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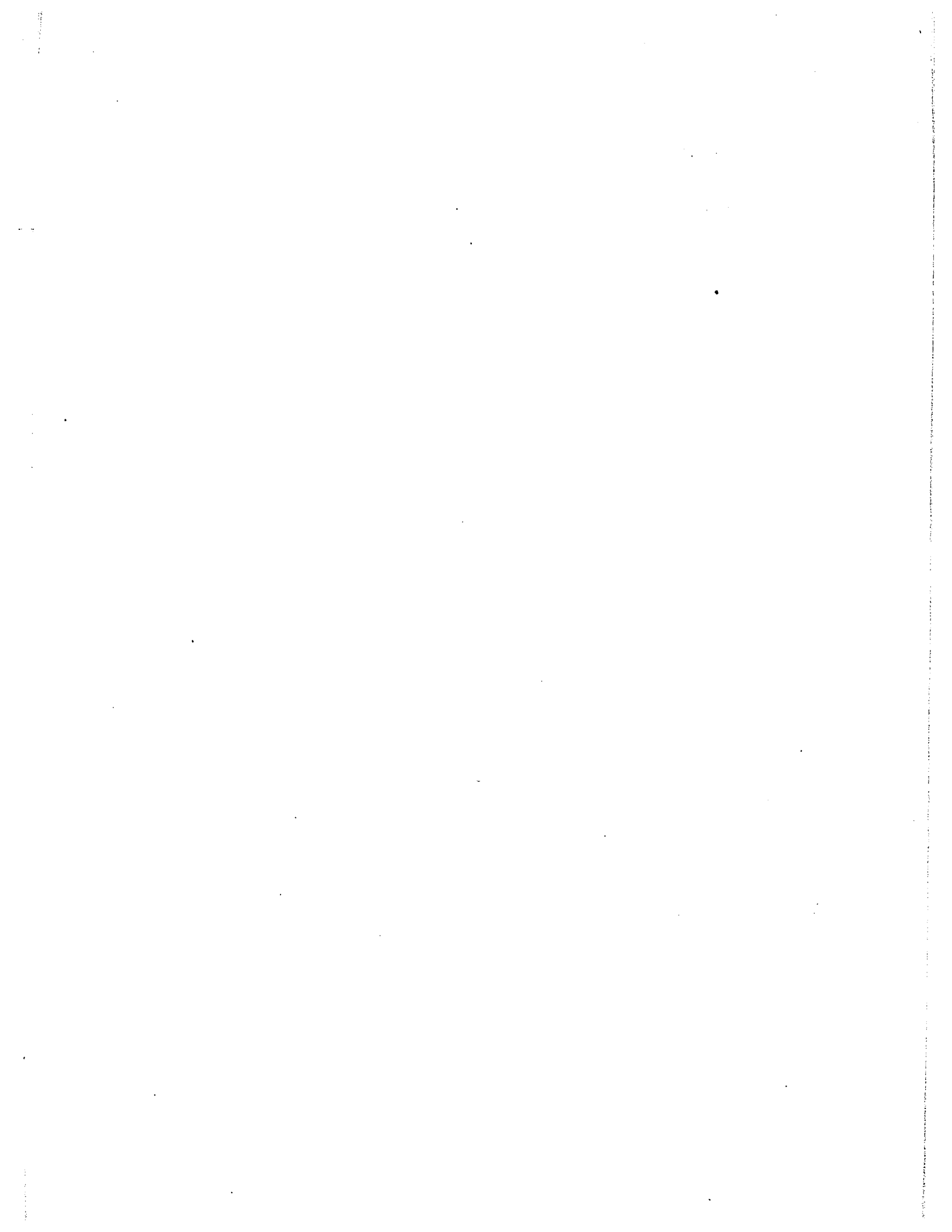
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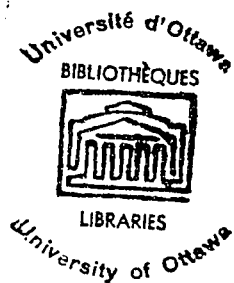
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CENTRALIZED CATALOGUING AND PRODUCTION  
OF BOOK CATALOGUES IN CANADA DEPARTMENT  
OF AGRICULTURE LIBRARIES - A FEASIBILITY STUDY

by Oleh Chumak

Thesis presented to  
the School of Graduate Studies,  
University of Ottawa  
as partial fulfillment of the requirements  
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Science



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## CURRICULUM STUDIORUM

Oleh Chumak was born July 20th, 1922 in Ternopil, Ukraine.

In 1941 he began his university studies at the Agricultural College in Lviv-Dublany, Ukraine, which were completed in 1946 by obtaining the Dipl. Eng. degree from the Ukrainian Technical University in Munich-Regensburg, Germany.

His post-graduate studies were done at the University of Ottawa, where in 1964, he received his Bachelor of Science degree from the University's Library School.

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## INTRODUCTION

Catalogues and cataloguing, as well as other aspects of library service such as acquisitions and reference have been constantly undergoing changes and improvements, taking advantage of new methods and new technological advances. These improvements and changes in the library service have now become especially rapid and spectacular due to new technological developments, such as electric typewriters, electrostatic copying, telefacsimile transmission, computer processing, etc. Modern technology provides almost unlimited possibilities for automating many library processes, forcing at the same time its demands upon the library in the field of standardized practices and techniques. Libraries are also confronted today with other problems such as a rapid increase in sheer quantity of new publications, a sharp increase in the cost of these publications and cost of their processing, as well as demand by library users for a better and faster service.

In view of these new opportunities and challenges, centralized cataloguing and processing, the subject which has occupied the interest of librarians for quite a long time, and around which there has been much discussion and writing, has now become one of the modern trends in library service.

Today, centralization of some functions of library work is a fairly common practice, especially within university and public libraries. This practice, restricted originally to libraries within the same jurisdiction, libraries dealing with similar subject matter and located within a small geographical region, is expanding swiftly to include different types of libraries, reaching out across their legal or natural boundaries.

The need for centralization and co-operation among Canadian federal libraries is voiced by Guy Sylvestre, National Librarian:

our aims are ... elimination of unnecessary duplication, identification of services of such excellence as to warrant their being recognized as nodes in the national network, centralization of processing and achievement of compatibility between systems.<sup>1</sup>

Because of new developments and new possibilities in the field of library services, Canada Department of Agriculture Library (henceforth referred to as CDA Library, or the Main Library) is finding itself at the crossroads where some major decisions will soon have to be made. In which direction should we proceed? What steps should we take in order

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<sup>1</sup>Guy Sylvestre. "The developing national library network of Canada," in Library Resources and Technical Services, v.16, Winter 1972, pp.53-54.

to meet today's challenges and to foresee and satisfy the future needs?

In order to assist in making such decisions, a review and re-evaluation of many library operations, especially operations in the area of technical services of the CDA Library, would be at this time very useful. This applies very much to cataloguing activities of the CDA Library and, in particular, to its Co-operative Cataloguing Services, which are of considerable importance to the whole system of Canada Department of Agriculture Libraries.

The objective of this thesis is a two-fold one:

- to carry out a feasibility study of introducing centralized cataloguing into the Main Library in view of providing an effective replacement and extension for its Co-operative Cataloguing Services
- to investigate possibilities and advantages of replacing card catalogue with book catalogue in the system of Canada Department of Agriculture Libraries.

Dealing with centralized cataloguing, a close examination and evaluation is given to the Co-operative Cataloguing Services. For this purpose a questionnaire was prepared and sent out to 19 CDA branch libraries which were at the time using these services. This questionnaire was also designed for obtaining general information on branch libraries, as well as soliciting their ideas and comments on the subject

of centralized services in general.

The literature search revealed a very large quantity of material on both centralized processing and book catalogues. It was felt, therefore, to be practical and at the same time more useful to concentrate primarily upon the literature published within the last ten years.

The work on the thesis started in 1973 and was completed in 1976. The cut-off date of the literature used in the thesis, as listed in the bibliography, is 1974. Chapter A2, Centralized Services Today, was supplemented by the newest available literature bearing 1975 and 1976 imprints, as indicated in the footnotes of the chapter.

## A. CENTRALIZED CATALOGUING

### 1. Concept and Development

Centralized cataloguing has become an integral part of centralized processing and is treated as such in library literature. Centralized processing can be defined as:

Those steps whereby library materials for several independent libraries, either by contract or informal agreement, are ordered, catalogued, and physically prepared for use by library patrons, these operations being performed in one location with billing, packing, and distribution to these same libraries.<sup>1</sup>

Sarah Vann mentions that centralized processing is essentially a coined phrase combining two quite different concepts, processing and centralization. She provides the following definitions for the concepts:

Processing designates services relating to acquisition and analyses of resources and the recording of data for the use of a library public.

Centralization implies unification of variants of some kind for the anticipated achievement of a common goal.<sup>2</sup>

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<sup>1</sup>James R. Hunt. "The historical development of processing centers in the United States," in Library Resources and Technical Services, v.8, Winter 1964, p.54.

<sup>2</sup>Sarah K. Vann. Cooperation between different types of libraries in technical services, in Cooperation between

Besides centralization, a large part of library activities are based on co-operation between libraries. In the field of cataloguing and processing, the co-operation work is centered primarily around the mutual exchange of cataloguing information and mutual utilization of processing facilities. Terms used to describe such activities are co-operative cataloguing and co-operative processing.

For a long time the terms co-operative cataloguing and centralized cataloguing have been used interchangeably in library literature. The subject, however, with which the authors have been dealing refers primarily to co-operative activities. The true concept of centralized cataloguing is a fairly new one, and its implementation is tightly connected with the development and proliferation of processing centres as we know them today. The idea of co-operative and centralized cataloguing is not a new one and there is a large amount of literature available on this subject.<sup>3</sup>

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types of libraries: the beginnings of a state plan for library services in Illinois. Urbana, Graduate School of Library Science, University of Illinois, 1969, pp.12-13.

<sup>3</sup>For an extensive bibliography (934 items) dealing mainly with this subject see: Lawrence E. Leonard. Co-operative and centralized cataloguing and processing; a bibliography 1850-1967, in University of Illinois Graduate School of Library Science, Occasional papers, no. 93, [Urbana] 1968, p.89.

Another comprehensive bibliography on centralized processing covering the literature published from 1950-1963:

The interest towards centralized cataloguing was expressed during the 19th century both in the United States and in Great Britain.

On the North American continent it all began with the concept of co-operative cataloguing proposed by Charles Coffin Jewett. In 1853, in his report to the Smithsonian Institution, he proposed a plan calling for production of stereotype plates for printing catalogue copy, which could be used for all libraries.<sup>4</sup>

Henry Stevens suggested in London in 1872 that there was a need for a central bibliographical bureau where librarians and other interested people could buy precise descriptions of books.<sup>5</sup> In 1876 T. H. Rogers in his paper at the first United States conference of librarians suggested that librarians should cease making individual catalogues and concentrate on a co-operative index of general literature.<sup>6</sup>

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Mary Hanley. Centralized processing, recent trends and current status, in University of Illinois Graduate School of Library Science, Occasional papers, no. 71. [Urbana] 1964, p.24.

<sup>4</sup>Charles C. Jewett. On the construction of catalogues of libraries, and of a general catalogue; and their publication by means of separate stereotyped titles. Washington, Smithsonian Institution, 1852.

<sup>5</sup>Henry Stevens. Bibliotheca geographica et ... historica ... together with an essay upon the Stevens system of photobibliography ... London, H. Stevens, 1872.

<sup>6</sup>Thomas H. Rogers. "A cooperative index for public libraries," in American Library Journal, v.1, 1876, pp.62-63.

Melvin Dewey was also an advocate of co-operation between libraries. His article in Library Journal in 1877 sums up the idea of cooperative cataloguing very succinctly. He wrote:

At the present time, if a specially valuable book is published it finds its way to at least a thousand different libraries, in all of which it must be catalogued. One of the highest salaried officers of each of these thousand libraries must take this book and examine it for the scores of points that only a cataloguer can appreciate the necessity of looking up. Then the title must be copied and revised. Perhaps a half day is spent in preparing a satisfactory note to append for the benefit of the readers, etc., etc. And all this work is repeated to a certain extent in each of the thousand libraries! Can librarians complain if practical businessmen call this sheer extravagance?<sup>7</sup>

Printed catalogue cards were first started in the United States in 1893 by the Library Bureau. This service was continued by the American Library Association and then in 1901 by the Library of Congress. H. W. Wilson was the first commercial service that began to issue its own catalogue cards in 1938.

A classical example and the most successful form of co-operative cataloguing is the National Union Catalog. This widely accepted cataloguing tool makes the results of catalogu-

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<sup>7</sup>Melvin Dewey. "Co-operative cataloguing," in Library Journal, v.1, January 1877, p.170.

ing work of the Library of Congress readily accessible for general use. It is also supplemented by cataloguing data supplied by a large number of U.S. and Canadian libraries, which participate in this co-operative endeavor.

Centralized cataloguing is closely connected with central processing units known generally as processing centres. Such centres experienced a sudden growth during the 1950's and 1960's and they are very common these days, especially among public and university libraries. Besides processing centres, many university, school and public library systems consisting of separate branches have been in the past and still are engaged in centralized cataloguing as part of their centralized processing.<sup>8</sup>

Centralized cataloguing service in Great Britain was introduced only in 1950, when the British National Bibliography started to issue its weekly lists of British publications and then in 1956 introduced its printed card service. Centralized cataloguing is also to be found in many other countries of the world. The Soviet Union, for example, has been providing printed catalogue cards throughout its government

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<sup>8</sup>Professional journals have devoted much space or entire issues to various aspects of central processing, e.g. articles in Summer 1958 and Winter 1961 issues of Library Resources and Technical Services, and the July 1967 issue of Library Trends. Different forms of present centralized and co-operative service are discussed in chapter 3.1 of this study.

agencies since 1925. Australia's catalogue card service was started only in 1967 by the National Library of Australia.

One of the recent developments in centralized cataloguing is providing cataloguing information in the publication itself. It was introduced by the Library of Congress for a short time in 1958-1959 under the name of "Cataloguing-in-source". This service was reinstated in 1971 as "Cataloguing-in-publication" (CIP) and it is proving itself to be a very successful one.<sup>9</sup>

Lately, computer technology has entered the field of centralized and co-operative activity. In 1966 the Library of Congress began distributing cataloguing information in machine readable form by introducing its MARC project, thus providing the library community as a whole with a standard communication format. Finally, thanks to computers and modern communication facilities, cataloguing data are being transmitted now and displayed on television-like screens between individual libraries and library networks instantaneously.

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<sup>9</sup>More details are provided on CIP in Section A, Chapter 3.2.

## 2. Advantages and Disadvantages

What makes a library want to get involved in centralized cataloguing? What advantages over a well-established traditional way of cataloguing has such a system to offer?

In connection with an extensive discussion of processing centres there are numerous articles in the literature containing material which deals with pros and cons of centralized cataloguing.

Among the more recent materials on this subject worth mentioning are contributions by Clapp,<sup>10</sup> Sinkankas<sup>11</sup> and Bakewell.<sup>12</sup> The merits of centralized cataloguing could be discussed under the following main points:

- Elimination of duplication
- Effective utilization of human resources
- Effective utilization of technical resources
- Improvement of the quality of cataloguing and providing a better service to library users

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<sup>10</sup>Verner W. Clapp. Retrospect and prospect, in Edmund L. Applebaum, ed., Reader in technical services. [Washington] NCR, Microcard Editions, 1973, pp.149-154.

<sup>11</sup>George M. Sinkankas. Centralized cataloguing, in Encyclopedia of Library and Information Science, v.4, New York, M. Dekker, 1970, pp.391-95.

<sup>12</sup>K. G. B. Bakewell. Centralized and co-operative cataloguing, in its A manual of cataloguing practice. Oxford, Pergamon Press, 1972, pp.201-202.

- Reduction of cost.

Elimination of duplication is the most obvious advantage of centralized cataloguing. Instead of each individual library taking time and effort to catalogue a publication on its own, it is catalogued once in a central unit for all member libraries. In a co-operative setup, duplication of cataloguing is greatly eliminated when cataloguing data of a library are made quickly available for use in other libraries.

Through centralization, a larger cataloguing unit is created in which the skills of both the professional and technical personnel can be more effectively utilized. The larger volume of cataloguing material lends itself more easily to be grouped and assigned to individual cataloguers who are, or could be developed this way into specialists. For a larger unit it is also easier to justify the services of subject specialists, cataloguers with the knowledge of foreign languages, which greatly increases the quality of cataloguing. General cataloguers can be supported by the extensive and efficient use of clerical and technically trained personnel. Through better training and supervision, the support personnel achieve a higher degree of competence. A larger unit of service also provides a possibility to cut down nonprofessional use of professional personnel to a minimum. The time-consuming searching and descriptive cataloguing can be pre-

pared by nonprofessionals, relieving cataloguers from most of the routine work and giving them more time to concentrate on the purely professional aspect of their work.<sup>13</sup>

More effective utilization of technical resources is also an advantage in centralized cataloguing. A larger unit can afford to purchase the necessary equipment, machinery and processing facilities in order to save time and labour and to do a better job. A good collection of expensive cataloguing tools, such as various bibliographies, union lists and catalogues, specialized dictionaries as well as different reference tools can also be easily purchased and more effectively utilized in a larger library unit.

Through better employment of the human and technical resources we are obtaining a higher quality of cataloguing output. More efficient and competent staff, utilizing better tools and equipment will certainly provide the user of a library with higher quality service. The quality of the work performed is also assured by skilful management and rational planning. Management can improve quality by assigning personnel where they are most suited to work, properly training them,

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<sup>13</sup>Affects on personnel in centralized cataloguing are discussed in: Robert M. Pierson. "Centralized cataloging: its implications to personnel," in Library Journal, v.90, February 15, 1965, pp.826-28.

providing them with all the necessary tools and by establishing effective quality control procedures. Centralization in cataloguing brings to participating libraries uniformity and standardization. The work is being performed according to mutually accepted rules and procedures. This uniformity and standardization produces cataloguing data that can readily be included in a union list of participating libraries. The availability of their combined resources is greatly increased, thus expanding and improving the service.

An important point in centralized cataloguing is consideration of the cost. The reduction of cost is the principle of centralized activities, because it is less expensive to do a job once for a group of libraries, than separately for each one of them. The exact figures on savings resulting from centralized cataloguing are often not available.

Discussing the literature on centralized processing, Hanley comes to the conclusion:

Little statistical information is available. What is found is hard to correlate into a true picture, because of the many variations existing from one centre to another, and the fact that the figures are not necessarily comparable.<sup>14</sup>

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<sup>14</sup>M. Hanley. Centralized processing, recent trends and current status, in University of Illinois Graduate School of Library Science, Occasional papers, no. 71, pp.5-6.

The savings on centralization appear to be substantial. The Colorado Academic Book Processing Center is reported to have reduced the cost of processing per volume from an average of \$4.50 in member libraries, to \$3.10 in the Center, which amounts to a saving of 31.2%.<sup>15</sup>

The disadvantages of centralized cataloguing are much less frequently mentioned in library literature. Centralized cataloguing does not fully satisfy libraries well accustomed to operating independently. This applies especially to many smaller, specialized libraries which for a long time have been functioning according to their own, well-established rules and procedures. Being close to their clientele, these libraries are able to provide them with a personal, specialized service. They fear that centralized services will bring about a reduction in the quality and depth of cataloguing, which will produce a poorer service.

It is, therefore, not unusual to observe a great reluctance among some librarians to accept cataloguing that is done centrally for a number of libraries. According to Bakewell, however, "the case for local autonomy is overwhelming-

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<sup>15</sup>John M. Maier, "Analysing acquisitions and cataloguing costs," in Library Resources and Technical Services, v.13, Winter 1969, p.128.

ly defeated by the advantages of standardization."<sup>16</sup> Standardization in a centralized cataloguing system means for most libraries an extensive and drastic change in their cataloguing policies. In order to minimize the inconvenience of such changes, some libraries compromise by accepting centralized cataloguing, but insist on the continuation of some local practices, such as own subject headings, classification or cuttering system. This results in additional work and expense, and the very purpose of centralization is defeated.

Another disadvantage of centralized cataloguing is a delay. A delay and inadequacy in the British National Bibliography and the Library of Congress catalogue card service is a base of a strong stand of F. Bennett in defence of "local cataloguing". It is quoted that there is a time-lag of several weeks to several months before some cards arrive in local libraries. In the meantime, library books have to be stored away from the reader, or inefficient, temporary entries have to be provided in the catalogue.

Bennett is also critical of the work and policies of a large centre. He singles out the weakness of the BNB's classification, which is being imposed as a standard throughout

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<sup>16</sup>K. G. B. Bakewell, op. cit., p.202.

the British Isles.<sup>17</sup>

### 3. Centralized Services Today

#### 3.1 Processing Centres

During the 1950's and 1960's processing centres have experienced a tremendous growth. According to James Hunt's estimate, there were at least 60 processing centres in the United States in 1964.<sup>18</sup>

Processing centres could be grouped according to the services offered: (1) cataloguing and classification, (2) cataloguing, classification and physical processing (accessioning, labels, book pockets, etc.), (3) complete technical services, including the ordering. Centralized ordering seems to be a part of activities in many processing centres, although some of them are functioning quite well without it. Cataloguing and classification, on the other hand, constitute an integral part of each processing centre.

Most of the centres operate according to well-defined and established standards. This standardization contributes greatly to uniformity of procedures and policies among the member libraries. Some member libraries, however,

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<sup>17</sup>F. Bennett. "The independent cataloguer: in defence of local cataloguing," in Library Association Record, v.72, Dec. 1970, pp.365-67.

<sup>18</sup>James R. Hunt. "The historical development of processing centers in the United States," in Library Resources and Technical Services, v.8, Winter 1964, p.57.

prefer to follow their own policies and procedures. There are processing centres that cater to these individual needs of member libraries, providing them with "custom" cataloguing and processing. On the other hand, there are many libraries that are only partially using the services of a processing centre. They are, for example, "finishing off" unit cards received from a centre, changing finished cards by adjusting them to their own requirements in the area of classification, subject headings or added entries, taking care of physical processing of their books, etc.

In planning and evaluation of processing centres, the services of management consultants have been used since about 1966. New York State pioneered this effort with studies by Nelson Associates. Similar studies by the same consultants were conducted in Iowa, Ohio and Colorado. Another group, Arthur D. Little, was engaged in studies of processing centres in Florida, North Carolina, Texas and Kentucky.<sup>19</sup> For illustration, let us mention two such processing centres, one in Colorado, and one in New York State.

Colorado Academic Libraries Book Processing Center (CALBPC) serving the state's colleges and universities was established in 1970. Its establishment and development are

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<sup>19</sup>F. Williams Summers. "State libraries and centralized processing," in Library Resources and Technical Services, v.14, Spring 1970, p.271.

well documented by a number of studies and reports. Dougherty and Maier in their final report on the centre are finding that the concept of centralized cataloguing and acquisitions is sound, that participating libraries are accepting cataloguing and classification of the centre, that the problems encountered could be traced to human, rather than to technological failures, and that the cost of acquiring and cataloguing an average book has been reduced.<sup>20</sup>

The other processing centre, or rather a whole centralized system, was organized for public libraries in 1967 under the name of ANYLTS - Association of New York Libraries for Technical Services. This system is developing into a fully automated system, with a potential to serve all 727 member libraries and 298 branches of New York State public library systems.<sup>21</sup>

With the help of new developments in automation and telecommunication we are witnessing the establishment of networks providing centralized and co-operative services to a large group of libraries. The most successful system at the

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<sup>20</sup>Richard M. Dougherty and Joan M. Maier. Centralized processing for academic libraries; the final report. Metuchen, N.J., Scarecrow Press, 1971, pp.119-121.

<sup>21</sup>J. Eisner. "ANYLTS - What it is, What it plans to do," in Bookmark, v.29, Dec. 1969, pp.87-91.

present time is the Ohio College Library Center (OCLC). Established to serve colleges and universities of Ohio State, it provides them with "on-line" connection to the center's computer and its large data base. When cataloguing information is needed a member library searches the central computer data base by an LC call number, author or title, and, if located, the information is flashed back instantaneously to the library. Here, on a TV-like screen the data can be read, verified and adjusted (call number changed, added entry deleted or added, information added or deleted, etc.) and, by simply pressing a button on the console, a set of cards for a catalogued item can be automatically ordered from the Center. Completely finished and presorted catalogue cards are then sent by mail, arriving at the library usually within a week. On the other hand each library's original cataloguing data are transmitted back to the center, added to its data base and from that moment on they are available to be used by any other member library.

Ohio College Library Center also provides for the individual approach to the needs of its member libraries. Catalogue cards can be supplied according to many individual options: different formats for call number, different indentions, choice of type, printing of heading on preselected cards, etc. It is reported that computerized production of cards in the Center is at less than half the cost of manual

production of cards; 10.6¢ as compared with 23.6¢.<sup>22</sup> The network of the OCLC is growing rapidly, and it is extending beyond the state's boundaries into the neighboring and even some distant states. United States federal libraries have also recently showed interest in this network. The Federal Library Committee, comprising representatives from the Library of Congress, the National Agricultural Library and the National Library of Medicine, entered into a one-year agreement with the OCLC in June 1973. In this agreement, the OCLC would provide a selected group of federal libraries with on-line access to the center's large cataloguing data base. An interesting point is that this step was taken after an extensive review of available resources and services, which showed that only OCLC held a sufficiently large data base to make its use feasible.<sup>23</sup>

Much less numerous than in the United States are the processing centres in Canada, and very little information can be located in library literature on their operation. Processing Centre of the Midwestern Regional Library System is located in Kitchener, Ontario. It was established in 1967

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<sup>22</sup>F. G. Kilgour. "Evolving, computerizing, personalizing," in American Libraries, v.3, February 1972, p.145.

<sup>23</sup>"The Federal Library Committee," in Bowker Annual, 1974, pp.17-18.

and it operates independently from any library. For the sum of one dollar per copy the Centre acquires, catalogues, processes and delivers the books to the libraries in the midwestern region of Ontario. Libraries outside the region are charged considerably more for the same service.<sup>24</sup>

Co-operative Book Centre of Canada, Ltd. was established in 1954. It has no regional limitation, operating on a strictly commercial basis. It provides full cataloguing and processing of any library materials.

An important development in centralized cataloguing in the province of Quebec was the establishment in 1963 by the Fédération des collèges classiques of a cataloguing centre in Montreal. The services of the centre are also available to any library outside the federation. On a monthly basis the centre compiles and circulates to its members a list of new titles, for which sets of catalogue cards are prepared. A subscription can be arranged to receive all available cards, or cards can be ordered only for selected titles.<sup>25</sup>

### 3.2 Other Forms of Centralized and Co-operative Activities

Co-operative and shared cataloguing is another method

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<sup>24</sup>D. Lawson. "Centralized processing; a report from Midwestern Regional Library System," in Ontario Library Review, v.54, June 1970, pp.80-82.

<sup>25</sup>Mariette Thibault. "La centrale de catalogage de la F.C.C.," in Bulletin ACBLF, Dec. 1964, pp.170-71.

by which libraries are reducing substantially a duplication of their cataloguing effort.

Shared cataloguing activities of the Library of Congress have increased greatly with the passage of the Higher Education Act of 1965 (Title II-C) providing adequate funds for the Library to acquire and catalogue all library materials of any research value published throughout the world. This action initiated the National Program for Acquisitions and Cataloguing. At the present time the Library of Congress has "shared cataloguing" offices in practically all countries or groups of smaller countries of the world in order to expedite acquisition of foreign publications. To reduce the expense of original cataloguing, cataloguing data are used directly from national bibliographies of Canada, Great Britain, Australia, New Zealand, South Africa and U.S.S.R. The National Union Catalog became a major selective international bibliography, and anyone buying LC catalogue cards or using NUC, participates in this extensive cataloguing service. Ishimoto, investigating the effects of the National Program for Acquisitions and Cataloging on university libraries, finds that the program "contributed a great deal towards reducing cataloging costs and increasing bibliographic compatibility with the Library of Congress." He concludes that "without NPAC, virtually no major academic research library, in view of the tight budgetary situation in recent years, could have

continued to maintain present levels of bibliographic control."<sup>26</sup>

Another attempt to avoid expensive duplication of cataloguing is the "Canadian program of shared cataloguing."<sup>27</sup> It was started in 1969 by the libraries of the University of British Columbia, Simon Fraser University and the University of Victoria by sharing the responsibility of cataloguing work for which Library of Congress cataloguing was not available. Each library is responsible for cataloguing works falling into assigned letters of the alphabet. Cataloguing is carried out immediately upon receipt of the work, and xerox copies of catalogue cards are sent to other co-operating libraries. In addition, each of the three university libraries began supplying each other with one copy of each unit card for 1970 and later imprints. In 1970 this system was enlarged to include three eastern university libraries: University of Windsor, York University and University of Waterloo.

"Cataloguing in publication" (CIP) is another example of a centralized form in cataloguing. Originally known as

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<sup>26</sup> Carol F. Ishimoto. "National Program for Acquisitions and Cataloging: its impact on university libraries," in College and Research Libraries, v.34, March 1973, pp.126-136.

<sup>27</sup> J. M. Elrod. "Canadian program of shared cataloguing," in Canadian Library Journal, v.28, May 1971, p.222.

"Cataloging in source," this service was first introduced by the Library of Congress. It provides publishers with basic cataloguing data for reproduction on verso of the title page of a publication. Procedures have been established that enable the LC cataloguer, working from galley proofs, to supply the publishers with cataloguing information. The elements of cataloguing provided are those that require professional decisions, such as the main entry, short title, series statement, notes, etc. Also included are classification numbers, both LC and Dewey, and International Standard Book Number. The great advantage of this system is the fact that cataloguing information comes with the book itself and unlike data on magnetic tape, it is immediately readable to the human eye. Almost all of the large publishers, university presses and many smaller firms are participating in this programme, which covers now a major part of the U.S. annual monographic book production. This programme has been expanded to include selected U.S. government documents which are widely acquired and catalogued by academic and research libraries. By 1974, the CIP programme in the United States included 640 publishers and 11 federal agencies.

"Cataloguing in publication" is being gradually accepted by other national libraries. The National Library of Canada is presently arranging for introduction of the CIP service to Canadian publications.

Besides the Library of Congress other major federal libraries in the United States, such as National Library of Medicine and National Agricultural Library, are contributing to co-operative and centralized cataloguing by making their highly specialized and often unique collections widely available in the form of book catalogues and magnetic tapes.

The National Agricultural Library, since switching over to the new AACR in 1966, has been publishing its catalogue in monthly issues.<sup>28</sup> It is a valuable and very comprehensive source of cataloguing data covering a wide range of agricultural and biological sciences, together with other related disciplines. Complete cataloguing information is given for each entry. Each issue of the catalogue is also supplemented by personal author, corporate author, title and subject indexes.

The U.S. Environmental Protection Agency Library System provides an example of centralized cataloguing in government libraries. This system consists of 28 libraries located in various regions of the United States. All operations of the system are completely automated, including totally centralized cataloguing, which "... not only greatly reduces total cataloguing costs but also ensures correct, con-

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<sup>28</sup> National Agricultural Library Catalog. Totowa, N.J., Rowman and Littlefield, 1966 -

sistent cataloguing regardless of how many locations hold the same book."<sup>29</sup>

In Canada, the most successful in the area of co-operative cataloguing has been Ontario Universities' Library Co-operative System (OULCS). A good, informative description of the system is available in an article by Stierwalt.<sup>30</sup> The system was introduced in 1973 and originally comprised libraries of six Ontario universities (Brock, Guelph, McMaster, Toronto, Western and York) and two Quebec universities (Laval and McGill). By June 1975, the number of participants increased to 21 libraries, including three Ontario public libraries, Bibliothèque nationale du Québec and Canada Department of External Affairs Library.<sup>31</sup>

The system is using the computing services of the University of Toronto Library Automation System (UT/LAS). The user is connected on-line to a central data base by a CRT terminal. The data base consists of the Library of Congress and Canadian MARC records, and the users' union file. The

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<sup>29</sup>S. M. Thomas and L. P. Needle. "Environmental Library systems," in Special Libraries, v.66, no. 7, July 1975, p.295.

<sup>30</sup>R. E. Stierwalt. Ontario Universities' Library Co-operative System, in American Society for Information Science, Western Canada Chapter, Proceedings: seventh annual meeting, Banff, 1975. Edmonton, University of Alberta Library, 1975, pp.69-76.

<sup>31</sup>Plant Research Library joined the system in 1975, on an experimental basis, for inputting and processing cataloguing data of its collection of monographs.

access to records is by the LC card number, ISBN (International Standard Book Number), Union File Number, or a precise title.

The system is very flexible and provides facility for editing existing records and inputting original records according to user requirements. The products available in a hard copy from the system are: completely finished catalogue cards arranged in filing sequence, circulation cards, call number labels, call number and brief author/title labels for book pockets, acquisitions lists, current awareness listings, subject bibliographies and tapes from users' transactions.

Basically a cataloguing support system in its present form, the Ontario Universities' Library Co-operative System is planning to extend its present facilities to provide a total on-line library service.

The newest library automation system, which could have a great impact on library operations in Canada is DOBIS. Adequate, general information on the system is presented in an IBM manual.<sup>32</sup> DOBIS (Dortmunder Bibliotheks System) was developed in Dortmund, Germany, to serve the needs of three university libraries and 25 departmental libraries. It is a totally integrated on-line library system, and thus

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<sup>32</sup>Dortmund Library System - DOBIS, executive guide.  
[Feltham, Eng., IBM, 1975] 11 p.

incorporates all of the usual library functions.

For cataloguing, by means of CRT terminals, it provides the on-line facility to search a central data base, access and fully utilize available MARC records for the building up of the central data base, and input original cataloguing.

The bibliographic files contain complete cataloguing information. This information is accessible through an extensive system of indexes, which include personal names, corporate names (permuted and displayed under each significant word), permuted titles, subject headings, classification, ISBN/ISSN, and miscellaneous numbers such as LC card number or accession number.

The National Library of Canada has decided to acquire the DOBIS system. In co-operation with other interested parties, it has contracted with the University of Dortmund to modify DOBIS, in order to make it more acceptable to Canadian needs. It is interesting to note, that the National Library selected DOBIS "... after having carefully evaluated several other computer systems ... Of these the German system was ranked first".<sup>33</sup>

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<sup>33</sup>A. Schwartz. Report on DOBIS, presented at a meeting of the directors, Ontario Regional Library System. [Ottawa] 1976, p.1.

#### 4. Centralized Processing in Canadian Federal Libraries

There is a great concentration of Canadian federal libraries in the Ottawa-Hull area. Main libraries of various government departments and agencies are located here, as well as some of their branches.<sup>34</sup> It was considered useful for this study to carry out a survey of the local government libraries.

According to information received from the National Library, only nine Canadian federal libraries are in some way engaged in centralized services.<sup>35</sup> A personal contact in the form of an interview was made with each of those nine libraries. The libraries surveyed were:

1. Department of Energy, Mines and Resources. Earth Physics Branch Library.
2. Department of Energy, Mines and Resources, Mines Branch Library.
3. Department of the Environment Library.
4. Department of External Affairs Library.
5. Department of National Health and Welfare. Health Protection Branch Library.

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<sup>34</sup>Canadian Library Directory. 1: Federal government libraries. Ottawa, National Library of Canada, 1974, lv [unpaged].

<sup>35</sup>From the Federal government library survey questionnaire, conducted by the National Library of Canada, Spring, 1972 [unpublished].

6. Department of National Defence Library.
7. National Gallery of Canada Library.
8. Canada Institute for Scientific and Technical Information (CISTI).
9. Statistics Canada Library.

Centralized services in the libraries are provided for their branches. Four out of nine surveyed libraries have less than five branches, three have between six and ten branches, while only two libraries, Department of the Environment Library and the Department of National Defence Library, have a larger number of branches, 34 and 26 branches respectively. Four libraries have branches located exclusively in Ottawa area, while the other five have branches in various parts of Canada. Speaking of library personnel, the majority of them (five libraries) have branches which operate without any professional personnel, relying for their operation fully on semi-professional or clerical staff. On the other hand, the branches of the two larger libraries - CISTI and the Department of the Environment Library, are staffed mainly with professional librarians.

Acquisitions are handled in most cases centrally, from the main library. Most libraries are finding a system of central acquisitions to be more economical and practical. Acquisitions are only partly centralized in one smaller library

and in two others, which have a large number of branches.

Centralized cataloguing has been implemented in all surveyed government libraries. All library material is ordered and received centrally, then catalogued, completely processed (labels, pockets, circulation cards) and forwarded together with finished catalogue cards to the branches. There are three libraries, however, that limit their centralized cataloguing activity to branches located in the Ottawa-Hull region. Sets of catalogue cards are prepared by main libraries using mostly their own facilities. Regular or automatic typewriters are used to prepare catalogue cards or stencils. The photoreproduction services of the Canadian Government Printing Bureau are used only by a few libraries for unit card duplication.

Speaking of cataloguing rules and policies - it was established that all libraries are using them consistently within their own systems. There are no allowances made to have certain materials for certain branches catalogued and processed according to the branches' own requirements.

Because government branch libraries, as a rule, have highly specialized collections, opinions are being heard that cataloguing of such collections requires services of specialized people. Persons contacted in this survey, however, were unanimous in believing that cataloguing of branch material

doesn't require any special skills and training on the part of main library's cataloguing staff.

The question of a union catalogue was also raised in the survey. It was found that by and large, libraries maintain a union catalogue with complete holdings of their branches. Union catalogues are kept in a conventional form of author or title cards, with one library using a central shelf list instead. The Health Protection Branch Library, as a result of automation has its union catalogue data on magnetic tapes. The main reasons given for maintaining a union catalogue were that it is most useful for reference service, acquisition work and for preserving uniformity of cataloguing practice within a system.

The last part of the survey concerned itself with accession lists and book catalogues. Full accession lists are published on a monthly basis by four libraries, while four others are listing their accessions selectively and are issuing them monthly, semi-monthly or bi-monthly. One library has no accession list, since such a list is considered of very little value in its system.

As far as book catalogue is concerned, out of nine libraries contacted only one, the Health Protection Branch Library, is in the process of preparing its first book catalogue. This computer-produced catalogue will be a result of

having already all current cataloguing data coded and stored on magnetic tapes. Five government libraries have no plans whatsoever to produce book catalogue, while three others are in the process of discussing the eventual introduction of a book catalogue into their libraries in the future.<sup>36</sup>

Although the sample of Canadian government libraries represented in this survey is a very small one, there seems to be enough indication of a general trend towards expansion of present centralized services in general, and centralized cataloguing in particular. The economic consideration, the need for standardization, and a need for a system of quick and efficient retrieval of library material are likely to promote a further development of centralized processing among Canadian federal libraries in the future.

## 5. Co-operative Cataloguing Services in Canada Department of Agriculture Library

### 5.1 Background Information

Canada Department of Agriculture Library was estab-

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<sup>36</sup>Since February 1975, the Plant Research Library of Canada Department of Agriculture has been using the UTLAS for inputting and processing cataloguing data on its collection (monographs only) for the purpose of publishing a book catalogue.

lished in 1910 as part of the Publications Branch of the Department of Agriculture. It later became a part of the International Institute of the Agriculture Branch, and in 1925 it was officially designated the Main Library of the Department.

In the early days besides agricultural activities, Department of Agriculture encompassed many other activities such as immigration and emigration, public health and quarantine, census, statistics and others. These were later transferred to other government departments. Starting 1918 the Department concerned itself exclusively with agriculture, steadily expanding and increasing its research activities. The Main Library was growing and expanding accordingly, providing library services to the Department and to its various research units (divisions, institutes, etc.).

In 1950 an extensive program of agricultural research was started both in Ottawa and in field establishments all across the country. In order to meet new demands the Main Library initiated a series of field libraries located in various provinces. The first field library was organized in Lethbridge, Alberta in 1949. Next, in 1950 the library at the Research Station in Summerland, B.C. was opened, followed in 1952 by another field library in Kentville, N.S. By 1965 the system of Canada Department of Agriculture libraries con-

sisted of 19 branch or field libraries in nine provinces.<sup>37</sup> The work of these libraries is supervised and coordinated by senior librarians called area coordinators.

At the present time the Main Library holds some 350,000 volumes, and each of its branches has an average of 10,000 - 15,000 volumes.<sup>38</sup> More than 30,000 serial titles make up a great part of this collection, which is one of the foremost collections in the world of literature related to agricultural and agriculture-connected sciences. The collection is strong in the field of botany, entomology, chemistry, animal husbandry, veterinary medicine, biology, rural sociology, food and nutrition, soils and fertilizers.

The Main Library is also a depository library for publications of the Food and Agriculture Organization of the United Nations, U.S. Department of Agriculture, U.S. State Experiment Stations and the Commonwealth Agricultural Bureaux, and therefore has a very extensive collection of publications of these bodies.

The resources of the Main Library and its branches

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<sup>37</sup>Two field libraries were added to the system in 1972.

<sup>38</sup>Canada Agriculture Library; the first sixty years. [Ottawa, Canada Department of Agriculture, Information Division] 1971, p.15.

are available primarily to all the department's employees, especially to some two thousand highly trained specialists. These resources are also freely available through interlibrary loans to other libraries, nationally and internationally.

The growth of the CDA library system could also be illustrated by the growth of the number of people it employs. From a single librarian in 1910, the number of staff grew to seven in 1945, and at the present time, there are over one hundred employees in libraries all across Canada. Approximately one half of the library staff is in the Main Library, while the other half is spread across all the branch and field libraries.

In order to improve its services the CDA Library has turned to automating some of its activities. As early as 1954, data on current periodicals and on subscriptions was stored on punched cards in a computer. Today, computer-produced shipping labels and control cards are facilitating greatly the circulation by mail of current periodicals to all interested people, keeping track at the same time of the latest recipient. Regular computer printouts of subscription information (subscriptions for all branch and field libraries are also included in this project) enable both the staff and the management of libraries to have a better control over this activity.

Data on the Library's extensive (some 30,000 units) collection of serials have also been recently computerized. Full bibliographic description of these serials, including holdings, is coded and stored on magnetic tapes. A computer printout of this input provided a camera-ready copy for the recently published union list of serials.<sup>39</sup>

Early in 1975 the Main Library issued a computer-produced revised edition of the Publications of the Canada Department of Agriculture. A similar undertaking, a catalogue of the Library's Chapais Collection is now in progress, as well as a computer-controlled Subject Authority Project (SHAL).

Another form of a computer-based service the Main Library is providing its users with, is the SDI - Selective Dissemination of Information. This service provides Canada Department of Agriculture scientists with bibliographies on current research which is closely related to their area of study. Using the facilities of the CISTI (Canada Institute for Scientific and Technical Information), bibliographies are selected for them by the computer from data bases, which cover a large number of scientific literature.

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<sup>39</sup> Union List of Serials in Canada Department of Agriculture Libraries. Ottawa [Information Canada] 1974, 946p. This union list presents so far the holdings of the Main Library and its two branches: Entomology and Plant Research Libraries.

## 5.2 Analysis of the Questionnaire

### Part A. General Information on Branch Libraries

In order to be able to propose some improvements to an existing system one has to study and analyse it first. For the purpose of getting a good look at Co-operative Cataloguing Services and obtaining comments and suggestions on these services and other related problems, a questionnaire was constructed. The questionnaire consisted of five parts: the first one concerning itself with general information, the next two dealing with co-operative and centralized services, and the last two with Selected List of Accessions, book catalogue and cataloguing policies.<sup>40</sup> Most questions were presented in the form of multiple choices, with some requiring only a "yes" or "no" answer. In many instances additional information was solicited, with space provided for comments and suggestions.

The questionnaire was prepared and sent out in February 1973. At this time the system of CDA branch and field libraries consisted of 19 units. Additional two field libraries,<sup>41</sup> which were established during 1972, are not

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<sup>40</sup> See Appendix, pp.1-8.

<sup>41</sup> Canfarm Data Systems, Guelph, Ontario, and Canadian Grain Commission, Winnipeg, Manitoba.

included in this survey.

Analysis of the questionnaire concerns the following 19 branch libraries:<sup>42</sup>

TABLE I  
BRANCH LIBRARIES AND THEIR LOCATION

Area	Name	Location
Atlantic region	Library, Research Station	Charlottetown, P.E.I.
Atlantic region	Library, Research Station	Kentville, N.S.
Atlantic region	Library, Research Station	Fredericton, N.B.
Quebec	Bibliothèque, Station de recherches	Ste. Foy, Quebec
Ottawa	Plant Research Library	Ottawa, Ont.
Ottawa	Entomology Research Library	Ottawa, Ont.
Ottawa	Library, Animal Diseases Research Institute	Ottawa, Ont.
Ottawa	Library, Ottawa Research Station	Ottawa, Ont.
Ottawa	Neatby Library	Ottawa, Ont.
Ontario	Library, Research Station	Vineland Station, Ont.
Ontario	Library, Research Station	Harrow, Ont.
Ontario	Library, Research Institute	London, Ont.
Manitoba	Library, Research Station	Winnipeg, Man.
Saskatchewan	Library, Research Station	Saskatoon, Sask.
Saskatchewan	Library, Research Station	Swift Current, Sask.
Alberta	Library, Research Station	Lethbridge, Alta.
Pacific region	Library, Research Station	Vancouver, B.C.
Pacific region	Library, Research Station	Summerland, B.C.
Pacific region	Library, Research Station	Sidney, B.C.

<sup>42</sup>The difference between a branch library and a field library in the system of Canada Department of Agriculture libraries is not clear. Most frequently referred to as branch libraries are the Plant Research Library and Entomology Research Library, both located on the grounds of the Central Experimental Farm in Ottawa. In practice, however, the names "branch" and "field" library are being used interchangeably. There-

Listing branch libraries according to location by provinces we have:<sup>43</sup>

<u>Province</u>	<u>Number of Branches</u>
1. Alberta	1
2. British Columbia	3
3. Ontario	8
4. Quebec	1
5. Manitoba	1
6. New Brunswick	1
7. Newfoundland	-
8. Nova Scotia	1
9. Prince Edward Island	1
10. Saskatchewan	2

Of the 19 branches, nine are located in Ontario or Quebec; five out of these nine are in the Ottawa area. The other ten branches are spread out widely throughout the other provinces. The number one problem when talking about centralized services, is therefore the great distances which create additional costs in communication and transportation and additional delays in getting the library material to its user.

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fore, for the purpose of simplicity, the term "branch" library is being used henceforth in this study to include both branch and field libraries.

<sup>43</sup>At present, Newfoundland is the only Canadian province without a branch library service. Although Department of Agriculture has a research station in St. Johns West, Nfld., operations of the station are relatively small, and the need for establishing a branch library there has not yet been felt.

How does the size of branch libraries in terms of volumes of publications compare to that of the Main Library? Taking the figures mentioned in the previous chapter, the Main Library has 350,000 volumes, while the total for all branches is 237,500 volumes (representing an average of 12,500 volumes in each branch). Percentage-wise, the total branch holdings are 67.8%, or roughly 2/3 of CDA Library holdings.

Starting now with the Questionnaire (Questions A-1, A-2), the comparison of human resources in CDA libraries presents the following picture as shown in Table II. Looking at the table, we notice that there are 37.5% of professional personnel in the branches, as compared to 25.5% in the CDA Library. The average cost of library service is therefore much higher in the branches than in the Main Library. This state exists in spite of the fact that six branches operate without any professional personnel. The number of personnel involved in cataloguing in the branches, both full and part time, is quite high, although exactly how much actual time those 23 "part-time" branch people are spending in cataloguing has not been established.

Total number of items catalogued in a year (Question A-3): Comparing an average yearly cataloguing output of the branches and CDA Library, it was established that the total number of items catalogued by all the branches is 82.6% of the total items catalogued by the CDA Library.

TABLE II

## HUMAN RESOURCES IN CDA LIBRARIES\*

	Branches	CDA Library
<b>Personnel:</b>		
Professional	18 (37.5%)	13 (25.5%)
Non-professional	30 (62.5%)	38 (74.5%)
Total	48 (100.0%)	51 (100.0%)
<b>Personnel involved in cataloguing:</b>		
<b>Full time:</b>		
Professional	2	6
Non-professional	4	9
Total	6	15
<b>Part time:</b>		
Professional	11	-
Non-professional	12	-
Total	23	-

\* The information on CDA Library was taken from a list of employees dated January 1973 [unpublished].

In answer to the next Question A-4, dealing with the percentage of items catalogued in the Main Library, seven libraries report a figure below 25%, two between 25-50%, two between 50-75%, two over 75%, while six branches do all their cataloguing themselves. Putting all branches together, approximately 17% of all their cataloguing is done for them in the Main Library.

For Questions A-5 and A-6, 10 libraries report a backlog of cataloguing material. Significantly enough, among the ten libraries reporting a backlog, there is only one from the group of six which are doing all their cataloguing themselves.

The following table presents a comparison of the branches' human resources, their sizes (budget estimates for reading material are taken as an indication of size) and their yearly cataloguing outputs.<sup>44</sup>

Branch personnel and budget in the Ottawa area represent a substantial part of the total of all the branches' personnel and budget. The Ottawa area, according to this survey, is also responsible for 44.6% of total cataloguing. The Western Provinces with their seven libraries, are in first place in terms of personnel and budget, but trail the Ottawa area in

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<sup>44</sup>Budget figures taken from the Federal government library survey questionnaire, conducted by the National Library of Canada, Spring 1972 (restricted and not published).

TABLE III

## PERSONNEL BUDGET-CATALOGUING

Area	Branches		Personnel		Budget (Reading material)		Items catalogued %
	Number	%	Number	%	Number	%	
Ottawa	5	26.4	13	27.2	34.1	44.6	
Ontario	3	15.8	4	8.3	12.2	8.9	
Quebec	1	5.3	2	4.2	2.9	1.8	
Western Provinces	7	36.8	21	43.7	40.5	40.5	
Maritime Provinces	3	15.7	8	16.6	10.3	4.2	
TOTAL	19	100.0	48	100.0	100.0	100.0	

terms of catalogued items.

By placing the Ottawa branches together with the remaining libraries in Ontario and Quebec (let us call these the Central provinces branches), we get the following totals:

Branches	47.5%
Personnel	39.7%
Budget	49.2%
Items catalogued	55.3%

This grouping gives to "Central Provinces" a substantial edge over other areas, and we can see that with a little under 40% of the total personnel resources, operating approximately on 50% of total budget, they take care of over 55% of total cataloguing done in the branches.

Questions A-7 - A-11 deal with cataloguing policies, processing facilities, and availability of sources of bibliographic information. In cataloguing, eight branches report using exclusively the Anglo-American Cataloguing Rules, while 11 branches follow the "Superimposition" policy. As far as classification is concerned there is almost complete uniformity. All branches, except one which uses Bernard's Classification for Medical and Veterinary Libraries,<sup>45</sup> are using Dewey. The newest, 18th edition is used by six libraries, 17th edition by

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<sup>45</sup>Animal Diseases Research Institute Library.

nine, while three libraries are still using the 16th edition.<sup>46</sup>

There is also a great amount of uniformity among branches in using the Biological and Agricultural Index as their subject headings authority. Seven branches are also supplementing this index with LC subject headings. Only four branches report other sources as their subject authority files. The Research Station, Vancouver, is utilizing the Agricultural/Biological Vocabulary,<sup>47</sup> Research Station, Saskatoon - LC subject headings, Station de recherches, Ste-Foy-Répertoire des vedettes - matière,<sup>48</sup> and the Entomology Research Library is using Dewey's "Relative index" as a subject index to its classified catalogue.

Reproduction of catalogue cards (Question A-10) is done in 16 libraries locally on a typewriter. Seven out of these 16 libraries are also using reproduction facilities of the CDA Library, while 3 others report having all their cards reproduced by the Main Library.

In reference to question A-11, seven libraries report

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<sup>46</sup>Research Stations: Harrow, Ont., Wineland, Ont., Sidney, B.C.

<sup>47</sup>Agricultural/Biological Vocabulary. Washington, National Agricultural Library, 1967.

<sup>48</sup>Issued by Université Laval, Bibliothèque. Québec, 1962.

having no access to sources of bibliographic information such as NUC, NST, National Agricultural Library Catalog or Canadiana, except in one case the NST is used and in another Canadiana is available. Full access to the above-mentioned sources is reported by 12 libraries. Six of these libraries have access to reference collections of the local universities, while four others, being located on the Central Experimental Farm grounds in Ottawa, avail themselves of the bibliographic tools of the CDA Library. However, the availability of bibliographic tools outside their own library is considered by most branches to be very inconvenient and time consuming. Four branches also report that they additionally use other specialized bibliographies. Among the sources mentioned here are the catalogues of the British Museum (Natural History), Arnold Arboretum, Harvard's Museum of Comparative Zoology, Hunt Botanical Collection and a few others.

#### 5.2 Part B. Main Library's Co-Operative Cataloguing Services; an Assessment

The Co-operative Cataloguing Services operate in the following manner. All of the CDA branches are required to send to the CDA Library a notification of receipt (form AL86) for each of their new acquisitions.<sup>49</sup> Some branches are using

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<sup>49</sup> See Appendix, p.9.

a carbon copy of a multiple order form for this purpose. Information on these cards and forms is edited and verified and added to the Union Catalogue, which is located in the Main Library. At the time of reporting each branch is free to ask the Main Library for a set of catalogue cards to be prepared for the reported item. For this purpose, when a set of cards is requested, each reported item is searched first in the CDA Library's catalogue and then, if not found there, in other bibliographic tools. A set of cards is prepared each time the Main Library has the item (and therefore a unit card is already available for xerox reproduction). When a full entry for the requested item is found in the National Union Catalog or in the National Agricultural Library Catalog, a Polaroid picture of the entry is taken and cards are reproduced from it by xerox. In the case where an entry is found, but is incomplete, e.g. without subject headings or added entries, only a xerox copy or a Polaroid photo of such an entry (referred to as "cataloguing information" in Question B 2c) is forwarded to branches to assist them to some extent in preparation of their own catalogue copy. All branches are also free to send to the Main Library unit card masters for reproduction of their catalogue cards.

Co-operative Cataloguing Services (Question B 1-2) are fully used by nine branches, partly used by four and

not used at all by six libraries.<sup>50</sup> Twelve libraries report receiving sets of cards which are xerox duplicates of Main Library cards. Cards based on Polaroid pictures are distributed to 11 libraries, 10 libraries are receiving from the Main Library cataloguing information (Item B - 2c of the questionnaire), and ten libraries use the Main Library for reproduction of their own unit card masters.

The branches' comments (Question B - 3a,c,d,f) on the Main Library's cataloguing are shown in the following table.

TABLE IV

## CO-OPERATIVE CATALOGUING SERVICES

	Yes	Partly	No
Classification acceptable?	3	10	-
Descriptive cat. acceptable?	8	5	-
Subject headings acceptable?	2	9	2
Added entries acceptable?	3	10	-

<sup>50</sup>Branches not using the services: Animal Diseases Research Institute, Neatby Library and Research Stations in Ste-Foy, Winnipeg, Lethbridge and Summerland.

Descriptive cataloguing of the Main Library seems to present little problem to the branches, but classification, added entries, and especially subject headings are the areas of greater concern. In answer to Questions B-3b,e,g a unanimous opinion was expressed that classification, subject headings and added entries should not be suppressed. With the answers to these questions a few comments were also received which express the need to adjust some cards to make them compatible with local practices and more useful for local needs.

Catalogue cards reproduced from NUC or NAL entries (Question B-4a, B-4b) are generally acceptable to branches. Criticism was voiced regarding some cards received from the Main Library. Mentioned was: lack of space for placing additional information, too much unnecessary information, the need to make adjustments in classification, subject headings and added entries in order to conform with local practices, and poor quality of card reproduction.

The suggested improvement of the quality of catalogue cards by replacing the Polaroid camera by a 35 mm camera was favourably received by seven out of the 11 responding libraries. When asked however if such an improvement would render these cards acceptable without any change - six responses were negative, while only five were positive, which again brings forward

the fact that most branch libraries feel the need to adjust and change such cards.

There are hardly any comments or suggestions in reference to Question B-5; receiving "cataloguing information."

To Question B-6, reproduction of own unit card masters, five favourable comments were received saying that this service is good and that it saves much time. The Co-operative Cataloguing Services, according to 11 out of the 12 answers received (Question B-7), definitely helped to improve library services in the branches.

Replies and comments received on Question B-8 indicate that co-operative cataloguing is a substantial time-saver, which contributes to a more efficient operation of the branch library. The other benefits quoted were: contribution to improvement of cataloguing quality, contribution to uniformity in cataloguing, and a chance to clear up a backlog of uncatalogued materials.

The answers to the question on reasons for not using Co-operative Cataloguing Services (Question B-9) are very incomplete. Most of the reasons suggested in the questionnaire were mentioned once or twice. The main reasons, however, seem to be the variation in subject headings and the reluctance of having cataloguing done outside the branch.

In regard to a possibility of using the Services in

the future, one library gave a "no" answer, while two others responded with a question mark.

## 5.2 Part C. Centralized Services?

The objective of this section of the questionnaire was to assess the attitude of branch libraries towards centralized services in general. Firstly, it was confirmed (Question C-1), that subscriptions to periodicals are handled for all branches centrally in the Main Library. Other library materials, such as books, annuals, irregular serials (Question C-2) are acquired by most libraries directly through their own suppliers, and not using the services of agents. Only a couple of branches avail themselves exclusively or occasionally of the services of agents, especially when dealing with U.S. or foreign suppliers.

From answers received to Question C-3 a very interesting fact emerged. Regardless of geographical location of the branches, all their suppliers with only one exception, are located in Eastern Canada and in the Eastern United States.

The suggestion of centralized purchasing of books, serials, etc. (Question C-4) was met with almost unanimous (only one exception) rejection. Centralized processing of gifts and exchanges (Question C-5) was also met with a negative atti-

tude, with only four libraries favouring it.

The suggestion of fully centralized cataloguing was met with a definite rejection, with only four libraries in favour of it.<sup>51</sup> Therefore from the answers received on Questions C-4 to C-7 it is clear that, while accepting centralized subscriptions, the branches reject outright centralization of book purchases, gifts and exchange handling and full centralized cataloguing.

Going to the next Question C-8, the present form of co-operative cataloguing is considered almost unanimously by the branches to be the only practical approach to centralized cataloguing. In connection with this question a few opinions were also expressed underlining again the need for some cataloguing on a local level, arising from the specialized material handled and the need for specialized bibliographic tools. Also mentioned was the fact that there is an additional inconvenience in waiting for catalogue cards.

When confronted with a possibility of the introduction of centralized cataloguing and processing in the future (Question C-9), almost all libraries reacted with acceptance of such centralization on the condition that the work done

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<sup>51</sup>In favour of centralized cataloguing are: Entomology Research Library, Neatby Library, Ottawa Research Library, Research Station, Fredericton, Library.

centrally must take into consideration individual needs of the branches, either by letting them make their own changes on catalogue cards, or by having the work done for them to their own specification.

#### 5.2 Part D. Selected List of Accessions

The Selected List of Accessions is prepared by the Main Library every two months. The purpose of the List is to present regularly to its recipients a selection of important books, serials and translations acquired by the Main Library.

The List is compiled primarily for the benefit of employees of Canada Department of Agriculture, with some copies being sent out to other government and university libraries. The accessions list is an alphabetical, author and/or title list and it is arranged under 17 broad subjects. Serials and translations are included in a separate section. Being a reproduction of unit cards, the List supplies full cataloguing data, except for tracings, which are masked off.

Only two branches find the List to be of "little use." For five branches it is "very useful," while 12 libraries consider it "useful" (Question D-1).

From the responses to the next question it was established that the List is being used by the branches almost exclusively for loan purposes. Four libraries are using it

also in their acquisition work and three libraries report occasional use of it in cataloguing.

When asked if a change in frequency of publication, from the present bi-monthly to a monthly, would increase the usefulness of the List - surprisingly only seven branches expressed themselves in favour of such a change, while 12 others remained indifferent to the idea. In the Question D-4 it was suggested to replace the Selected List of Accessions with a complete list of CDA Library accessions. This list would be issued on a monthly basis, retaining the present format and arrangement. The suggestion was met with a mixed reaction: eight for, seven against, with four branches leaving this question unanswered.

Only a few suggestions were received in connection with this part of the Questionnaire. Two branches feel that an author index would make the List much more effective. Another recommendation is to include "important" acquisitions from branches creating thus a union list of selected accessions.

## 5.2 Part E. Book Catalogues and Cataloguing Policies

The purpose of this section of the Questionnaire was to solicit the opinion of branch libraries on the character and arrangement of a book catalogue in case one was to be pro-

duced by the Main Library. At the same time the branches were requested to express their approval or disapproval of current cataloguing practices in the CDA Library.

Responses to Question E-1 dealing with the future book catalogue were as follows:

<u>Arrangement</u>	<u>No. of responses</u>
Alphabetical author/title	7
Classified by broad subjects	-
Classified by broad subjects and supplemented by indexes:	
personal author	11
corporate author	5
title	10
detailed subject	5

It is obvious that most branches favour the idea of a book catalogue, classified by broad subjects and supplemented by personal author and title indexes. For seven libraries, on the other hand, an alphabetical author/title arrangement is considered to be quite satisfactory.

There is a remarkable degree of uniformity of opinion expressed by the branches in regard to the present cataloguing and classification policies of the CDA Library (Question E-3). Fifteen out of 17 libraries suggest that the superimposition policy in cataloguing be continued, 12 libraries are for continuation of Dewey in classification (only two propose using LC) and 13 libraries are in favour of further use of the Biological and Agricultural Index as the subject authority for the Main Library.

## B. BOOK CATALOGUE

### 1. Introduction

Book catalogue, in a manuscript or printed form, was until the latter part of the 19th century the standard form of the library catalogue. It has been constantly losing ground, first to a sheaf catalogue (slips arranged on pages and placed in a sort of a loose-leaf binder) then to a card catalogue. At the present time we are witnessing the reappearance and growing acceptance of a printed book catalogue.

First, a definition. According to Hines "A book catalog ... is a catalog designed as a bibliographic record or a finding list for the holdings of a particular library or a group of libraries which is itself in a book form."<sup>1</sup> A book catalogue, therefore, may be a catalogue of all library material, such as books, serials, audio-visuals, etc., and should not be confused with a catalogue of books, listing book material only. According to principles adapted by the international conference, the catalogue should be an efficient instrument for ascertaining whether the library contains a particular book specified by its author and/or title, and which works by a par-

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<sup>1</sup>Theodor C. Hines. Book catalogs, in Encyclopedia of Library and Information Science, v.2. New York, M. Dekker, 1969, p.659.

ticular author and which editions are in the library.<sup>2</sup>

The physical form of library catalogues has varied throughout their history. They were produced using materials and techniques developed at different times for the purpose of recording human knowledge. Therefore early catalogues were in the form of tablets, rolls or scrolls. With the introduction of paper, book catalogues became more common, especially when the invention of printing replaced the slow and laborious process of writing catalogues by hand.

The functions of early catalogues were relatively simple ones. They served primarily as inventory lists and were arranged usually in order of accession. Some new contributions to the history of book catalogues include, Tauber and Feinberg,<sup>3</sup> Hines,<sup>4</sup> and Ranz.<sup>5</sup>

Tauber and Feinberg mention three main factors which led to the emergence of card catalogues:

Continuing growth of the library collection, the increasing cost of producing book catalogues, and the introduction of the Library of Congress printed card

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<sup>2</sup>International Conference on Cataloguing Principles, Paris, 1961. Statement of principles. Sevenoaks, Eng., IFLA, 1967, p.3.

<sup>3</sup>Maurice F. Tauber and H. Feinberg. Book catalogs. Metuchen N.J., Scarecrow Press, 1971, pp.11-14.

<sup>4</sup>Theodore C. Hines, op. cit., pp.659-67.

<sup>5</sup>James Ranz. The printed book catalog in American Libraries: 1723-1900. Chicago, ALA, 1964, 144p.

service in 1901.<sup>6</sup>

With the introduction of a card catalogue the idea of a unit card record providing multiple points of access to a library collection proved itself to be a very successful one. The advantages of a card catalogue, especially its ability of being kept constantly up-to-date, were quickly recognized. The card catalogue gained so much popularity that it is used at present time by a great majority of libraries in all parts of the world.

The "information explosion", and connected closely with it the rapid growth of library collections, coupled with rising demands for a better library service, have recently renewed the interest of librarians in a book catalogue.

Applications of new technological developments in library work have provided new, effective methods in the production of book catalogues. A significant development in 1953 was the introduction of a high speed sequential card camera and a rapid development of data processing equipment, especially computers.

What lies ahead of us? Analysing book catalogue trends in 1966, Weber predicted that application of computers

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<sup>6</sup>Maurice F. Tauber and H. Feinberg. Op. cit., p.12.

in libraries during the next decade would increase the number of book catalogues and some libraries would turn to on-line computer searches dispensing with the visible catalogue in card or book form altogether.<sup>7</sup>

## 2. Card Versus Book Catalogue; a Comparison

A discussion among writers on respective advantages and disadvantages of card and book catalogues has been going on for a long time. While many authors in the past tried quite successfully to speak out in support of a card catalogue, recently, with the development of photographic and electronic data processing equipment, arguments for a book catalogue are steadily gaining the upper hand.

There is a considerable amount of literature on this subject. Some recent contributions in this area include authors like Shera,<sup>8</sup> Kingery and Tauber,<sup>9</sup> Allison,<sup>10</sup>

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<sup>7</sup>David C. Weber. "Book catalogue trends in 1966," in Library Trends, v.16, July 1967, p.162.

<sup>8</sup>J. H. Shera. "The book catalog and the scholar - a re-examination of an old partnership," in Library Resources and Technical Services, v.6, 1962, pp.210-216.

<sup>9</sup>Robert E. Kingery and Maurice F. Tauber. Book catalogs. New York, Scarecrow Press, 1963, p.330.

<sup>10</sup>Scott Allison. Book catalogs; in Edmond L. Applebaum, Reader in technical services. [Washington] NCR Microcard Editions, 1973, pp.101-116.

Bakewell,<sup>11</sup> Tauber and Feinberg,<sup>12</sup> and others.

What are the most important advantages and disadvantages of card and book catalogues? One of the principle advantages of a card catalogue is its currency. Additions and withdrawals can be made at any time and at any place in the catalogue, thus rendering it completely up-to-date. Updating of a book catalogue, on the other hand, requires issuing of supplements and eventual re-publication of the whole catalogue.

As illustrated by the following example, another advantage of a card catalogue is its flexibility. With the introduction of the new AACR rules, forms of corporate names in a catalogue have to be often changed. Let us take, for example, the heading of a block of cards in a card catalogue with a name such as Ottawa. National Gallery of Canada, which has to be changed to National Gallery of Canada. In a card catalogue, a simple crossing out of "Ottawa", followed by a re-filing of cards in the new place in the catalogue and

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<sup>11</sup>K.G.B. Bakewell. The book catalogue, in its A manual of cataloguing practice. Oxford, Pergamon Press, 1963, pp.151-156.

<sup>12</sup>Maurice F. Tauber and Hilda Feinberg. Book catalogs. Metuchen, N.J., Scarecrow Press, 1971, pp.11-30.

making an appropriate cross-reference, is all that is needed to carry out a change. To make such a change in a book catalogue would be much more difficult.

Because good quality rag paper is usually used in a card catalogue, it withstands hard and constant use much longer than a book catalogue.

Serious disadvantages of a card catalogue are that it is stationary, bulky, very expensive and difficult to be reproduced in multiple copies. Therefore a single main catalogue is usually found in a library and a single union catalogue in a system of libraries, making its accessibility and use very limited.

A trend toward photographic reproduction of a card catalogue and publishing it in a book-form has increased the accessibility of the card catalogue to a great extent. There is always a potential danger of loss of a card catalogue due to fire, for example, or vandalism - a danger reduced or eliminated altogether when multiple copies of a catalogue in book-form are available.

Because of its restricted, 3x5 inch, size, only a limited amount of information can be placed on a single catalogue card. Additional cards are often required on which essential data, such as call number, author and title, have to be repeated from card to card, which is a time-consuming

and wasteful operation.

From the user's point of view it is more time-consuming to search a card catalogue, having to go from card to card, when compared to scanning pages of a book catalogue. It is also relatively easy in the process of searching to overlook or to skip a single card. Misfiled cards in a card catalogue are also more difficult to locate.

There is more literature dealing with book catalogues and more arguments brought forward for them. Typically, Tauber and Feinberg, summarize the pros and cons of a book catalogue, and present 16 points for and only nine points against.<sup>13</sup>

What are the main reasons for a steady increase of interest in a book catalogue?

The most important feature of a book catalogue is accessibility. Multiple copies can be provided at relatively low additional cost and they can be placed at various locations in a library, or the library's branches, making it much easier and more efficient to consult.

The portability is another attractive feature of a book catalogue. Each volume can be easily carried away,

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<sup>13</sup>Maurice F. Tauber and Hilda Feinberg. op. cit., pp.19-23.

placed on a table or a desk for consultation, or taken out to a copier for reproduction of needed information. Searching and locating information in a book catalogue is also much easier and faster than in a card catalogue. A complete page can be scanned at a glance, and various editions and connections between separate entries can be seen. Therefore, the recognition and selection of needed items is greatly facilitated.

Updating a card catalogue is a relatively simple and easy process, which is carried out in a library on a continuous basis. Updating a conventional book catalogue, on the other hand, is a major operation, involving the production of supplements and the issuing of new editions. Supplements have to be produced and cumulated on regular basis, often with a long period of time in between. On the other hand, in the computer-produced book catalogue, new records can be inserted rapidly and supplements or cumulations produced frequently. This meets the requirements of currency quite satisfactorily.

An important advantage of a computer-produced book catalogue is its flexibility and potential for various additional uses. As soon as cataloguing information is entered in machine-readable form, it can be manipulated by the computer to turn out listings with all kinds of additional information beyond the standard access provided by a conventional card catalogue. This increased number of access points to the

holdings of a library contributes substantially to an efficient use of these holdings.

A book catalogue is also convenient for the library because of its compactness. Book catalogues can be readily placed on any shelves, they take little space, and the inconvenience and cost of providing a large floor space and expensive furniture for a card catalogue is eliminated.

A printed book catalogue in a system of libraries contributes greatly to establishing and maintaining uniformity within the system, especially in the area of classification, subject cataloguing and descriptive cataloguing.

Accessibility to a book catalogue can also substantially increase the use of the library collection. After the introduction of a book catalogue, the Baltimore County Public Library reports: "The fact that intra-library loan requests rose 51%... over normal intra-library growth represents a significant improvement in public service."<sup>14</sup>

A book catalogue is an important tool in all library operations. Acquisitions can function better by having a closer access to the library catalogue, cataloguing staff can also take full advantage of its accessibility and portability,

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<sup>14</sup>Baltimore County Public Library. Book catalog and card catalog; a cost and service study. Towson, Md., 1967, pp.43-44.

and reference can locate the needed material more quickly and can easily provide a better service.

There are also a few disadvantages regarding the book catalogue. The major drawback of a book catalogue is that it becomes outdated as soon as it is produced. A computer-produced catalogue with its frequently cumulated supplements is alleviating this problem to a great extent.

The book catalogue is inflexible. Correcting errors and making changes is a frustrating problem, while this is relatively easy task in a card catalogue. Physical condition of a book catalogue deteriorates much faster than that of a card catalogue. Constant and prolonged use of a book catalogue causes separate pages or sections of volumes to become torn, curled up or worn out.

Another inconvenience arises from the fact that every time a search is made in a book catalogue, because of supplements, one has to consult various volumes, as compared to usually a single search in a card catalogue.

In discussing a book catalogue the cost of its production seems to be an important factor. There is a general agreement that the overall cost of production and maintenance of a book catalogue is higher than that of a card catalogue. Book catalogue cost is the subject of the last section of the next chapter of this study.

### 3. The Book Catalogue in the Library Today

#### 3.1 Catalogue Production Systems

There are basically three systems by which book catalogues are being produced. They are: photographic systems, electronic accounting machine systems and computer systems.

Photographic Systems: The basic type of book catalogue is a photographic reproduction of a card catalogue in a book form. The Library of Congress introduced such catalogues with the Catalog of Books Represented by Library of Congress Printed Cards in 1942. Catalogue cards were "shingled" and mounted in columns on large sheets. Each sheet was photographed and reproduced in reduced size on lithographic plates for offset printing. For supplements and cumulations the same cards were used, to which all additions and changes were interfiled.

Such a catalogue produces a true copy of a card catalogue with all its shortcomings. It is quite simple and economical, it doesn't require an expensive process of editing. The British Museum has printed its General Catalogue by a similar method.

Xerography is also being used for reproduction of catalogue cards in a book form. A number of British libraries have used this method. Bakewell mentions two such libraries:

The City University, London, and the Birmingham Central Reference Library.<sup>15</sup>

Another photographic method of reproduction of a card catalogue in book form is the use of a sequential camera. A sequential camera is capable of photographing text onto a continuous roll of film. There are various models of such cameras available, one of them being Compos-O-List with a variable aperture that photographs 3x5 cards automatically at a high speed exceeding 7000 cards per hour.<sup>16</sup> Selection of information to be photographed can be made on cards by sense-marking. In order to place cards in catalogue sequence, each card is provided with a unique identification number. Sorters and collators "read" these numbers and place them in the required sequence. New cards are merged with the existing file and all cards are then photographed. After processing, the negative film is cut into strips, formatted into pages and used in the production of printing plates. The result is again, as in the previous method, a true reproduction of catalogue cards.

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<sup>15</sup>K. G. B. Bakewell. A manual of cataloguing practice. Oxford, Pergamon Press, 1963, p.153.

<sup>16</sup>Scott Allison. Book Catalogs, in Edmond L. Applebaum, Reader in technical services. [Washington] NCR Microcard Editions, 1973, p.103.

For libraries that can afford the cost of editing and retyping information in card catalogues, highly professional results can be achieved by using special typewriters with a variety of type styles and sizes including diacritics and special characters, such as the "Verityper."

Although a very attractive book catalogue can be produced by the use of sequential cameras, such a method has some disadvantages. The whole process, except the final photography, is a manual one. Catalogue cards have to be edited, sense-marked or information from cards has to be retyped from scratch. Each entry has to be given a sequence number and a record of used numbers has to be kept. Information in a catalogue produced in this way remains in a form not machine-readable, and has to be entirely coded and inputted for eventual computer processing.

Catalogues produced by the sequential camera method include: Anne Arundel County Public Library, Enoch Pratt Free Library, Prince George's County Library,<sup>17</sup> Fairfax County Public Library and the Los Angeles County Library.<sup>18</sup>

According to Hines "it seems likely that the growth

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<sup>17</sup>For description and page samples of these catalogues see Maurice F. Tauber and Hilda Feinberg. Book catalogs. Metuchen, N.J., Scarecrow Press, 1971, pp.399-405, 410-412.

<sup>18</sup>For page samples see K. L. Cartwright. Automa-

of computer methods will cause the abandonment of new production of catalogs either by photographing conventional cards or by the use of the sequential card camera.<sup>19</sup>

In the meantime a trend of photographic reproduction of card catalogues seems to be well established. Especially for large libraries embarking on automation, the idea of closing off the existing (retrospective) catalogue and reproducing it photographically into a book form represents a very practical alternative to the prohibitively expensive process of converting the whole catalogue into a machine-readable form. This alternative was chosen by the National Agricultural Library when it started its computer-based cataloguing in 1966 with the publication of its retrospective catalogue in book form.<sup>20</sup> A similar solution was recommended by Henderson and Rosenthal in their study of some 8,000,000 cards in the catalogue of the New York Public Library:

That the catalogs of the Research Libraries of the New York Public Library be divided chronologically at the earliest possible

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ted production of book catalogs, in Preconference Institute on Library Automation, San Francisco, 1967. Library automation ... papers. [Chicago, A.L.A., 1969] pp.59-60.

<sup>19</sup>Theodor C. Hines. Book catalogs, in Encyclopedia of Library and Information Science, v.2. New York, M. Dekker, 1969, p.666.

<sup>20</sup>The Dictionary catalog of the National Agricultural Library, 1862-1965. New York, Rowman and Littlefield, 1966, 68 vols.

date; that the present (or retrospective) Public Catalog be reproduced photographically in book form; that the future (or prospective) catalogs be produced in a combination of card and book form from a store of machine-readable data ...<sup>21</sup>

EAM Systems: Electronic accounting machines such as key-punches, sorters, collators, interpreters and printers have also been used for production of book catalogues. Basically such systems operate as follows. Bibliographic information is keypunched into tabulating cards, which are passed through various machines, producing a printout for proofreading. Errors are corrected by replacing faulty cards with new ones, and the new cards together with any available additions are sorted and merged into the existing file. This process is repeated periodically inputting additional new or corrected cards until the file is ready for printing. A printout is then obtained and formatted into pages. The pages are photographed and reproduced by offset printing.

EAM systems were designed primarily for business accounting purposes and therefore their use in production of book catalogues is limited. The basic set of characters in-

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<sup>21</sup>James W. Henderson and Joseph A. Rosenthal. Library catalogs; their preparation and maintenance by photographic and automated techniques. Cambridge, Mass., M.I.T. Press, 1968, p.ix, quoted by Maurice F. Tauber and Hilda Feinberg, op. cit., p.13.

clude numeral, upper case letters only and very few punctuation marks.<sup>22</sup> Catalogues produced this way are below bibliographic standards and generally have a poor appearance.

Cartwright points out that electronic accounting machines offer very little help in the editing step and extremely little in the process of creating multiple entries from the original single entry.<sup>23</sup> When using EAM, filing must be kept very simple. There is a constant need of human intervention, e.g. physical handling of cards. The cost of producing book catalogues by such methods is high and many libraries have reduced this cost by drastically reducing the amount of printed bibliographic data.<sup>24</sup>

Nowadays everything that can be done on an EAM system can also be done on a computer, except that a computer can do it much faster, more accurately, efficiently and with a great deal of flexibility. The use of EAM systems in producing a book catalogue is very limited at the present time.

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<sup>22</sup>Newer models of IBM equipment are available with upper and lower case letters.

<sup>23</sup>K. L. Cartwright, op. cit., p.57.

<sup>24</sup>For a page sample of a catalogue produced by EAM system, see K. L. Cartwright, op. cit., p.58.

Many "catalogues" were produced which are actually simple book lists with a minimum of bibliographic information. Such lists were not intended to replace card catalogues but rather to make the essential bibliographic data widely available to a large number of library users not having access to a central card catalogue.

Computer Systems: The unit record equipment (EAM of 1950's) started to be replaced by computer systems in the 1960's. Computers found their way quickly into library operations, including production of book catalogues. A tremendous advantage of computers over all other systems is that repetitive keying is avoided. By inputting once, an appropriately coded single basic record - a data base is created which can be machine-manipulated for various needs.

The use of computers in preparing book catalogues is widely discussed and documented in library publications. In 1963 Kingery and Tauber published a collection entitled Book catalogs.<sup>25</sup> Another edition of this book was published in 1971. It contains 28 papers, nearly all of them concerned

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<sup>25</sup> Robert E. Kingery and Maurice F. Tauber. Book catalogs. New York, Scarecrow Press, 1963, 330p.

with computer-produced book catalogues.<sup>26</sup>

The techniques involved in using data processing equipment to produce book catalogues are presented by IBM in one of its manuals, published in 1969.<sup>27</sup> In view of their importance and current interest, let us review these techniques briefly.

At the very beginning the cataloguing data have to be inputted into the system. The best-known and cheapest device for this purpose is a keypunch. A better input device is a typewriter-like machine, such as Flexowriter. It produces a machine-readable record in the form of a paper tape, and a hard copy of the input for the convenience of proof-reading. Besides a paper tape, a magnetic tape can be produced, on which corrections are much more easily made. A computer input can also be prepared by means of an optical character reader. The text to be read, however, has to be prepared on a typewriter using special type font which an optical scanner can recognize.

The best, but most expensive, method for data input

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<sup>26</sup>Maurice F. Tauber and Hilda Feinberg. Op. cit., 572p.

<sup>27</sup>Library automation-computer produced book catalog. [White Plains, N.Y.] I.B.M. [1969] 4lp. The "highlights" of this manual appeared in Special Libraries, v.60, Nov. 1969, pp.573-577, prepared by I. A. Warheit.

is by means of a direct on-line computer terminal. The terminal encodes information directly into a computer (basically it looks like any other typewriter) producing at the same time a hard copy of input. Lately computer terminals are made available on which inputted data are displayed on a T.V.-like screen for easy checking and editing.

Cataloguing data stored in a computer can then be utilized for the production of a book catalogue. This is achieved by using the available programme modules of a total, integrated library system, or by using a separate book catalogue programme.

Finally, a book catalogue is produced by one of the many methods available. Computer produced book catalogues could be simply in the form of computer printouts, offset masters produced directly by a computer, catalogues produced by the computer's photocomposition, or catalogues produced by computers in a microform.

### 3.2 Format and Content of Book Catalogues

There are neither established standards nor generally accepted guidelines for issuing a book catalogue. A great variety of style, make-up, shape and size has been used.

Before deciding on the format, a careful examination of all the elements is required. A decision has to be taken

on how much bibliographic information is to be included in the book catalogue, on arrangement of this information, and on the kind and quality of typography to be used.

Bibliographic information in book catalogues varies according to type of library material presented. There are general catalogues, e.g. National Agricultural Library Catalog, or specialized catalogues, e.g. Library of Congress Catalogs: Music. Some catalogues only list current material, while others are including current and retrospective publications. Book catalogues may cover holdings of a single library, or they could become union catalogues presenting holdings of various library groups.

The amount of bibliographic information included in different book catalogues also varies. Because of the high cost of publishing, which is a direct function of the size of the publication, there is a tendency to reduce as much as possible the amount of information which goes into a book catalogue.

With this purpose in mind, many methods have been used. The main, personal author entry is shortened by leaving out dates and presenting forenames only by initials, some elements of the imprint and collation are left out, the number of notes, added entries or subject headings is also limited. This, naturally, reduces the efficiency of the

catalogue, but it provides it with the minimum of necessary data required for the location of desired material.

Computer produced catalogues of most libraries are divided catalogues. Dictionary arrangement, which is so common in card catalogues, is found to be too complicated for computer processing, mainly because of complicated library filing rules.

Because of the great facility with which machine-readable data can be manipulated, computer-produced book catalogues can readily be provided with multiple access points in the form of indexes. A very practical arrangement in this respect has been applied to the National Agricultural Library Catalog. Full bibliographic data is contained in the main part of the catalogue, called the Main entries. The entries are arranged in order of accession under broad subjects, e.g. Animal science, Entomology, Chemistry, etc. They are given a single sequence of accession numbers, which are referred to in the catalogue's indexes. The indexes, which are automatically compiled by the computer, consist of four sections: personal author, corporate author, title and subject.

For special library material, such as maps, reports and vertical file material, special catalogues have been produced using KWIC (Keyword-in-context) or KWOC (Keyword-out-of-context) systems. The style and format of such a catalogue

is very different from that of a conventional book catalogue.<sup>28</sup>

There are also many variations in page arrangement of the book catalogue. The elements, such as the number of columns per page, their dimension, spacing between columns, margins, size and type of print, and indentations vary in different catalogues.

There are also different methods of binding used in book catalogues. Some are in buckram oversewn, others perfect bound, some wire sewn, others spiral bound and some are placed in loose-leaf or post binders.

Published volumes of book catalogues appear in different sizes. There are large and heavy volumes, for example the National Union Catalog, Pre-1956 Imprints, and a variety of other sizes. The most popular dimension is the 8½ x 11 inch size.

### 3.3 Cost of Book Catalogue Production

An important factor in the study of a book catalogue is the cost. Cost data are seldom available and they are easily subject to misinterpretation. When they are given, it is usually in a form that makes it hard to see clearly what

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<sup>28</sup>For page samples, see Library automation-computer produced book catalog, op. cit., pp.35-36.

has been included or excluded in the particular case. Cost comparisons are also complicated because of the large number of variables involved and the fact that libraries operate under their own very specific conditions.

The cost of producing a book catalogue is a function of three classes of variables: characteristics of the collection to be catalogued, characteristics of the published catalogue and the characteristics of the production methods.<sup>29</sup>

The cost of a book catalogue increases, naturally, with the size of the library collection. Weber mentions that according to experience in the Los Angeles County Library, using the sequential camera techniques for production of its book catalogue, the most effective catalogues produced are those of smaller collections, or of collections which do not require periodic reprinting. He goes on to quote Bregzis, who drew a similar conclusion while working with a computer-produced book catalogue at the University of Toronto. Bregzis believes that a book form is not a suitable medium for displaying large bibliographic files requiring frequent updat-

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<sup>29</sup>R. M. Hayes, R. M. Schoffner and D. C. Weber, "The economics of book catalogue production," in Library Resources and Technical Services, v.10, Winter 1966, pp.58-59.

ing, and that 50,000 titles may be the upper limit of economic feasibility.<sup>30</sup> Piternick agrees with the above conclusion, except that his estimate of a maximum number of volumes is much higher:

It is apparent, therefore, that book catalogs of the conventional type are not likely to be feasible for large libraries, despite their manifold virtues. The size at which they become impractical cannot be set with precision; it would seem that 100,000 titles, as a guess, might well be a maximum value.<sup>31</sup>

Tightly connected with the size of a collection is the cost of the initial input. This will depend first of all on the type of collection. In a large research library containing materials in many languages and highly specialized documents, this cost is markedly higher. The cost also increases when the poor quality of bibliographic data requires an extensive editing and coding in preparation of these data for input. Quotations of the cost involved vary widely. For example, cost of inputting the Stanford book catalogue was \$0.40 per title,<sup>32</sup> while Simmons in his analysis mentions

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<sup>30</sup>David C. Weber. "Book catalog trends in 1966," in Library Trends, v.16, July 1967, p.161.

<sup>31</sup>G. Piternick. Op. cit., p.26.

<sup>32</sup>R. D. Johnson. "A book catalog at Stanford," in Journal of Library Automation, v.1, March 1968, pp.27-28.

\$1.57 per title.<sup>33</sup>

The second group of variables, characteristics of the published catalogue, depends on how much information and in what form it is presented on a single page of a book catalogue. The more, therefore, information per page, the higher the density, the smaller the catalogue. This results in a lower cost of its production. Many libraries have reduced this cost by limiting bibliographic information of the entry. A proper page density can be provided by using better typography and a number of different fonts. This will increase the cost but, on the other hand, it will display more information on a page and it will make it more legible. At all times the needs of the user have to be considered and the catalogue shouldn't be made difficult to consult.

The physical characteristics of the finished product, which is finally printed and bound, also has a direct relation to the cost. The options here are many, therefore the cost may vary extensively.

Variation of cost is also quite large depending on the method chosen for book catalogue production. The cost of

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<sup>33</sup>P. A. Simmons. "An analysis of bibliographic data conversion costs," in Library Resources and Technical Services, v.12, Summer 1968, pp.296-311.

production is a very relative matter. The following statement by Cathrine MacQuarrie illustrates this point very clearly:

The catalog produced by card layout seems to be the cheapest; but is it really the cheapest? Printing is one of the most expensive parts of the operation and these catalogues are very bulky. They get out-of-date and cannot be up-dated or reproduced except by redoing the entire job, which means that the card catalog has to be continued. In the long run, they are far more costly than they seem.<sup>34</sup>

Methods of production of a book catalogue were studied in great detail by Hayes, Schoffner and Weber in their research undertaken on behalf of Stanford University Libraries.<sup>35</sup> They have defined all significant quantitative variables, analyzed each method into its component operations and developed equations relating costs and variables.

The estimated costs of producing the book catalogue for the Stanford Undergraduate Library using various production methods are presented in the following table.<sup>36</sup>

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<sup>34</sup>Cathrine MacQuarrie. "Library catalog, a comparison," in Hawaii Library Association Journal, v.21, August 1965, pp.18-24.

<sup>35</sup>R. M. Hayes, R. M. Schoffner and D. C. Weber. Op. cit., p.74.

<sup>36</sup>Maurice F. Tauber and Hilda Feinberg. Op. cit., p.112.

TABLE V

SUMMARY OF FIFTH YEAR COSTS ESTIMATED FOR STANFORD  
UNDERGRADUATE LIBRARY

Operation						Computer		
	Shing- ling	Sequen- tial Camera	Tabu- lating	Upper Case	Upper & Lower Case	Photo compo- sition		
1. Citation	\$ 700	\$ 700	\$ 700	\$ 700	\$ 700	\$ 700		
2. Duplication	1,700	2,060	1,500	1,000	1,100	1,100		
3. Editing	1,075	1,120	595	550	590	590		
4. Sorting	250	250	185	110	110	110		
5. Merging	1,000	1,000	425	70	70	70		
SUBTOTAL	\$ 4,095	\$ 5,130	\$ 3,405	\$ 2,540	\$ 2,580	\$ 2,580		
6. Page Creation	1,050	510	1,760	1,610	2,630	18,960		
7. Reproduction	52,400	29,400	29,400	29,400	29,400	29,400		
SUBTOTAL	\$ 53,450	\$ 29,910	\$ 31,160	\$ 31,010	\$ 32,030	\$ 48,360		
TOTAL	\$ 57,545	\$ 35,040	\$ 34,565	\$ 33,550	\$ 34,610	\$ 50,940		

The cost of data preparation, items no. 1-5 in the foregoing table, is quite comparable among the various production methods. It ranges from \$2,540 for the upper case computer, to \$5,130 for the sequential camera. The most expensive, however, is the reproduction of the book catalogue. In the shingling method this cost is the highest, which is due to a low entry density on the page which increases the size of the book catalogue.

From the Stanford example it is evident that the use of computers (except an expensive photocomposition) in production of a book catalogue, is quite competitive with other methods, such as the sequential camera or tabulating equipment. There are various other examples of book catalogue costs in library literature. Some cost data are also given by Hilda Feinberg describing book catalogues of 32 different libraries.<sup>37</sup>

While librarians have been concerned with the cost of producing a book catalogue - the main reason for introducing such catalogues to libraries has not been the cost, but added convenience and provision of better library service. The value of such convenience and better service is simply im-

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<sup>37</sup>Hilda Feinberg. Sample book catalogs and their characteristics, in Maurice F. Tauber and Hilda Feinberg, op. cit., pp.381-511.

possible to express in terms of cost:

In comparing costs, a book catalog versus a card catalog, we tend to forget that we are not comparing like things. We should remember that we are not trying to obtain the same results. How do we evaluate the convenience of having a book catalog in a private office or in a District library or in another part of the state? How do we put a dollar value on the improved quality of cataloging copy?

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<sup>38</sup>Margaret C. Brown. "A book catalog at work," in Library Resources and Technical Services, v.8, Fall 1964; p.356.

## CONCLUSIONS AND RECOMMENDATIONS

### A. Centralized Cataloguing

On the basis of material collected and presented in this study, it has been established beyond any doubt that centralized processing in general, and centralized cataloguing in particular, are among the modern library trends steadily gaining acceptance in all types of libraries. Centralized services are rapidly becoming indispensable in an effort by library systems to cope with increasing quantities of published material and mounting costs of processing and control.

Now, how do these findings look in the light of present practices in the CDA libraries?

From information presented in Chapter 5, it becomes evident that the present Co-operative Cataloguing Services of the Main Library are far from being practical and efficient. The main weaknesses of this system are:

- It is difficult, often impossible, to provide a proper cataloguing service based only on information received from branches on "Notification of receipt" forms or on copies of their multiple order forms (cataloguing is being done without seeing the publication to be catalogued).
- Unit cards received from the Main Library have to be "finished," and in most cases adjusted (call numbers,

subjects or added entries) to local needs. The branch libraries have also to prepare their own book labels, pockets and circulation cards.

- Co-operative Cataloguing Services contribute very little to standardization of policies and procedures among CDA libraries.
- A relatively high percentage (in comparison with CDA Library) of branch personnel is involved in cataloguing, which makes it more expensive.
- The lack of professional librarians in some branches, inavailability of proper bibliographic tools, reproduction facilities, etc. make the continuation of cataloguing on a local level very unproductive.
- Although the exact amount of duplication of cataloguing among CDA libraries was not established in this study, it is generally considered to be quite high, therefore it is an expensive luxury.
- Keeping and updating by the Main Library of the Union Catalogue is a very difficult task of trying to integrate in one file the accessions received from branches, operating according to their own rules and policies.

In view of the advantages of centralized cataloguing discussed in detail in Chapter 2, which by far outweigh disadvantages, it is considered that Canada Department of Agriculture libraries would benefit greatly from adopting a centralized cataloguing system. It is therefore recommended that:

1. Fully centralized cataloguing be established in the Main Library to serve all branch libraries of Canada Department of Agriculture.
2. Centralized cataloguing be introduced in stages - starting as a pilot project with the Entomology Research Library, extending gradually to branches in the Ottawa area and including eventually all other branches.
3. After the Ottawa area libraries become fully centralized, a careful study of the results should be undertaken and if centralized cataloguing for all branches will appear too difficult to realize, a second choice be considered, which is organizing regional centralized cataloguing services, for example one for British Columbia, another for Prairie Provinces, etc.
4. Centralized acquisition, especially in the area of processing of orders and payments be considered in the future as a further step in expanding and improving the services of the Main Library.

In order to achieve uniformity within CDA libraries, the following cataloguing policies are recommended for introduction with centralized cataloguing:

5. The latest edition of Dewey to be used for classification.
6. The superimposition policy to be discontinued immediately, and AACR, the North American text, to be fully implemented in the cataloguing of new material.
7. The Main Library's subject authority file,

which is based mainly on the Biological and Agricultural Index, continue to be used as a basis in subject cataloguing, with the Main Library providing the branches with complete revised and updated listings of these subjects.

8. While some details of centralized cataloguing would have to be identified and discussed during the implementation of the pilot project, a few general procedures are suggested:

- 8.1 Material for cataloguing be forwarded by branches to the Main Library in small batches. Eventually the suppliers could be advised to ship the orders directly to CDA Library.

- 8.2 The Main Library would provide complete cataloguing and processing (this would necessitate having copies of the branch libraries' shelf lists).

- 8.3 The Main Library should be responsible for the establishment and consistent use of corporate and personal names.

- 8.4 A general policy should be established for eliminating certain types of material from full cataloguing. Alternative methods of control for this material are to be considered, such as short cataloguing, listing, indexing, etc.

- 8.5 The Main Library would issue and maintain a complete union list of serials of all CDA Libraries' serial holdings.

- 8.6 The Main Library would assume full responsibility for reporting all branch material, both monographs and serials, to the National Library and to New Serial Titles.

Comparing the cataloguing output of the branches with that of the CDA Library, it is estimated that an additional four to five man-years will eventually be required to take care of all branch cataloguing. It is also felt that the initial increase of the work load in connection with centralized cataloguing for the first few branch libraries could easily be absorbed through some reorganization and streamlining of the CDA Library's present cataloguing activities.

In the long run it is believed that centralized cataloguing as proposed would not only provide competent and efficient help for the branches in their present effort to keep up with steadily increasing load of cataloguing, but it will also provide a consistency and standardization in cataloguing procedures among the libraries, contributing to better control and better service.

The above recommendations are made on the basis of the present cataloguing system of CDA libraries. Naturally, with the eventual introduction in the future of a fully automated system, especially a system with an on-line access to a central data base, the proposed system would have to be revised and readjusted.

## B. Book Catalogue

Views and opinions expressed, in word and print, in favour of adopting a book catalogue seem to be strong and convincing. Especially evident are the new possibilities that modern computer technology is providing in this field. Here are some typical statements summarizing current views and opinions:

After three years of using a computer-produced book catalogue, The Vancouver Island Regional Library voices an opinion that "... any branch system of libraries that is not in the computer field is placing its borrowers in the category of being culturally deprived."<sup>1</sup>

"Producing a book catalogue on a computer is one of the more common and sensible first steps for a library to take in the process of mechanizing its procedures."<sup>2</sup> - a very realistic and practical suggestion due to the fact that sooner or later most libraries will have no choice but to involve themselves in some sort of automation.

A serious problem in producing a book catalogue in a large library is created by the size of the collection.

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<sup>1</sup>F. T. White. "Still no problem," in Canadian Library Journal, v.28, Jan./Feb. 1971, p.45.

<sup>2</sup>J. L. Harris. "Programming the library catalog," in Drexel Library Quarterly, v.5, no. 2, Apr. 1969, p.84.

The cost of converting a large file into machine-readable form and constant updating of such a file seems to be a primary deterrent in planning a mechanization of cataloguing functions. This deterrent is also slowly losing its force due to a steady decrease of computer costs.

Based on evidence collected in this study, it is clear that it would be a great advantage to Canada Department of Agriculture Libraries to consider the introduction of a computerized system in which all cataloguing data could be stored in a machine-readable form in a central data bank, to which all branches as well as outside libraries could have an on-line access.

The implementation of such an ideal on-line system is therefore certainly something to work towards in the future. Such a system would make publication of book catalogues, as we know them today, entirely redundant. In the meantime, taking a more realistic approach and concentrating in the first place on immediate needs, it is recommended that:

1. Services of experts in library automation be contracted in order to study the present operations of CDA Libraries and to propose choices for development and improvement of these operations.
2. In discussion of these choices with library management, representatives from the Main and branch libraries and data processing specialists of the Department of Agriculture, a master plan of gradual computerizing of all operations within CDA libraries be es-

tablished.

3. Introduction of a machine - readable cataloguing as a subsystem of an overall plan be given the first priority.
4. With introduction of machine-readable cataloguing a cut-off date be established by which all current cataloguing (including all centralized cataloguing) will start to be processed according to the new system - thus initiating a central computerized data base.
5. Due to prohibitive costs of converting large retrospective catalogues into machine-readable form, the Author/title catalogue, the Subject catalogue as well as the Field catalogue of the Main Library be closed off at the cut off date and reproduced in a book form.
6. Reproduction of book catalogues be contracted out, choosing the most suitable and economical system.
7. As a spin-off of machine readable cataloguing of prospective material, a computer-produced book catalogue be published and distributed among CDA libraries and the library community at large.
8. Main entries of such a catalogue be arranged by broad subjects and the catalogue be provided with separate author (personal and corporate), title and subject indexes, and the catalogue be issued monthly with quarterly and yearly cumulations.
9. In view of the high costs of printing a conventional book catalogue, consideration be given to production of the proposed book catalogues in microform.

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APPENDIX

January 30, 1973.

CANADA DEPARTMENT OF AGRICULTURE  
BRANCH LIBRARIES

Q U E S T I O N N A I R E

To the Library: \_\_\_\_\_

Purpose: Assessing the present Co-operative Cataloguing Service of the Canada Department of Agriculture Library and assisting in development and planning of further activities.

A. General Information on Branch Library

1. Personnel:
  - (a) professional:                      number \_\_\_\_\_ classification \_\_\_\_\_
  - (b) non-professional:                      number \_\_\_\_\_ classification \_\_\_\_\_
  
2. Number of employees involved in cataloguing:
  - (a) professional:                      full time \_\_\_\_\_ part time \_\_\_\_\_
  - (b) non-professional:                      full time \_\_\_\_\_ part time \_\_\_\_\_
  
3. Total number of items catalogued  
for the last 12 month period \_\_\_\_\_
  
4. Approximate percentage of the above total catalogued  
for you by the Main Library \_\_\_\_\_
  
5. Do you have any backlog in cataloguing material?    yes \_\_\_\_\_ no \_\_\_\_\_
  
6. If answer to A-5 is "yes", how many volumes does this  
represent (approximately): \_\_\_\_\_



B. Main Library's Co-operative Cataloguing Service; an assessment

N.B. For easy reference, illustrations of samples of Co-operative Cataloguing Service are appended to this questionnaire.

1. Are you using the Co-operative Cataloguing Service? yes \_\_\_\_\_ no \_\_\_\_\_  
(If your answer is no please proceed to questions B. 9-11; you may also want to answer some of questions B. 2-6.)

2. Co-operative Cataloguing Services used:

- (a) Receiving sets of catalogue cards - Xerox copies of Main Library's cards: yes \_\_\_\_\_ no \_\_\_\_\_
- (b) Receiving sets of catalogue cards - copies (Polaroid camera & Xerox) of NUC or NAL entries: yes \_\_\_\_\_ no \_\_\_\_\_
- (c) Receiving cataloguing information in the form of a photograph or a Xerox copy: yes \_\_\_\_\_ no \_\_\_\_\_
- (d) Using Main Library for reproduction of own unit-card masters: yes \_\_\_\_\_ no \_\_\_\_\_

3. Referring to B. 2 (a)

- (a) Is classification acceptable? yes \_\_\_\_\_ partly \_\_\_\_\_ no \_\_\_\_\_
- (b) Should classification be suppressed? yes \_\_\_\_\_ no \_\_\_\_\_
- (c) Is descriptive cataloguing acceptable? yes \_\_\_\_\_ partly \_\_\_\_\_ no \_\_\_\_\_
- (d) Are subject headings acceptable? yes \_\_\_\_\_ partly \_\_\_\_\_ no \_\_\_\_\_
- (e) Should subject headings be suppressed? yes \_\_\_\_\_ no \_\_\_\_\_
- (f) Are added entries acceptable? yes \_\_\_\_\_ partly \_\_\_\_\_ no \_\_\_\_\_
- (g) Should added entries be suppressed? yes \_\_\_\_\_ no \_\_\_\_\_
- (h) Any comments and/or suggestions? \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

4. Referring to B. 2 (b)

- (a) Is the product generally acceptable? yes \_\_\_\_\_ no \_\_\_\_\_
- (b) What are some of the problems with it? enumerate please \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

4. (c) Main Library is planning to replace presently used Polaroid camera with a 35 mm. camera, which will produce a clear, full size (3 x 5 in.) reproduction of NUC or NAL entries. Will this increase acceptability of such product: yes \_\_\_\_\_ no \_\_\_\_\_; and will you be willing to accept such cards without any change? yes \_\_\_\_\_ no \_\_\_\_\_.

(d) Any comments and/or suggestions? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

5. Referring to B. 2 (c)  
Any comments and/or suggestions? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

6. Referring to B. 2 (d)  
Any comments and/or suggestions? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

7. Since using Co-operative Cataloguing Services, have you been able to improve your services to users of your library? yes \_\_\_\_\_ no \_\_\_\_\_

8. Have you achieved any other benefits from using the services? (please specify): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(Questions B. 9-11 are for libraries not using Cooperative Cataloguing Services.)

9. What are the reasons for not using the present services?  
(a) The need for subject specialists in own cataloguing. \_\_\_\_\_  
(b) Amount of cataloguing available through the Main Library is too small to be of any practical value \_\_\_\_\_

- B.9. (c) Variation in descriptive cataloguing. \_\_\_\_\_  
(d) Variation in subject headings \_\_\_\_\_  
(e) Variation in classification \_\_\_\_\_  
(f) Time factor \_\_\_\_\_  
(g) Others (please specify \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

10. Would you consider using our Co-operative Cataloguing Services  
in the future? yes \_\_\_\_\_ no \_\_\_\_\_

11. Would you attach any special conditions to future use of the  
services? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

C. Centralized Services?

1. Are your subscriptions handled through the Main Library?  
all \_\_\_\_\_ part \_\_\_\_\_ none \_\_\_\_\_

2. Your own purchasing of library material (books, serials etc.) is done  
primarily:  
(a) Canadian suppliers: directly \_\_\_\_\_ through agents \_\_\_\_\_  
(b) U.S. suppliers: directly \_\_\_\_\_ through agents \_\_\_\_\_  
(c) Foreign suppliers: directly \_\_\_\_\_ through agents \_\_\_\_\_

3. Are your Canadian & U.S. suppliers located primarily in:  
(a) Eastern Canada & U.S. \_\_\_\_\_  
(b) Central Canada & U.S. \_\_\_\_\_  
(c) Western Canada & U.S. \_\_\_\_\_

4. Would it be practical and useful to have all your subscriptions  
and purchasing of books, serials etc. handled through the Main Library.  
yes \_\_\_\_\_ no \_\_\_\_\_

- C.5. Would it be practical and useful to have all your gifts and exchanges handled through the Main Library? yes \_\_\_\_\_ no \_\_\_\_\_
6. Would you be in favour of fully centralized cataloguing? (All cataloguing done by the Main Library) yes \_\_\_\_\_ no \_\_\_\_\_
7. Would you restrict centralized cataloguing to:
- (a) subscriptions \_\_\_\_\_
  - (b) purchases (books etc.) \_\_\_\_\_
  - (c) gifts and exchanges \_\_\_\_\_
8. In your opinion, by which method(s) could centralized cataloguing in the system of Canada Dept. of Agriculture Libraries be implemented?
- (a) In connection with centralized acquisition and processing. \_\_\_\_\_
  - (b) By having the Branches send their material to the Main Library. \_\_\_\_\_
  - (c) By having the Branches instruct their suppliers to forward library material through the Main Library \_\_\_\_\_
  - (d) By having the Branches continue to report their acquisitions on special forms (e.g. AL 86) supplemented when needed by additional information in the form of Xerox copies of title pages, table of contents, etc. \_\_\_\_\_
  - (e) Any other methods? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
9. If centralized cataloguing and processing of library material were introduced:
- (a) Would you accept the work done centrally without any changes? yes \_\_\_\_\_ no \_\_\_\_\_
  - (b) Would you accept the work done, making a few of your own changes or adaptations, or arranging to have them made? yes \_\_\_\_\_ no \_\_\_\_\_



E. Book Catalogue and Cataloguing Policies

1. If the Main Library were to issue a book catalogue in the future, what arrangement should it have?

- (a) Alphabetical author/title \_\_\_\_\_
- (b) Classified by broad subjects \_\_\_\_\_
- (c) Classified by broad subjects, supplemented by indexes:
  - Personal author \_\_\_\_\_
  - Corporate author \_\_\_\_\_
  - Title \_\_\_\_\_
  - Detailed subject \_\_\_\_\_

2. Any comments and/or suggestions? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3. At the present time the Main Library is using for its cataloguing and classification:

Cataloguing rules: "Superimposition of A.L.A. & A.A. rules

Classification: Dewey, 18<sup>th</sup> ed., with some adaptations

Subject authority: Basically - Biological Agricultural Index

What, in your opinion, should the Main Library consider for the future?

(a) Cataloguing rules: continue the same \_\_\_\_\_ or: \_\_\_\_\_  
\_\_\_\_\_

(b) Classification: continue the same \_\_\_\_\_ or: \_\_\_\_\_  
\_\_\_\_\_

(c) Subject authority: continue the same \_\_\_\_\_ or: \_\_\_\_\_  
\_\_\_\_\_

CANADA DEPARTMENT OF AGRICULTURE  
DEPARTMENTAL ADMINISTRATION  
LIBRARY



NOTIFICATION OF RECEIPT  
OF PUBLICATIONS AND  
ORDER FOR CATALOGUE CARDS

OUTSIDE  
ORDER NO: 49

NAME OR SYMBOL  
OF UNIT LIBRARY: Kentville  
NS R37

AUTHOR: Wilcox, George

TITLE: Milk, cream and butter technology

PLACE: New Jersey, U.S.A.

PUBLISHER: Moyes Data Corp'n.

DATE: 1971

EDITION: 1st

PAGES OR VOLUMES

ILLUS: yes

SERIES: Food Processing Review No.18

NOTES:

GIFT OR PURCHASE: Purchase

NO. OF CATALOGUE CARDS REQUIRED: One set - 2

AL 88  
31068

Acquisition report  
card AL-86

Cards not made, cataloguing  
information enclosed  
(Polaroid photo of  
NAL entry)

462 Michael, Edmund  
158 Führer für Pilzfreunde;  
- die am häufigsten vorkom-  
- menden essbaren, verächn-  
- tigen und giftigen Pilze...  
- 2v. col. plates. 19 1/2 cm. Zwickau, 188  
1902.  
- v.l. is 2nd. ed.

Cards not made, cataloguing  
information enclosed  
(Xerox copy of  
NST entry)

595.7  
ACTA ENTOMOLOGICA JUGOSLAVICA. (JUGOSLA-  
VENSKO ENTOMOLOSKO DRUSTVO) ZAGREB.  
7, 1971-  
CONTINUES JUGOSLAVENSKO ENTOMOLOSKO  
DRUSTVO. GLASNIK. ENGLISH, GERMAN, OR  
SERBO-CROATIAN, WITH SUMMARIES IN ONE  
OTHER LANGUAGE.  
DLC 7-

Durrant, Philip John  
Introduction to  
chemistry [2d ed.]

Durrant, Philip John  
Introduction to advanced inorganic  
chemistry [2d ed.]. New York, Wiley

Crockett, James  
Lawns and ground covers,  
by James Underwood Crockett  
and the editors of Time-Life  
books. Watercolor illus. by  
Allianora Rosse. New York,  
Time-Life Books [1971]  
160 p. illus. (part col.)  
(The Time-Life encyclopedia of  
gardening)

Crockett, James Underwood  
Lawns and ground covers, by James  
Underwood Crockett and the editors of  
Time-Life books. Watercolor illus. by  
Allianora Rosse. New York, Time-Life  
Books [1971]  
160 p. illus. (part col.) (The Time-  
Life encyclopedia of gardening)

LC 79-29048

LC 79-29048

Noether, Gottfried Emanuel -  
Introduction to statistics; a fresh approach  
[by] Gottfried E. Noether. Boston, Houghton  
Mifflin [1971].  
xvi, 253 p. illus. (The Houghton Mifflin series  
in statistics)

Bibliography: p. 249-250.

1. Statistics. I.T.  
519.5 N772  
LC 77-135750

ISBN 0-395-05001-4

Xerox copy of  
Main Library's catalogue  
card

Polaroid photo of  
NAL entry

12592-72

KLOTS, ALEXANDER BARRETT, 1903-  
Insects of North America; [by] Alexan-  
der and Elsie Klots. New York, Doubl-  
oday, [1971].

250 p. illus. (part col.) 23 cm.  
(Animal life of North America series)  
"A Chanticleer Press edition."  
(50) 1. North America. Entomology.  
2. Entomology. I. Klots, Elsie Broun-  
ton. II. Title.  
Q1473.K56

Crockett, James Underwood.  
Flowering house plants, by James Underwood Crockett  
and the editors of Time-Life Books. Watercolor illus. by  
Allianora Rosse. New York, Time-Life Books, 1971.  
100 p. illus. (part col.) 28 cm. (The Time-Life encyclopedia of  
gardening)  
1. House plants. I. Time-Life Books. II. Title.  
SB419.C68 635.96'5

Polaroid photo of  
LC(NUC) entry

12592-72

KLOTS, ALEXANDER BARRETT, 1903-  
Insects of North America; [by] Alexan-  
der and Elsie Klots. New York, Doubl-  
oday, [1971].

250 p. illus. (part col.) 23 cm.  
(Animal life of North America series)  
"A Chanticleer Press edition."  
(50) 1. North America. Entomology.  
2. Entomology. I. Klots, Elsie Broun-  
ton. II. Title.  
Q1473.K56

Crockett, James Underwood.

Flowering house plants, by James Underwood Crockett  
and the editors of Time-Life Books. Watercolor illus. by  
Allianora Rosse. New York, Time-Life Books, 1971.  
100 p. illus. (part col.) 28 cm. (The Time-Life encyclopedia of  
gardening)

1. House plants. I. Time-Life Books. II. Title.  
SB419.C68 635.96'5

72-29649  
MARC

Xerox copy of  
NAL entry

Xerox copy of LC(NUC) entry