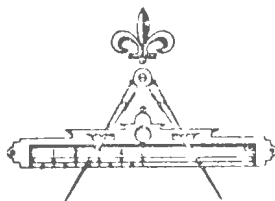


Association of Canadian Map Libraries



Association des cartothèques canadiennes

NEWSLETTER

VOLUME IV, NUMBERS 3 and 4

March, 1972

Ten months have passed since the last issue of the Newsletter. Undoubtedly, members have been concerned that the Newsletter has not been appearing regularly as promised. Indeed, Mrs. Beverly Chen, the former editor, has received numerous letters and complaints from members asking why they have not received a Newsletter or news from the Association in any other form. The Association wishes to inform the membership that Mrs. Chen has not been responsible for editing the Newsletter since the last annual conference (May 1971). An apology is extended to Mrs. Chen for any inconvenience, criticism or embarrassment to which she has been subjected by this situation.

The Association also apologizes to the membership for the long delay with this issue of the Newsletter. The delay is due in part to the fact that a secretary, whose duty it is to edit the Newsletter, was not appointed until long after the May conference. After serving a short term in office the secretary resigned for personal reasons. This together with other unavoidable circumstances caused this unpardonable delay. The Association pledges that it will, at all costs avoid such delays in the future.

At an executive meeting held in Ottawa in February of this year the dilemma of the Newsletter was thoroughly discussed. It was decided to delegate responsibility for the next three issues of the Newsletter to Brad Fay, Karen Lockhead and Joan Winearls. They will be very happy to accept any assistance that you may be able to provide. The fact that members have complained about not receiving the Newsletter indicates that they are interested in it. You can, therefore, help the Association and yourself by contributing any items of interest for publication in it. The three members who have taken on the next few issues of the Newsletter are busy people too - your assistance is desperately needed to make the Newsletter a success - after all it is your Newsletter!

The new executive elected at the last annual conference is as follows :

President	Mr. Hugo Stibbe
Vice President	Miss Joan Winearls
Treasurer	Mr. David Weismiller
Secretary	Mrs. Karen Lockhead (appointed to complete the current term of office)

A summary of the last conference and business meeting will be given in a future issue of the Newsletter, unless the proceedings appear before that time.

REPORT ON MAP LIBRARIANSHIP COURSE AT TORONTO

Some sixteen students took the map librarianship course at the School of Library Science last fall. The course was considerably more practical in nature than it was the first time it was given (an outline is shown below). The students were required to do five projects: one on Gazetteers and topographic maps (locating places); one on cataloguing (eight maps using the NUC format); one on reference work (answering six questions); one seminar presented to the class on a given topic; and the final project; a short paper on setting up a small map collection or a short bibliography of maps (i.e., topics such as Haliburton Co., geomorphological maps of Canada, etc.).

Several of the students have geography, geology or history backgrounds and are now looking for jobs in map libraries. If any library or archive has a position and is interested in interviewing them, they should get in touch with the School of Library Science, University of Toronto, 140 St. George Street, Toronto 181.

Joan Winearls

Map Librarianship 2285X - Course Outline

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|----------|----|--|
| Sept. 14 | 1. | <u>Introduction: Lecture</u> |
| | | a. Outline of course; course work, etc. |
| | | b. The map: projection, scale and terminology, etc. |
| | | c. Tour of map library |
| Sept. 21 | 2. | <u>Modern Map Types I: Lecture and Lab</u> |
| | | a. Topographic maps |
| | | b. Lab exercise with topographic sheets |
| Sept. 28 | 3. | <u>Modern Map Types II; Lecture</u> |
| | | a. Thematic maps |
| | | b. Atlases and aerial photos |
| Oct. 4 | 4. | <u>Map Cataloguing and Classification I; Seminar</u> |
| | | a. The main entry |
| | | b. Descriptive cataloguing |
| | | c. Classification systems |
| Oct. 12 | 5. | <u>Map Cataloguing and Classification II; Lab</u> |

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|---------|-----|---|
| Oct. 19 | 6. | <u>Reference I: Lecture and Seminar</u> |
| | a. | Map interpretation and use - speaker to be announced |
| | b. | Book aids in the map library |
| Oct. 26 | 7. | <u>Reference II: Lab</u> |
| Nov. 2 | 8. | <u>Types of Map Collections: Seminar</u> |
| | a. | University |
| | b. | Government |
| | c. | Archival and rare |
| | d. | Public and business |
| Nov. 9 | 9. | <u>Selection I: Seminar</u> |
| | a. | (Discussion of reference lab) |
| | b. | The selection policy |
| | c. | Canadian federal and municipal sources |
| Nov. 16 | 10. | <u>Selection II: Seminar</u> |
| | a. | Canadian provincial and municipal sources |
| | b. | Europe |
| | c. | United States |
| Nov. 23 | 11. | <u>Preservation and Equipment: Seminar and Lab</u> |
| | a. | Map cabinets and auxiliary equipment |
| | b. | Space requirements and layout |
| | c. | Demonstration of edging and backing maps |
| Nov. 30 | 12. | <u>Tour of the McMaster Map Library, Mrs. Kate Denkin,
Map Curator</u> |
| Dec. 7 | 13. | <u>Modern Cartography: Lecture by Mr. Geoffrey Matthews,
Cartographer, Department of Geography, University
of Toronto</u> |
| | | Discussion of the Course |

PUBLICATIONS

The following is a summary of the status and price of the Association's publications. Members receive one free copy of each publication as it is issued. Additional copies or back issues must be purchased from the Publications Officer, ACML, c/o National Map Collection, Public Archives of Canada, Ottawa.

Directory of Canadian Map Collections 1969	out of print
Proceedings of the First Annual Conference ACML - 1967	\$3.00
Proceedings of the Second Annual Conference ACML - 1968	\$3.00
Proceedings of the Third Annual Conference ACML - 1969	\$3.00
Proceedings of the Fourth Annual Conference ACML - 1970	\$3.00
Proceedings of the Fifth Annual Conference ACML - 1971	in preparation

(Back issues of Newsletters are available free of charge where stocks exist and for the cost of reproduction where the stock has been depleted)

MEMBERSHIP

The following are the membership categories, fees and status of membership for 1971.

<u>Category of Membership</u>	<u>Number of Members</u>	<u>Annual Fee</u>
Active	33	\$ 7.50
Institutional	50	15.00
Associate	24	5.00
Honorary	1	-
Exchange	2	-
	<u>110</u>	

Members are reminded that their fees for 1972 were due January 1. Our Treasurer is anxiously awaiting a reply from members who have not yet responded to the invoice sent out in January.

REPORT FROM THE NATIONAL UNION CATALOGUE OF MAPS COMMITTEE

In spite of the difficulties encountered by members of this committee in reaching Ottawa because of flight cancellations and rerouted flights, meetings of the committee were held from February 16 to February 20.

Those attending were the chairman, Hugo Stibbe who this year is studying for his doctorate in Utrecht, the Netherlands; Dave Dairon who is currently studying at the University of Glasgow, Scotland; Joan Winearls of the University of Toronto; Betty May of the National Map Collection, Public Archives; and ex-officio members, T.E. Layng and Karen Lockheed of the National Map Collection. Mike Carroll of the Public Archives, currently studying and recommending automated programs for the department, also attended most of the sessions.

All members were extremely pleased with the progress attained by this meeting. The data elements required for entries were studied during many long, hard-working hours. Studies are now being undertaken of automated data processing systems that would be capable of meeting the needs of a National Union Catalogue of Maps.

HISTORY OF CARTOGRAPHY CONFERENCE

The first History of Cartography Conference was held as part of the 20th International Geographical Congress in London in 1964. Since that time a series of three conferences have been held - London, 1967, Brussels 1969, and Edinburgh September 1971. At the Edinburgh conference papers were read on the life and work of Willem Jansz Blaeu and the military cartography of the American Revolutionary War. Other sessions included studies of cartographic techniques and map conservation.

The Public Archives of Canada has indicated its interest in hosting the conference in 1973 in Ottawa. This conference would be of tremendous value to our members and they are urged to support this proposal in every possible way. The Association has already indicated to PAC its willingness to participate.

NEWS AND NOTES

Marriage: On October 23, 1971 in Ottawa, the marriage of Miss Beverly Drouillard and Mr. Patrick Chen took place. Mrs. Chen is the map librarian at the University of Ottawa and former Secretary of ACML (1970-71).

Birth Announcement: To Karen and Graham Lockheed, a baby boy, Colin Anderson, on August 7, 1971. Karen, a former ACML President (1968-69), is Head of the Foreign Section, National Map Collection, Public Archives of Canada.

Resignation: Mr. Courtney C.J. Bond retired from the position of Head, Canadian Section, National Map Collection on September 15, 1971. He and Mrs. Bond are currently in Dar es Salaam, Tanzania, working with CUSO. There, he will be involved in updating the National Atlas of Tanzania.

Travel: Mr. Theodore E. Layng, Chief of the National Map Collection, attended the IV International Conference on the History of Cartography in Edinburgh in September. He also visited the map collection of the British Museum.

Map Restoration: A new company 'Bytown Bookcrafts', was recently opened in Ottawa by Robert Brydon and David Hanington who have experience in the fields of bookbinding and map restoration. If you contact this company at 275 Britannia Road, Ottawa 14, estimates will be provided on restoration work.

Facsimile Atlases: Facsimiles of the nineteenth century county atlases of Ontario continue to be produced by Ross and Mark Cumming, Port Elgin, Ontario. The latest is a hard-cover edition of the Carleton County atlas, 1879 at \$12.50. To date, nine atlases have been produced by the Cummings.

Largest Map Collection in Canada! In reply to a request for a map at scale 1:6,000,000 to one of the Commonwealth Countries, one of our members recently received this reply.

"We acknowledge receipt of your letter of 26 inst., requesting 6,000,000 maps of ... The purpose of our office is to serve the travel industry, so we cannot assist you in this matter. Enclosed please find one copy of a map, which we trust might be of assistance to you, perhaps you could have it copied."

EMPLOYMENT WANTED

Miss Vivien M. Cartmell, who holds an M.A. degree in geography and is to complete her M.L.S. degree at the School of Library and Information Science, University of Western Ontario, in April, is currently seeking employment in a map collection. She has worked on a land use mapping project in Zambia and is interested in library work pertaining to maps, map collections and reference work. She can be contacted at 1265 Richmond Street, Apt. 1103, London 11, Ontario, for further information.

TREASURER'S REPORT, January 1, 1972

Balance from 1970/71 \$1,628.57

Revenues

Sales of publications	\$349.22	
Membership fees 1970	10.00	
Membership fees 1971	97.50	
Membership fees 1972	15.00	
Exchange on U.S. cheques	1.17	
Presentation gift adjustment	4.36	
Balance of 1971 conference account	58.20	
Bank interest	<u>14.05</u>	<u>549.50</u>
		\$2,178.07

Expenditures

Reprinting of 1969 <u>Proceedings</u>	\$ 88.70	
Office supplies	4.00	
<u>Canadian Cartographer</u>	80.00	
Service charges	1.45	
Printing and mailing charges, 1970, <u>Proceedings</u>	<u>294.43</u>	<u>468.58</u>
Balance		\$1,709.49
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1972 CONFERENCE

The 1972 conference is scheduled for the week of August 28 to September 1, 1972 at the Public Archives of Canada in Ottawa. The Conference Organizing Committee, under the Co-chairmanship of Miss Betty May and Mr. T.E. Layng, both of the National Map Collection, PAC, has been extremely active. Their preliminary program is outlined below.

Monday, August 28	A.M.	1)	Official welcome - Dr. W.I. Smith Dominion Archivist
		2)	T.E. Layng - "The map keeper and the custodial sciences"
		3)	John Warkentin - To be decided

- P.M. 1) Fraser Taylor - "Computer mapping"
- 2) Workshop (those attending will be divided into groups of 12 to 15, and given a topic for discussion. Each group will have a chairman who has previously been requested to fill this role. At the end, each group will give a short report).

Wine and Cheese party, hosted by Public Archives

Tuesday, August 29

- A.M. 1) Dr. Don Thomson - "Role of Maps in Courts of Law"
- 2) E. Dahl, T. Riddell - "The urban development of Quebec, 1800-1900" (slides and discussion)
- P.M. 1) L.M. Sebert - Notes from the Surveys and Mapping Branch
- 2) C. Smith - To be decided
- 3) Workshop (similar to Monday's workshop. Subject: Cataloguing for the NUC maps).

Banquet

Wednesday, August 30

- A.M. 1) Business meeting and committee reports
- 2) Joan Winearls - "User survey"
- P.M. 1) A. Rayburn - "Use of maps in toponymic field research"
- 2) Workshop

Thursday, August 31)
Friday, September 1)

Suggestions include tours of the Department of Energy, Mines and Resources, the FMR Map Library, the map collections at the University of Ottawa and Carleton University, the National Map Collection and other divisions of the Public Archives of Canada, including Conservation, Restoration, Reprography and Microfilm.

NOTE: All speakers are confirmed but titles of paper are preliminary.

REPORT ON EXECUTIVE MEETING

A summary of some of the discussions and/or actions taken by the Executive at a meeting in Ottawa, February 18, 1972 follows:

- that the term of office of the executive positions for President, Vice-President and Treasurer be extended to a two year term, beginning with the year 1972-73.
- that the National Map Collection, Public Archives of Canada annually appoint a Publications Officer from its staff who would be responsible for distributing all of the Association's publications and who would be an ex-officio member of the Executive.
- that the Association participate formally in the History of Cartography Conference which may be held by the Public Archives of Canada in 1973.
- that the Newsletter must be issued at regular intervals, that Brad Fay, Karen Lockhead and Joan Winearls be responsible for the next three issues, and that Karen Lockhead act as Secretary for the remainder of the year.
- that the Association agree to establish informal cooperation with the Geography and Map Division of Special Libraries Association and the Western Association of Map Libraries. To this end exchange memberships have been established and a meeting or representatives of the three associations is scheduled for the SLA Boston meeting to discuss problems of common interest.
- that institutional members be reminded that they must nominate their voting delegate before the annual conference.

MANUAL

One of the first projects undertaken by the Association was the compilation of a "Manual of Standards and Procedures for Map Libraries". A committee chaired by Miss Maureen Wilson of the University of British Columbia was charged with planning and editing the manual.

The committee suggested numerous topics to be included in the manual and asked individual members to write a chapter on a selected topic. The result - a series of papers on selected aspects of map librarianship, by various members, edited by Miss Wilson.

At present all chapters have been submitted to the editor and the manual is almost ready for publication. Before final editing and subsequent publication it was

decided that members should have the opportunity to evaluate and to criticize the individual papers. In this way it is hoped that a consensus of opinion on standards and procedures of map librarianship can be attained, making this a truly representative publication of the Association rather than a collection of individual ideas and opinions.

To enable members to read them and to offer their criticism and comments the papers will be published in draft form in this and future issues of the Newsletter. The author's name will not be included with the papers in the Newsletter. It is hoped that the members will, therefore, feel that they are being asked to be critical of a paper, not of a fellow member's paper.

The authors, the Association and the editor of the manual urge you to read these papers very carefully and to be very critical. All criticism and comments should be directed to the Manual Editor, Miss Maureen Wilson, Map Division, The Library, University of British Columbia, Vancouver 8, B.C.

The first two in the series of papers are appended:-

"Basic Public Relations for the Map Library", and

"Physical Requirements: Planning the Map Area".

CBF/scf

BASIC PUBLIC RELATIONS FOR THE MAP LIBRARY

Public Relation News quotes a definition as follows :

"Public relations is the management function which evaluates public attitudes, identifies the policies and procedures of an individual or an organization with the public interest, and executes a program of action to earn public understanding and acceptance." ¹

The scope of this definition is perhaps wider than what we are concerned with in the map library. But for lack of a better expression, this section is called "Basic Public Relations for the Map Library". What the map library is primarily concerned with, is that part of public relations called communication, including advertising, which is a means of communication. In this context, the question of public relations for the map library is a sensitive one, because most map libraries are part of a larger organization. In these cases the map library is just one of the services that the larger organization offers. Consequently, the larger organization, whether it be a government department, book library or whatever else, frowns upon the map library engaging in public relations independently, in whatever form. The dependent map library, therefore, is limited to some extent; mainly in the field of advertising of its services, to making sure that their services are included in any formal written advertising of the mother organization.

Communication is a two way street. There is communication from the map library to the user, and from the user to the map library. In the larger map libraries, there must also be communication from management (i.e., the head of the map library) to personnel and vice versa.

COMMUNICATION FROM THE MAP LIBRARY TO THE USER

This type of communication can take various forms. There is the directory of the community the map library serves, which tells the user, or potential user, where the map library is located.

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1. Quoted from, Bertrand R. and D.B.S. Canfield, Public Relations, Principles Cases, and Problems, Richard D. Irwin, Inc., Homewood, Ill., 1968, p. 4.

Many institutions and government departments have handbooks, in which the functions and services of each agency within the institutions department, and sub-departments are described. A write-up of the function of the map library, its services, the types of materials collected, and its policies with regards to borrowing procedures (if any) can appear in such a handbook.

Accession lists, widely distributed by many map libraries are a form of communication from the map library to the user, informing him of new materials acquired by the map library.

Bibliographies and articles on special collections in the map library are other examples of communicating to the public what the map library has to offer.

In addition to the above formal written means of communication there is verbal communication from the map library to the user. This is provided by a good reference service. Personnel of the map library must be prepared to be courteous at all times and answer customer's queries, (see Section 9 of this manual), whether by telephone or in person; help customers find the materials they want and if possible, direct them to the proper alternative sources of material, if what the customer wants is not available in the map library.

Other means of communication from the map library to the user are in the form of visual communication through map exhibits and slide shows. The map exhibit, if done well, can be an effective means of advertising the map library. Perhaps the best way to exhibit maps is to tell a story. The worst way to exhibit maps is to attach a number of unrelated maps onto a tack board with no supporting materials to tell the viewer what it is supposed to be that he is looking at². Slides can be used auxiliary to the map display or separate from it. Conducted tours and courses on elementary map use and map reading directed to the general public for hiking, hunting, fishing and like recreational purposes can also be used as a vehicle for advertising the map library.

COMMUNICATION FROM THE MAP USER TO THE MAP LIBRARY

This communication aspect is necessary to find out what the public, or customers of the community the map library serves, want the map library to do, i.e., the principal users determine the function of, and types of services offered by the map library.

For map libraries catering to the general public, such communication may take the form of a questionnaire. The questionnaire is a useful technique to obtain

2. See reference in section dealing with "Technical Auxiliary Equipment for the Map Library" for details on how to make an effective display.

an opinion from the map user on a great variety of issues. For example, the map library may want to know whether customers would like to see a borrowing procedure established, where none existed before; or whether certain types of maps or maps for certain areas would be in great demand; or whether customers would prefer certain physical lay-outs of the map room above others, etc. The map library may set-up the questionnaire in such a manner that it can find out who the people using the facilities are. Are they primarily professional people, like engineers, geographers, planners, historians, etc., using the maps for professional research purposes, or are they a cross section of all kinds of people using maps for recreational use, travelling or other non-professional purposes?

Most map libraries have a limited budget. This means that priorities for acquisition of materials have to be set. It is obvious that a research institute would set different priorities for materials to be acquired than a city public map library for instance.

Questionnaires can be used to set these priorities. Many specialized research libraries, with well defined areas of interest have a continuous program of communication with their principal users directed towards finding out which materials to acquire. In some cases the principal users are requesting the continuous purchases of some material. If sufficient funds are available, all these requests for materials are satisfied. If not, a committee, representing the map library as well as the users sets the priorities.

INTERNAL COMMUNICATION

Communication between the head of the map library and personnel for almost all Canadian map libraries is no problem, since most Canadian map libraries are small enough that they can do with few personnel. Communications, therefore, can be informal. There is one aspect of internal communication which even the small map library has to cope with. Because a small map library has only one or two persons working in it, these persons need to know more about all aspects of map library work than a person working in a large map library who can limit himself/herself to know in detail all there is to know for the section for which he or she is responsible. The persons working in a small library are constantly faced with all aspects of map library work, such as purchasing policies and procedures, storage, maintenance, cataloguing and classification, reference work and administrative work. Faced with such a problem, many small map libraries have set-up a working manual on policies and procedures for their own use. In it are described in detail each operational phase of the particular map library, with samples of form letters used, forms and cards for cataloguing, slips used for borrowing, etc. Map library policies are also included. Such a manual is particularly useful when new personnel or part-time help is introduced to the work in the map library and it maintains continuity, and consistency of handling and treatment of materials over time.

PHYSICAL REQUIREMENTS

Planning the Map Area

In planning the map collection area one should keep in mind that much more space for storage and reference use is required for maps than for books. A figure often quoted with regard to space for maps is 2,000 sq. ft. for a collection of 100,000 maps (assuming that 5 drawer horizontal map cases are used, stacked 2 units high, with 100 maps per drawer). This is possible, but if one wishes to provide an acceptable reference and working space within this same area it will be found hardly adequate. An area twice this size would be more realistic and would allow adequate space for future expansion. However, 2,000 sq. ft. is probably a minimum space requirement for most new map collections. Should the collection grow to 100,000 maps one will gradually become accustomed to cramped quarters and in the end will be better prepared for the resultant feeling of claustrophobia. Another solution to accommodating this number of maps within this same space would be to stack the map cases 3 or even 4 units high. This however should be avoided if at all possible. It is very difficult and dangerous to work with cases at this height. By doing this one loses the very valuable working space on top of the map cases, which, stacked too high provide a very convenient working surface at counter height.

If one has a choice, mezzanine areas, space with numerous pillars, low windows or fire exists should be avoided. It is difficult enough to utilize space efficiently in a map collection without having to plan around these obstructions. Very few map collections have avoided these completely, and some in the planning stage are forced to accept them in the plan. Obviously buildings cannot be designed around a map collection. One must therefore make the best of such a situation and arrange the map cases to take full advantage of the space available.

Ideally the map collection should be on the ground or first floor. Failing this it is essential that floors be reinforced to withstand the tremendous weight of map cases filled with maps. The floors should be strengthened to withstand a floor load of between 107 and 207 lbs. per sq. ft. This would accommodate map cases stacked 2 - 4 units high. (Should one wish to stack them higher than 4, and it is hoped this will never be necessary, consult the table giving floor loads in the article by Catherine I. Bahn entitled "Map Libraries - Space and Equipment" in the December, 1961 issue (No. 46) of the Geography and Map Division Bulletin of the Special Libraries Association).

There should be as few obstructions on the walls as possible. Numerous electrical and telephone outlets are required, also windows for natural lighting are necessary, but these if poorly placed can seriously restrict the placement of long continuous

lines of map cases or bookshelves. By placing electrical outlets higher on the walls it is possible to have them where they are needed and where they do not interfere with the most efficient use of the wall area.

A map collection tends to be a very noisy place with the constant opening and closing of steel map cases and other similar equipment. With maps or books being consulted in the same room or nearby it is desirable to reduce the level of these noises to acceptable standards. This can be accomplished by having acoustic tiling placed on the ceiling, and perhaps part of the upper walls, and/or with carpetings, rubber or vinyl tile floor covering.

Air conditioning is essential for map storage and preservation. As a minimum it is suggested that the temperature be maintained at between 65 and 75 F. and that humidity be controlled at between 30 and 50%.

A fire detection system should also be included. A sprinkler system is obviously not the answer. It could conceivably do more damage if accidentally triggered off than an actual fire. Maps in a steel map case are perhaps safer from fire than they would be from an unscheduled shower. The system should therefore be a heat sensitive one which would avoid the possibility of causing more damage than an actual fire.

Lighting is one of the more important items to be considered. Since much close work (map reference, reading, drafting, compiling, etc.) will be done in the area, adequate lighting is essential. It is very difficult to make a general statement regarding minimum illumination levels since the needs and uses of most map collections will vary. For this reason a few suggestions will be made and it will be left to the individual to make the decision or to seek professional advice.

The following minimum recommended illumination levels were taken from a table published by General Electric in 1966.

<u>Type of Work</u>	<u>Minimum Footcandles</u>
Regular office work	100
Cartography, designing, detailed drawing	200
Library stack areas	30
Library reading, cataloguing, etc.	70

Because the "stack" area of the map collection is also used as a working area the recommended minimum of 30 fc is obviously not applicable. Perhaps a reading of between 70 - 100 fc for the "stack" area and at least 100 fc for the reading area would be more realistic. However, this decision is an individual one which should only be made after all other factors such as natural lighting, glare, etc., have been considered. These readings can be taken with an ordinary light meter and should be taken at table top level - approximately 30 inches above the floor.

Nearby but not necessarily included within the map collection area a water fountain and public telephone should be provided for the convenience of the map users. Within the map collection area a wall clock or clocks, a washstand and sink, and in the case of universities a class bell should be provided. While these last few items are not essential to the efficient operation of a map collection they are desirable and useful services to its users and staff.

Access to the map area should be controlled. Although other entrances may be provided only one should be used by the map users. The reference desk will be placed near this entrance and all queries, loans, etc., can be very easily controlled in this manner. This main entrance should have double doors which will permit map cases to be brought in and moved about. Too many map curators have experienced this unfortunate oversight and on some occasions have had to remove maps, etc., from cases so that they can be tipped on end to pass through narrow doorways or knock down part of a wall to move them. Near this main entrance there should be a master switch which controls all the lights within the map collection with the possible exception of the office area.

SPECIFIC BREAKDOWN OF SPACE

The main division in the storage or stack area could be between open consulting map collection and closed storage area. This area should be divided approximately in half.

It is understood that all map collections will not be subdivided in the same manner however a few suggestions as to general space allocation and relative placement of service areas will be made. The actual space allocation will depend to a great extent on the purpose of the map collection, the type of user, and the parent organization. It is with this in mind that the following suggestions are offered.

Open Consulting Map Collection

This room should house the major part of the map collection, i.e., the map catalogue current thematic maps of all areas, the home series of topographic maps (in this case Canada), atlases, gazetteers, frequently used topographic series of foreign areas, and air photographs if they are collected. The main entrance should open into this room. Immediately inside this entrance the reference and loan desk should be located. The reference and reading area of the collection should if possible be located here as well. This will eliminate the need to transport maps great distances for work or consultation - a practice which is very damaging to most maps.

Closed Map Storage

This room should not be accessible to most map users. The entrance should be from the main map collection (open consulting) area as opposed to the main public entrance. This entrance should also have double width doors to allow movement of map cases. A secure lock should be provided so that maps of a restricted or classified nature can be stored here. In addition this room will house superseded editions, infrequently used, old, and rare maps. Some space could be provided for consultation of maps here, but consultation privileges should be restricted to the more serious map user. Others can make use of the general reference area to consult old maps, classified maps, etc., if adequate supervision is exercised.

Map Reading Area

The map reading and reference area must be located within or close to the open consulting map collection. As stated earlier this will eliminate transporting the maps and possible damage to them. The reference and loan desk should be near this area so the person on duty can supervise the total reading area. This also implies that the map reading area should be near the main entrance a very practical location for it since it is the centre of activity from the user standpoint. Should it be considered necessary to provide a separate reading room for books, atlases, etc., as mentioned below, these two rooms should be adjacent. The reading room could serve for book reading and map reading area described here would accommodate consultation and work on maps only. There would be no duplication of space use here. Smaller libraries could manage well with only the one area.

As much table space as possible should be provided here. It has been suggested that 10 sq. ft. of table space should be provided for each map user. Most of the more frequently used atlases, gazetteers and reference books should be within or near this area. In addition, tracing tables with illuminated glass tops, drafting tables, duplicating and all other convenience facilities mentioned below under equipment and furnishings should be concentrated in this area where most map users will be working.

Reading Room

If a sufficiently large collection of books, atlases, gazetteers, periodicals and other cartographical and geographical reference aids are collected, consideration should be given to providing a separate reading room or "library" for this material. Large atlas cases with roller shelves, bookshelves, periodical display racks, as well as an adequate number of tables and chairs for reading would comprise most of the equipment and furniture required in this room.

Map Processing Room

The map processing room where maps are received, stamped with ownership stamp, entered in an accessions or day book, sorted, classified, and catalogued should be near the curator's office, if a separate office is provided. It should also be adjacent to the reading and reference areas and should obviously provide ample table space for the type of work performed here. Provision should be made for storing reference material used by the cataloguer and for a number of drawers or shelves on which to sort maps into various groups after they are recorded but before they are catalogued and classified. For many smaller collections there will be no need for a separate office for the map curator since most likely he or she will be the only employee. However it should be pointed out that this processing room is essential. In the case of the smaller map collections this room can serve as the map curator's office as well. The nature of this work is such that the work area should be closed off from the general area of the map collection. Map processing is demanding work requiring much concentration, therefore facilities should be provided to avoid as many interruptions as possible.

Map Curator's Office

The map curator should be provided with a separate office unless the collection is so small that only one employee is necessary to efficiently control it. The administrative duties of the map curator are such that some privacy must be afforded for small conferences, meetings, interviews, telephone conversations, etc.

Wall Map Storage

Again depending on the size of the collection a separate area for storing rolled wall maps may be provided. Wall maps are difficult to store and are rather unsightly if stored openly in the main map collection. One of the simplest and most efficient methods of storing these maps is to suspend them from 2-3" pegs extending from the wall at a height of 7-9' from the floor. Cup hooks or a similar hook can be screwed into the end of the maps which have wooden rods, and strings can be affixed to maps with metal rods, so that they can be suspended vertically. This storage method will not damage the maps if they are tightly rolled and tied before being suspended. There are many other systems for storing wall maps, all of which are quite effective but may not be as economical in terms of cost or space. Large metal cases for wall map storage are available commercially or can be designed.

Map Display Space

Should there be a need for a special display area one could be provided outside or near the entrance to the map collection. However in most instances the upper

walls of the map collection area can be used to good advantage as display space. Besides serving a functional purpose this use of the walls, can add considerably to the decor and efficient use of otherwise wasted wall space.

Public hallways outside the map collection can also serve as map display areas. Timely exhibits of current events or special thematic maps are only two of the very interesting and important types of exhibit that can be displayed.

Workroom

There is a constant need for repairing and preserving maps and this should be done as the need arises. The most common method of preserving maps is by mounting them on cloth or a similar lint free fabric. Many other methods of preservation are in use. These are dealt with in other chapters. Regardless of which method is used, ample table space for this work should be provided. The workshop is a very noisy area and for this reason should be as far removed from the reference and reading area as possible. Edging machines and other equipment and materials necessary for repairing and preserving maps should be kept in this room.

General Storage Area

A general storage area is most essential since there are always a few duplicate maps, stocks of cards, form letters, etc., large shipments of new maps awaiting processing, extra pieces of map cases and equipment, empty map boxes, tubes and crates to be stored for future use or work. These items are essential to the efficient operation of a map collection but are unsightly and bulky items which could be hidden away until they are needed. This space could also provide storage for large plastic relief models, air photos mosaics, etc., which seldom have adequate storage facilities.

This area could be included within that of the wall map storage since the wall maps would be suspended from the walls leaving most of the floor area free for other storage.

Consultation Space

Other than the general reading area and the reading room, a few small cubicles, could be provided where researchers and/or students could work undisturbed away from the general area of activity. If these study areas are considered necessary they should be reserved for persons doing extended research or reference work (i.e., for a period of 2 days and more). Most other reference work can be easily accommodated in the general reference or reading areas.

EQUIPMENT AND FURNISHINGS FOR THE MAP COLLECTION

The most important and costly piece of equipment in the map collection is the map case. While there are numerous manufacturers of map cases today, there are only two basic types of map case - horizontal and verticle. No attempt will be made to recommend one over the other but opinions on the advantages and disadvantages of the feature of each will be stated. It is felt that these opinions are shared by most map curators.

The standard horizontal steel map case usually consists of five (5) drawer unit, measuring approximately 4' wide x 3' deep x 1 1/2' high, together with a 4 - 9" base. Some also have a separate top or cap. These units are usually stacked at least two high. There are many exceptions to this standard however and many custom built cases are in use. Only the usual five drawer units will be briefly discussed here. Manufacturer's catalogues can be consulted for further information on these and other map cases. These cases are available in a variety of sizes, however, for most practical purposes one with inside drawer dimensions: 44" wide x 36" deep should be considered sufficiently large for the bulk of the collection. Larger cases than these are available and are desirable for some specialized storage purposes, but if filled with single sheet maps it will be found almost impossible to remove or replace these maps without the risk of serious damage or tearing.

It is assumed that steel cases will be chosen over wooden cases. The latter may be in use in some map collections but they are very prone to warping, jamming drawers, and general deterioration. In fact it is perhaps more expensive to construct wooden cases today than it is to purchase the conventional steel cases. A few points to be considered when selecting horizontal map cases are outlined below. One should be certain that the overall structural strength of the map case is sufficient to withstand stacking the cases filled with maps one on top of the other to a height of four or more high. As stated earlier this should be avoided but occasionally it is necessary. The drawers should be equipped with: ball bearings and should operate very smoothly; a safety stop to prevent the drawer from pulling all the way out; a locking device which holds the drawer in the open position to facilitate removal or filing of maps; a metal hood at the back of the drawer to prevent maps from riding up and out of the drawer, and a metal hinged flap at the front which compresses the maps and prevents them from catching in the drawer above. One type of map case has a fabric dust cover which is attached at the back of the drawer to a spring loaded compressor bar and hooks to the front of the drawer. This dust cover serves the same purpose as the metal hood and hinged flap mentioned above as well as providing protection from the dust.

One should select a map case with a fairly shallow drawer. The drawers in the standard cases measure 2" or more deep. This is too deep for storage of frequently used single sheet maps. If this drawer were filled it would be impossible to remove or replace the bottom map without tearing it. If the drawers are not filled, too much valuable storage space is being wasted. Deep drawers are

excellent for storage of topographic series or maps which are not used too frequently. A new 20 drawer unit has just come on the market with drawers measuring 1 1/8" deep. With the shallow drawer it is almost impossible to over load it. This map case for storing frequently used thematic maps together with some of the units with deeper drawers to store topographic or thematic series and infrequently consulted maps would appear to solve most storage problems. Dividers are also available for the drawers or trays of these horizontal map cases. Perhaps most frequent use of these dividers will be made by archival collections where classification by size of map is prerequisite to preservation of maps.

Some may prefer the vertical filing map cases. These are very functional but most types require that a binding strip be added to the map so it can be suspended from the "prongs", "forks" or "needles" of the case. Adding these binding strips is an expensive and time consuming process. Also, these map cases are probably more expensive than the standard horizontal cases but they have proven to be very satisfactory for storing archival maps. The additional expense and labour is justified in the case of archival maps which must be preserved. There are other types of vertical cases as well, one of which requires no suspension strips at all. In this map case the metal dividers which separate sections of the map case have large wavy curves which force the map to take the same curve, thus enabling the map to stand upright without additional support. This map case is very good for storing large series of maps of uniform size. It is not as effective for maps of various sizes. A smaller map is lost between two larger ones. Another disadvantage with the vertical map cases is that one does not have as large a working surface immediately available when a map is withdrawn from the map case as with the horizontal cases. The vertical cases open from the top therefore one must either close the lid, which is difficult with a map in one hand, or move away from the case to consult the map. It can be argued of course that the vertical cases will store more maps in less floor space. This is valid only to a point. The vertical cases cannot be stacked higher than one unit. The horizontal cases can be stacked as high as the ceiling will permit although this is not desirable. By stacking the horizontal cases higher more maps can be stored in a given floor space. Both types of case have been in use for a few years now (the vertical cases being the most recent to appear). It is the opinion of most map curators that the horizontal files are still the most practical.

Under no circumstances should stationary or built in map cases be considered. A map collection usually outgrows its quarters at least once and the whole collection must then be moved to new quarters. Also, occasional moves of map cases within the collection must be made to effect a more efficient use of space. For these reasons map cases should be movable. Instances have been reported where moves have been made more difficult because map cases were "bolted" to the walls.

Since adequate table space is so vital to map reference and processing, tables should also be given high priority on the list of equipment. One large table is required for processing. Perhaps a table 6 x 12 ft. should be considered. A table this size is difficult to purchase but 3 or 4 library tables can be joined

together to form one large working area. Many map collections have a "homemade" table of these dimensions which adequately serves the purpose. A similar size table could be used for reference and reading maps. However smaller tables can be used as well, provided that there are enough of them and sufficient space. At least one drafting table and tracing table should be provided in the reference area. A large table will also be required for map mounting.

A map truck for transporting maps to be filed or moved about the map collection is desirable. A steel truck with shelves and a flat surface is available commercially or one can be constructed simply by mounting castors on the four legs of a small (approx. 2 1/2' x 3') table. Shelves can also be added under the table top - these also provide additional support for the legs.

As many bookcases as required for reference books in the reading and reference areas as well as in the map curator's office and/or processing rooms should be provided. Any standard library shelving will serve this purpose.

Depending on the size of the map collection it may be useful to have some of the following equipment available in or near it: a duplicating machine (xerox), enlarging and reducing facilities for maps (map-o-graph), calculating machines, microreader, planimeter, a few pocket stereoscopes and if necessary a larger mirror stereoscope for consultation of air photographs.

Although globes and three-dimensional plastic relief maps cannot correctly be classified as equipment, in most instances they are displayed on the walls and are considered part of the furnishings of the map collections. It is probably more desirable and efficient to display these highly decorative items than it is to store them.

In the foregoing no attempt was made to compile comprehensive lists of equipment which should be included in a map collection. Only the larger items of equipment which must be included in the planning for any map collection area have been briefly mentioned.