent entry. Sometimes area precedes a topical heading, and sometimes it follows a topical heading. LC recognized this by creating MARC field 652 (subject added entry - reversed geographic). Subsequently, they have key worded their subject access file to make area terms accessible wherever they are located in the subject entry. We do not have this feature available and will always make an area subject entry as shown in Figure 9A.

Area and appropriate access points for cartographic material have often

been a cause for discussion, and incoming computer systems have created further quandaries for the map librarian/archivist. Figure 10 is a table that was constructed to assist the DOBIS implementation group in their appreciation of cartographic materials.

Conclusion

DOBIS appears to be a very good system for cartographic materials. It is a modern on-line system which will benefit both user groups--our patrons and ourselves. It allows more access points than our previous system and allows us to create new entry systems properly (i.e. NTS). It will accept both the complex MARC-style record and a very simple record. It allows local variations in records which some of the bibliographic utilities do not allow.

This paper has discussed some of the aspects of DOBIS/LIBIS and its use for cartographic materials at the University of Calgary Libraries. If the University of Alberta decides to use DOBIS/LIBIS, then this discussion will likely apply there also. A fuller discussion of implementation and its problems will be prepared by Mary Westell of the University of Calgary Libraries. She gave me tremendous assistance in the preparation of this paper.

Note

A very good discussion of DOBIS and the National Library's version is available - "DOBIS, the Canadian government version," by William L. Newman et al, Canadian Library Journal, August 1979, pp. 181-194.

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"DOBIS, the Canadian Government version"/ by William L. Newman et al Canadian Library Journal, v. 36, no. 4, August 1979, pp. 181-194.

* * *

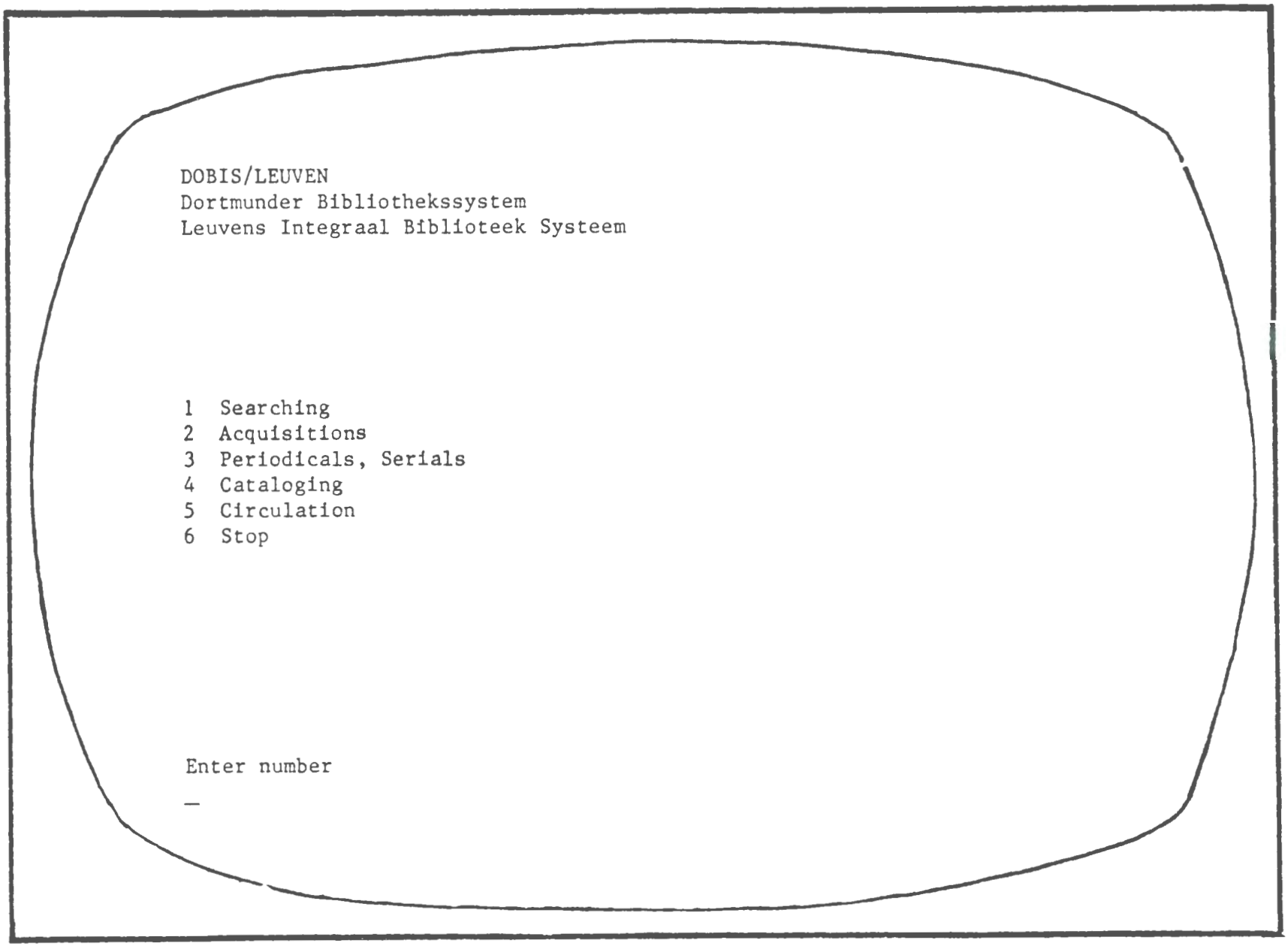


Figure 1 : Function selection; this menu leads the user into one of the major system functions.

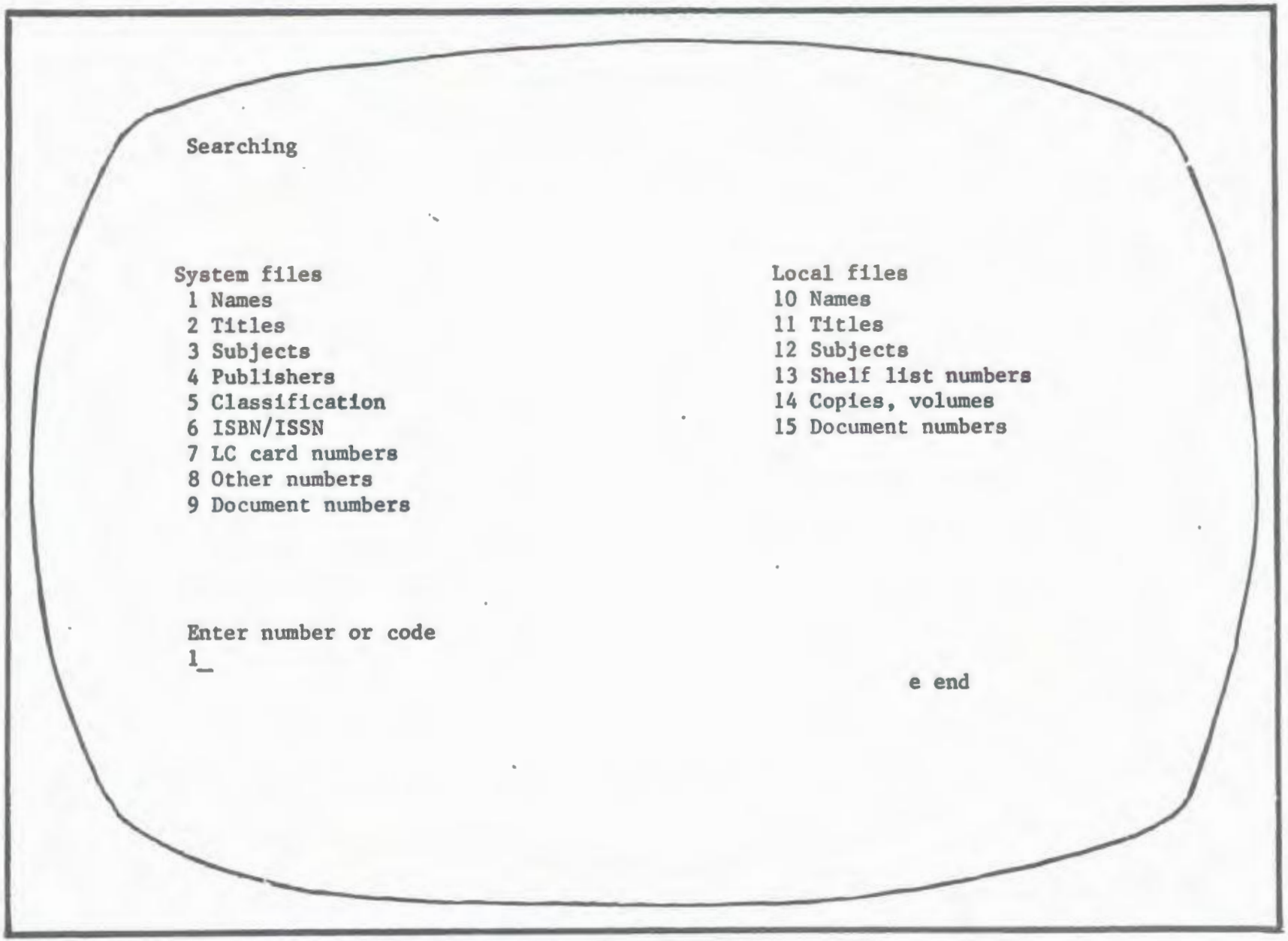


Figure 2 : File selection for searching; this menu allows the user to select the particular access point file in which he wishes to search.

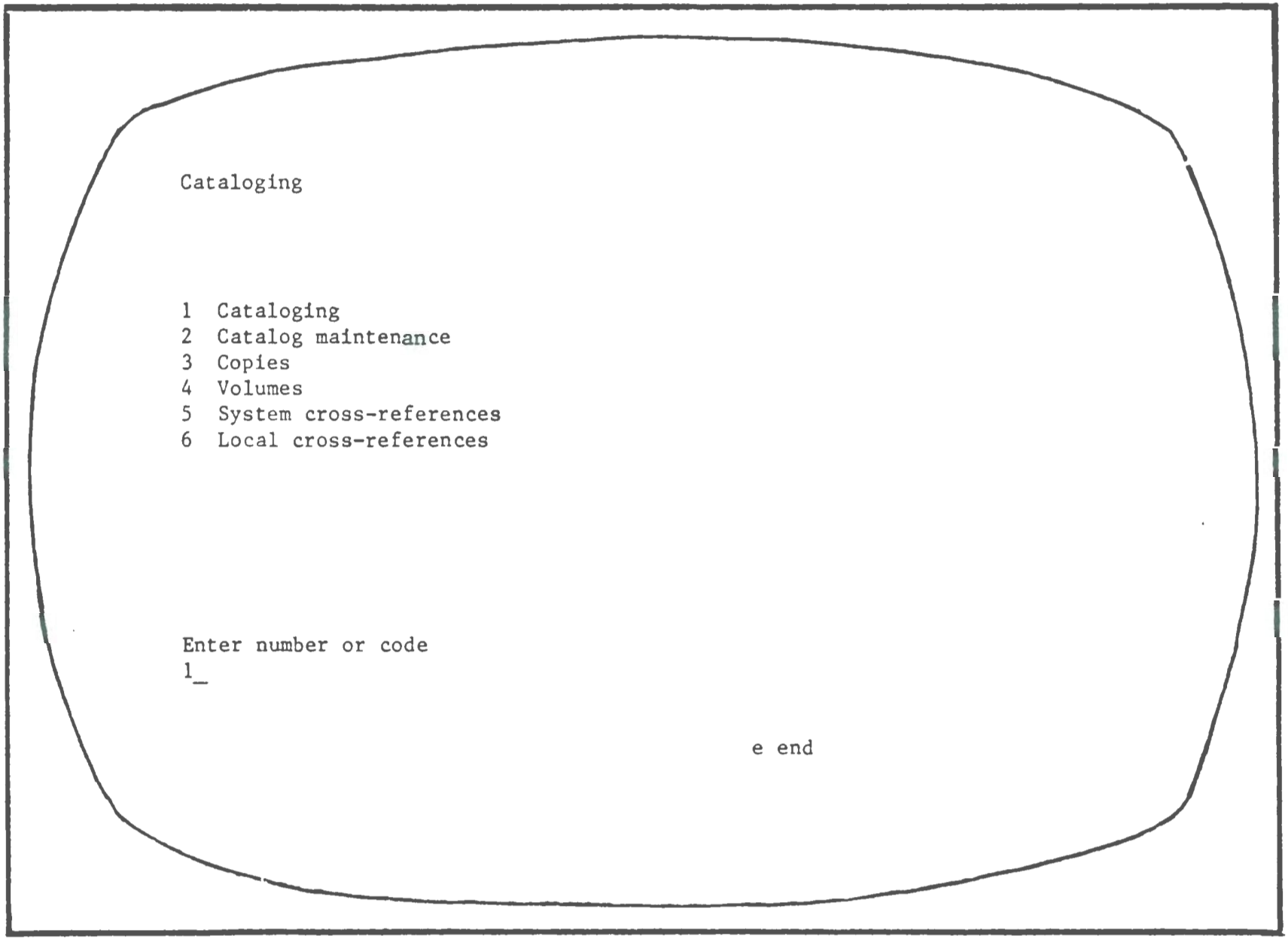


Figure 3 : Subfunctions in cataloguing

User response to this menu leads him into the different cataloguing subfunctions.

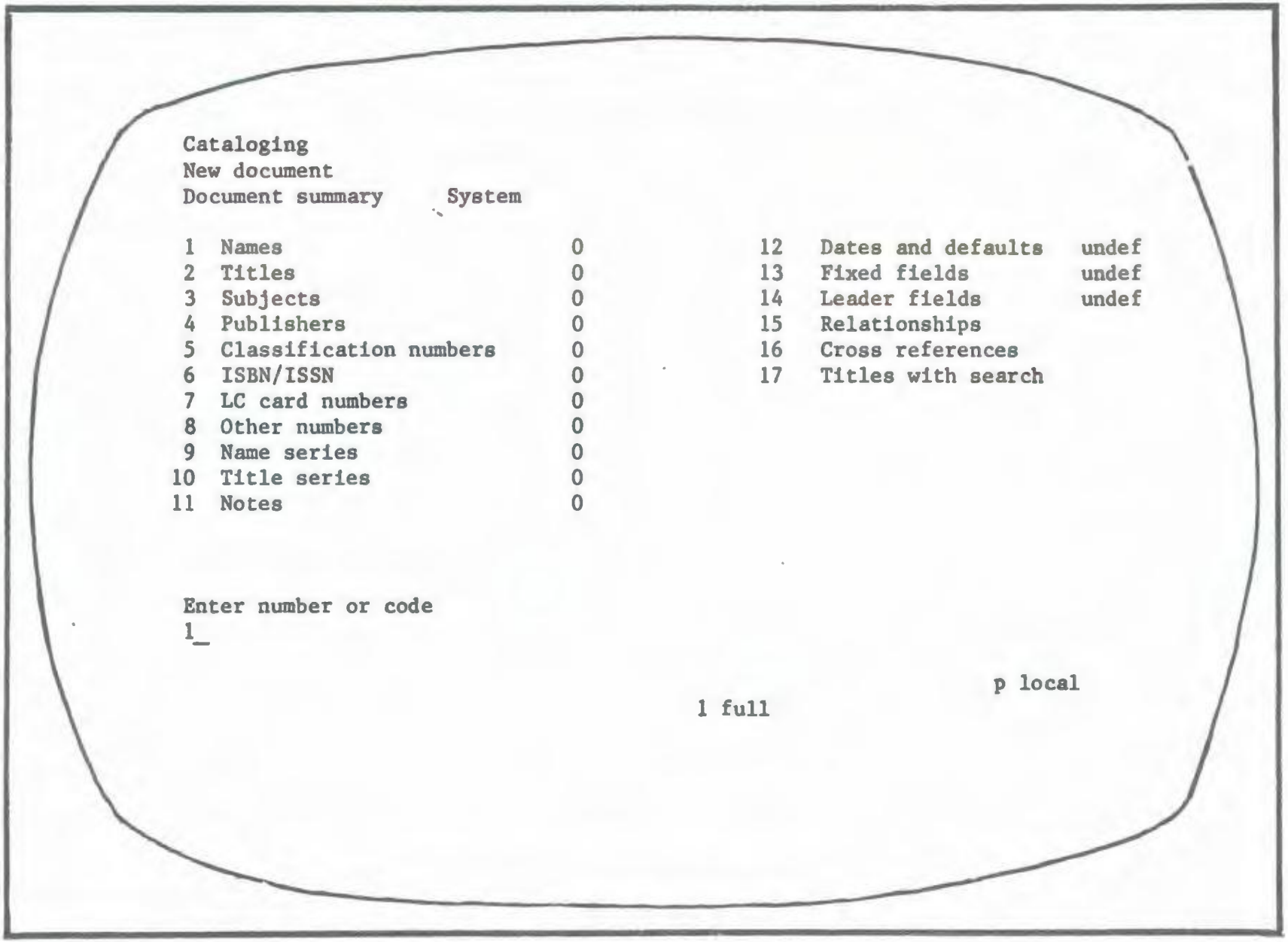


Figure 4 : Document summary screen; the number of access points in each file is shown; response to this menu leads the user into the access point files, notes, fixed and coded information, relationships with other documents, and cross-references.

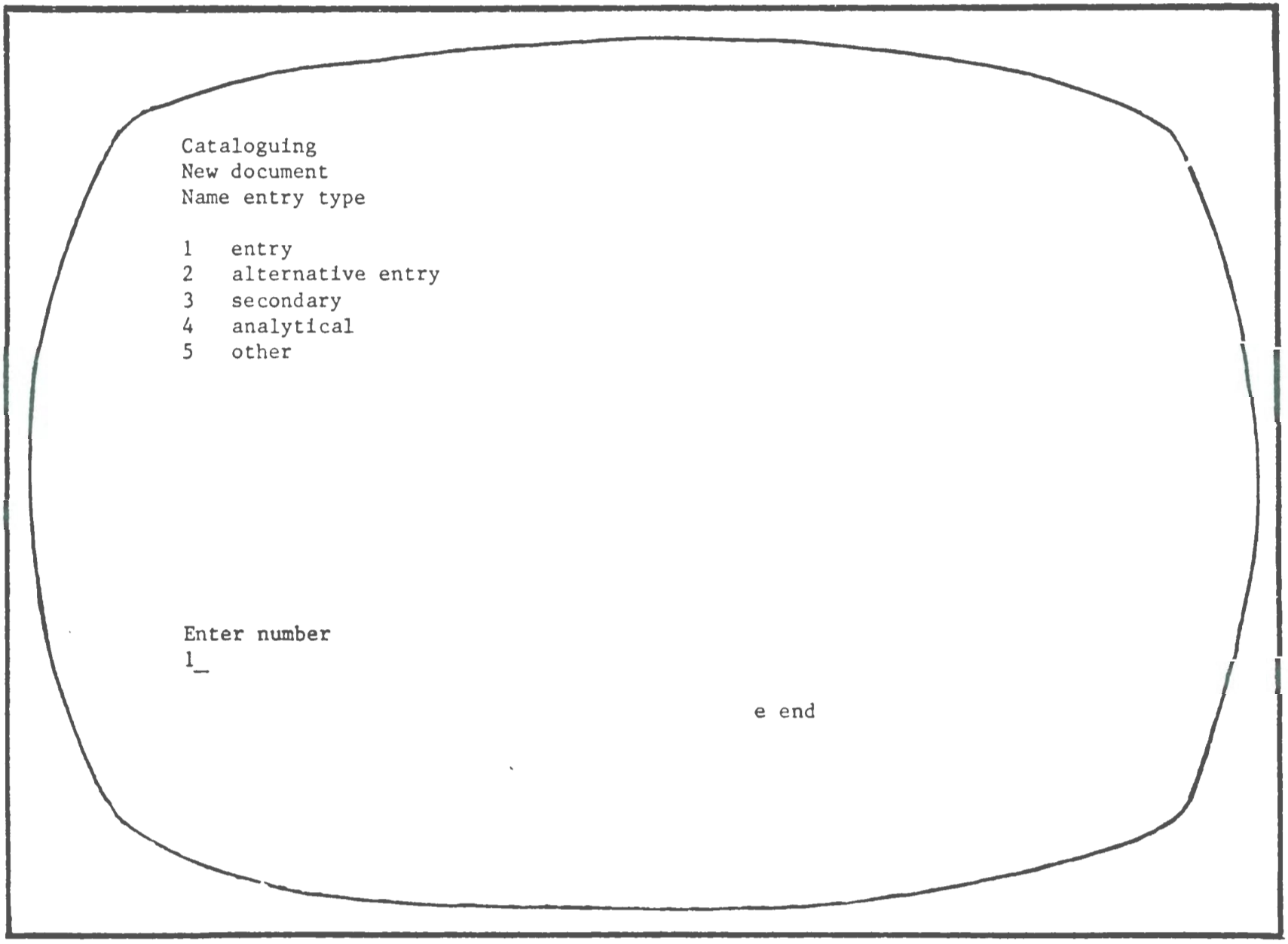


Figure 5 : Code table for name functions. DOBIS allows for entry of MARC type tags, codes and subfield codes by choosing from a menu. The actual tags and coding are embedded in the programmes and do not appear on the screen. This creates a simpler screen and lessens training procedures. The DOBIS format varies slightly from the MARC format, and programmes are used for the conversion back and forth. (This note applies to the name relator and note menus also.)

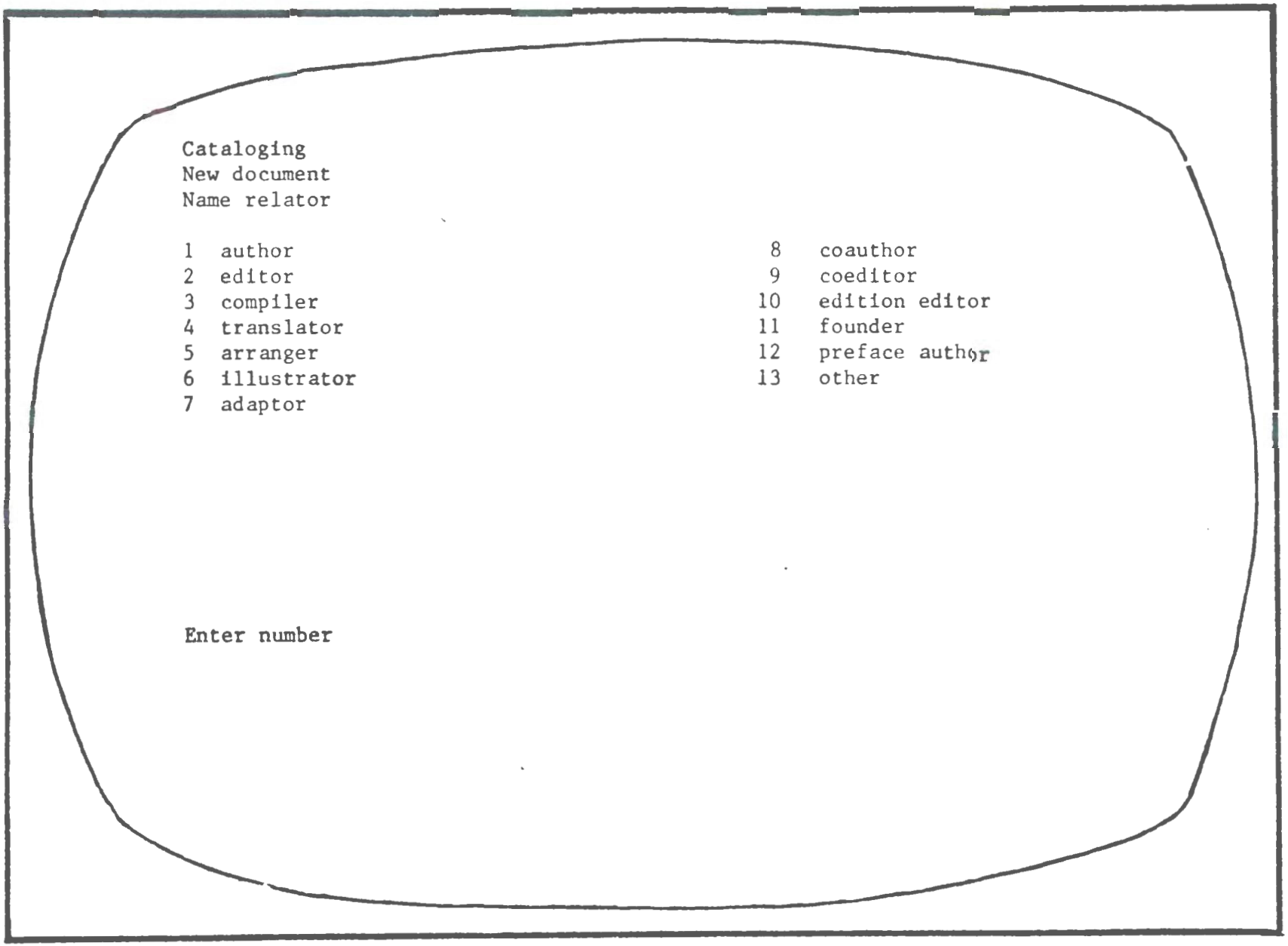


Figure 6 : Code table for name relationships

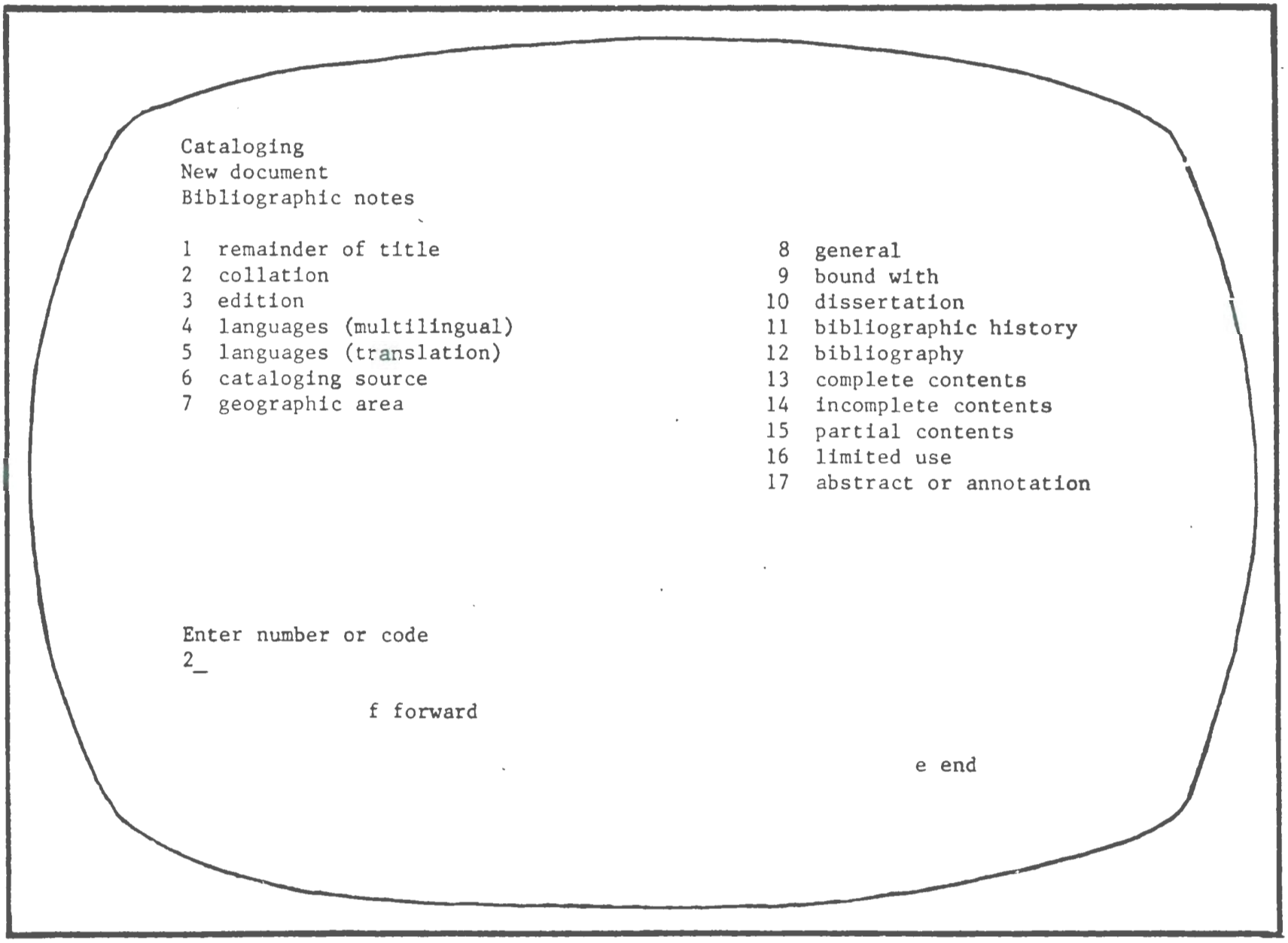


Figure 7A: Types of notes, first page

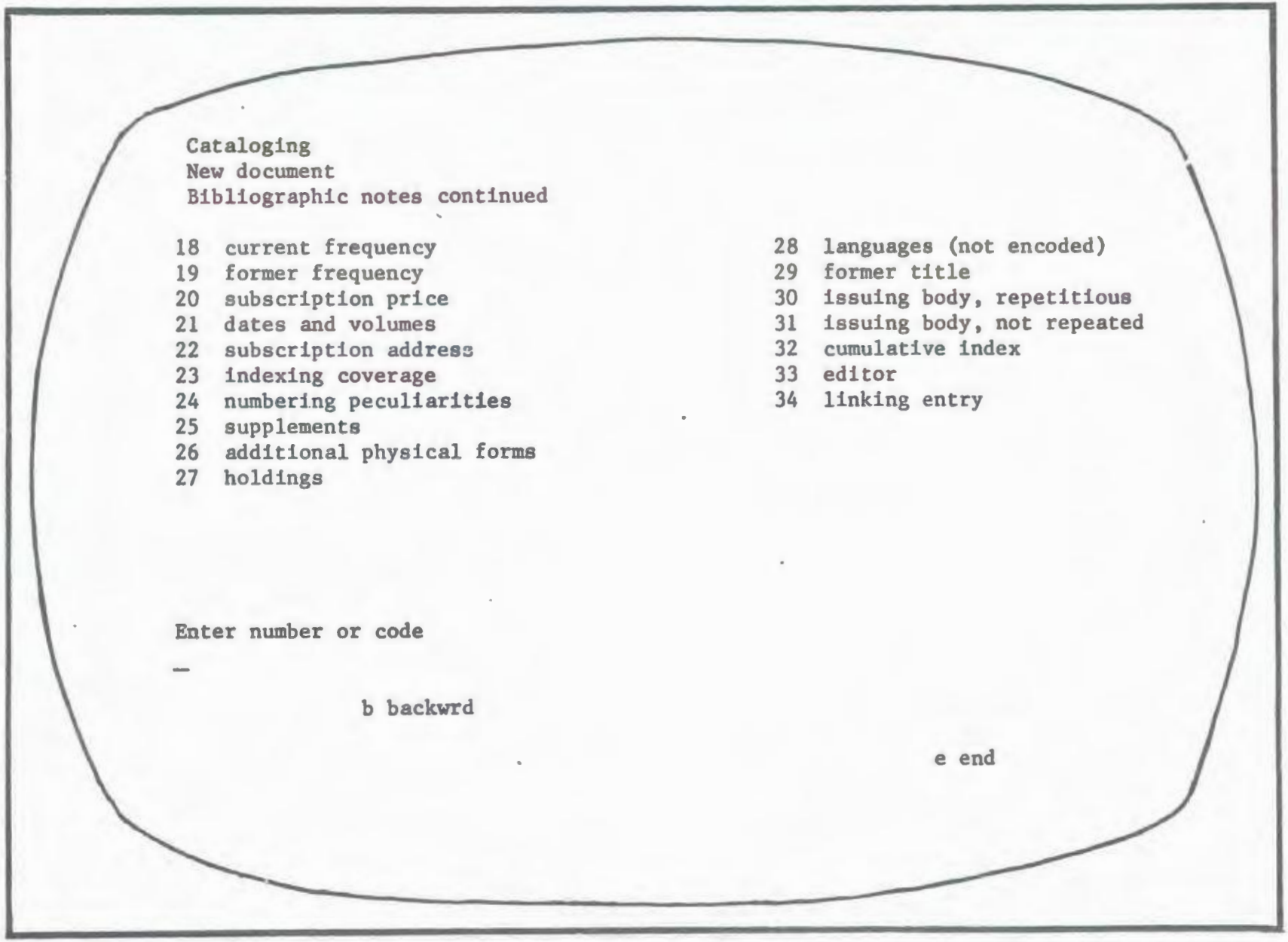


Figure 7B: Types of notes, second page. One of the changes to this menu will be the inclusion of notes for scale and for projection.

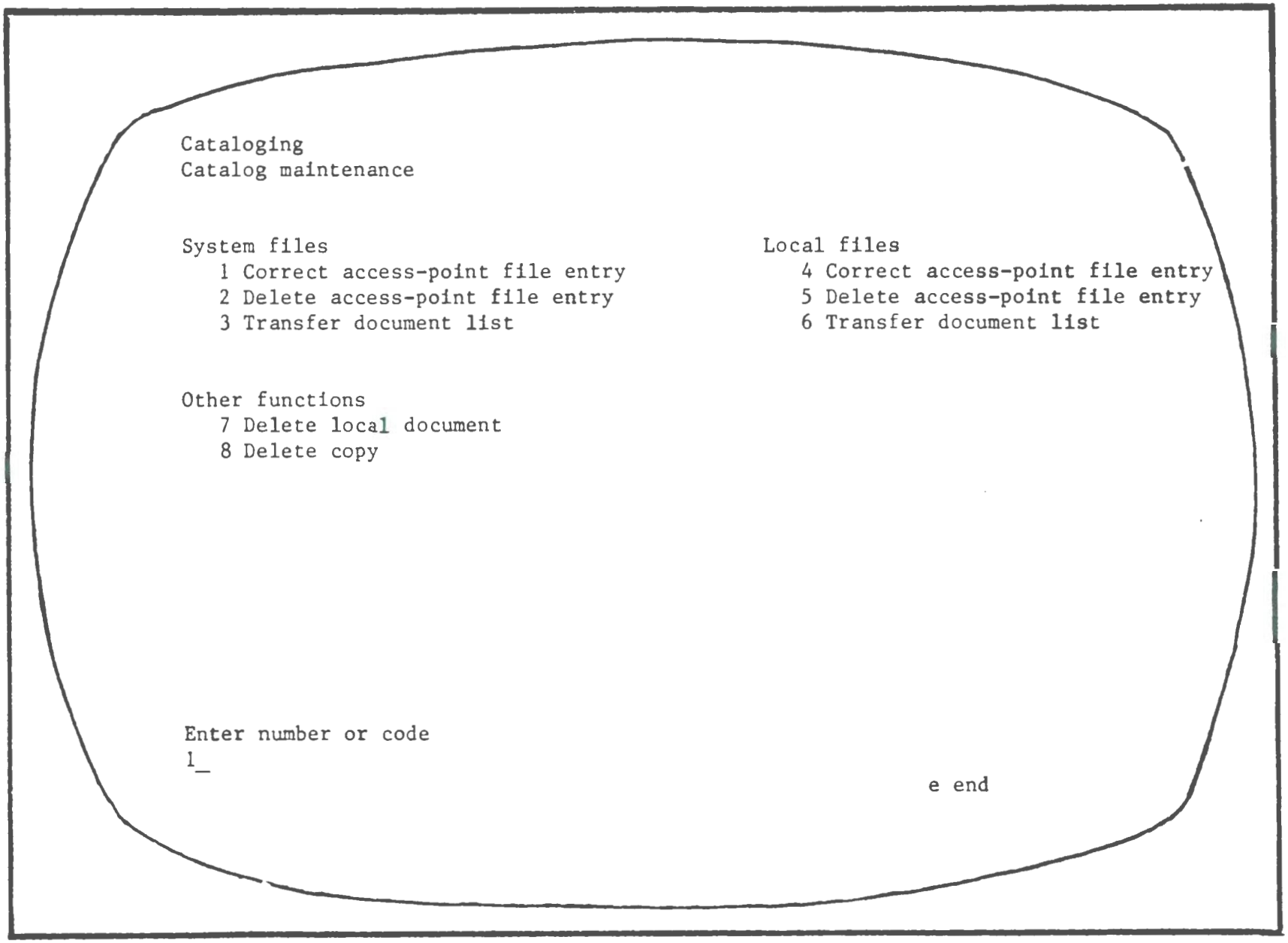
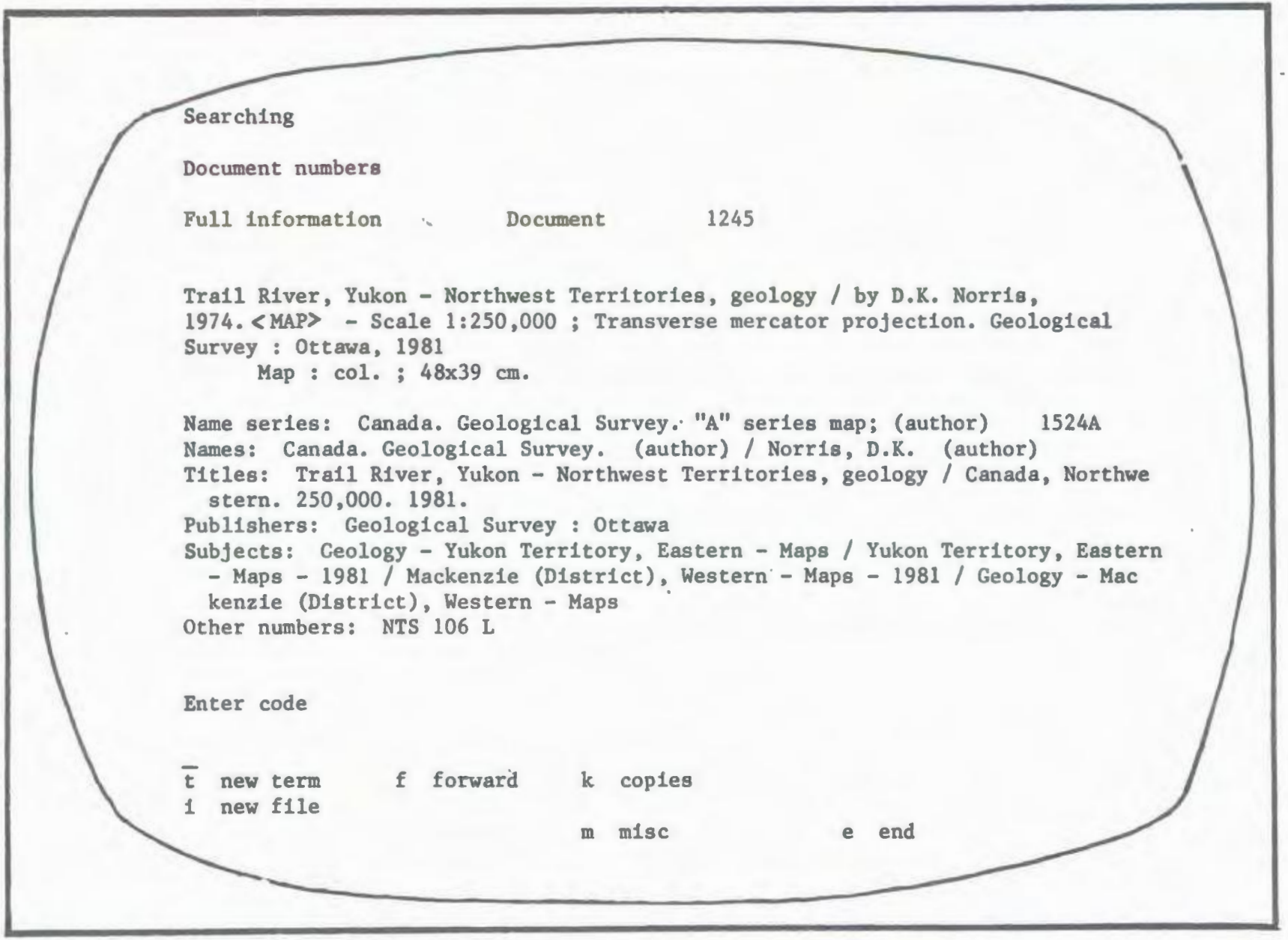


Figure 8 : Catalogue maintenance subfunction selector, this menu leads the user into access point file corrections, and copy delection.



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Searching

Document numbers

Full information        Document        1245


Trail River, Yukon - Northwest Territories, geology / by D.K. Norris,
1974. <MAP>  - Scale 1:250,000 ; Transverse mercator projection. Geological
Survey : Ottawa, 1981
      Map : col. ; 48x39 cm.

Name series:  Canada. Geological Survey. "A" series map; (author)    1524A
Names:  Canada. Geological Survey.  (author) / Norris, D.K.  (author)
Titles:  Trail River, Yukon - Northwest Territories, geology / Canada, Northwe
  stern. 250,000. 1981.
Publishers:  Geological Survey : Ottawa
Subjects:  Geology - Yukon Territory, Eastern - Maps / Yukon Territory, Eastern
  - Maps - 1981 / Mackenzie (District), Western - Maps - 1981 / Geology - Mac
  kenzie (District), Western - Maps
Other numbers:  NTS 106 L


Enter code


t  new term      f  forward     k  copies
i  new file
                                m  misc              e  end
```

Figure 9A: Full bibliographic record as it appears online (see also 9B, 9C, 9D).

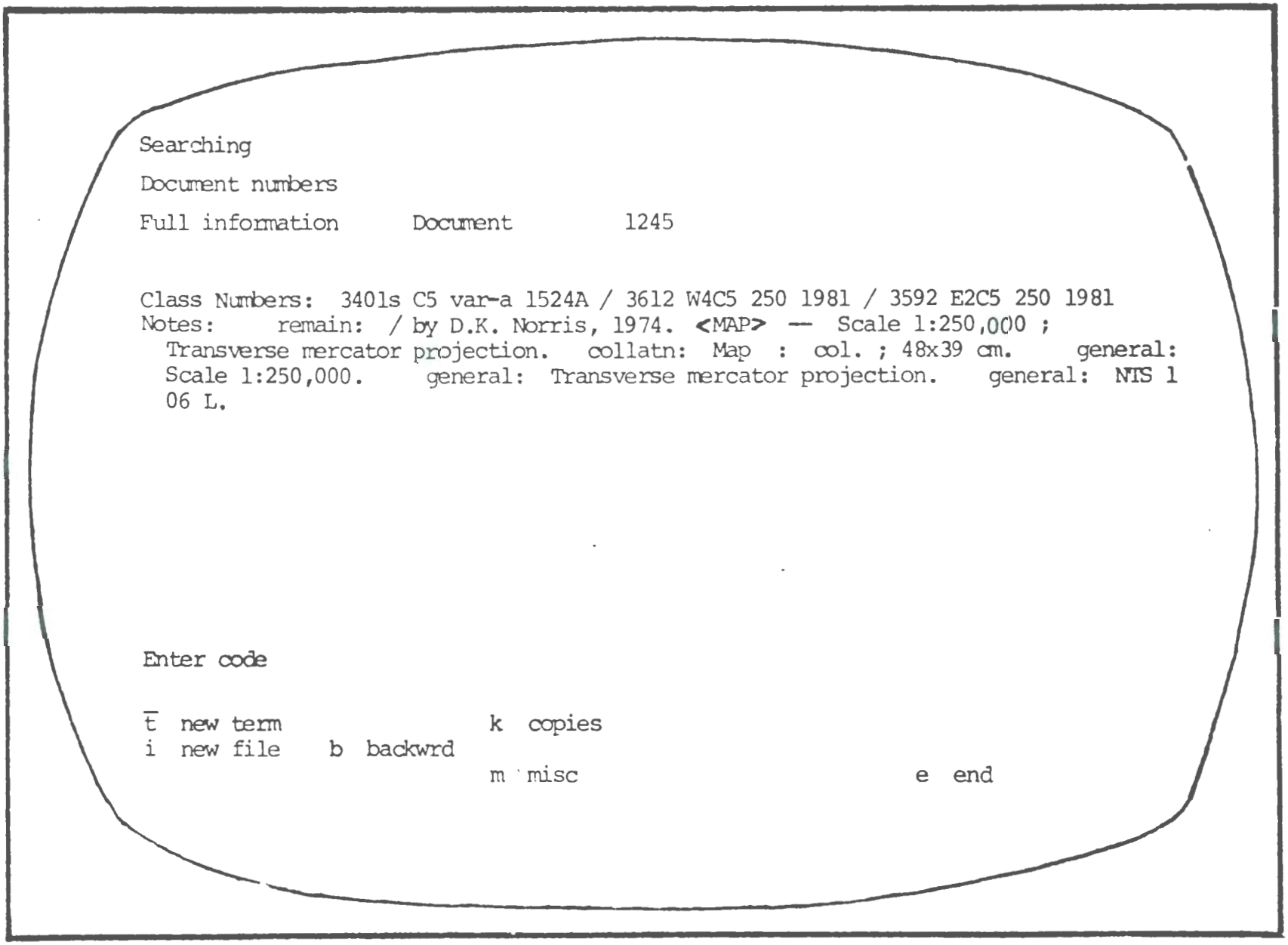
Searching
Document numbers
Full information Document 1245
Class Numbers: 3401s C5 var-a 1524A / 3612 W4C5 250 1981 / 3592 E2C5 250 1981
Notes: remain: / by D.K. Norris, 1974. <MAP> — Scale 1:250,000 ;
Transverse mercator projection. collatn: Map : col. ; 48x39 cm. general:
Scale 1:250,000. general: Transverse mercator projection. general: NTS 1
06 L.
Enter code
t new term
i new file
b backwrd
k copies
m misc
e end

Figure 9B

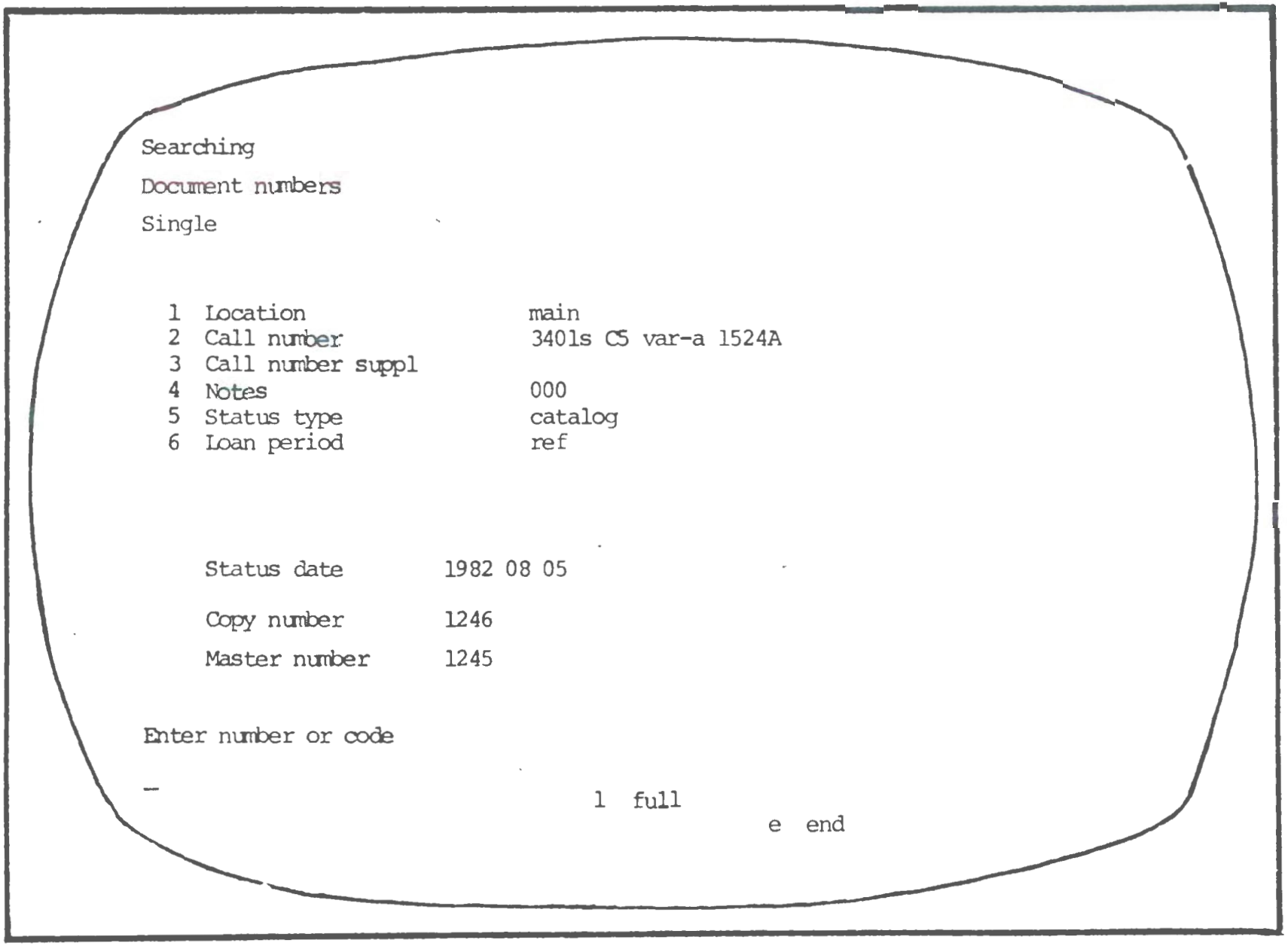
Searching
Document numbers
Single
1 Location main
2 Call number 340ls C5 var-a 1524A
3 Call number suppl
4 Notes 000
5 Status type catalog
6 Loan period ref
Status date 1982 08 05
Copy number 1246
Master number 1245
Enter number or code
1 full
e end

Figure 9C

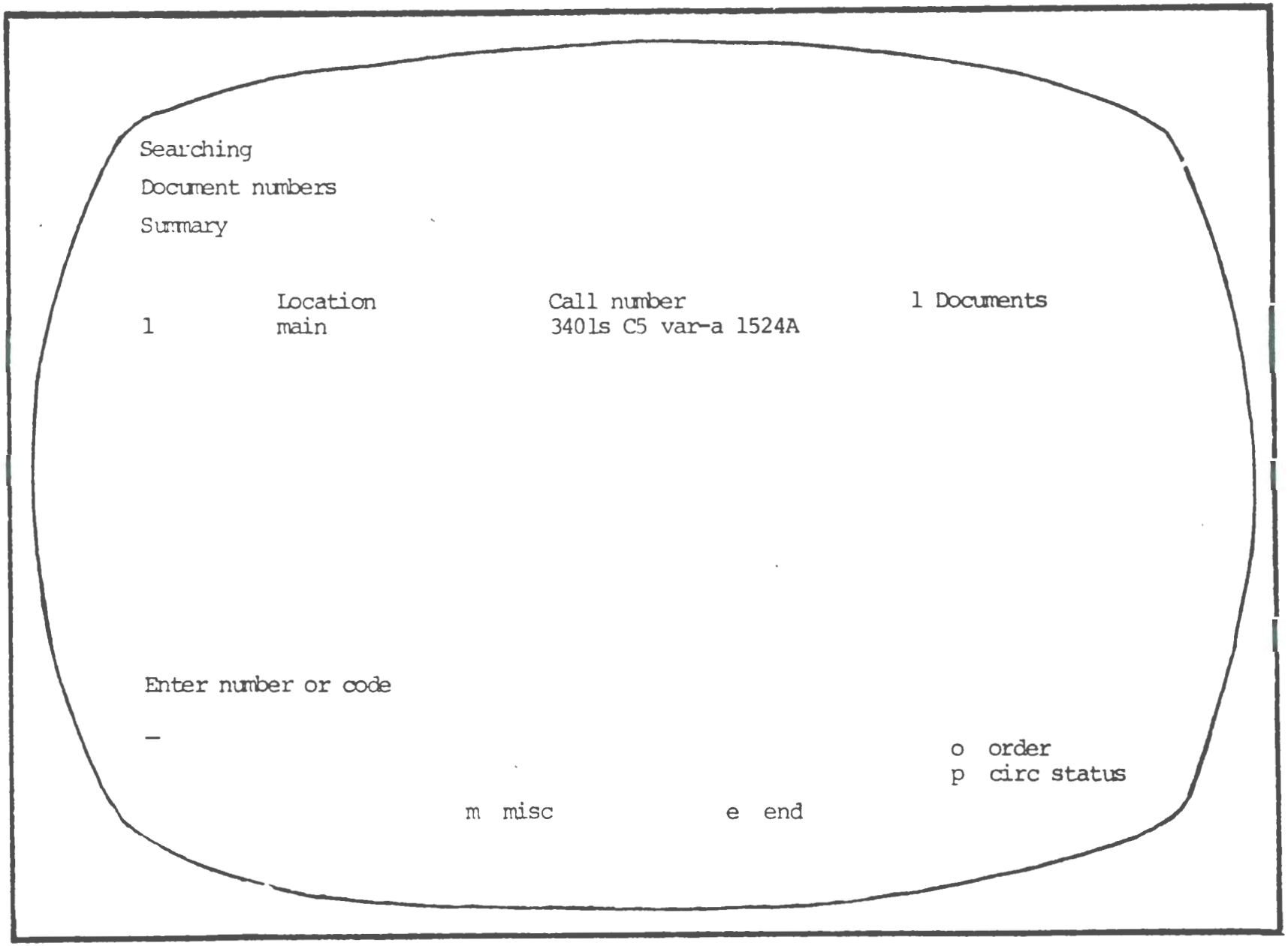
Searching
Document numbers
Summary
Location
Call number
1 Documents
1
main
340ls C5 var-a 1524A
Enter number or code
o order
p circ status
m misc
e end

Figure 9D

SECONDARY ACCESS POINTS	PRIMARY ACCESS POINTS							
	AREA	SUBJECT	SERIES	AUTHORITY	TITLE	PROJECTION	DATE	SCALE
AREA		1				1	1	1
SUBJECT								
SERIES				1a				
AUTHORITY								
TITLE				1				
PROJECTION								
SCALE	1	2				2		
SITUATION DATE	2	3						
SHEET #			1	2a				
EDITION				2 3a	1			

Figure 10: Importance of area as an access point for cartographic material.

THE PHOENIX ON-LINE RETRIEVAL SYSTEM AND MAPS

Elizabeth Hamilton
University of New Brunswick
Harriet Irving Library, Map Room
Fredericton, New Brunswick

Many of you have heard me, over the past few years, despairing at the state of affairs in the Map Room at the University of New Brunswick. Aside from the storage problems, which are being alleviated somewhat by the addition of two much-needed map cabinets this year and a major reorganization project in the Map Room, the lack of access to maps has been a problem since the inception of the collection. It is the latter problem, and the means by which we have found to tackle it that will be the focus of my remarks today. For those of you who have mercifully escaped my litany of problems regarding our map collection, I should explain that our maps have been uncatalogued and unclassified, and that, with no one working full time in the Map Room, we often have had a major problem finding the right map for our user.

The innovation in our library which may go a long way in solving the problem of access to maps if PHOENIX, our on-line catalogue. When, in 1980, our disenchantment with Blackwell North America grew to the point of abandoning ship, we investigated alternative cataloguing systems, and were particularly enthusiastic about DOBIS. Much to our disappointment at the time, DOBIS was not financially viable in the Maritime region.

The system finally chosen was UTLAS, but there was still chagrin at losing the potential on-line retrieval capability of DOBIS. In July 1980, a meeting was held to toss around the idea of building our own on-line retrieval system at U.N.B. Through the ceaseless marvels of the U.N.B. Computing Centre, particularly the efforts of Brian Lesser, by September of that year, only three months later, we had a prototype of our system, and by February 1981, the system was fully debugged and available for public searching. Our card catalogue has now been closed for a year and a half, and thirty-two COMTERM terminals are spread throughout the library and the branch libraries. Students and faculty alike are using this system, PHOENIX, to find materials acquired by the library since 1977, the year we first used BNA and machine readable records.

To explain why the development of PHOENIX has promised to make life easier for this map librarian, some further information is required. As PHOENIX now exists, a student can sit down at one the CRT terminals in the library and can search for material on a subject by typing an "s" (for "search") and the words he feels best describes what he is looking for, in whatever order strikes his fancy. He can use boolean logic to make his request more precise, if need be, and he can then display on the screen before him the results in a short, medium, long, or even full cataloguing format, the latter complete with MARC tags. Behind the scenes, PHOENIX searches the corporate author field, the title fields, and the subject fields for the words typed in. For those of you who are more familiar with MARC tags, and can blithely reel them off without looking them up, the translation is: fields 110, 111, 120, 130, 200, 210, 220, 240, 245, 490, and fields 600 to 900. The student can also retrieve by precise title, using a browse/title command, and can look for works by an author using a browse/author command. If he is versed in the LC classification system, he can also browse the call number or search for a specific call number.

I should also add that, naturally, anyone who has an account number with the Computing Centre and access to a terminal can use the PHOENIX system; this means that the University of New Brunswick, Saint John Campus, is using our system, as well as those professors and students who have easy access to terminals, and those governmental libraries in the Fredericton areas who have made arrangements for account numbers with the Computing Centre.

The preceding was a mere highlight of what PHOENIX can do on the public level. No longer need a student try to guess where books on art education for handicapped children have been listed in the card catalogue. As long as he can hunt and peck well enough to type the words on the terminal screen, he can retrieve materials needed for his assignment.

For the staff, additional features have changed our work routines enormously. A local input and modification program was developed to enable us to input our own records in MARC format. With BLIMP, as this program is somewhat quixotically named, we can add to our local database records that might not be allowable in a broader-based cataloguing system. We now input such records as those for material on loan from a professor for use at the Reserve Desk for one or two terms; brief records for government publications; and records of technical libraries in the Fredericton area, many of which do not have librarians or professional cataloguers at their disposal.

We can also input on-order records, and we can generate multi-part order forms from this program to send out to vendors. This greatly speeds up pre-acquisition searching, and has eliminated several manual files. Our standing order records are also available through PHOENIX, along with accounting information. We have set up an electronic message facility with John Coutts, our major vendor, for transmitting orders directly to them on a daily basis. (I suspect the latter facility is one that the Post Office is attempting to regulate with their new definiton of "letter" but until they get around to controlling electronic mail and figuring out a suitable fee structure, its use makes our life much easier.)

Two other features have allowed us to maximize our interaction with UTLAS. Rather than update or modify a record through UTLAS, we are putting the record into our working file, and when the UTLAS tapes arrive at the U.N.B Computing Centre for dumping into our database, we modify or update the record using GOODYEAR, our updating and modification program. A local label generation program gives us spine labels, pocket card labels, and pocket labels for any record numbers desired, almost always within the week, and sometimes overnight. There are a number of other facets of the system which make our job easier: we can pull the 090 field, for instance, and change a whole range of call numbers with a simple "change all" command. Analytics for selected series have begun, using a program that makes it child's play.

The capabilities of PHOENIX change rapidly. By the time I return from this conference, the user should be able to limit his search by date, and by early fall, our on-line lessons should have been converted to an interactive mode. We are going ahead with purchase negotiations for source tapes; we are hoping to get LCMARC, CANMARC, UKMARC, and CONSER, thus decreasing our dependence on UTLAS further. And through greater use of CAN/OLE, we will be accessing CISTI records more extensively for scientific materials. Under discussion as well, but much further in the future, is

the possibility of using word adjacency to refine our searches, and the viability of creating an on-line authority file. Actually, concerning the latter, I must say we have not noticed its absence much in the Documents Department; with so many possibilities for finding information, using truncation, browsing capabilities, call number searching, alternative search words--it is hard to believe we were so dependent on it!

For myself, I am particularly interested in the investigations on the feasibility of fixed field indexing. The first fixed field being experimented with is the date component of the 036 field. Once this has been tried, and the bugs worked out, other fixed fields will be looked at --including the 034 field containing map scale and coordinates. If the same procedures are used as for date, it will mean that the user can not only specify a particular set of coordinates or a particular scale, but can specify a range. To translate this into possible application, it means that a user could search for a map of Thunder Bay using first the name of the city and if, for some strange reason, we did not have any maps that had the words "Thunder Bay" in the title or the subject headings, the user could input the coordinates W 89°26'--W 89°09'/N 48°31'--N 48°17'. If the user still retrieves nothing, he could try using a wider geographical area, using, for example, the coordinates W 93°00'--W 78°30'/N 50°00'--N 45°45'. The system would pick up maps with those coordinates or those maps whose four coordinates fell within the indicated range. In a similar vein, a user who wants a large scale map of Winnipeg could try searching for Winnipeg maps using the delimiter of 1:10,000 or less. If there were none, he could try searching for Winnipeg maps using the delimiter of 1:50,000 or less, retrieving maps of Winnipeg with scales falling between 1:10,000 and 1:50,000.

The two things that the Computing Centre may want before actually implementing such a program for the 034 field are more storage space on the University computer and some maps in the data base to use their program on. The problem of storage space may not be a problem, but even if it does become a problem, the Computing Centre has a planned expansion now only a year away. The matter of the lack of maps in the data base has been the result of a rather curious tug of war, with each team rooting for the other side. Some eight years ago, the Cataloguing Department made a commitment to catalogue maps--but neglected to say at that time exactly when they would begin. With the increasing knowledge of what exactly they were in store for, they suggested that perhaps the people who worked with maps were the most appropriate people to catalogue them. On the side of the Cataloguing Department, there always seemed to be some valid reason for putting map cataloguing just a bit further down the list on their projects --when the BNA system was adopted, adjustment time was needed, during which it was deemed inadvisable to begin cataloguing a new type of material. Then there were staff cuts, and new routines had to be established to cover the cuts. And then AACR 2 came along, which required an adjustment period. And, since we had waited this long, why not wait until the Map Cataloguing Manual came along? On the part of the Documents Department, severe understaffing made contemplation of map cataloguing impossible. When we finally got a new position, there was pressure to classify and catalogue New Brunswick government publications and finish cataloguing and classifying the Canadian federal publications. With the advent of PHOENIX, there was a big push to get our existing records into the system, and the number of reference questions rose 30%. Both departments had perfectly sound reasons for the delay in beginning the map cataloguing project, but to say the situation was a bit frustrating would be to state the case

mildly.

The many alterations in our work routines and in our thinking, resulting from PHOENIX, however, have made the Cataloguing Department ready for a new challenge and have made the Documents Department a more willing participant in the exercise. A compromise solution has been found. Starting in September, the Documents Department will undertake the pre-cataloguing searching, using the few sources currently available for searching for cataloguing records and we will supply all the mathematical data if they are not in a source record or if they are not on the map being catalogued. The Cataloguing Department will modify the record, if necessary, assign the LC call number as needed, and worry about original cataloguing. If all goes according to plan, the map cataloguing manual will be out by then, and the cataloguers can have a field day with it!

It almost goes without saying that users will need assistance in searches using coordinates, but that will be in line with a general trend we have noticed with our users. Rather than limiting their expectations to the same results as they could get with the card catalogue, and limiting their knowledge of searching to the search command and the first obvious words that occur to them, they are expecting more from the system than was possible with the card catalogue and want to know all the tricks they can about using the system. Though we do have lessons that can be displayed on-line, we are introducing interactive lessons and discussing seminars for students and faculty for advanced searching techniques. Seminars geared to surveying engineering students and faculty, educational geography students and faculty, and geology students and faculty in particular, would include coordinate and scale searching.

I hope I have not given the impression that PHOENIX is the be-all and the end-all, the cat's pajamas, the last word in library automation--because it does have its faults and problems. These seem relatively small in comparison to the many changes it has effected in our organization, however, and our view is a bit distorted. I shall come down to earth with a thud when I encounter, as I can predict I will, the first student to ask how he can retrieve a map of Nova Scotia that can be photocopied on an 8½" x 11" sheet of paper. It is one of our most-asked questions, and right now that field is not even in the running for fields to be indexed at some future date--and I shudder to think of the reaction from the Computing Centre if we did propose such a thing to them!

* * *

MAP CATALOGUING ACTIVITIES AT THE UNIVERSITY OF WATERLOO

Richard Hugh Pinnell
University of Waterloo
University Map & Design Library
Waterloo, Ontario

The purpose of this short paper is first to review some of the recent map cataloguing activities at the University of Waterloo for the benefit of those who may be contemplating a similar involvement and, second, to point out some of the difficulties we have encountered and successes we have enjoyed.

History and Background

For some years now, the University of Waterloo Library has been planning the full-scale automation of its major activities including circulation, acquisitions, and cataloguing. In 1977, the Library automated its manual circulation system using Geac equipment and software. Four years later, in 1981, the Library in cooperation with Geac, implemented its multi-format data entry module to edit AACR/MARC input. The functional requirements for an automated acquisitions module (MASS) are in the hands of Geac and we expect to mount a trial run in October 1982 and to be fully operational in February 1983. Last but not least, work has begun on our on-line bibliographic data access and control system. The functional requirements for such a module were published in April 1982; this report is available from the Library's business officer for $25.

What does all of this have to do with the University Map & Design Library? It means that we are operating within a highly systems-oriented environment. It means that since the Library is planning to automate its acquisitions and cataloguing activities and to provide on-line access to its bibliographic data base, then the Map Library must begin to catalogue its collection and to produce machine-readable cataloguing records which are compatible with those being generated by other Library departments.

Accordingly, a Library task group was established in 1980 to study the implications of mounting such a project. In October 1981, the group recommended that the Library purchase the back files of and an annual subscription to the Library of Congress MARC Map data base; that two professional cataloguers from the Library's Cataloguing Department be assigned to the project; and that the Map Library receive the required systems backup. The group also recommended that our cataloguing activities maintain compatibility with national and international developments in the cataloguing of cartographic material--in a nutshell, it recommended that the cataloguing be AACR/MARC/LC.

Senior management at the U.W. Library was particularly interested in the implementation of such a program because, first, the input of our records would serve to test the new data entry module which was supposedly capable of handling a variety of MARC formats and, second, our contribution to the Library's catalogue masterfile would consist of clean, AACR 2-standard records--a very tidy subfile in the database.

Implementation

In the fall of 1981, the Cataloguing Department transferred one full-time

professional Cataloguer, Amy Chan (who is with us here today), and one full-time Assistant Cataloguer (or LC cataloguer) to the Map Library. The Assistant Cataloguer was assigned to us on the understanding that she would return to Cataloguing after one year. Additionally, one Map Library staff member was assigned half-time to the program; this staff member served in the capacity of a second Assistant Cataloguer. Our staffing therefore was two and one-half full-time equivalents. This summer we were able to hire a graduate student in Geography to work eight hours per week calculating coordinates and scales.

In 1981, the Library purchased the back files of the MARC Map source tapes for approximately $6,000 and placed an order for an annual subscription at a cost of $630 per annum. A yearly subscription provides approximately 7,000 new and revised cartographic records on thirteen tape issues. While we were waiting for the tapes to arrive, the cataloguing section began to prepare the necessary documentation for the program.

First, they wrote the specifications for the indexes to the tapes. As a result of their effort, we now have microfiche indexes providing four means of access: by name (71 fiche, at present), by title (52 fiche), LC call number (58 fiche), and series (6 fiche). The bibliographic information contained in each index record consists of: main or added entry, title, edition statement, imprint, scale, and LC call number. We receive paper supplements at regular intervals.

The section discussed local cataloguing policies and procedures and recorded their decisions in a cataloguing manual. We also have two coding manuals, one for monographic cartographic records and the other for serials cartographic records. These manuals itemize the fields and subfields which are to be included in our records, specify whether or not the fields and subfields are repeatable, and whether or not this information is mandatory or simply required if available.

In late 1981 and early 1982, these coding specifications were keyed into the system to become part of the on-line data entry module, thus creating an edit table for monographic cartographic materials and an edit table for serials cartographic materials. Once these tables had been tested and corrected, it became possible for us to submit our coded records to the Data Entry section of the Library's Cataloguing Department with the assurance that a certain amount of editing of our records would be performed automatically by the computer.

In order to reduce the amount of manual editing required to modify LC records to conform to AACR 2 standards and to the needs of the UW Library, Amy Chan designed the specifications for a so-called front-end program. Records that we have extracted from the MARC source tapes--a service provided for us by the University Data Processing Department--are run against this program to perform such editing tasks as adding the GMD "cartographic materials" to title and title added entries; reversing 650 subject headings and creating a corresponding 652 field; deleting the 507 scale note from AACR 1 records and creating a 255 $a mathematical data area; and so on.

Work Flow

Maps received in the department are searched against the MARC Map data base using the microfiche indexes. Records that we locate are requested from

Data Processing; these records are extracted by Data Processing from the source tapes, are sent to the Library's Systems Department where they are loaded onto the Geac 8000 system and run against our front-end program. Then they are printed out and sent to the Map Library for modification by the Assistant Cataloguers. The first step we take is to verify the name headings against our authority files and lists. For this purpose, we subscribe to LC Name Authorities and Canadiana Name Authorities. Then the descriptive cataloguing information is modified to upgrade it to AACR 2 (if necessary) and to UW standards. The call number is added or completed. The geographical subject headings are checked against LCSH, Canadian Subject Headings, the Canadian or U.S. BGN gazetteers, and so on. One point worth noting here is that UW policy is to use headings such as Lake Superior rather than Superior, Lake. The staff ensures that geographic subject headings are used in reverse as well as direct form; for example, "Quebec (Province) - Economic Conditions - Maps" as well as "Economic Conditions - Quebec (Province) - Maps." They also check added entries and series entries. The corrected printouts are then sent to Data Entry in Cataloguing.

Progress to Date

To the end of July 1982 we have created 626 map records providing access to 4,882 maps. Of these 626 records, approximately 15 are serials records (or header records, as we call them) and the rest are monograph records.

Our hit rate on the MARC Map data base has been very high so far, over 80%. In other words, we have been able to locate eight records for every ten for which we were searching. However, our great success has been due in very large part to the fact that we gradually came to know which maps we should attempt to search and which we should set aside. We have had greatest luck with travel maps and least success with geological maps.

Difficulties and Problems

Our greatest concern at the present time is the fact that so very few U.S. and Canadian geological map records are available from the Library of Congress. Since one of our goals is to catalogue as quickly as possible the maps in the Library's geology map collection, this means we shall have to do most of the cataloguing ourselves. We were informed by the staff at LC's Geography and Map Division that because of their huge workload and staff shortages, geological maps receive a low priority in terms of cataloguing effort. When we contacted the U.S. Geological Survey, we were told that their map records are not available whether on tape, fiche, or cards; they suggested we subscribe to OCLC in Ohio in order to access their records. Unfortunately, this was not an option we could pursue. We are still looking for a source or sources of cataloguing copy for Canadian and U.S. geological maps.

Another matter which was initially of some concern was that of series treatment. Various library staff members had different ideas regarding how our map series should be catalogued. The debate centered upon two major issues: first, should the individual maps within a particular series be analyzed (i.e. a separate record for each item) or should they remain unanalyzed and accessible only through a single serial record and, secondly, within an analyzed series, should the maps be classified separately or together. It was agreed that we would adhere to the decisions made by the Library of Congress. It is only rarely that LC

provides other than unanalyzed series treatment or separately analyzed treatment. Therefore, most of our series maps will either be unanalyzed (e.g., U.S. Daily Weather Maps) or analyzed separately (e.g., MTC Ontario road map series at 1:250,000). Topographic maps and the Canada Land Inventory maps are treated as unanalyzed multi-part publications (also referred to as sets). In other words, we use the monographic format rather than the serials format for these kinds of maps.

The last problem I shall mention today is one that relates to the size of our holdings statement. Our Systems Librarian informed us that 500 characters in the physical holdings field (tag 091 at Waterloo) is approaching the practical limit beyond which the manipulation by the system of such a record becomes too cumbersome. We are also faced with a physical limitation on the circulation system; this system will handle no more than 2,000 physical items or volumes linked to the same bibliographic record. So, how do we load our holdings onto the Library system? If, at the time of cataloguing a map series or multi-part publication, we know that the holdings field will exceed 500 characters in length, we input our holdings, not in with the masterfile record but directly into the circulation system. The circulation system has no record-length limitation but only the item-number limitation which I mentioned earlier. The bottom line is that if we have a record with a holding statement greater than 500 characters and where we have holdings which exceed 2,000 items, then we have a problem. Our solution to this problem has been to add a note to the masterfile record stating simply that for a record of our holdings the patron must consult a printed map index in the library.

Notice that I have said nothing about a map catalogue. Our plans are to wait until we have a sizeable file of records and then to use the same program that we use to produce our microfiche indexes to generate a fiche register index of our catalogued maps. Access will be limited to: main and added entry, title, series, and call number. Subject access, coordinate access, and access through the fixed field information will have to wait until the implementation of our on-line catalogue several years hence.

* * *

ASSOCIATION OF CANADIAN MAP LIBRARIES
ANNUAL BUSINESS MEETING

1. The 16th Annual Business Meeting of the Association of Canadian Map Libraries was held at the Public Archives of Canada on 18 August 1982. A quorum having been established, the meeting was called to order at 1:40 p.m. The president was in the chair.

PREVIOUS MINUTES

2. The minutes of the 15th Annual Business Meeting, 9 June 1981, were approved as printed in A.C.M.L. Bulletin 39 with the following correction: that item 17(ii) be changed to read

   17(ii) The Board passed a motion to establish a committee to represent the Association of Canadian Map Libraries on the AACC-CM and that this committee present to the Board of Directors their recommendation in the event of a vote. Carried.

BUSINESS ARISING FROM MINUTES

3. Transfer of A.C.M.L. Records: The records of the A.C.M.L., 1967-76, will be transferred to the Public Archives of Canada by the end of the year.

4. Reporting of the Board of Directors: As requested by the Association, the Board of Directors has reported on the activities, decisions, and meetings of the Board in the A.C.M.L. Bulletin during the past year.

5. Committees Established: In accordance with the motions of the 15th Annual Business Meeting, the following committees were set up, terms of reference for these committees were adopted, and chairpersons appointed:

   i) AACC-CM Liaison Committee - (Joan Winearls, Pierre Lépine, co-chairpersons)
   ii) Remunerations Committee - (Kate Donkin, chairperson)
   iii) Rules and Procedures Committee - (Hugo Stibbe, chairperson)
   iv) Publication Guidelines Committee - (Elizabeth Hamilton, chairperson)

6. Survey of Cartographic Archives: The project being conducted by Frances Woodward on cartographic archives has been approved for continuation.

7. Publication of Accessions List by NMC: As requested by the Association at the 15th Annual Business Meeting, the National Map Collection was contacted regarding the publication of an accessions list, particularly including maps received from the press room of the Surveys and Mapping Branch. Catalogue and accession records will be available through UTLAS; microfiche availability of these records is being investigated by the NMC. The Board will write the Surveys and Mapping Branch regarding publication of monthly lists of new and revised maps published by or for that Branch.

TREASURER'S REPORT

8. The report of the treasurer (Appendix A) was approved as circulated. (Tara Naraynsingh, Heather Stevens). Carried.

9. The budget forecast (Appendix B) was accepted as circulated.

10. The membership report (Appendix C) was accepted as circulated.

11. It was moved that the firm of Deloitte, Haskins and Sells be approved as auditors for the 1982/83 year. (Tara Naraynsingh, Heather Stevens). Carried.

COMMITTEE REPORTS

12. AACC-CM Committee: No report was received.

13. Archives Committee: The report of the Archives Committee was accepted as printed in A.C.M.L. Bulletin 43.

14. Awards Committee: The report of the Awards Committee was accepted as printed in A.C.M.L. Bulletin 43.

15. Conference Committee 1982: The report of the Conference Committee 1982 was accepted as printed in A.C.M.L. Bulletin 43.

16. Conference Location Committee 1983: The Conference Location Committee investigated several options for location of the 1983 Conference and presented its findings to the Board. The committee was dissolved, having fulfilled its terms of reference, at the April 15-16, 1982 meeting of the Board of Directors.

17. Conference Committee 1983: Frances Woodward presented a verbal report from this committee; the report was accepted as read.

18. Conference Committee 1984: The report of the Conference Committee 1984 as presented in A.C.M.L. Bulletin 43 and the verbal addendum presented by William MacKinnon were accepted.

19. Conservation Committee: The report of the Conservation Committee as presented in A.C.M.L. Bulletin 43 was accepted, as was the verbal addendum presented by Betty Kidd.

20. Copyright Committee: The report of the Copyright Committee was accepted as presented in A.C.M.L. Bulletin 43; the verbal addendum presented by Gilles Langelier was accepted as read.

21. Historical Maps Committee: The report of the Historical Maps Committee was accepted as printed in A.C.M.L. Bulletin 43.

22. National Union Catalogue Committee: The committee is currently without a chairperson; the Board of Directors has recommended that the committee be put on hold and the situation reviewed in the spring of 1983.

23. Nominations and Elections Committee 1983: The report of the committee was accepted as read (Appendix D). The announcement of the election

results was deferred until item 10 on the Annual Business Meeting agenda.

24. Publication Guidelines Committee: It was moved that the report printed in A.C.M.L. Bulletin 43 be accepted as an interim report of the committee and that a deadline for further submissions be set at 30 September 1982; and that a final report be presented to the Board at its fall meeting for final approval at the 17th Annual Business Meeting. (E. Hamilton, Bob Batchelder) Carried.

25. Remunerations Committee: No report was received.

26. Rules and Procedures Committee: The report of the Rules and Procedures Committee was accepted as printed in A.C.M.L. Bulletin 43.

27. Union List of Atlases Atlantic Canada Committee: The report of this committee was accepted as printed in A.C.M.L. Bulletin 43.

REPORTS

28. National Commission on Cartography: L. Dubreuil presented a verbal report on the status of the National Commission on Cartography.

29. Publications Reports:

i) The report on the "Essays on Canadian Cartology" publication project (Appendix E) was accepted as read.

ii) The publication project "Coolie Verner Cartobibiliography Manual" has been withdrawn from consideration for the 1982/83 year at the request of the project coordinator.

iii) A verbal report was presented on the publication project "Early Canadian Topographic Map Series" by L. Dubreuil.

iv) The report of the publications project "Union List of Atlases for the Atlantic Provinces" as prepared by that committee and printed in A.C.M.L. Bulletin 43 was accepted as printed.

NEW BUSINESS

30. A.C.M.L. Sponsored IFLA Tour: The A.C.M.L. is sponsoring a tour of the Laurentians for IFLA Map and Geography Division delegates to take place on 24 August 1982.

31. Membership Fees: It was moved that membership fees, starting in 1983, be increased from $15.00 to $20.00 for individual memberships and from $25.00 to $30.00 for institutional members.
(Tara Naraynsingh, Heather Stevens) Tabled.

It was moved that the $5.00 increase in fees be used for first class postage for the mailing of the A.C.M.L. Bulletin.
(Bob Batchelder, Maureen Wilson) Tabled.

It was moved that the question of increasing annual dues be deferred to the next annual meeting.
(Joan Winearls, Alberta Auringer Wood) Carried.

32. A.C.M.L. Bulletin: Initial problems in the conversion to word processing have been overcome, and it is anticipated that the Bulletin will be back on the regular production schedule as of issue number 43. A problem in the timeliness of delivery of the Bulletin through third class mail still exists.

The charges for mailing a 210 g Bulletin are as follows:

Destination	Canada	U.S.	International
3rd Class	90¢	90¢	$1.22
1st Class	$1.20	$1.50	$2.92 (air printed mail) $2.14 (non-priority)

It was moved that the A.C.M.L. Bulletin be mailed first class and air printed mail for overseas members.
(Lou Sebert, Frances Woodward) Carried.

33. Committee Budgetary Process: To aid in more accurate budget-forecasting, committees will be required to produce a budget prior to the annual conference of the Association.

There being no objections, the chair recessed the meeting for 50 minutes.

RESOLUTIONS

34. It was resolved that as map curators have an unrivalled opportunity to come into contact with the map-using public and to find out how they use maps and what maps they require, an advisory committee should be formed by the Association of Canadian Map Libraries which should be available for consultation by map producing agencies and should actively promote communication between map producers and map curators.
(Maureen Wilson, Robert Batchelder) Carried.

ELECTION RESULTS

35. The results of the 1982 election are as follows:
President: Thomas Nagy
Past-President: Lorraine Dubreuil
1st Vice-President: William R. MacKinnon
2nd Vice-President: Kirk MacDonald
Secretary: Elizabeth Hamilton
Treasurer: Tara Naraynsingh

36. It was resolved that Bill MacKinnon's election as 1st Vice-President be confirmed despite the third term.
(Robert Batchelder, Kirk MacDonald) Carried.

37. There being no further business, it was moved that the 16th Annual Business Meeting of the Association of Canadian Map Libraries be adjourned.
(Kate Donkin, Maureen Wilson) Carried.

The meeting was then adjourned.

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

APPENDIX A

ASSOCIATION OF CANADIAN MAP LIBRARIES
TREASURER'S INTERIM REPORT
Jan. 1 - Aug. 16, 1982

Balance as of Dec. 31, 1981			18,426.79
RECEIPTS			
Sale of Publications		8,876.43	
Conference 1981		409.86	
Memberships 1982		4,588.82	
Foreign Exchange		241.67	
Interest		550.07	14,666.85
			33,093.64
DISBURSEMENTS			
Conference 1982		200.00	
Historical Maps Committee		2,942.13	
Bulletin # 39			
Mailing	102.97	102.97	
Bulletin # 40			
Word Processing	300.00		
Printing	678.55		
Mailing	107.27	1,085.82	
Bulletin # 41			
Word Processing	300.00		
Printing	663.00		
Mailing	207.57	1,170.57	
Bulletin #42			
Word Processing	308.00		
Printing	728.50		
Mailing	245.00	1,281.50	
Bulletin #43			
Word Processing	404.00		
Mailing	245.00	649.00	
Travel and Expenses (exec.)		1,496.65	
Telephone calls (exec. & editor)		566.72	
Nominations Committee		450.20	
Publications Officer		451.01	
IFLA dues		320.00	
Incorporation fees		30.00	
Revenue Canada		30.00	
NCC Chronicle		100.00	
Courier service		23.07	
Misc. photocopying & mailing		149.76	
Gift presentation		30.00	
Stamps		70.50	
Refund		12.50	
Bank charges		11.09	11,173.49
Balance as of August 16, 1982			21,920.15

Disposition of Funds

Savings account	11,309.43	
Chequing account	167.24	
Publications account	5,443.48	
GIC	5,000.00	21,920.15

Tara Naraynsingh
Treasurer

* * *

APPENDIX B
ASSOCIATION OF CANADIAN MAP LIBRARIES
BUDGET FORECAST
1982

Revenues

Memberships	4,000.00	
Sale of publications	10,000.00	
Interest	1,000.00	
Foreign exchange	100.00	
Conference 1982	600.00	15,800.00

Expenses

Bulletins (4)	6,000.00	
Historical facsimiles	3,800.00	
IFLA dues	320.00	
Incorporation fee	30.00	
Auditor's fee	600.00	
Travel	2,500.00	
Conference 1982	800.00	
Publications Officer	600.00	
Archives Survey	200.00	
Essays on Cartology	4,000.00	
Telephone calls	1,000.00	
Supplies	550.00	
Labels	60.00	
Bank service charges	25.00	20,485.00

ANNEX TO BUDGET FORECAST
1982

The balance at the time of compilation of this forecast (end of Feb. 1982) was approximately 19,000.00. IFLA dues had already been paid and memberships receipts amounted to approximately 2,300.00.

Revenues

Sale of publications forecasted revenue was based on the past two years receipts:

i.e. 1980 - 13,443.65
1981 - 14,756.80

Expenses

Since I am unaware of the status of the Atlantic Atlas List, I have omitted this publication from this year's forecast. The amount forecasted for this publication last year was 2,000.00. The Essays on Cartology project has been allotted the sum of 4,000.00 as a possible first installment since it does not appear that this matter has been settled. The amount for supplies has been increased to reflect the increased cost of postage as well as purchase of a new batch of A.C.M.L. stationery.

LIST OF ANNUAL COMMITMENTS

List I[1]

Bulletins (4)	6,000.00	
Historical facsimiles	4,000.00	
Publications Officer	600.00	
Annual Conference	700.00	
IFLA dues	340.00	
Auditor's fee	600.00	
Incorporation fee	30.00	..... 12,270.00

List II[2]

Travel	1,500.00 - 2,500.00	
Telephone calls	500.00 - 1,000.00	
Supplies	175.00 - 550.00	
Publications	3,000.00 +	....5,175.00 - 7,050.00+
Total (range)		.....17,445.00 - 19,320.00+

[1] Standard commitments - increases generally linked to rate of inflation.

[2] Other expenses incurred during course of year, dependent on varying factors; hence expressed as a range.

Tara Naraynsingh
Treasurer

* * *

APPENDIX C
ASSOCIATION OF CANADIAN MAP LIBRARIES
MEMBERSHIP STATUS REPORT
Jan. 1 - Aug. 16, 1982

Full	
paid	75
outstanding	0
Associate	
full	26
outstanding	0
Institutional (Cdn.)	
paid	77
outstanding	4
Institutional (other)	
paid	52
outstanding	4
Honorary	2
Exchange	11
TOTAL	251
Cancellations	
Full	12
Associate	11
Institutional	3
Total	26

Tara Naraynsingh
Treasurer

* * *

APPENDIX D
NOMINATIONS AND ELECTIONS COMMITTEE 1982
FINAL REPORT
5 August 1982

The Nominations and Elections Committee 1982 was composed of Brenton MacLeod, L.R.I.S., Summerside (chairperson); Judy Colson, U.N.B., Fredericton; and Susan Graeves, Dalhousie University, Halifax. The call for nominations was sent out in March 1982, with a reminder sent out on April 19, 1982. A meeting was held in Halifax on 21 May 1982 to arrive at the final slate of candidates. By 15 June 1982, all biographical information had been received and ballots mailed out. By the deadline for receipt of ballots, 16 July 1982, 53 ballots had been received from the 83

eligible A.C.M.L. voters. Of this number, two (2) ballots were spoiled. The final tally was completed on 2 August 1982. The following is the A.C.M.L. Board of Directors for 1982/83:

President: Thomas Nagy
Past-President: Lorraine Dubreuil
1st Vice-President: William MacKinnon
2nd Vice-President: Kirk MacDonald
Secretary: Elizabeth Hamilton
Treasurer: Tara Naraynsingh

As required by the By-Laws of the Association, all candidates have been informed in writing of the results of the election.

Brenton MacLeod,
Chairperson,

* * *

APPENDIX E
STATUS REPORT ON "ESSAYS ON CANADIAN CARTOLOGY"
13 August 1982

1. A total of 22 relevant papers have been selected from A.C.M.L. publications, i.e. the Bulletin and Proceedings of the Association.

2. All authors have been contacted for permission to publish and amendments such as reduction in size, illustrations, etc., requested from authors.

3. Responses have been received from eight authors who have either reworked papers or given permission to edit. Negotiations are proceeding with the others.

4. Current plan: The authors expect most of the manuscript to be ready by the end of the year. Text and illustrations should be ready by spring 1983.

S.A. Sauer and
N.L. Nicholson

* * *

ASSOCIATION OF CANADIAN MAP LIBRARIES
16TH ANNUAL CONFERENCE

LIST OF DELEGATES

Janet Allin
Map Library, Rm. 115, Scott Library
York University
4700 Keele St.,
Downsview, Ontario

Dr. H.J. Aschenborn,
Director, The State Library
P.O. Box 397
Pretoria, Transvaal
Republic of South Africa

Tony Baron
38 Squire Baker's Lane
Markham, Ontario
L3P 3G9
(Markham High School Geography Department)

Bob Batchelder
Map & Air Photo Division
University of Calgary Library
Calgary, Alberta
T2N 1N4

Mireille J. Boudreau
60 Daly, Apt. 607
Ottawa, Ontario
K1N 6E5
(Université d'Ottawa)

Annette E. Bourgeois,
Head, Library Services
Geological Survey of Canada
601 Booth Street, Room 350
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Ritvars Bregzis
27 Grenadier Heights
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Francine Cadieux
Collection nationale de cartes et plans
Archives publiques du Canada,
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Louis Cardinal
Collection nationale de cartes et plans,
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(University of Waterloo)

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Colonial Building
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Ottawa, Ontario
K1N 5V5

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(Simon Fraser University)

Bruce Cossar
Trent University Library
Peterborough, Ontario
K9J 7B8

Edward Dahl
National Map Collection
Public Archives of Canada
395 Wellington Street
Ottawa, Ontario
K1A 0N3

Richard Danis
National Map Collection
Public Archives of Canada
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Ottawa, Ontario
K1A 0N3

Aileen Desbarats
The Map Library
Morisset Library, University of Ottawa
65 Hastey St., Ottawa
K1N 9A5

Cheryl DesJardine
Department of Geography, Social Science Building
University of Western Ontario
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N6A 5C2

Christiane Desmarais
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H2X 2C6
(Cartothèque INRS-Urbanisation)

Kate Donkin
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Map & Air Photo Library
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Alexandria, Va. 22306
(Library of Congress,
Geography and Map Division)

Mary E. Fortney
1509 Hinman Ave.
Evanston, Ill. 60201
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(Northwestern University Library)

Flora Francis
38 Oak St.
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Ecole de Bibliothéconomie)

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V1Y 8M3
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K1A 0Y3
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Dept. of Energy, Mines and Resources)

Nadia Kazymyra-Dzioba
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K1A 0N3

Betty Kidd
National Map Collection
Public Archives of Canada
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K1A 0N3

Irene Kumar
Geological Survey of Canada
Map Library, Rm. G-20
601 Booth St.,
Ottawa, Ontario
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Collection nationale de cartes et plans
Archives publiques du Canada
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Winnipeg, Manitoba
R3T 3E2
(University of Manitoba)

Patricia Laughlin
2973 N. 39 St.,
Milwaukee, Wis. 53210
U.S.A.
(Milwaukee Public Museum,
Reference Library)

Pierre Lépine
6065, cr. Brodeur
Brossard, Québec
J4Z 1Y8
(Bibliothèque nationale du Québec)

Karen Lochhead
Skyridge, R.R. #2
Aylmer, Quebec
J9H 5E1
(Cartographic Research Services)

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Map Collection, Department Rare Books & Sp. Coll.
McLennan Library, McGill University
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Maurice McCauley
National Map Collection
Public Archives of Canada
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K1A 0N3

Patrick C. McIntyre
National Map Collection
Public Archives of Canada
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Verna Mole
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Public Archives of Canada
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80 Bloor St. W.
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M5S 2V1

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K1V 7E1

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F.K. Payne
Warner Way
Osgoode, Ontario
(Corporation of the City of Ottawa)

Alyson Pember
Reference Department,
Ottawa Public Library,
120 Metcalfe St.,
Ottawa, Ontario
K1P 5M2

Susan M. Peschel
1943 N. Cambridge Avenue
Milwaukee, Wisconsin 53202
U.S.A.
(American Geographical Society Collection
University of Wisconsin-Milwaukee)

Richard Hugh Pinnell
University Map & Design Library
University of Waterloo
Waterloo, Ontario
N2L 3G1

Colette Poirier
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Archives publiques du Canada,
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Donna Porter
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(Cartographic Research Services)

Bety Ray
RR #3,
North Gower, Ontario
(Carleton University Map Library)

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Kingston, Ontario
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(Queen's University)

Pamela Ross
34 Bowhill Avenue
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K2E 6S7
(Carleton University Map Library)

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London, Ontario

L.M. Sebert
1119 Agincourt Rd.
Ottawa, Ontario
K2C 2H8

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954 F Maxwell Terrace
Bloomington, Indiana 47401
U.S.A.
(Geography and Map Library,
Indiana University)

Marsha L. Selmer
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Chicago, Illinois 60626
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(University of Illinois at Chicago Circle)

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Brock University
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University Library, Map Collection
University of California
Santa Cruz, California 95064
U.S.A.

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Muncie, Indiana 47304
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Utrecht, Netherlands

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141 Riverdale
Ottawa, Ontario
(National Library)

Ronald Whistance-Smith
14520 84 Ave.
Edmondon, Alberta
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(University of Alberta)

Maureen Wilson
1956 Main Mall
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Map Library,
University of Toronto Library
130 St. George St.,
Toronto, Ontario
M5S 1A5

Alberta Auringer Wood
12 Ordnance St.
St. John's, Newfoundland
A1C 3K7
(Memorial University of Newfoundland Library)

Frances Woodward
1956 Main Mall
Library, Special Collections
University of British Columbia
Vancouver, British Columbia
V6T 1Y3

1. Karen Finn
2. Verna Mole
3. Aileen Desbarats
4. Gilles Langelier
5. Kathy Gallagher-Fiebig
6. Liz Frebold
7. Heather Stevens
8. Mary Javorski
9. Susan Greaves
10. Bruce Cossar
11. Ronald Whistance-Smith
12. Flora Francis
13. Christiane Desmarais
14. Frances Woodward
15. Maureen Wilson
16. Mary Murphy
17. Elizabeth Hamilton
18. Pauline Lafleur
19. Lorraine Dubreuil
20. Dorothy Ahlgren
21. Velma Parker
22. Betty Kidd
23. Richard Pinnell
24. Brian Morrell
25. Amy Chan
26. Beth Ray
27. Tara Naraynsingh
28. Marsha Selmer
29. Colette Poirier
30. Louis Cardinal
31. Isobel Veitch
32. Thomas Nagy
33. Beverly Chen
34. John Coles
35. Hans van de Waal
36. Bill MacKinnon
37. Paul Gagne
38. Hugh Larimer
39. Olga Slachta
40. Nadia Kazymyra-Dzioba
41. Carol Marley
42. Pamela Ross
43. Patricia Laughlin
44. Cheryl DesJardine
45. Joan Winearls
46. Daniel Seldin
47. Serge Sauer
48. Alberta Wood
49. Hugo Stibbe
50. Jack Corse
51. Bruce Weedmark
52. Richard Danis
53. Edward Dahl
54. D.A. Redmond
55. Patrick McIntyre
56. Stanley Stevens
57. Francine Cadieux
58. Paul Stout
59. Tony Baron
60. Mary Fortney
61. Pierre Lépine

RECENT ACQUISITIONS

compiled by Karen Finn
University of Ottawa Map Library
Morisset Library
Ottawa, Ontario

Contributors: GSC - Geological Survey of Canada Map Library
OOU - University of Ottawa Map Library
UBC - University of British Columbia Map Library

WORLD - Maps

OOU The Fuelwood situation in developing countries = Disponibilités de bois de feu dans les pays en développement / Cartographic design H. Engeler. Scale 1:25,000,000. - Rome : F.A.O., 1981.
1 map + report.

OOU Map making 600 B.C. - 1800 A.D. / [Chart]. Carl Moreland. - Cheltenham : Regent Galleries, 1981.

OOU Significant earthquakes 1900-1979 / National Geophysical and Solar-Terrestrial Data Center ; World Data Centre for A Solid Earth Geophysics. - Boulder, Co. : National Oceanic and Atmospheric Administration (N.O.A.A.), 1979.

OOU Weltkarte des Andreas Walsperger. [Facsimile]. Zurich : C. Belser, 1981.
Original map published in 1448, original at the Vatican Library.

ARCTIC - Maps

OOU Geological map of the Arctic / prepared by the First International Symposium on Arctic Geology sponsored by the Alberta Society of Petroleum Geologists. Scale 1:7,500,000 ; Azimuthal Equidistant Polar projection. - Calgary : Alberta Society of Petroleum Geologists, 1960.

AFRICA - Maps

RWANDA

OOU République Rwandaise carte forestière / éditée par le Projet Pilote Forestier avec l'appui de l'I.S.A.R. Rubona, sous les auspices du Ministère de l'Agriculture et de l'Elevage. - Echelle 1:250,000 ; projection Mercator Transverse (E30°45'--028°/N1°--S3°40'). - [s.l.] : [s.n.] s.d. (Brussels : Geotechnique).

ASIA - Maps

BURMA

UBC Geological map of the Socialist Republic of the Union of Burma. - Scale 1:1,000,000. - Rangoon : Earth Sciences Research Division, 1977.

JAPAN

UBC Mt. Fuji. - Scale 1:200,000. - Tokyo : Cartographers Association of Japan, 198-.

LEBANON

OOU Administrative map of Lebanon 1:200,000 / prepared and printed by the Director of Geographical Affairs (Lebanese Army). - Scale 1:200,000. - New York : Geological Map Service, Telberg Book Corporation, 1968.

SARAWAK

UBC Sarawak. - Scale 1:500,000. - 4th ed. - Kuching : Director of Lands and Surveys, 1980.
1 map in 2 sections. - (Series No. 8).

EUROPE - Maps

ALPS

GSC Carte géomorphologique des Alpes maritimes franco-italiennes au 1:200,000 / par Maurice Julian. - Echelle 1:200,000. - [Toulouse] : Université de Toulouse. - Le Mirail, 1975.

GREAT BRITAIN

GSC Hydrogeological map of the Northern East Midlands. - Scale 1:100,000. - London : Great Britain, Institute of Geophysical Sciences, 1981.

OOUI Langley and Belch's new map of London 1812. - London : London Topographical Society, 1971.

NORTH AMERICA - Maps

NORTH AMERICA

OOU Metallogenic map of North America / prepared by the North American Metallogenic Map Committee. - Scale 1:5,000,000. - Reston, Va. : United States Geological Survey, 1981.
1 map in 4 sections.

CANADA
ALBERTA

OOU Alberta landsat mosaic / produced by the Alberta Bureau of Surveying and Mapping for the Alberta Remote Sensing Centre, Alberta Environment. - Scale 1:1,500,000. - [s.l.] : Alberta Remote Sensing Centre, Alberta Environment, 1982.

BRITISH COLUMBIA

OOU Ecosystems of MacMillan Park, Vancouver Island. - Scale 1:2,500. - [s.l.] : British Columbia, Ministry of Forests, Vancouver Forest Region, 1981.

ONTARIO

GSC Ontario Geological Survey, Preliminary maps. - p.l. - Scales vary. - Toronto, 1956.
maps
Holdings: P. 537 rev. Niagara and Niagara-on-the-Lake (Drift Thickness Series). - Scale 1:50,000, 1982.

OOU St. Catherines 1875 province of Ontario, Canada. [Facsimile] / drawn by H. Brosius. - St. Catherines, Ont. : Historical Museum, 1981.

GSC Susceptibility of ground water to contamination St. Thomas sheet, west half. - Scale 1:50,000. - Toronto, Ontario : Water Resources Branch, [1981]. - (Map S 101).

NORTHWEST TERRITORIES

GSC Economic geology series. - Scales vary. - Yellowknife : Dept. of Indian and Northern Affairs, 19--.
maps.
Holdings EGS 1978-8 Surficial geology, permafrost and related engineering problems. - Scale 1:6,000, 1978.

UNITED STATES

UNITED STATES

OOU Landsat lineaments in the Appalachian basin / by George W. Colton. - Scale 1:1,000,000. - Reston, Va. : United States Geological Survey, 1982. (Open file report 81-836).

CALIFORNIA

OOU Oblique map of the southern California Inner Continental Borderland / physiography by Tau Rho Alpha. - Scales vertical exaggeration 3:1. - Reston, Va. : United States Geological Survey, 1981. (Open file report 81-1312).

GSC Geophysical investigations maps. - G.P.-1 - Scales vary. - Reston, Va. : United States Geological Survey, 1946.
maps
Holdings GP-932 Maps showing aeromagnetic anomalies, faults, earthquakes, epicenters and igneous rocks in the southern San Francisco Bay region. - Scale 1:25,000, 1981.

MONTANA

OOU Geothermal resources of Montana / John L. Sonderegger and R.N. Bergantino. - Scale 1:1,000,000. - Butte : Montana, Bureau of Mines and Geology ; Montana College of Mineral Science and Technology, 1981.

NEVADA

GSC Geological map of the Eastern Great Basin of Nevada and Utah / compiled and edited by Eugene L. Howard. - Denver, Colo. : Terra Scan Group Ltd., 1978.

SOUTH AMERICA - Maps

COLOMBIA

OOU Republica de Colombia mapa fisico politico 1:1,500,000 / Ministerio de Hacienda y Credito Publico, elaborado por el Instituto Geografico de Colombia "Augustin Codazzi". - Scale 1:1,500,000. - [s.l.] : Instituto Geografico de Colombia "Augustin Codazzi", 1979.

OCEANS - Maps

GSC Ocean floor sediment and polymetallic nodules / by Martine Dreyfus Rawson and William F.B. Ryan ; in collaboration with Pierre E. Biscayne ... (et al). - Horizontal scale 1:23,230,000. - [Washington] : United States Office of the Geographer, 1978.

IMAGINARY MAPS

MIDDLE EARTH

OOU Road map - Middle Earth - Third Age. - Ventura, Calif. : R. Caldwell, 1978.

WORLD - Atlases

WORLD

OOU World atlas of geomorphic features / Rodman E. Snead. - New York : R.E. Krieger Pub. Co., 1980.
ISBN 0-88275-272-3

AFRICA - Atlases

NIGERIA

OOU An agricultural atlas of Nigeria / S.A. Agboola. - Oxford : Oxford University Press, 1979.
ISBN 978-154883-1

ASIA - Atlases

CHINA

OOU Atlas of primitive man in China / compiling group of the atlas, Institute of Vertebrate Paleontology and Paleoanthropology, Chinese Academy of Science. - Beijing, China : Science Press ; New York : Distributed by Van Nostrand Reinhold, 1980.
ISBN 0-442-20013-7

EUROPE - Atlases

EUROPE

OOU Atlas of Greek and Roman world in antiquity / Nicholas G.L. Hammon, editor. - Park Ridge, New Jersey : Noyes Press, 1981.
ISBN 08155-5060-X

ENGLAND

OOU Atlas of Anglo-Saxon England / David Hill. - Oxford : B. Blackwell, 1981.
ISBN 0-631-11181-6

WALES

UBC National atlas of Wales / edited by H. Carter. - Cardiff, Wales : University of Wales Press, 1980.

NORTH AMERICA - Atlases

UNITED STATES

OOU Historical and genealogical atlas of the eastern United States : chronological maps from the revolutionary period to the present for 26 states east of the Mississippi River / Richard H. Jackson. - [s.l.] : Horizon Publishers, 1970.
ISBN 0-88290-0714

OOU A social and cultural atlas of the United States / John F. Rooney. - Chicago : Denoyer-Geppert, 1979.
ISBN 0-87453-012-1

OOU The United States energy atlas / David J. Cuff and William J. Young. - New York : Free Press, 1980.
ISBN 0-02-691350-3

CANADA

OOU Ice atlas, Eastern Canada seaboard / by W.E. Markham. - Toronto : Environment Canada, Atmospheric Environment Service, 1980.
ISBN 0-666-10836-4

YUKON

OOU Yukon ghost town atlas / Garnet Basque. - Langley, B.C. : Sunfire Publications, 1981

OCEANIA - Atlases

AUSTRALIA

OOU B.M.R. earth science atlas of Australia. - Canberra : Bureau of Mineral Resources, Geology and Geophysics, 1979.

REFERENCE BOOKS

GENERAL

OOU Canada from the air / Bo. Curtis and J.A. Kraulis. - Edmonton : Hurtig, 1981.
ISBN 0888-30-201-0, $29.50

OOU The climate of the Canadian arctic islands and adjacent waters = Le climat des îles arctiques et des eaux adjacentes du Canada / J.G. Maxwell. - Ottawa : Environment Canada, Atmospheric Environment, 1980. - (Climatological studies ; 30).

OOU Computer-assisted cartography : principles and prospects / Mark S. Monmonier. - Englewood Cliff, New Jersey : Prentice-Hall, 1981.
ISBN 0-13-165-3083

OOU Individual differences in knowledge acquisition from maps : a report prepared for the Office of Naval Research / Perry W. Thorndyke and Cathleen Stasz. - Santa Monica, Calif. : Rand, 1979. - (Report/Rand Corporation R2375-ONR).

OOU Vision of an ordered land : the story of the Dominion Land Survey / J.G. MacGregor. - Saskatchewan : Western Producer Prairie Books, 1981.
ISBN 0888330715, $12.95

DICTIONARIES & GLOSSARIES

OOU Glossaire international d'hydrologie = International glossary of hydrology. - Geneva : Secretariat of the World Meterological Organization, 1974. - (WMO/OMM/BMO [publication] ; no. 385).
ISBN 92-63-00380-8

OOU Lexique géologique = Quebec geological lexicon. - Québec : Ministère des richesses naturelles, Direction générale des mines,1975.

HISTORY

OOU A history of the Ordnance Survey / edited by W.A. Seymour. - Folkestone : Dawson, 1980.
ISBN 0-7129-0979-6

OOU Joseph Nicollet and his map / Martha Coleman Bray. - Philadelphia : The American Philosophical Society, 1980.
ISBN 0065-9738

PLACE NAMES

OOU Itinéraire toponymique du Chemin du Roy, Québec-Montréal / René Bouchard et collaborateurs. - Québec : Commission de toponymie, 1981. - (Etudes et recherches toponymiques ; 2).
ISBN 2-551-04245.3

TRAVEL

OOU The first guidebook to prisons and concentration camps of the Soviet Union / Avraham Shifrin, - Uhldingen, Switzerland : Stephanus Edition, 1980.
ISBN 3-921213-353

OOU The grand tour : a traveler's guide to the solar system / by Ron Miller and William K. Hartmann. - New York : Workman Publishing, 1981.
ISBN 0-89480-146-5, $19.95

UBC One hundred and three hikes in southwestern British Columbia / by Mary Macaree and Douglas McIntyre. - Vancouver, 1980.

* * *

NEW PUBLICATIONS

CARTOGRAPHIC MATERIALS: A MANUAL OF INTERPRETATION FOR AACR 2

This long awaited manual, prepared by the Anglo-American Cataloguing Committee for Cartographic Materials under the general editorship of Hugo L.P. Stibbe, is now available and can be obtained for $60.00 (Canadian) from CLA or $40.00 (U.S.) from ALA. The manual was published jointly by the American Library Association (Chicago), the Canadian Library Association (Ottawa), and The Library Association (London). You may order a copy from:

Canadian Library Association
151 Sparks Street
Ottawa, Ontario K1P 5E3
(ISBN 0-88802-169-0)

or

American Library Association
50 East Huron Street
Chicago, Illinois 60611
(ISBN 0-8389-0363-0)

* * *

THE MAP COLLECTOR

Did you know that there is a glossy magazine which caters exclusively to people who love antique maps? Even if you know nothing about the subject of early cartography but have an old map on the wall and would like to know more about it, The Map Collector will surprise and delight you and open your eyes to a whole new field of collecting.

For instance, were you aware that California was shown as an island on maps for over 100 years; that no roads appeared on maps of Great Britain until after 1675; that most libraries have special map collections; and that many famous men have been avid map collectors, for example, Samuel Pepys, the famous diarist, and George III whose vast collection is now in the British Library?

Antique map collecting is definitely becoming one of the most fashionable collecting fields of 1982 and The Map Collector is the only journal in the world catering to this interest. The articles are written by people who are both experts and beginners in the world of maps and these are backed up by news reports, results of auctions of maps and atlases, and classified advertisements where people can buy and sell their maps. There is also a lively exchange of letters from readers from countries all over the world.

The scope of antique maps, plans, and sea charts is much wider than most people imagine. They were produced to show pilgrim routes, coach roads, canals, cycling routes, battles, sea routes, celestial views, town plans and views and maps of various areas of the world. Some maps are in beautiful original colouring with attractive emblems and drawings as decoration and others are in black and white and were designed to be purely utiitarian. The most famous mapmakers were John Speed who lived in the

sixteenth century and Christopher Saxton who had the backing of Queen Elizabeth I.

A yearly subscription to The Map Collector costs £15 for surface mail to U.K. and overseas, £22 for second class airmail to Canada and the USA. Write to Map Collector Publications (1982), P.O. Box 53, Tring, Hertfordshire, England, for further information.

Readers may be interested to know that Edward Dahl of the National Map Collection, Public Archives of Canada, has recently become an editorial advisor to The Map Collector. Two of his articles, both co-authored by Conrad Heidenreich, have been published in this magazine.

* * *

RUBIK'S WORLD GLOBE

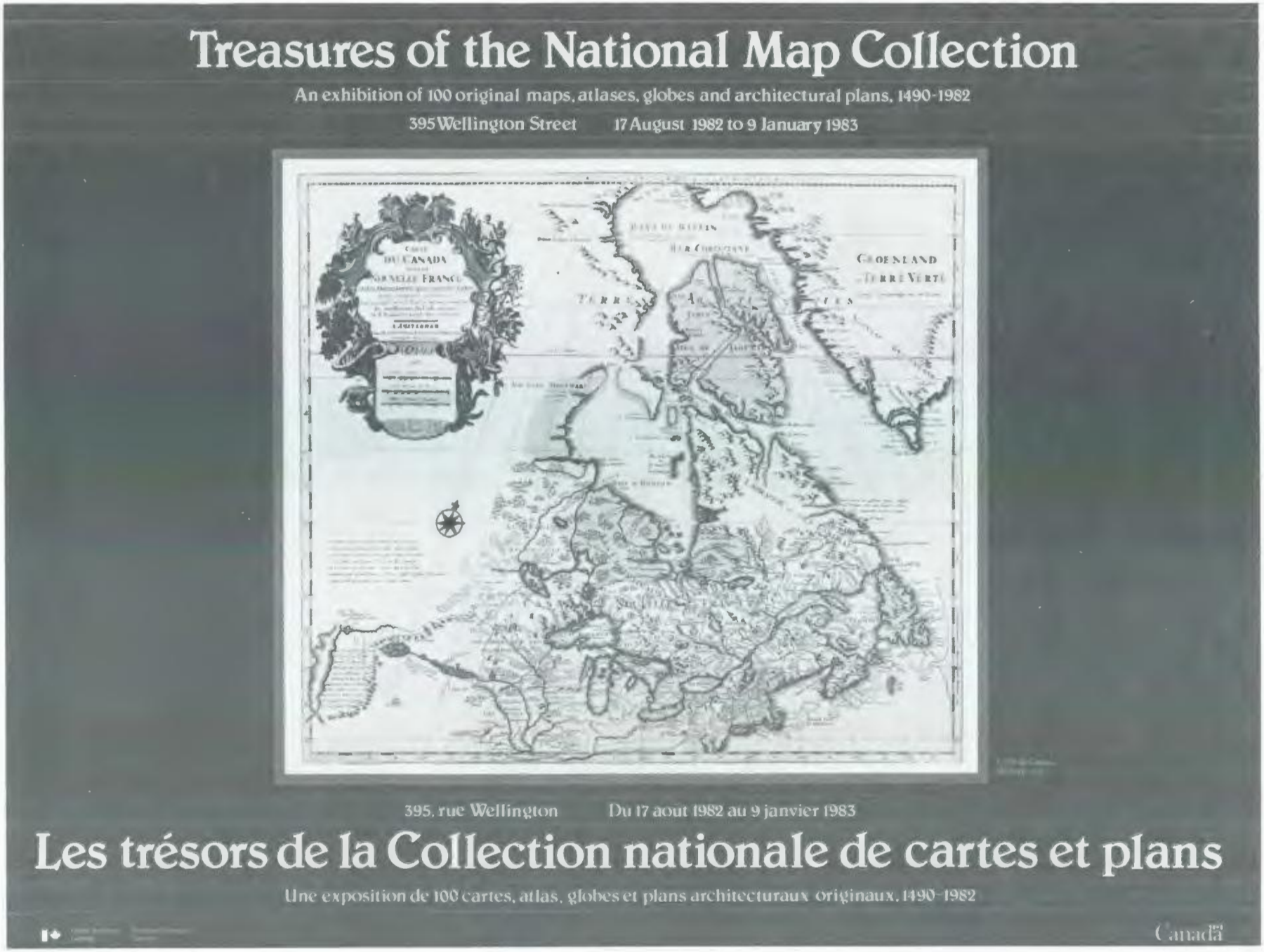
The manufacturer of Rubik's Cube has expanded its line of colorful three-dimensional puzzles to include Rubik's Revenge--a six-sided cube consisting of 16 smaller cubes--retailing for $20; a Rubik's world globe showing the continents in different colors retails for $14; and a Rubik's game retails for $15. Several other games and puzzles are available, as are solution books for all products. Ideal Toy Corp., c/o Manny Lefkowitz, Inc., 230 Fifth Ave., New York, N.Y. 10169; (212) 689-6320.

* * *

RAISED RELIEF MAPS

Kistler offers a line of raised relief maps that includes The United States (17" x 26", $9.50; 22" x 34", $13; 28" x 42", $38.50), The World (22" x 34", $13), New Testament Palestine (11" x 14", $7.75), and The Thirteen Original Colonies (17" x 22", $7.75). Discount is 50%, nonreturnable, on minimum orders of 12. For further information: Kistler Graphics, Inc., P.O. Box 5467, Denver, Colo. 80217; (303) 399-2581.

* * *



The poster reproduced above, measuring 48 x 61 cm, is available from the National Map Collection, Public Archives of Canada, Ottawa, Canada K1A 0N3.

L'affiche reproduite ci-dessus, mesurant 48 x 61 cm, est disponible de la Collection nationale de cartes et plans, Archives publiques du Canada, Ottawa, Canada K1A 0N3.

REVIEWS

Goode's World Atlas. Edward B. Espenshade Jr., editor and Joel L. Morrison, associate editor. 15th ed. Chicago, Rand McNally, 1980, c1978. xii, 372p. $21.95.

Philips' New Reference Atlas. London, George Philip & Son, 1980. 32p, 128 p. of maps, 96p. ISBN 0- 540-05360-0.

The 15th edition of Goode's World Atlas and the 1st edition of Philips' New Reference Atlas lend themselves to comparison as they are similar in price, design, and intended audience. The American Goode's has been on the market for about 60 years and the 15th edition, copyright in 1978, is now in its 6th printing. George Philip and Son Ltd., a British concern, has an established reputation as a publisher of atlases, although this is their first attempt at producing a contemporary reference atlas appropriate for home, business, or school. Although no mention is made of other Philips' atlases, the New Reference Atlas seems to be an expansion of Philips' Concise Atlas of the World, the 1st edition of which was published in 1980.

Physically, Goode's World Atlas and Philips' New Reference Atlas are very similar, both measuring 9 x 11 1/4 inches with colourful dust jackets, good quality paper, and easy-to-read type. Goode's is a longer atlas with 384 pages compared to the Philips', which has 224 pages.

On the dust jacket and in the introduction to Goode's, revisions to the 15th edition are listed. New thematic maps, some with flow lines showing trade movements, and a new soil map have been added. The maps showing metropolitan areas have been redesigned and appear in a section entitled "Major Cities Maps," rather than as insets with the regional maps of the particular areas. With the exception of name changes and some updated data, little else seems to have changed from previous editions.

Goode's World Atlas begins with a useful 5-page introductory section on map projections and scale, before the atlas proper begins with thematic maps. The Philips' New Reference Atlas does not address any technical aspects of cartography but does preface the reference portion of the atlas with a 32-page review of the current state of the world. This section examines food, population, energy, politics, economics, industry, transportation, and the quality of life. Many photographs, illustrations, and maps are included in this section.

Both atlases have extensive gazetteers at the end of the volumes, Goode's running 125 pages and Philips' 84 pages. Latitude and longitude are represented in degrees and minutes, and regions or countries are supplied for each entry. Each entry refers the reader to a page number where the area can be found on a map. A very useful feature of Goode's index is its pronouncing guide. For example, Abitibi is pronounced ab-i-tib-i. This is particularly useful for geographical names in Asia and the Third World. Goode's also includes a 14-page index to principal cities of the world.

In addition to the gazetteer, Philips' New Reference Atlas contains climate data for tourist centres, a list of international organizations, and population of world cities which have over 100,000 inhabitants. The dates of the latter figures vary considerably from about 1966 (Tunisia) to 1977 (Rumania).

The regional bias of the publisher becomes apparent when one surveys the number of pages devoted to maps of a particular area. For instance, the American Goode's has ten pages of maps of Canada and twenty-one pages of maps showing the U.S. Philips' devotes only five pages to Canada and nine pages to the United States.

Similarly, the order in which the maps appear reflects a certain bias. Following some thematic world maps and major city maps, Goode's begins its regional coverage with maps of the U.S. In Philips', maps of the United Kingdom appear directly after the general world maps.

The comparative scales of some of the maps offer yet another clue regarding the focus of the atlases. Philips' has a general administrative map of Israel and West Jordan at a scale of 1:1,000,000. The Goode's counterpart is a relief map of the Middle East at a scale of 1:16,000,000. One has great difficulty determining armistice lines between Israel and the Arab countries on this latter map.

Shading is employed to show limited relief in Philips' although this was clearly not a first-priority for the regional maps. In Goode's however, relief is shown consistently by combining layer tinting and shaded relief drawing in all the regional maps, and this reviewer believes at the expense of clarity in a general reference atlas.

In general, neither atlas presents a glaring deficiency in terms of content or presentation. Recent name changes appear to be a little more current in the Goode's gazetteer; however the binding was too tight in this index. Except for the regional bias in both atlases, which might influence one's decision, I see little difference between the two in terms of a general reference atlas.

Lori Nurse
University of Toronto Library
Toronto, Ontario

* * *

Kidron, Michael and Segal, Ronald. The State of the World Atlas. London, Pan Books (paperback ed.) and Heineman Educational Books Ltd. (hardback ed.), 1981. Maps copyright Pluto Press Ltd. 65 maps, 18 pages of notes, index.

This is no run-of-the-mill atlas to which you would turn to find the location of a particular city or lake, or the elevation of a mountain peak, or any of the other bits of information which we normally expect to find in atlases. This is, instead, as its name declares, an atlas which seeks to depict the state of world affairs; this it does by presenting a vast quantitiy of significant statistical information in cartographic form. By and large it is successful; the editors appear to be neither cartographers nor geographers, but they have nevertheless produced a colourful and fascinating volume.

The base units for all comparisons are the world's sovereign states. The editors note that the state has been both an instrument for the extension of personal liberty and material progress and an instrument of personal

oppression, collective violence, and economic waste. They contend that "the destructive aspects of the state have come crucially to exceed the constructive ones" (Introduction), and the maps they have produced certainly support that thesis.

Sixty-five aspects are presented. Six of the "maps" are computer-produced geographic distortions which preserve the geographic relationship between states while emphasizing the disparities in such topical areas as population distribution, military expenditures, and trade power (in which area the USSR stands scarcely larger than Hong Kong or Singapore). The projection used for other maps is Winkel's Tripel, 1913, regarded by the editors as "a familiar and relatively fair 'equal area' projection" (Map 1). The maps are printed on a two-page spread and measure 22 x 33 cm. The book as a whole measures 35 x 18 x 1 cm. The most serious deficiency in the whole work lies with the binding--in nearly all of the maps, the area along the vertical line from Helsinki through Greece to central South Africa is lost in the gutter. The excessive right-hand margin would have been much better used in the centre, with all maps carefully split into east and west halves.

There are twelve broad categories portrayed: The Aggressive State; Arms and the State; Natural Resources; Economy; Government; Holds on the Mind (i.e. languages and religions of rule); Business; Labour; Society; Environment; Symptoms of Crises; and Signs of Dissent. Some of the maps have tantalizing titles of their own: e.g. Map 29--Bullets and Blackboards (indicating the ratio between armed-forces personnel and teachers); Map 37--Islands of the Blessed (tax havens and flags of convenience); Map 48--Holes in the Safety Net (welfare receipts as proportion of the gross national product). At the end of the book there are twenty-eight pages of very useful notes, several paragraphs to each map.

The editors spell out in their introduction the many difficulties (e.g. accuracy, comparability, conceptual flaws) to be faced in working with statistics, especially those derived from many different national and international sources. The data are categorized into bands (e.g. over 80%, 60.1-80%, 40.1-60%, etc.), and all states within each band are in the same colour. The colours used are bright and usually easily distinguished (Map 42 is the primary exception). As well, the states at the extreme ends of the statistical ranges are noted in the legend. Each map carefully records the sources used, and particular difficulties are discussed in the notes. The latter also include frequent references to other maps showing related information. In addition to colour bands, much information is presented by symbols, often gruesomely appropriate (e.g. Map 44--skulls to locate famines; Map 31--coffins to show which states still use capital punishment). This approach is not always successful--in Maps 45 (Bills of Health) and 46 (The Right to Learn), the symbols overflow the national boundaries and fill in the oceans to the point where there are more symbols "at sea" than on land, and the clutter destroys the maps' effectiveness.

The currency of the data ranges from early 1980 back to the early seventies, depending upon what data were available on each topic. Some maps, either by colour, symbols or insets, also depict certain long-term trends. The editors are to be congratulated on the depth of their research. Only one map (Map 58--Credit Runs Riot) is unsatisfactory, due to overall lack of data. For the rest, though there are nearly always some white states (respresenting "data not available"), they are sufficiently few to leave the overall picture unimpeded. Even communist bloc countries

are, in most cases, well reported.

Taken as a whole, this atlas is a sobering volume; clearly the state of the world is not good! One can read of military expenditures or inflation or pollution or famine occurring anywhere and everywhere, but few people absorb the overall picture. These maps bring it out starkly--the economic, industrial, nutritional, and population imbalances; the extent of international squabbling over control of the oceans (and of oceanic pollution); the flow of refugees (though this map stops at 1979 and therefore does not include the Boat People flood of 1980-81). For this reason, The State of the World Atlas should be in every library and put into the hands of as many readers as possible. If we don't know what and where the problems are, we shall never even begin to try to solve them.

Bruce Cossar
Trent University Library
Peterborough, Ontario

* * *

NEWS AND COMMUNICATIONS

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Fredericton, New Brunswick
E3B 3H5

* * *

NEW BULLETIN BOOK REVIEW EDITOR

As editor of the Bulletin I am happy to announce that Alberta Auringer Wood has accepted the position of Bulletin Book Review Editor, recently vacated by Joan Winearls. After many years of faithful service Joan has had to step down because of increasing professional demands on her time.

Alberta, whose address is given below, requests that members interested in doing book reviews (i.e. atlases, gazetters, cartobibliographies, and so on) for the Bulletin, write to her indicating the types of books or atlases they would like to review.

Alberta Auringer Wood
Head, Information Services Division
Queen Elizabeth II Library
Memorial University of Newfoundland
St. John's, Newfoundland
A1B 3Y1
(709/737-7427)

* * *

LETTER TO THE EDITOR: ACML OR ACC?

The June issue of the ACML/ACC Bulletin arrived today. While not a member, not even an associate because I feel the Association doesn't need Yank members, I do read your reports with some interest. It was always my understanding that the official name of your body was the Association of Canadian Map Libraries/Association des cartothèques canadiennes--the name in both official languages of Canada. Throughout your reports it is always "A.C.M.L." I read. I have always tried to refer to your organization in everything I write as "ACML/ACC." Even in a purely Canadian context, French could never become a truly co-equal language, and with the influence of the English-speaking United States, it can only hope for recognition as an important regional language, a minority language, in North America. This does not mean that those of us who are English speakers should ignore and despise French. I would imagine that most Canadian map librarians can at least read both languages on the level of functional semi-literates. Since both languages are legal in Canada, would it be too much to ask if in all future official reports of your Association, the acronym in both languages was used - even if it takes more typing?

Jeremiah Post
Free Library of Philadelphia

[Editor's comment: The bilingual nature of our association is given due recognition as evidenced by the name on the front cover of each issue of the Bulletin. I am not aware that there exists an official acronym or initialism for the name of this association--the by-laws make no mention of one--and for strictly stylistic reasons I chose to use "A.C.M.L." During our recent conference in Ottawa this year I asked a French-speaking member what he thought of your suggestion to use ACML/ACC. His answer was that his francophone colleagues routinely refer to the association as "A.C.M.L." Accordingly, I shall continue to use this unilingual initialism.

Your comment that "the Association doesn't need Yank members" is most surprising, coming as it does from an American, and is most assuredly untrue. Although our full members must reside in Canada, we welcome associate and institutional members from anywhere in the world. Tsk, tsk, Mr. Post.]

* * *

NEWS FROM INDIANA

Two associate members of the A.C.M.L. are on the board of the Indiana Chapter of the Special Libraries Association. Paul Stout of Ball State University is treasurer and Dan Seldin of Indiana University is president-elect. Mr. Seldin, of the Geography and Map Library at Indiana University in Bloomington, has a new telephone number. It is 812/335-1108.

* * *

NON-ACIDIC FOLDERS

The Conservation Committee of the A.C.M.L. has again arranged a joint order for non-acidic folders from Conservation Resources International Inc. in Alexandria, Virginia. Your order should be forwarded to:

Mrs. Jenny Garwig
Conservation Resources International Inc.,
1111 North Royal Street
Alexandria, Virginia 22314
U.S.A.

with a copy for information purposes to me at the National Map Collection.

Joint ordering ensures that all of us are entitled to the lower prices quoted in this letter. The company will send your order directly to you and invoice each institution individually.

The folders, for which your orders will be accepted, are acid-free, .010 thickness, and pre-folded:

a) 30" x 20" (folded size) - with fold on 30" dimension	$.71½ each
b) 41" x 30" (folded size) - with fold on 41" dimension	$1.23 each
c) Acid-free tissue paper - .001 thickness - 40" wide x 500 yds roll	$81.00

In calculating cost, it should be remembered that prices are F.O.B. from Alexandria and that all material is subject to 17 1/2% customs tariff. The company normally requires 2 to 3 months for delivery of orders.

Maurice McCauley
A.C.M.L. Conservation Committee

* * *

LE PRIX DE LAC ERIE — $1000 U.S.

Professor Conrad E. Heidenreich announces a new prize related to the history of New France, Le Prix de Lac Erié.

The European discovery of Lake Erie, especially its western extremities together with Lake St. Clair, is usually attributed to Adrien Jolliet

(1669) or René Bréhant de Galinée and François Dollier de Casson (1669-1670). Yet the writings of the Jesuits (1640-1648) and the cartography of Nicolas Sanson (1650), suggest that these were not the first Europeans who passed along the shores of the lake.

The prize of $1000 is payable to the first person who provides acceptable documentary proof of European discovery before 1650. "Discovery" is defined as the gathering of geographical information by an individual or group in an area hitherto unknown to that group and the presentation of that information in such a manner that there is no doubt what that discovery was.

Le Prix de Lac Erié is offered under the auspices of Bowling Green State University. Submissions should be in the form of an essay supported by photocopies of documents or any other evidence. If there is no acceptable winner by December 31, 1983, Le Prix de Lac Erié will be withdrawn. Submissions will be judged by:

E.H. Dahl, National Map Collection, Public Archives of Canada, Ottawa, Ontario;
C.E. Heidenreich, York University, Downsview, Ontario;
R.J. Wright, Bowling Green State University, Bowling Green, Ohio.

Submissions should be sent to:

C.E. Heidenreich
Department of Geography
York University
4700 Keele Street
Downsview, Ontario
M3J 1P3 Canada

* * *

CAMPUS MAPS NEEDED

Once again this is the season for a rush on campus maps. While one usually refers such questions to college catalogs for the maps one doesn't have right on hand, this can be tedious for the user--and disappointing if the map is torn out. Why not an atlas of campus maps? And, so, this is the next project here at Free Library. I am asking for the help of all map colleagues to send me copies of campus maps for campuses in North America (that includes Canada and Mexico) and in outlying U.S. territories. A cheap production is envisioned, but plans may change. The first step is to gather the material. As to what institutions would be included, The World of Learning is a starter for candidates, but the real criteria is going to be what is collected. Copyright will be a problem (unless published by Fly-by-Night Press), and some maps we may not be able to reproduce. Any help from the map community will be appreciated.

J. Post
Free Library of Philadelphia
Map Collection

* * *

TIM ROSS TRANSFERS TO MANITOBA

Tim Ross, Map Librarian at the University of Windsor, received his M.S.L.S. from Wayne State University, Detroit, in May 1982. In October he will assume the new post of Cartographic Archivist at the Provincial Archives of Manitoba.

Since the map collection at Windsor will be staffed by graduate students for several months until a permanent replacement is found, Tim asks that interlibrary loan and map redistribution operations be suspended until further notice.

* * *

NEW MAP LIBRARIAN AT WINDSOR

We recently received notice that Mrs. Rose Milks has replaced Tim Ross as map librarian at the University of Windsor. She reports that Windsor wishes once again to participate in the OCUL interlibrary loan system for cartographic materials.

* * *

COURSE IN MAP CURATORSHIP IN THE NETHERLANDS

Hans van de Waal of the Geographical Institute, State University of Utrecht, has sent a brief report on the structure and content of a course in map curatorship at the P.A. Tiele-Academie, a library school in The Hague. This specialization for graduates of the Tiele-Academie follows a three-year training period as a general librarian.

The course content is as follows.

A. Includes 24 hours of tuition in Amsterdam, given by Dr. Jan Werner, map curator of the University Library. Sepcial attention is paid to the practical aspects of map curatorship:

- history of cartography, including reproduction techniques and evaluation of contents	12 hours
- acquisition	3 hours
- bibliographies	3 hours
- storage and restoration	3 hours
- map cataloguing	3 hours

B. Tuition in Utrecht by Hans van de Waal. Cartographic aspects and cataloguing according to ISBD(CM) and Unimarc have a central place (40 hours in total).

- introduction to the specialization	2½ hours
- the characteristics of cartographic documents as a medium of information supply	2½ hours
- the stages in the supply of information	2½ hours
- how to make cartographic materials accessible	10 hours
- international organisations, standards, ISBD(CM), and Unimarc	2½ hours
- information policy in the Netherlands, the Dutch Union Map Catalogue (DUMC)	2½ hours

- cataloguing according to Dutch rules and DUMC 2½ hours
- different kinds of cartographic materials and their characteristics 7½ hours
- excursion to a restoration workshop 2½ hours
- excursion to a cartographic government service 2½ hours
- excursion to a commercial map producer 2½ hours

The students must compile a carto-bibliography (four weeks), under supervision, and do a research library practicum for five weeks, including several weeks of practical work in an archives.

Starting this year, archivists may also take a course in map curatorship at the School for Archivists. In addition to the 64 hours of tuition in Amsterdam and Utrecht mentioned above, they also have instruction in the subjects listed below. (Pupils of the Tiele-Academy may attend these classes as a supplement to their programme.)

- basic knowledge of geography (taught at the Tiele-Academie) 22 hours
- history of map-producing and map-using official agencies 9 hours
- the archives 3 hours
- appraisal and acquisition 1 hour
- cataloguing 5 hours
- bibliography of maps 2 hours
- palaeography 15 hours
- conservation and restoration 5 hours
- art history 26 hours
- bibliography of prints and drawings 2 hours
- architectural drawings 2 hours
- cataloguing of prints and drawings 4 hours

* * *

HONOURS AWARD: SLA G & M DIVISION

The Honors Award for outstanding achievement established by the Special Libraries Association, Geography and Map Division, was presented for the first time in 1955.

After careful consideration the Honors Committee selected David K. Carrington as the recipient of the 1982 Honors Award.

David is head of the Technical Services Section of the Geography and Map Division of the Library of Congress. He received his B.S. degree, with a major in Geography, from the University of Maryland in 1961. Following military service he pursued graduate studies in library science at Florida State University where he received his M.S. degree in 1966.

Before assuming a position at the Library of Congress, he was employed as Supervisory Librarian in the Office of Geography, Department of the Interior. His contributions to the map librarian profession are numerous; however, the most important is the successful direction of MARC Map through its developmental phase. As recognition of this project he received the Library's Meritorious Service Award in 1970.

As editor of 2nd edition (1970) and co-editor of the 3rd edition of Map Collections of the United States and Canada (1978), Mr. Carrington provided

very needed and useful reference work in the field of map librarianship. He also co-authored the Data Preparation Manual for the Conversion of Map Cataloguing Records to Machine-Readable Form, a pioneer work in itself. His articles dealing with a variety of map librarianship problems have been published in professional journals.

Membership in professional organizations is an excellent indicator of Mr. Carrington's active involvement. He is a member of the Association of American Geographers, American Library Association, and Special Libraries Association. He is a former chairman of the Geography and Map Group, Washington Chapter, S.L.A.

Mr. Carrington's contribution and direct involvement in map librarianship is reflected in participation in the following activities:

a) Continued as member, IFLA Joint Working Group on International Standard Bibliographic Description for Cartographic Materials.
b) Continued as co-chairman (with Dr. Anna Kozlova, USSR), IFLA Geography and Map Section, Working Group on a Multi-Lingual Glossary of Map Library Terms.
c) Continued as member, UBC/IFLA subcommittee investigating UNIMARC and its impact on ISBD(CM).
d) Coordinator of committee to investigate, review, and critique draft AACR 2 Chapter 3 "Cartographic Materials." Prepared and edited final report.
e) Developed, coordinated, and served as chairman of the second international meeting of the Anglo-American Cataloguing Committee for Cartographic Materials, Washington, D.C., April 27 - May 1, 1981.
f) Appointed LC member to Map Librarian's Professional Concerns Committee, Geography and Map Division, SLA.
g) Continued as LC member, Map Library Work Group, Federal Libraries Committee, Task Force on Automation.
h) Continued as LC member, Committee on Standards for Map Microfilming, National Microfilm Association.
i) He serves as one of the library's deputy members on the U.S. Board of Geographic Names. Also, he is a member and former chairman of the Federal Library Committee's Map Library Work Group, a member of the Advisory Committee to the National Commission for Libraries and Information Science, and a member of the Map Microform Committee of the National Micrographics Association.
j) Member, Publications Advisory Committee, Geography and Map Division, SLA.
k) Developed and coordinated Cartographic Materials Processing Workship, Washington, D.C., June 16-20, 1980.
l) Elected Secretary/Treasurer, Geography and Map Division, SLA.

For his long years of dedicated services and continued support to develop map librarianship, the Special Libraries Association, Geography and Map Division bestows its Honors Award for 1982 on David K. Carrington, with very best wishes for continued success in his profession.

Roman Drazniowsky, Chair
SLA G & M Honors Committee

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TREASURES OF THE NATIONAL MAP COLLECTION

Dr. Richard I. Ruggles
Queen's University
Geography Department
Kingston, Ontario

Text of the speech delivered by Dr. Ruggles for the opening of a map exhibition at the Public Archives of Canada on 17 August 1982

C'est un plaisir et un grand honneur d'être ici aux Archives publiques du Canada pour ouvrir cette magnifique exposition. J'espère que l'on ne m'a pas choisi parce que je suis considéré par mes amis de la Collection nationale de cartes et plans comme une antiquité des Archives, mais parce que, cet été, il y a eu trente ans que j'ai ouvert pour moi seulement la grande porte de l'édifice des Archives sur la rue Sussex, et j'y ai rencontré Messieurs Fee, Richardson et Layng, avec lesquels j'ai commencé trente ans de collaboration cartographique heureuse.

A Diamond Jubilee occurs so rarely in each of our lives, whether of a birthday, of a wedding, of the accession of a monarch, or of the inauguration of an institution, that it occasions special meaning for each of us. This is true, certainly, of the seventy-fifth anniversary of the official founding of Canada's leading collection of cartographical and architectural records. There must certainly be a feeling of jubilation among those who have been privileged to be employed here, or have been visitors here and recipients of the aid and advice of these most 'civil' servants. There is, moreover, appreciation of the stewardship over the years provided by the five successive chiefs of this collection, H.R. Holmden, Norman Fee, Jack Richardson, Ted Layng and Betty Kidd. And there is, especially, admiration for such qualities as the staff's professional expertise, its reputation both in technical developments and its record of research publication, its knowledge of its materials, and in its collecting attainments.

Such qualities may be exemplified, for example, in the uncanny competency of Lawrence Earl to lead one unerringly to all the map resources which one could desire on a specific topic, and to do this again and again in the most unflurried fashion, or, in the Renaissance-like quality of Ed Dahl's ability to tell you all you might want to know about the maps of early Canada, and even some things about which you were almost afraid to ask. But, in a more serious vein, these qualities have resulted in the National Map Collection having an enviable world-wide reputation as a collection, and as a centre of information and research.

Among several activities and projects which these jubilarians have organized this special year, 1982, the highlight is this display of an inspired selection from the manifold treasures of the National Map Collection. Over a million documents have been transmuted through a meaningful few, into a comprehensible story. If the aphorism is true that a picture is worth a thousand words, then the maps and other documents of this exhibition certainly must speak volumes, as it is the most comprehensive, significant and beautifully prepared portrayal of this nation's cartographic and architectural history yet seen in Canada.

This exhibition says much about the efforts of the past and present staff members of the National Map Collection but it represents much more than this. The national collection is really a congeries of smaller private collections, representative of the knowledge, persistence and the risks

taken by many private persons, who in acquiring their own treasure troves, brought these documents to Canada, or maintained them in Canada. The quality and diversity of this exhibition is in fair measure a tribute to the informed choices of many collectors, notably to Dr. Alexander MacDonald, whose largest and most prestigious collection ever assembled by a single person in Canada, remains fortunately in the public domain. Coolie Verner's long-held interest in the Canadian Arctic, exemplified by aspects of his research, is commemorated by some 170 maps in the collection, and several in the exhibition. There are other notable collections represented here also, such as the Coverdale collection, formerly at the Manoir Richelieu.

The exhibition is also, indirectly, a testament to the great interest of government personnel and the public in cartographic documents, for the growth of the National Map Collection reflects the level of inquiries and the search for research data by many persons: historians, historical geographers, by a growing body of historians of cartography and cartographers, and by many other specialists too numerous to classify. It parallels the leading roles taken by National Map Collection members in many professional organizations, among them the Association of Canadian Map Libraries, who are meeting here now to commemorate this jubilee, and the History of Cartography Interest Group of the Canadian Cartographic Association, of which both Ed Dahl and Betty Kidd have been chairpersons, all of which have fostered the growth of cartographic interest through their meetings and publications.

As you pass among the exhibits what will you experience as you look through maps, which the poet Keats declared were "magic casements" opening onto "perilous seas forlorn"? I hope you do not think of them just as a pretty picture or an ornament for the study wall. Almost every map, even the most colourful and decorative, was utilitarian. They were draughted and printed as working documents, for various purposes. Dieter Goos drew his navigational chart of the Atlantic Ocean about 1680 but had it printed on more durable vellum for the ship captains so that it would last longer in the harsh treatment of storms, mists and salt spray on ship-board.

And J.G. McTavish, Chief Factor of the Hudson's Bay Company at York Fort, asked George Taylor, Jr., a young, country-born sloop master there and an aspiring surveyor and carrographer, to merge the sketches and maps, and the comments of the late, great Peter Fidler, for the Churchill and Nelson-Saskatchewan systems, and piece them into a composite working map, upon which new data could be penciled. What I also ask you to envisage further in your mind's eye, as you marvel at the intricacies of the watery pattern of this region, are the thousands of hours of hard slugging by Fidler in canoe, boat, on horse or afoot, the hundreds of solitary hours, except for myriads of mosquitoes and black flies, late at night, shooting the moon or stars, or at 30 below zero sighting on the sun, or trying to balance compass while taking thousands of bearings from canoe or boat gunwhales, or at night, by candle-light, in the tent or rude cabin, making hundreds of latitude and longitude calculations, plotting courses, inking sketches, and compiling larger maps, and all this, above and beyond his main tasks as fur trader and post or district manager, with wife and growing, clamorous family almost always by his side.

The individual items speak eloquently of Canada's past and of man's conceptions and misconceptions of our geographical nature. Witness Samuel de Champlain, our first great cartographer and geographer, who, near the

end of his career in 1632, issued his most famous and extensive interpretation of our nation. Witness also Captain John Palliser's assessment in 1865 of our Western prairie environment and potential, which, particularly in the Dirty Thirties, seemed fairer comment than it does today. Or witness also J.N. Delisle and Philippe Buache's imaginative cartography of the west in 1752. Their hypothetical inland "Sea of the West," transcontinental straits, entrances and passages, make Jonathan Swift's sarcastic verse about cartographers who, on their maps "o'er uninhabitable downs, to fill the gaps, placed elephants, for want of towns," seem pallid comment indeed.

But, seeing is believing, and there is a splendid array of architectural plans to be viewed, from the modern sketch of a stained glass church window, a Victorian villa, George Browne's splendid Kingston City Hall, now happily restored almost to this design, and near which I happily live, and Samuel Holland's plan for the erection of a Quebec citadel.

It is my great honour and pleasure to declare open the Diamond Jubilee exhibition "Treasures of the National Map Collection." I am sure that all who see these treasures will agree with Sir Walter Scott, on the occasion of an earlier jubilee, that "all along the crowded way was jubilation and loud huzza."

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MAGERT CALL FOR PAPERS

The American Library Assciation will be meeting in Los Angeles, June 26 - July 1, 1983. Papers for the MAGERT program are welcome on the following themes: mapping the Transmississippi West, part II (Part I was in San Francisco, 1981); maps as reference tools; the basics of handling maps; the map library network and the networks. In addition, contributed papers are sought on themes relating to geography and maps as historical documents, geographic tools, or information sources.

Spoken presentations should be planned for no more than 20 minutes, although the papers may well be lengthy. Please send a title and brief description or outline by November 1, 1982. Final paper selection will be made by December 1, 1982. Papers accepted for presentation will be considered for publication at a later date. Contact: Alice C. Hudson, Map Division, NYPL, Fifth Avenue & 42nd Street, NY, NY, 10018; (212) 930-0588.

[Editor's comment: It is regretted that this announcement was received too late for the November 1st deadline. Members of A.C.M.L. who wish to submit papers may contact Alice Hudson by telephone; she reports there may be room for more papers, after the deadline.]

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CALL FOR PAPERS

On 28 and 29 April, 1983, the Center for Great Plains Studies at the

University of Nebraska-Lincoln will sponsor a conference on mapping the North American plains in the eighteenth and nineteenth centuries. The conference will take place at the time of the publication of the Atlas volume of the new edition of the Lewis and Clark Expedition Journals, edited by Dr. Gary Moulton.

The conference will also coincide with the opening of an exhibition of cartographic materials in the Center's art gallery in Love Library. Jon Nelson, Curator of the Center's Art Collection, will assemble the exhibition, which will include both native-American and Euro-American material.

Papers are being solicited for the conference on the following themes--the cartographic work of various expeditions, methods of survey employed, the evolution of cartographic techniques, promotional and commercial depictions of the cartographic work of expeditions, maps derived from the fur trade, the cartographic work of indigenous inhabitants of the plains region, treaty maps, the depiction of the plains region in French and Spanish maps, and vernacular representations of the region. The program committee will be happy to receive additional ideas. Papers will be accepted for presentation through October 31, 1983. However, potential contributors are urged to write immediately to:

The Program Committee
The Center for Great Plains Studies
1213 Oldfather Hall
University of Nebraska
Lincoln, NE 68588-0314
U.S.A.

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EUROPEAN MAP LIBRARIANS FORM SPECIAL GROUP WITHIN LIBER

At a meeting in Paris from 20-22 October 1980 a group of map librarians from a number of European countries agreed to form a European Map Curators' Group under the auspices of the Ligue des Bibliotheques Europeenes de Recherche (LIBER). This followed a similar and very successful conference of map librarians at the Royal Library in Copenhagen in 1978 under the chairmanship of Ib Ronne Kejlbo. At that meeting he and Monique Pelletier of the Bibliotheque Nationale, Paris, agreed to act as provisional officers of the group until it could be formally constituted at a subsequent meeting.

The British representatives at the Paris meeting in 1980 were Christopher Terrell of the National Maritime Museum, Greenwich, Donald Moore of the National Library of Wales, Margaret Wilkes of the National Library of Scotland and Sarah Tyacke of the British Library. Other representatives came from Austria, Belgium, Denmark, Finland, France, West Germany, Iceland, the Netherlands, Norway, Spain and Switzerland. The meeting

elected Donald Moore chairman and Monique Pelletier secretary for a period of two years, during which time they agreed to make arrangements for the next meeting to be held in 1982. Under LIBER regulations for its constituent groups, full membership, including voting rights, is limited to members of staff working in libraries and other institutions which are members of LIBER. The map curators' group agreed however to hold meetings which would be open to all who might be interested, although inevitably not all would be able to vote. The group also decided to consult the relevant libraries prior to the next and subsequent meetings so that nominations for the two officers' posts could be put forward in good time.

The meeting was devoted to two themes of relevance to map librarians: acquisition policies, and the development and use of reprographics in map libraries. The second day was spent at the Institute Geographique National where M. Duranthon, the map curator, took the participants round the IGN's very large reference and historical map collection. The opportunity to discuss common problems and exchange information on the development of "new technology" in European map libraries - for example its use in the realms of conservation, cataloguing, and stock control - was welcomed by all the participants. Future meetings will include for discussion such subjects as conservation, map cataloguing standards, and automated cataloguing systems.

Sarah Tyacke - British Library
Margaret Wilkes - National Library of Scotland

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CANADIAN CATALOGUING COMMITTEE MEETING

The Canadian Cataloguing Committee met for two days (May 13 and 14) in order to work through a lengthy agenda. Some of the items on that agenda were held over from the previous meeting which was held on January 15, 1982. The decisions made by the committee in May will provide the chairman, Mrs. Jean Weihs, with the Canadian decisions on various issues which she will present at the next meeting of the Joint Steering Committee (JSC) to be held in London, England, later this year.

Many of the agenda items were concerned with individual rules in the Anglo-American cataloguing rules (AACR), including ten on machine-readable data files. Once again, some time was spent in discussion on aspects of music cataloguing, including the addition of an area 3 to chapter 5, AACR 2, a musical presentation statement. (The musical presentation statement would be analagous to the mathematical data area which is used for cartographic material.)

Two items on the agenda were particularly pertinent to cataloguing cartographic material. In the date area (area 4, AACR), the A.C.M.L. would like to see an expansion to the existing list of supplied dates that is found in rule 1.4F7. The suggestion is to add [pre ...] and [post ...] to the existing list as this would ease the problems associated with dating early cartographic material in particular. The A.C.M.L. will be submitting

a written proposal to the CCC advocating the expansion.

The other agenda item was one carried over from the previous meeting: 3.3D2, recording coordinates for celestial charts. The revision of this rule was accepted by CCC; the existing rule in AACR is incorrect.

Another item of interest discussed at the meeting was that of the glossary which the majority of the committee felt should be more inclusive. The A.C.M.L. felt the glossary in AACR is adequate as people involved in cataloguing cartographic material will shortly be using the larger, more specialized glossary of the Manual when it is published in the autumn of 1982. Among the problems attendant on expanding a glossary is that of reaching a concensus on a definition for a term. The CCC was most interested to hear that the Anglo-American Cataloguing Committee for Cartographic Material (AACC-CM) has circumvented this problem by identifying the source of the definition in the glossary of the Manual. Thus some terms have more than one definition usually reflecting different concepts, but the source of each is indicated.

Two members of the National Library of Canada talked briefly to the CCC on issues of national concern. David Murrell-Wright discussed two Canadian classification schedules (in the Library of Congress classification scheme): FC, Canadian history, and PS8000, Canadian literature. Basically, the National Library would like to receive comments on these schedules as they are in the process of updating them.

A new edition of Canadian subject headings is in preparation in the National Library and Mrs. Alina Schweitzer enthusiastically explained the work involved and some of the Sherlock Holmes-type investigation associated with the research. Again, comments, etc., on Canadian subject headings will be welcomed. The document, which is to be published in this calendar year, will deal with the way in which headings are constructed and examples will be provided wherever possible. The work will also include more scope notes than the earlier edition of Canadian subject headings, as well as a cross-reference structure.

Once again, some of the agenda items are to be held over until the next CCC meeting. No date has been set for that meeting, but it will be decided upon after the JSC meeting in London.

Vivien Cartmell

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A BOOK OF BASICS

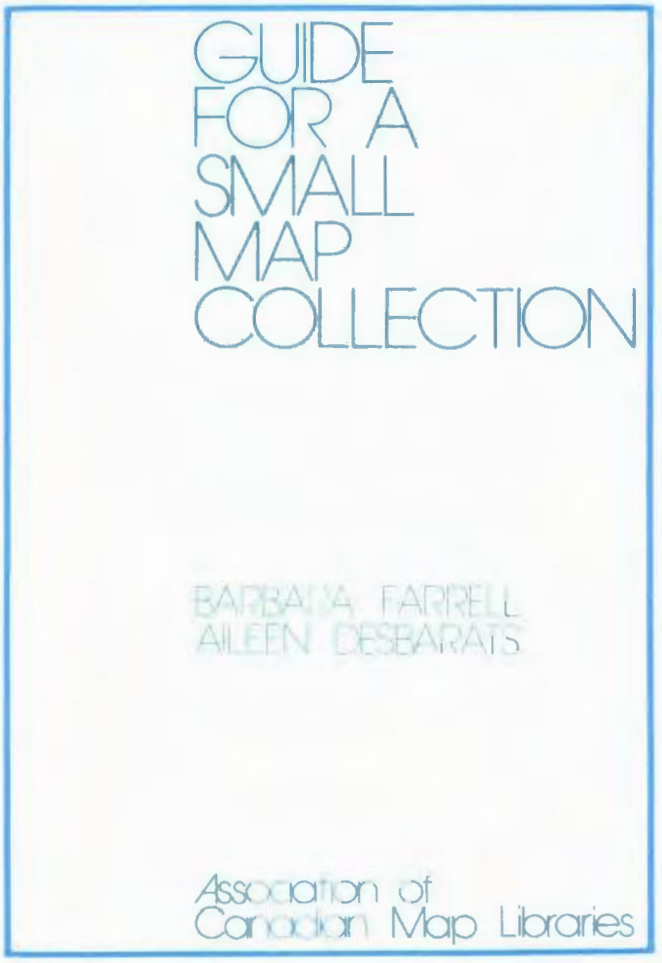
For Newcomers in Charge
of a Small Map Collection

Most members of the A.C.M.L. have at some point in their careers been approached by newcomers to the field in search of information and advice. Often, these newcomers have been given responsibility for a small map collection as but one aspect of their daily work, and they lack the training necessary to help them approach their task. The challenge to trained map librarians is to sift and select from their knowledge and experience just enough information and advice to get these newcomers started at a level of operation consistent with the needs of a small collection--but not to confuse them with too much detail.

In order to facilitate the passing on of this kind of information, the A.C.M.L. decided to produce and publish a guide containing much of the distilled wisdom of its members. Subjects dealt with include such basic issues as the nature of maps themselves, what makes them different from other library materials, and how they are acquired, stored, and used. The operation of a limited reference service is described and simple guidelines for the management of the collection are spelt out.

Copies of A Guide for Small Map Libraries are available at a cost of $12.50 from:

Association of Canadian Map Libraries
c/o National Map Collection
Public Archives of Canada
395 Wellington Street
Ottawa, Ontario K1A 0N3



CARTES HISTORIQUES

94. Newfound land (John Mason) [1625].

95. British North America (J. Arrowsmith) 1874.

96. Railway Map of Alberta (Sam J. Gorman) 1910.

97. Pas-Kaart Vande Zee Kusten inde Boght van New Engeland (Johannes van Keulen) 1728.

98. ...Chart of Hudson's Bay & Straits, Baffin's Bay, Strait Davis & Labrador Coast &c. ...(C. Middleton) 1743.

99. A General Chart of the Island of Newfoundland with the Rocks & Soundings (T. Jefferys) 1775.

100. British America (J. & F. Tallis) [1851].

Price - $3 each. Order from:

PUBLICATIONS COMMITTEE (ACML)
c/o National Map Collection
Public Archives of Canada
395 Wellington Street
Ottawa, Ontario K1A 0N3

Coût - $3 par copie. Adresser vos demandes à:
COMITÉ DES PUBLICATIONS (ACC)
a/s Collection nationale de cartes et plans, Archives publiques du Canada 395 rue Wellington
Ottawa, Ontario K1A 0N3

HISTORICAL MAPS