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The Baltimore County Public Library
Book Catalog

Paula Kieffer, Coordinator
Technical Library Services
Baltimore County Public Library
Towson, Maryland

On July 15, 1965, the Baltimore County Public Library issued its completely-computerized book catalog to the fourteen branches comprising the Library system. Part of the story, such as the administrative decision to choose the computer process, has appeared in print,* but the Editors of LRTS thought its readers would be interested in more of the details of adapting conventional cataloging to the machine-produced book catalog.

The catalog was produced under contract by a commercial firm which had had experience in indexing, information retrieval, and publication, but no experience with book catalogs. While the contractor had librarians on his staff, none was assigned to this project. The Library personnel had had no experience with computers, and knew nothing about programming.

The contract called for a basic book catalog of approximately 55,000 titles, monthly cumulative supplements for 1965, and a second basic (i.e. complete) catalog incorporating the additions. The contract was later renegotiated, and the monthly supplements were changed to bi-monthly supplements cumulated for one year, with new cumulations for the second year and a second basic list incorporating the cumulated supplements and the first basic at the end of two years instead of one year.

The information is stored on magnetic tape from punched cards generated from the source documents, and the organization of the input is by computer. The eventual print-out is by an IBM printer using the 120-character print chain with upper- and lower-case letters.

The cost per year for from eight to ten thousand titles entered will be $25,000 to $40,000 depending upon whether there are supplements only or a basic list with supplements. This cost is based on a fixed charge for each title entered on the magnetic tape plus a charge of between $5.50 and $6.00 per page, depending on the number of copies run.

General Procedures

In order to supply the contractor with material for input—or the source document—we decided to use the central shelf list, which had been developed since 1959 by running off an extra card for every title added to the system. In the period from 1960 to 1965 four new branches


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had been opened, so that the titles in these branches, as well as any titles added to the older branches, were all represented in the shelf list. There remained about forty thousand titles of older works which did not appear in the central shelf list. Branch holdings were not shown in the shelf list but in a separate alphabetical holdings file. In some cases the shelf list did not reflect in the tracings a number of changes which had been made in the subject headings, notably changes of policy as to abbreviations.

In July 1964 the Library's Processing Department stopped all other work and arranged the shelf list alphabetically by author, then checked it against the central holdings file to add the symbols for the holdings of the branches. The first decision was to include the holdings in the book catalog; but they were later omitted from the supplements and subsequent basic catalogs, because the time and expense of updating them was found to be out of all proportion to their anticipated use. The process of alphabetizing the cards and transferring the holdings took twenty people two weeks.

After the holdings had been transferred, one cataloger spent six weeks editing the cards to add titles where necessary and, in some cases, to shorten the body of the entry. No effort was made at this time to standardize the abbreviations used in the tracings, because at that time we thought that abbreviations could be filed as if written out. This editing should have been much more extensive in the light of future decisions, but we did not know this at the time.

Also at this time a set of six hundred cards was developed for a systems checkout. This set had examples for all the filing rules and for various kinds of entries: title, catch title, series, subject, editor and added author. However, the contractor could not run this checkout and meet his schedule, so that a great many errors appeared in the first basic catalog which might not have occurred had the systems checkout been run.

Simultaneously, conferences were held between the Processing Department staff and appropriate representatives of the contractor to try to establish a mutual understanding of terminology and procedures. Since our mutual ignorance was so vast, not much progress was made, semantically speaking. This failure did not become wholly apparent until the book catalog was finally completed. The contractor assigned no one as project coordinator, which meant that the diverse departments of the contractor were not always aware of changes, new agreements, etc., made by the sales representative. This increased the confusion and was the source of many errors.

Early in November, 1964, the contractor began supplying the Processing Department of the Library with linear proof. Since linear proof is not page proof but is in the form of coding for the computer, the staff had to be trained and retrained several times to understand and interpret the coding and relate it to the material on the original shelf list cards and to incorporate changes due to misunderstandings. The whole proof-reading operation took seven weeks with about twenty-five people participating,
not all on a full 40-hour schedule. As the proof-reading progressed, the corrected proof was returned to the contractor. There the corrections were coded in by a staff of twelve who had been hired for this particular job, and who understood very little of what was involved.

Since a new branch was scheduled to open on March 15, 1965, it was hoped that the book catalog would be ready so that it would not be necessary to provide a card catalog there. By the end of February, it was clear that the book catalog would not be ready in time for the opening. Fortunately, we had continued to make catalog cards for the branch, and 87,500 were on hand, unalphabetized. The Processing Department again stopped all other operations for two weeks and arranged the cards. Card cabinets were borrowed, and the branch opened with a card catalog.

In April, after an advance copy of the book catalog had been received by the Library, a check was made to see how accurately the catalog located a book. Ten percent of the cards in the shelf list of an area branch were searched, and four tallies were recorded: "Found" (i.e. the book could have been found from the information in the book catalog); "Not Found" in three categories: "Not in Catalog," "Wrong Call Number," and "Out of Alphabetical Order." Errors in spelling, capitalization, etc., which would not affect the "findability" of the book, were ignored. The catalog was found to be slightly less than 90 percent accurate. Later, supplements 1 and 2 were similarly checked and found to be about 99 percent accurate.

Filing

The Baltimore County Public Library uses the filing rules listed in Appendix V of the A.L.A. Rules for Filing Catalog Cards, with some local modifications. In the preliminary discussions with the representatives of the contractor it was thought that the only concession the Library would have to make to the machine was to accept the filing of Mc after the Ma's. This turned out to be an erroneous conclusion. Since the book catalog is divided, many of the rules in Appendix V do not apply. Some rules presented no problem; comments on the others (by number) follow:

2. Modified letters

The computer print chain has no diacritical marks.

3. Signs and symbols

The computer cannot recognize an ampersand as "and." It was necessary to key punch it thus: & [and]. Now when an ampersand appears in the title of a book, it is being written out as "and." The print chain has no ampersand, and a plus sign was being used.

4. Initials and acronyms

Initials and acronyms can be filed before a word beginning with the same initial letter only if they are written with spaces between the initials.
It is also necessary to have periods either always or never. We chose to omit the periods with one exception (see below under #5).

5. Abbreviations

Abbreviations cannot be arranged as if written out. All abbreviations in titles are now being written in full. We will continue to abbreviate United States as “U. S.” (Prior to 1962 we had not abbreviated United States. This created a problem since some of the tracings were abbreviated and some not. The program was changed to take care of this in the subject catalog but not in the author catalog.)

7. Initial article

The Baltimore County Public Library has never used the initial article (although a few crept in by mistake). For those libraries which do use the initial article, a special symbol would have to be used to indicate non-filing. One disadvantage of this is that a symbol thus used can never be used for anything else.

9. Numerals

(a) In order to file numerals as if spelled out in the language of the rest of the title, it is necessary to key punch them thus: 100 [one hundred]. We are now writing out all numerals in titles.

The computer cannot recognize Roman numerals as numbers and files them as letters. This causes some peculiar filing under kings, popes, etc.

(b) We are now inverting titles so that the date follows “Annual report,” etc.

11. Hyphenated and compound words

(c) Words with hyphenated prefixes are filed as two words.

13. Names with a prefix

(a) Names with prefixes are filed as two words. To avoid this, we are now typing them without spaces, e.g. DeLaRoche.

(b) Mc is filed as written, not as Mac.

18. Forename entries. Arrangement 2 (After surname)

This has not been done. The result is as follows:

Charles County, Md.
Charles d’Orleans
Charles family
Charles, John

19. Surname entries

(f) The computer cannot disregard titles of honor. We are now omitting them.
25. Arrangement under author

(a) 1. The computer cannot disregard such designations as ed., comp., in filing. We are now omitting such designations.

4. There are no analytics in the book catalog. There is no way in the present program of taking care of them.

6. Editions have to be arranged with the earliest date first. Our former practice was to file the latest date first.

35. Subject arrangement

It was our practice to file form subdivisions of history before period subdivisions. Since some subdivisions under United States had no dates, we supplied them. These were to have been keyed for sorting but not printing out. However in the final product the filing under United States history was so inconsistent that it was necessary for the Library to retype these entries and have them issued (by the contractor) as a supplement to the subject catalog.

Under Great Britain, France, and Germany, even though the headings had dates, they were interfiled with the form subdivisions with the headings with dates alone filing last. Since we have relatively few entries under these and other countries, we have decided to accept this arrangement.

A peculiar error that the contractor cannot explain occurred in the title catalog. Titles which consist of a phrase are filed before the initial word alone, e.g. Art for everyone

    Art of the theatre
    Art

This has been corrected in the supplements.

Except for the changes mentioned above to control the filing, it has been decided to accept the computer filing as long as it is consistent.

Cataloging Details

The Baltimore County Public Library has always done simplified cataloging. As work on the project progressed, we came to the conclusion that what we wanted was a finding list rather than a bibliographic tool. This thinking was not entirely reflected in the basic catalog but is quite apparent in the supplements.

The call number consists of the classification number, the author's initial, and, in the case of different editions, the copyright date. Provision was made in the program for Cutter numbers, should we ever decide to Cutter. In the book catalog the call number appears in the lower right hand corner of the entry. In the lower left hand corner is the access number which is assigned to each entry by the contractor.

Author's dates are used only to distinguish authors with the same name. The Wilson publications and/or the Library of Congress catalogs are used as authorities for personal and corporate authors.

Added entries are made for all distinctive titles, including those which are identical with subject headings—this is done because the cata-
log is a divided one. An added title entry is also indicated when the main
title is a title, so that it will appear in both the title and author catalogs.
No added entries are made for joint authors. Entries for added
author, editor, translator, etc., are used only when there might be diffi-
culty in finding a book without them. In some cases, if no added entry
for author is deemed necessary for the book catalog, a cross reference is
made for the central-holdings file as an aid in searching by the Processing
Department.

Series added entries are used for relatively few series.

There is no limit to the number of subject headings used.
The "by" phrase (or "author preceedor," in computerese) is now
used only when an added entry is made for compiler, editor, etc. It was
formerly used for joint author statements and when the author's name
selected for use differed from the name on the title page. This "by"
phrase was the cause of many errors in the basic catalog, particularly in
the title catalog where, instead of showing the first author only for joint
authors, the whole phrase appeared.

Subtitles are transcribed mainly to distinguish otherwise identical
titles. Subtitles are always preceded by a semicolon. Since only the short
title was to be used in the title and subject catalogs, some definition had
to be evolved. The short title was defined as being that part of the title
up to the first stopping punctuation mark, stopping punctuation marks
being semicolon, period, exclamation mark, and question mark.

Edition statements are always used.
The imprint consists of the copyright date (not preceded by a small
"c") or the imprint date if there is no copyright date.
The only collation item used is the number of volumes in a multi-
volume work.

Contents notes are used sparingly, annotations not at all. Series notes
are used only when a series added entry is needed; these appear in the
title catalog. Our former practice was to use more series notes than series
added entries. Bibliographic notes are used mainly for changed titles and
are written within curves as are the series notes. We changed our practice
for series notes, because all notes, whether bibliographic or series, appear
in the title catalog as titles, e.g. "Formerly published under title—" etc.

A note has been added to the usual list: "Consult Librarian." This is
used for annuals and frequently-revised books. The imprint date and the
date in the call number are omitted for these titles.

Cross references are used in the author catalog to refer from one form
of the author's name to the one established for use and from real names
to pseudonyms and vice versa.

No cross references are used in the subject catalog as each branch
has a copy of Sears List of Subject Headings kept near the book catalog
for reference.

As soon as the book catalog was put into the branches, the Processing
Department stopped making sets of catalog cards for them. The branches
now receive a shelf list card and one author card, the latter showing the
number of the supplement which will contain the title. These author cards are filed in an "orders received" file and kept there until the appropriate supplement has been received, at which time the file is weeded. These have come to be known as "s" cards.

Changes

An additional routine concerns changes, corrections, and withdrawals. The contractor is now designing a form to be used to record all of these transactions. At the present writing the changes are being made on the original input cards, if we have them, in red pencil. If the cards for a supplement are with the contractor, a note is sent asking that the change be made. For withdrawals, the word "kill" is written at the top of the card in red. The top edge of the card is coated with green so that it will be possible to remove all the cards easily, if necessary.

There are three sources of errors in the book catalog: our errors (mainly misspelling and two different forms for one subject heading), the key-punch errors, and the errors in programming. Most of the errors in key-punching and programming affect corporate authors, particularly those with subdivisions. A number of headings appear in the wrong catalogs—subjects in the title catalog, authors in the subject catalog, etc.

The original program was for information retrieval and has been revised for one of publication only.

Since there were so many errors in the first basic catalog, the contractor has agreed to correct the Library's errors along with his own and to make changes and withdrawals without charge if the Processing Department does the proof-reading. This work was scheduled to begin in November 1965. In the meantime, the Department is subdividing many overloaded subject headings.

With the book catalog, it is quite simple to make changes in subject headings by correcting the input cards in red, since the branches do not have to receive new cards. Changes in classification are more complicated. It would not be advisable to change classification numbers on books too far in advance of the second basic catalog since the first basic catalog shows the present number. Changes will be made on the source document for the second basic catalog, and the branches will be notified of the changes three weeks in advance of the publication of the second basic catalog so that the books can then be changed.

It is a little difficult at this time to determine how much, if any, staff time has been saved by the book catalog. The only time saved for the catalogers has been by being able to consult the catalogs at their desks. Some of the clerical time has been cut down by not having to assemble sets of cards and type on headings for branches. A new routine has been added: that of filing input cards and keeping track of the number of cards for each supplement. The Multilith operation for running catalog cards has been cut to 50 percent. In the branches varying amounts of time are saved by not filing catalog cards.
Pre-1960 Records

The ten original branches of the Baltimore County Public Library all have in their shelf lists titles which have not been added to any branch since 1960. It may be that in some cases the books themselves no longer exist, or if they do, would be candidates for withdrawal.

In order to “clean up” these shelf lists and at the same time weed the collections, the branches are reading their shelf lists for titles not in the book catalog. Any title published before 1960 which does not have a recent identification number or is not in the book catalog is being searched for. If it is not found after six weeks, it will be withdrawn. If it is found, a decision is made either to keep it or withdraw it. A list of the titles to be retained will be sent to the Processing Department for adding to the second basic catalog or a supplement. Records for the remaining titles will be withdrawn.

Reception of the Book Catalog

The reaction to the book catalog by the public, the public service librarians, and, to a certain extent the catalogers, has been overwhelmingly favorable.

The card catalogs have been removed from all four of the branches opened since 1960 and from the public service areas of the other ten. After the initial shock of looking for the card catalog and not finding it and not seeing the sign telling about the book catalog or the book catalog itself, the public in most cases accepts it with little or no comment. A few patrons show some curiosity about the reason for it. One person to date has objected to it violently.

The reference librarians find it easy to use and find it very helpful in answering telephone requests. The catalogers each have a copy and use the subject catalog constantly in their work. Much time is saved in being able to consult the catalogs at the cataloger’s desk without having to walk to the central catalog.

The book catalog has been put into all the county public schools. Many of the children are using it merely out of interest to see if they can use it. It is also being taught as an instructional aid and for personal use. One month after the opening of the schools, the inter-library loan requests within the system had increased by 63 percent over the previous September. The patrons are now able, by means of the book catalog, to see the resources of the entire system instead of the holdings of one branch only, as was the case with the individual card catalogs.

In spite of the hard work and frustrations of the last year and a half, it is possible to answer the question, “If you had it to do over again, would you?” by saying, “Yes, we would.”
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<td>Lincoln's plan of reconstruction. c1960</td>
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INSTITUTE ON LC CLASSIFICATION

The Cataloging and Classification Section of RTSD is sponsoring an Institute on the LC Classification to be held at the Barbizon-Plaza Hotel, New York City, July 7-9, 1966.

The objectives of the Institute are (1) to identify the areas in which librarians experience difficulty in using the LC Classification, (2) to explain frequently-misunderstood operations, and (3) to summarize the significant factors to be considered in adopting and using the LC Classification.

PROGRAM:

Thursday, July 7

8:30-10:00 a.m. Registration

10:00-12:00 noon Session I

The LC Classification—Development, Characteristics, Structure—LC Staff.

2:00-5:00 p.m. Session II

Special Problems in Social and Political Science (Classes H and J)—LC Staff.

Friday, July 8

9:00-12:00 noon Session III

Special Problems in Literature (Class P) and Science and Technology (Classes Q-V)—LC Staff.

2:00-5:00 p.m. Session IV

Assignment of Author (Book) Numbers and Other Shelf-listing Operations—LC Staff.

Saturday, July 9

9:00-12:00 noon Session V

Changing to or Adopting the LC Classification Organization of Materials—Carl R. Cox, State University of New York; Marian Sanner, Enoch Pratt Free Library. Orientation of Staff and Clientele—Mary D. Herrick, Boston University Libraries.

2:00-5:00 p.m. Session VI


A basic knowledge of the LC Classification is expected on the part of all participants. Suggested readings are LaMontagne's American Library Classification with Special Reference to the Library of Congress, and a selection from the bibliography in the Fall 1965 issue of Library Resources & Technical Services. Registration fee: $15.00.
When Talleyrand wrote that "war is much too serious a thing to be left to military men," he meant not to belittle the professional skill of the soldiers but to emphasise that since war is conducted for the furtherance of national policy, its direction must rest with those who are responsible for that policy.

The same might be said of catalogues and libraries. Catalogues are too important to be left to the cataloguers. The purpose of a catalogue is to further the achievement of the library's purpose and policy. It is, therefore, for the administration to define the specific role of the catalogue and the essential factors which must be observed if it is to fulfil that role. It is for the cataloguers to apply their special skills to devising an instrument which will achieve its defined purpose as efficiently as possible. One says what needs to be done, the other how it can best be done—and sometimes what cannot be done. The production of a catalogue is therefore a colloquy between cataloguers and administration. Hence the form of this article.

The Background

The Library and Information Service of Western Australia serves the State of Western Australia: an area of a million square miles. It comprises two divisions: the Reference Division (i.e. The State Library) and the Public Library Division which is virtually a federation of independent public libraries. The books and central professional services for both divisions are supplied by the State through The Library Board of Western Australia. The books in all public libraries remain the property of the Board, and a system of frequent partial exchanges keeps every library's stock fresh. All books are centrally catalogued, and one unit card is supplied with every book issued to a public library, to form a local stock record and to permit, if the library so desires, the production of a local catalogue by copy typing.

There are at present 90 public libraries varying in size from 80,000 to 800 volumes. The majority are small (about 2,000 volumes), remote
(the furthest is 2,000 miles from Headquarters), and cannot justify the employment of professional staff. The book stock of the whole service is 700,000 volumes at present.

Since the inception of the service in 1953, two aspects of policy have been emphasised:
(a) the bookstock through its range and depth should be designed to meet informational, educational, and recreational needs, very definitely in that order of priority
(b) the quality of service, in particular the choice of books, should as far as possible be as good in the remotest bush township as in the capital city.*

A vital element in the service, therefore, is the Request and Information Service, operated by the Bibliographical Centre at Headquarters and designed to mobilise the whole resources of the State, and beyond, on behalf of any library. Through it, almost any non-fiction book for which a reader is likely to ask can be supplied to his local library; in the last seven years 93% of such requests have been satisfied. The service is well and increasingly used.

It is, however, of little value to tell a reader that he can be supplied with almost any book for which he may ask, if he does not know what books exist and are available. Furthermore, in Western Australia, and particularly in the country districts, the traditional method of finding something out has been to ask somebody who might know. It is not yet natural for people to turn to printed sources of information, because until recently no such sources were available. Ten years ago the word “book” to most people meant either a work of literature or a novel, and a library was a place where such books were kept. It did not occur to them that a library was also the natural place to obtain a workshop manual or information on the economics of growing lucerne. For the informational potential of the service to be realised, it was necessary therefore, even in small libraries, not only to provide the Request Service, but also to demonstrate the range of subjects on which books exist. In this, Western Australians are probably not very different from people in many other parts of the world.

To meet this situation, at the very outset of the service in 1954 before the first public library was established, a book-type catalogue was produced. (At that time the State Reference Library did not form part of the service). Its purposes were:
(a) to display the non-fiction resources of the whole service at every library for the benefit of the few who were accustomed to library catalogues
(b) to open the eyes of those unacquainted with modern library resources to the range of subjects on which their local library could supply books or information.

The Original Book-type Catalogue

If a catalogue to be supplied to every library were to achieve the purposes stated in the last paragraph, it had to have certain characteristics:
(a) simplicity in use
(b) an attractive appearance and layout to encourage consultation
(c) capacity for being kept up to date without supplements
(d) a method of production within the then very limited resources of the Board
(e) subject rather than author arrangement.

The original book-type catalogue was a loose-leaf volume in a screw-post binder. The pages were printed by typing directly on to Multilith paper plates and run off in the Catalogue Section. It was kept up to date by retyping sections as the stock grew and sending out the new pages to all libraries, where they were inserted in the binders and the superseded pages discarded.

To enable this up-dating to proceed as a continuous process, classified order was adopted. Only the index was alphabetically arranged. Since the catalogue was intended to serve as an aid and encouragement to the use of the Request and Information Service and not as a general bibliographical tool, neither the author nor the title index component of a normal classified catalogue was essential; both, therefore, were eliminated. Anyone who knew the author and either title or subject—or the title alone—of a book could simply request it without recourse to the catalogue; the Bibliographical Centre would fill out the missing details, as far as was necessary, as part of the normal procedure of verification. Likewise, entries for fiction were not required, since fiction is not normally supplied through the Request and Information Service.

In the interest of simplicity, Dewey subdivisions beyond the decimal point were used only when a substantial subject, e.g. radio, required their use. In many subjects, e.g. geographical subdivisions and sports, alphabetical subdivision replaced decimal subdivision.

This catalogue, heterodox as it may seem to some, proved beyond question its value. For ten years it served its purpose, during which time the stock of the Board grew from 5,000 to 600,000 volumes, and the nature of the service was expanded by the incorporation of the State Reference Library.

Need for Replacement

By 1963, however, due to its rapid growth the old catalogue was becoming distinctly cumbersome, both physically and bibliographically. It comprised two large, thick volumes which, due to the weight of paper required for the post binders, were difficult to hold open. It still retained the simplicity of short numbers in the headings and index, but the value of this simplicity was much reduced by the large number of entries under some headings. It did not give full Dewey numbers for

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particular titles nor distinguish those titles of which copies were to be found in the Reference Library, and was therefore of little value in that library. Lastly, it had not for some time been possible to revise it completely more often than every two years, due to the high cost in time of retyping and checking all the pages. In all, it had proved its value, done good service, but was due for replacement.

Over the years a continuous watch had been kept for a means of eliminating continuous retyping without spoiling the good appearance and layout, which was regarded as of vital importance to the catalogue's usefulness. No means had been found. Both punched cards and computers were rejected, because they were not then capable of producing a printed page of acceptable standard of appearance. Photography from cards was not seriously considered for the same reason. A proposal for cooperative use of a Listomatic camera fell through due to non-availability of the equipment. One or two other photographic processes were rejected, because they were in operation only in the Eastern States, and the risk of sending the master copy across the continent was unacceptable. At last, in 1963, Kalamazoo Copystrip appeared in Western Australia and this, after investigation, seemed to offer the break-through.

The New Catalogue Is Planned

A thorough cost analysis was undertaken which showed that, while increased costs of production would be incurred, they would be more than justified by the following advantages:
(a) a printed page comparable in quality with letterpress typography
(b) complete annual revision with greatly-reduced typing and checking load
(c) printing and binding by outside contractor, thus relieving the printing unit in the Catalogue Section and avoiding either delays in publication due to the need to maintain output of catalogue cards, or the necessity to install additional machines and operators, which would not be fully employed
(d) a much more convenient format in the finished volumes.

The economics of the new method having been verified, all professional librarians in public libraries were told that some changes in the printed catalogue were under consideration and were asked to state what improvements they would like to see incorporated to make it more useful in public libraries. Librarians in the State Reference Library were concurrently asked to indicate whether they thought that a book-type catalogue could replace the subject element of the divided public catalogue in that library, and, if so, what characteristics it would need for that purpose.

All the public librarians praised the usefulness of the catalogue, and most of the improvements for which they asked were things which were already in mind in Headquarters: the index to be in a separate volume; more frequent revision; full Dewey numbers for each title instead of the
shortened numbers which had been used for simplicity; fuller imprint
details; and less unwieldy volumes which would lie open easily.

The reference librarians' replies to the more hypothetical question
addressed to them were, perhaps naturally, more varied and inconclu-
sive. It was, however, clear that the improvements sought by the public
librarians would be of benefit to the reference librarians and that the
question of supplanting the card catalogue would have to remain open
pending the publication of an improved book-type catalogue and observa-
tion of its strength or weaknesses.

Not one librarian from either group suggested a change from clas-
sified to alphabetical arrangement. While the original adoption of clas-
sified arrangement had been dictated by logistic considerations, it had
always been the administrative view that this was also the better arrange-
ment in a book-type catalogue. The absence of desire for change after
ten years' experience supports this.

Librarians have tended, perhaps somewhat uncritically, to accept the
virtues of most-specific subject entry. Yet it is common experience in li-
braries that users tend to use a general rather than a specific term to
describe a subject in which they are interested. It is reasonable to think
that, if consulting a catalogue, the same users would likewise look under
the more general terms. The traditional most-specific subject heading
would thus be a hindrance rather than a help to them. The classified
catalogue, with a full and specific subject index, however, can more
readily meet the needs of both of the user who thinks in specific terms
and of the one to whom a more general term comes naturally. The for-
mer will be directed by the index directly to his subject; the latter will
be led to the general area in which he is interested and can then easily—in
a book-type catalogue—follow the arrangement through to find
exactly what he wants. This would, of course, be much less easy in a
card catalogue. A book-type catalogue in classified form with an alphabetical
index thus offers greater latitude to the reader than does a cata-
logue arranged only alphabetically.

After the replies had been digested and much discussion had taken
place between the cataloguers and the administration, the decision to go
ahead with a completely new catalogue was taken. The brief given to the
cataloguers was as follows: Using Kalamazoo Copystrip and an I.B.M.
typewriter, Documentary face, to produce a new book-type catalogue to
be printed and bound by an outside contractor.

Purpose. The primary object of the catalogue was still to encourage
purposive use of public libraries through the Request and Information
Service. In addition, two new purposes were added:
(a) to facilitate use of the State Reference Library collections
(b) to provide experimental evidence on whether, or to what extent, the
card subject catalogue in the State Library could be replaced by a
book-type catalogue without serious detriment to the service.

Methods. The basic simplicity of the old catalogue was to be retained

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as far as possible compatible with new purposes now added and the current and likely future size of the book stock.

The catalogue was to exclude children's books, serials, non-book materials other than music scores, and works more than 25 years old other than standard works still in current use. It was to indicate which titles are to be found in the State Library and in the Central Music Library and to give full classification numbers for all titles. The imprint was to comprise the date (except when several editions were held—see below) and, in the 600 class only, the country of publication if outside Australia or a State within Australia. Collation details would be restricted to a note of illustrations and bibliographies. The index was to be radically revised.

It may perhaps be of interest to explain some of these exclusions and limitations:

Children's books. Originally, the old catalogue included children's books. It was found, however, that children made relatively little use of the Request and Information Service and seemed well content with the changing and relatively large selection available on their library shelves. It was therefore decided some years ago not to maintain location records for children's books and to delete these titles from the printed catalogue except in the rare case when a book written for children gives information not to be found easily elsewhere.

Serials. These are excluded mainly because it is considered that a separate catalogue of serials would be preferable; this could embrace entries from the many other libraries contributing to the State Union Catalogue of Serials, maintained on cards in the Bibliographical Centre.

Books more than 25 years old. Other than standard works still in current use, these books are excluded, because the subject approach is mainly adopted by people who want reasonably up-to-date material or standard works. Those who wish to make an exhaustive survey can probably be better served through bibliographies.

Imprint. In view of the purpose for which the catalogue is produced, imprint details, while of value to a sophisticated user, are not absolutely essential except to the extent that they give significant information on the nature of the work. Generally, in the technologies the country of origin is significant due to differences in national techniques. In other subjects this is much less important. To have given publisher and place of publication throughout the classification would have greatly increased the size and cost of the catalogue because of the high proportion of entries which would have extended to an additional line of type. Publisher and place of publication were therefore eliminated except in the 600 class, and there only the country or Australian State of origin has been included.

How the cataloguers proceeded to work on this brief is for them to tell.

The new catalogue was published in May, 1965. It comprises two volumes of schedules, each of about 780 pages, and a separate index.

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Like most new undertakings, this one would probably have been done rather differently had as much been known at the beginning about material and equipment as was known at the end. This account, however, endeavours to turn its back on second thoughts, on what might have been or what should have been done, and tries to recapture as accurately as possible the way in which the job was in fact carried out.

The first requirement—that the catalogue had to look attractive—set the problem of using space economically without sacrificing appearance. The Kalamazoo equipment chosen provided a single-column page with a type area about 7¾ inches wide, which allowed an average of 10 to 12 words to the line; and the aim initially was to fit most entries into one line.

The Request and Information Service can be operated more surely and speedily if readers’ requests can be readily identified with entries in the main catalogue; hence, it was considered that the compressed entries must keep the essential parts of the author heading and title. Consequently, author headings were left unaltered except for abbreviation of forenames, while titles—when shortened—were not curtailed at the filing end even when the introductory words were not indispensable to the sense. The rest of the entry was, however, substantially reduced, normally to edition, date of publication, and the brief indication of collation already mentioned. Subtitles were retained only so far as they were needed to indicate the subject matter, and annotations were restricted to the same function.

Space was saved by indenting the second and later titles under an author’s name without repetition of the author heading. Variant editions and versions, including translations of the same work, were grouped in one entry carrying a suitable specification, e.g. “Various eds.,” “Also translations.”

Nevertheless, whereas it had at an early stage been estimated that about 90 percent of entries would fit into one line, in the result the proportion was not much more than two-thirds. In part this reduction may have been due to an over-sanguine estimate; to a degree it probably resulted from lack of sufficient ruthlessness in removing normal but
strictly unnecessary verbiage; but in part it was caused by concessions made to the requests of the prospective users of the catalogue that more bibliographical detail should be included than had at first been intended.

It is possible that these concessions could have been offset by closer spacing within the entries, but this suggestion was rejected in the interests of appearance. In the same way, the spacing around the headings was probably made more generous than would be reasonable if economy were the only consideration, but was retained partly for the sake of the greater clarity and partly in an endeavour to indicate to some extent by varied spacing the relationships among the headings, since a variety of typefaces was not available for the purpose.

A second charge was that the basic simplicity of the old catalogue should be retained as far as possible, which was interpreted to mean that the technical apparatus should not be obtrusive.

The arrangement of the catalogue follows, of course, the Dewey classification, but in the old catalogue only very short numbers (usually three figures) had been used. These had been arranged in columns to the left of the entries; entries having the same short class number were in many places divided into a number of sections with appropriate verbal headings but with no numbers opposite these headings. In the schedules this occasioned little trouble, for the sections had been regulated in size so that they formed blocks which could readily be discerned and the logic of their succession taken to be self-evident; where there was no logical principle governing their order, alphabetical arrangement was preferred. In indexing, however, as the size of the catalogue increased and the number of sections sharing the same short class number grew, the difficulty of making a precise reference to a specific subject occurring within one of the sections became more and more apparent.

It was decided, then, that the section headings must be numbered and, as a first step, the old catalogue was surveyed and the size of the sections in it reviewed. Where the blocks had grown beyond the optimum size, they were subdivided on the principle of division used by the classification. If the section then broke into a number of very small sections, some of these were coalesced if the logic of the scheme was not thereby violated. In some cases, where the classification did not provide for the subdivision of an overgrown section, the entries themselves suggested a principle on which they could be arranged in smaller groups. For example, books about a country will divide into geographies, guidebooks, and descriptive works while of the last named some will emphasize landscape and others will show more interest in the people and their customs. Sometimes, however, such division did not seem to offer any marked advantage, and the section was allowed to remain large. The principle of alphabetical arrangement was retained wherever it seemed appropriate, e.g. workshop manuals for particular makes of car were arranged alphabetically by the make of car.

The sections were then assigned numbers, but these were made only
sufficiently long to distinguish each group of entries from its neighbours. When the sections were divided according to a principle not found in the classification, the resulting groups, which shared the same number, were distinguished from one another by means of appended lower-case letters. In these ways each section was provided with an individual number and could be referred to precisely in the index.

As a result of these arrangements, the entries collected under a single section heading may vary somewhat in their class numbers: some will be longer and some may be shorter than the number of the section heading, and some may not agree with it at all. Such disagreement has come about in two ways. Some of the entries in a given section are likely to be added subject entries intended to bring to notice some worthwhile part of the content of a book which has been classified at another part of the catalogue. Others are due to the use by the Board of the 15th edition of Dewey until 1960 and of the 16th thereafter. Little reclassification has been carried out to meet the problem of subjects relocated in the later edition; and with stock in circulation in the State-wide system, little could be attempted because of the difficulty of recalling stock that is in use. In the catalogue, therefore, titles affected by relocation have been shown at the number assigned in the 16th edition while still retaining the class numbers given to them when the 15th edition was still in use. A file on cards of such relocations had been kept. The class number, however, has not been emphasised in the lay-out of the entry and has been given simply as part of the description of the book, so that this variation should not occasion any confusion. On the other hand, since the number of the section heading is the most precise that can be used in indexing, the numbers in the index are often less specific than the subjects to which they refer.

In order to make the catalogue of use in the State Reference Library—the third desideratum—it was first necessary to distinguish those titles which could be had immediately from the reference shelves from those of which there were copies only in the circulating stock. For this purpose the file of cards from which the catalogue was to be typed was first compared with the shelf list of the Reference Library, a search which occupied two persons for almost six weeks.

The other need was an index of subjects which would match in fullness the alphabetical subject catalogue in the Reference Library. The construction of the index began with the axiom that, in any relative index, the unit to be indexed is not the concept but the concept in a context. As a matter of procedure it was decided to derive the verbal form of the concepts from Library of Congress headings, since these were used in the existing alphabetical subject catalogue; the unit cards which were being used in the work consequently carried tracings of the appropriate LC headings. The expression of the context in the classification was to be the heading of the specific section in which the subject occurred.

Many LC subject headings express simple concepts, but many others—phrase headings and headings with subdivision—also express re-
relationships. As a guide to the task of converting LC headings into relative index entries, David Haykin's classification of headings according to structure was studied closely; and general rules of procedure were formulated for combining the subject heading with the heading of the relevant section of the classification to produce an intelligible index entry. These rules were a helpful guide in obtaining index entries in a rough form. But the form was often found to be too rough, being overloaded with words or awkward in its sequence, and the cataloguer's judgment had then to be exercised in paring away the unnecessary verbiage and shaping the essential words into an intelligible phrase. In this process it is possible that the origin of the reformulated phrase has been obscured, but it is hoped that the virtues of the LC headings have not been lost and that the resulting index will enable a valid comparison to be made between the effectiveness of the old alphabetical and the new classified catalogue.

The catalogue lists about 67,000 separate titles which, with added entries, produce about 74,000 entries in all. A further 36,000 strips are occupied by the second lines of longer entries and by the section headings.

The major portion of the clerical work was carried out by two typists using one electric typewriter, alternating periods of typing with spells of checking and of filing the typed strips on the dividers (as the bases on which the pages of the catalogue are built with interlocking strips are called).

When the typing was finished, the pages, owing to additions and deletions during the eighteen months occupied by the task, were left uneven in length, and it was necessary to level them up as a preparation for printing. The printer was consulted, and a page length of 13 inches (or 70 strips) was adopted, this length being reduced to 9\(\frac{1}{4}\) inches in the photolithographed print. This reduction gave a print size slightly larger than 8 point. To obtain this result, it was necessary to refile most of the approximately one hundred thousand strips of typing. While this was being done, page guides and other matter were typed on adhesive tape and stuck onto the completed pages. This, as may be imagined, was a long and tedious process, and credit is due to the typists who, in the space of about six weeks, carried it out successfully and had the completed copy ready for the printer on schedule.

The Kalamazoo volumes, when returned by the printer, form the master copy of the catalogue. To it new accessions are added and from it withdrawals are deleted continuously so that at the end of the year it will be a true record of the stock. If the existing pages become overfull, new pages may be intercalated in the volumes; and, when the time comes around again for printing a new edition, the pages will again be brought to a uniform length and the volumes sent to the printer once more. That day, however, is still some months in the future, and in the meantime the process of revision has been reduced from one of continuous retyping to one of typing and inserting strips for the books added week by week.

* The second issue is to be published in May 1966.
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</table>
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160 LOGIC


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Note on Updating and Searching Computerized Catalogs

Phyllis A. Richmond
Supervisor of River Campus Science Libraries
University of Rochester
Rochester, New York

The Short-Title Catalogs described in earlier issues of Library Resources & Technical Services have been put on magnetic tape and merged by means of an IBM 1401 computer (4K capacity). Thus the title-a-line catalogs of four science libraries, comprising some 13,000 entries, are now available in a single book catalog.

In the merging procedure, the computer sorted all 80 columns of input, using an interchange sort procedure. At the end of the sorting, entries were in machine-style alphanumeric order. Early publication schedules precluded attempts to program more ALA filing rules at this time.

As part of the program, those entries which were exact duplicates were filed as a single entry with number codes to indicate which libraries possessed the book (see Fig. 1). Also a correction routine was developed which made it possible to substitute corrected entries on the tape for entries containing errors. Neither of these procedures, nor that for interfiling titles without authors in dictionary style, caused any serious problems.

However, the program for updating the tape turned up a snag which seems worth describing for the sake of librarians who may be attracted to computer routines which use column-by-column matching for interfiling or searching. The update included some 2,400 new entries. The program put the update in alphabetical order. It found the entry on tape after which each update entry would file. It then matched the update entry against the following tape entry. Exact duplicates were rejected; entries which differed only in library code number were merged; and update entries which did not match or merge were added as new titles.

In the final proofreading, it was discovered that if any single column of the update were different from the tape entry in any way (other than library code number), the update was entered as a completely new title instead of being rejected as a duplicate or merged as a new copy in a different library. For example, assuming that all other aspects of an entry are identical from card to card and that there are no keypunching errors, a title keypunched with the following single column variations would machine-file as 40 different entries:

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In an ordinary card catalog, these would file as one entry, not 40. For the actual example of this phenomenon, see Fig. 2.

This type of filing is to be expected in machine sorting, since the machine does not make allowances or recognize similarities as a human does. It was slightly devastating to encounter it, however, when multiple eye checks by several proofreaders had been made on the update list. One hundred percent accuracy in proofreading is much harder for humans than for machines.

Since differences of one or two columns were all that separated editions in many cases, the computer could not be directed to disregard a
one- or two-column variation. A possible antidote might be to have an “attention” routine which would tag for inspection all entries which varied from the tape by one to ten columns. It would be necessary to counter the inaccuracies of eye-checking without at the same time sacrificing high keypunching standards.

The fact that minor errors in keypunching cause a duplicate entry to file as two titles in a list is annoying but not particularly damaging. However, such deviation from perfection could be much more serious in computer searching operations depending on column by column matching. In book ordering, for example, a single error could result in purchase of an unwanted duplicate. In cataloging, a title could be cataloged twice. In periodical reception, recording, and updating, an issue could have all kinds of adventures. If a patron inquiring at a console made an error in keying, he could be informed that the library lacked a title which was available on a shelf in the stacks. The longer the entry, the greater the possibilities for error in matching procedures. In any of these cases, would one dare accept a negative report?

The reason that such a trivial matter is important is that in advanced systems thinking with regard to libraries of the future, it is proposed to query the information in computer storage directly by means of the consoles mentioned above. A description of the console-computer interactions runs as follows:

The user sits at his typewriter or teletypewriter and types messages to the system, which sends messages back to him, sometimes full, long or short, in natural language or in mathematical notation, all depending upon the nature of the program that is running in the computer for the user at the time.

This description, and others like it, does not emphasize just how exact the message must be, partly because this is “old stuff” to those who use computers and partly because many systems designers wistfully hope that intellectual access to information can be made much simpler than it is now. Unfortunately, since the public has difficulty now in using the catalog, it is more reasonable to expect this difficulty to be compounded when extreme accuracy of punctuation, spacing, and terminology are added to other criteria for successful retrieval.

Here again, one might say that this is only a clerical matter and of little import. However, it is further proposed that output be, not in regular computer printout, but in the form of answers “printed” on the surface of a cathode ray tube, or as immediate hard copy (by xerography or similar processes). If the Library of Congress, for economic reasons, did not publish its catalog at all, then how the console was keyed by the user would be vital in getting or not getting answers from computer storage. The possibilities of purely clerical error assume an importance out of all proportion to their significance. So far, there does not appear to be any way out of the dilemma. Somehow, without prohibitively expensive programming, there has to be a margin for error.

Experience with matching procedures suggests that a book or serial
<table>
<thead>
<tr>
<th>Author</th>
<th>Title</th>
<th>Library</th>
<th>Code</th>
<th>Shelf</th>
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<tbody>
<tr>
<td>VON HIPPEL ARTHUR R</td>
<td>DIELECTRICS + WAVES</td>
<td></td>
<td>54 GQ585</td>
<td></td>
</tr>
<tr>
<td>VON HIPPEL ARTHUR R</td>
<td>MOLECULAR SCIENCE + MOLECULAR ENGINEERING</td>
<td></td>
<td>59 GQ173</td>
<td></td>
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<tr>
<td>VON KARMAN THEODORE</td>
<td>AERODYNAMICS</td>
<td></td>
<td>54 QA0930</td>
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<tr>
<td>VON KARMAN THEODORE</td>
<td>FROM LOW-SPEED AERODYNAMICS TO ASTRONAUTICS</td>
<td></td>
<td>63 TL0573</td>
<td></td>
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<td>VON KARMAN THEODORE</td>
<td>MATHEMATICAL METHODS IN ENGINEERING</td>
<td></td>
<td>40 QA037</td>
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</tr>
<tr>
<td>VON LOESECKE HARRY W</td>
<td>DRYING + DEHYDRATION OF FOODS ED.2</td>
<td></td>
<td>55 TX0609</td>
<td></td>
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<tr>
<td>VON NEUMANN JOHN</td>
<td>COLLECTED WORKS</td>
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<tr>
<td>VON NEUMANN JOHN</td>
<td>COMPUTER + THE BRAIN</td>
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<td>58 QA0676</td>
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<td>VON NEUMANN JOHN</td>
<td>CONTINUOUS GEOMETRY</td>
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<td>36 QA0471</td>
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<tr>
<td>VON NEUMANN JOHN</td>
<td>FUNCTIONAL OPERATORS</td>
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<td>VON NEUMANN JOHN</td>
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<tr>
<td>VON NEUMANN JOHN</td>
<td>THEORY OF GAMES + ECONOMIC BEHAVIOR ED.3</td>
<td></td>
<td>53 HB0199</td>
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<tr>
<td>VON TERSCH LAWRENCE W</td>
<td>RECURRENT ELECTRICAL TRANSIENTS</td>
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<td>53 TK3226</td>
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<tr>
<td>VOORHDOVE NICOLAA A</td>
<td>LOW-FREQUENCY AMPLIFICATION</td>
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<td>VOOS KAREL HENDRICK</td>
<td>ATLAS OF EUROPEAN BIRDS</td>
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<tr>
<td>VOROBIEV IURII V</td>
<td>MOMENTENMETHODE IN DER ANGEBWANDEN MATHEMATIK</td>
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<td>GASSEBEL + NEUE STERNE</td>
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<td>VOSKOBINIK D I</td>
<td>ANGLO-RUSSKII JADERNYI SLOVAR</td>
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<td>VOSKOBINIK DAVID I</td>
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<td>SITUATION IN BIOLOGICAL SCIENCE</td>
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<td>VSESLOUZNAIA KONF</td>
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<td>VSESLOUZNOE</td>
<td>STRUCTURE OF GLASS</td>
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<td>VSESLOUZNAI SOVET</td>
<td>INTERCRYSTALLINE CORROSION</td>
<td></td>
<td>62 TA0467</td>
<td></td>
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<tr>
<td>VULIKH BORIS Z</td>
<td>INTRODUCTION TO FUNCT ANAL SCIENTISTS + TECHN</td>
<td></td>
<td>63 QA0320</td>
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<td>VULIS LEV A</td>
<td>THERMAL REGIMES OF COMBUSTION</td>
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<td>TABLES SOLVING LAPLACE EQUA INSIDE ELLIPSE</td>
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<td>WACKS NORMAN</td>
<td>RECOVERY OF ALPHA-METHYL STYRENE</td>
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<td>EPIGENETICS OF BIRDS</td>
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**FIG. 1.** Sample print-out of merged catalogs. Code in right column: 1 = Engineering Library, 2 = Physics Library, 4 = Life Sciences Library, 12 = book in both Engineering and Physics.
FIG. 2. Keypunching errors resulting in unwanted duplicate entries. Code 5 in right column = Geology Library.
code might be more suitable for machine updating or searching entries on tape. The code could be an alphanumeric one, a classification notation, or plain letters as in a subject heading or index term. But in any case, to get the correct code, humans would always have to consult some prior source for checking. The question still remains: if a printed source is not used for checking by eye, how can humans query a tape accurately except by producing a perfect entry?

REFERENCES

3. Overhage & Harmon, INTREX, p. 28 (Italics mine.)
4. Ibid., passim.

The Book Catalog—New Hope for Cooperative Programs

CATHERINE S. CHADWICK, Director
Ventura County and City Library
Ventura, California

"Libraries working together, sharing their sources and materials, can meet the full needs of their users. This cooperative approach on the part of libraries is the most important single recommendation of this document."—ALA Public Library Service, 1956.

WHILE THE IDEA OF COOPERATION among libraries has always been extremely respectable and indeed considered worthy of long and flowery discourses and some skittish advances, it has been only within the last few years that really basic programs have been instituted in the several states. Cooperation belongs in the same terms as those used by the philosopher who once stated, "Christianity has not been tried and found wanting; it has been found difficult and not tried." The same could be said, by and large, for cooperation among different sizes and types of libraries. However, cooperative activities among the libraries are increasing in their size and scope. They are now blessed all over the United States by grants of Federal and state funds

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which permit the equalization of service necessary for a large agency to cooperate with a small agency with effectiveness and comparative lack of rancor.

Two years ago, on the adoption of a California state grants-in-aid program, the Black Gold Cooperative Library System was formed by the public libraries of San Luis Obispo County and City, Santa Barbara, Lompoc, Santa Maria, Santa Paula, and Ventura County and City—libraries of varying sizes, budgets, and traditions of service. Eugene Hart, formerly State Librarian of Idaho, and now Associate Professor of Librarianship at the University of Southern California, was our consultant. State aid was the equalizing factor. (And just in case there is a question about the name “Black Gold,” it comes from the wealth of petroleum which formerly was the chief resource in the economy of this beautiful section of Central California coastline—and still sustains us.)

Our ambitious program called for the utilization of newly-devised techniques in the commercial production of cumulating book catalogs, centralized processing, closed-circuit teletype, truck deliveries, a film circuit, a union reference and periodical file, and a system reference service. All but the last item have assumed reality and are functioning.

The idea of a cataloging program which would be acceptable to all seven libraries is certainly something novel, and, true enough, the cataloging has not always proved to be acceptable. During the first year, great difficulties were encountered, not only with the mechanical program and with making sure that each piece of material was located in the catalog according to the library of ownership, but also in connection with the class placement of materials and the subject headings assigned.

The cataloging code used first was that of the Los Angeles County Library, a pioneer in the book cataloging field, since it was felt by the cooperating libraries that eventually our area might fit somehow into the sprawling megalopolis of Southern California, and it would be well if all of us had the same system and the same pattern in our cataloging, thus making all materials available through the book catalog. However, as time went by, it became more and more evident that we would not be an integral part of the Los Angeles area but that our own area, developing so rapidly in population and individuality, would be a separate one; and that rather than fit ourselves into the Los Angeles program, it would be wiser for us to develop a program of our own. With the additional stimulus of professional literature urging upon the Library of Congress a program of some type which would coordinate efforts of libraries all over the country to standardize their cataloging, we adopted a pattern of cataloging as close as we felt feasible to Library of Congress rules. We then acquired LC proof sheets as our basic cataloging source.

Very little editing of the proof sheets was done. Simple rules were adopted, and in every way the program is geared as closely to the Library of Congress program as the Black Gold Executive Board felt could be made to work in the individual libraries. Cataloging is performed here in Ventura at a Science Press subsidiary office set up for the purpose.

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Dewey numbers, as suggested on the proof sheets, are updated to the latest edition of Dewey. The sheets are used as work slips by crossing out the redundant and surplus material and adding codes indicating the placement of the material in the catalogs. Codes are assigned directing the preparation of punch cards used for sorting, which are also sequentially numbered and Varitype'd, as necessary, for the cameras. The coding for the author is indicated in blue; that for the title, brown; and the subject codes are outlined in red. Since the production of the infinite number of “See” and “See also” references proved to be extremely costly and the selection of those included proved to be so highly unsatisfactory to individual libraries, we have given up their use in favor of purchasing for each library using these catalogs a copy of the Library of Congress subject headings to be used as a part of the book catalog set.

The catalog information is sent to the Science Press in Ephrata, Pennsylvania, where the book catalogs are presently produced. Three types of catalogs are made: the author-title, with the author section preceding the titles (cumulated monthly); the subject catalog, which includes both fiction and non-fiction; and the children’s catalog, which has author, title, and subject all in one volume. The juvenile catalog is produced in larger type, making it easier for the children to read, and is cumulated bi-monthly.

The accommodation of several individual ideas as to how material should be categorized, labeled, and introduced through cataloging has not been without blood, sweat, and tears—for the members of the system. Needless to say, there have been much discussion and many problems, but great tolerance has been shown by all members to the necessary standardization.

It was not until the advent of closed circuit teletype in the cooperating libraries that the real value of the book catalog became apparent. The advantage of having in hand a listing of materials which could be available made all the difference to all of us in offering material to the patron and in immediate access.

One of the features of our system is the fact that each library continues to select its materials, appropriate to the particular needs of the community and enhancing various interests of the community. However, in addition to the materials required by the individual community, each library in the system has a subject specialty particularly suited to that area.

For instance, at Santa Maria and Lompoc, where the “Space Age” is really coming into its own with Vandenberg Field and other installations, space science, mathematics, and all of the areas of knowledge compatible with this type of interest are exploited to the full. The rest of us in the system who do not have these particular interests emphasize our own subjects in purchasing, and we appreciate the adjuncts to our own collections available through the book catalog and teletype and utilize the material especially purchased by these two libraries.

San Luis Obispo is in the heart of a number of state institutions,
penal and correctional. Specialized items in penology, psychiatry, psychology, sociology, and related subjects are purchased by the libraries in this area and used by the rest of us.

Santa Paula, one of the smallest of the libraries, has had for many years a well-developed collection on English literature and criticism. The materials in this field which might not be considered useful enough for each of us to buy a copy are now added in Santa Paula and borrowed by the rest of the libraries. Since our collections are definitely the holdings of each separate library, the materials are located in the book catalog by use of symbols. Blanchard, Santa Paula, for instance, is designated BSP; Ventura, V, etc. We can also ask on teletype, “Do you have anything on this subject or that subject?” and thus implement and add to the direct title requests that are made. We also use the teletype constantly to speed up film delivery; for, in order to get full benefit from film borrowed for the whole system, it is necessary to have quick transfer from one library to another.

As of fall 1965, holdings recorded in the book catalog include some 11,000 titles, in the form of two six-months cumulations, in addition to the new materials done by Science Press since July 1, 1965. The Executive Board of the Black Gold Cooperative Library System is considering the various possibilities open to us in accumulating all of this information into workable volumes from which we could go on to other cumulations for other years. We also have in prospect the possibility of accumulating a selected 90,000 basic book list such as would be needed at the opening of a fairly large-sized library, in addition to the ten thousand titles which we expect to add under normal processing this year, thus reaching a total of 50,000 titles by July 1, 1966. It is hoped that all of our listings may be cumulated into this one volume and that we can go on from there into yearly cumulations, with, perhaps, total cumulation every four or five years. The same cumulative practices as those of CBI and Reader’s Guide are being considered, i.e. listings for several years, plus yearly volumes, plus monthly supplements. Of course the matter of cost and the possibility of receiving Federal and state aid to assist in this program are paramount considerations.

Next year we anticipate that the costs of processing books and probably some other costs will be assumed on a unit basis by the cooperating libraries. Book cataloging and teletype we hope will be continuously supported by the per-capita grants of state aid—a continuing program because of the equalizing factor involved. “Cooperation is worth the price” is the unanimous verdict of the Black Gold members. And with the hope in the near future, of cooperating networks of cooperative systems, we will enter a new era in library service.

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IN THE MAIL: BLISS

In the footnote to Mr. Lash's letter on p. 414 of the Fall 1965 issue of LRTS, you observed that Henry E. Bliss's Bibliographic Classification was out of print and that The H. W. Wilson Company was "negotiating with reprint companies concerning the possibility of its being issued in some form." It may interest your readers to know that the entire classification is now available from University Microfilms, Ann Arbor, Michigan, in its O-P Books program at $77.60. The separate volumes are priced by University Microfilms as follows: Vols. I and II, Classes A-K (2d edition in one volume), $31.80; Vol. III, Classes L-Z, $28.20; Vol. IV, Index, $17.60.

In view of Mr. Lash's comments on the Bliss classification and the further comments by Mr. Mills and Mr. Slavens on pp. 392 and 439, the following background information may be of interest to your readers. Over a number of years the Wilson Company published the successive volumes of the Bliss classification as a contribution to librarianship, at a considerable financial loss. As a further contribution we decided some years ago to issue the Bliss Classification Bulletin and to distribute it free of charge so long as our edition of the classification remained in print. At present the Bulletin is edited by J. Mills on behalf of the British Committee for the Bibliographic Classification; since the death of Mr. Bliss a decade ago, virtually all the material contained in the Bulletin has been supplied by members of the British Committee. The last issue to be distributed by the Wilson Company will be Vol. III, No. 9, tentatively scheduled for publication late this year. With the Company's approval, after 1966 the British Committee plans to continue this occasional publication in England. Another English Bliss project in which the British Committee has an interest is the school edition of the classification referred to in Mr. Lash's letter. Further information on this project is to be found on p. 2 of the Bliss Classification Bulletin, Vol. III, No. 2 (December 1965).—John Jamieson, Editor of General Publications, The H. W. Wilson Company.

F. OLIVIA FAULKNER, 1917-1966

On April 6, Olivia Faulkner died, and this news can only come as a tremendous shock to her associates, co-workers, and many friends. It is almost impossible to believe that such a bright and warm personality has disappeared.

She was that rare person—a feminine, attractive, and charming woman with a mind so clear, so flexible, so fair, and so logical, it was instantly recognized by everyone. One of her gifts was the ability to take notes on the stumbling words of others and convert them to clean prose.

As Principal Cataloger of LC's Descriptive Cataloging Division and as an active Member of the DCC, CCS, and the Potomac Valley regional group, she has contributed greatly to the profession and to the organizations.

We will miss grievously her fine mind, but even more, we will miss her as a friend.—EJP
A National Acquisition and Cataloging Program

Among the significant highlights of 1965 was the progress made toward turning into reality the long-sought goal of a national centralized acquisitions and cataloging program. The program, which is part of the Higher Education Act of 1965, survived the rigors of congressional scrutiny and was signed into law by President Johnson on November 8, 1965. Funds to implement the Act were requested, but were not granted before the first session of the 89th Congress was adjourned. However, a supplemental appropriations bill was submitted to the Congress in January. The provisions of Part C of Title II will have a profound influence on the work of librarians engaged in technical services. The Commissioner of Education is authorized to turn over to the Librarian of Congress funds for the purpose of acquiring currently-published materials, both foreign and domestic, of scholarly value, and to integrate this acquisition program with a national centralized cataloging program. The law directs that $5,000,000 be provided in fiscal year 1966, $6,315,000 for fiscal year 1967, and $7,770,000 for fiscal year 1968.¹

A program of such magnitude and scope will require an enormous amount of planning by the Library of Congress and close coordination and cooperation between LC and participating libraries, particularly those members of the Association of Research Libraries, the sponsoring body. Although the ARL has not yet given its approval to any specific program, LC has proceeded on the assumption that funds will be forthcoming eventually. To streamline the selection procedure for new titles, LC would attempt to establish working agreements with authorities in each country responsible for publication of that country's national bibliography. Such arrangements would enable LC's representative to select titles and order from advance copies of the bibliography. As a consequence, by the time other participating libraries were ready to order the same titles, many of these titles would already be in LC's possession, and perhaps cataloged. Air mail communications facilities would be used for all foreign acquisition operations as funds were made available.² These are but two of the methods LC intends to use to reduce processing time, for it is realized that a minimum of delay is paramount if this ambitious plan is to succeed.

The plan would also allow for existing arrangements between American libraries and foreign dealers. In order to benefit from such arrangements and to minimize undesirable duplicated effort, LC plans

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to duplicate all continuations presently on standing order with participating libraries (if LC does not have its own standing order) or orders placed in the future. Attempts will also be made to coordinate existing blanket order arrangements. Bookdealers would be requested to supply a duplicate to LC of each title supplied to a participating library on its blanket order. Farmington Plan arrangements would be included. Special efforts would be made to broaden and strengthen LC’s acquisition programs from such areas as Latin America, Africa, and Southeast Asia. Since the book trade and bibliographic apparatus of many of these nations are either nonexistent or in their infancy, progress is likely to prove painfully slow.

The second objective of the program is to establish a centralized cataloging program on a national scale. Although the program as a whole does not fall within the scope of the review, certain provisions should prove beneficial to acquisition librarians. Under present plans the bibliographic information collected from the national or trade bibliographies would be supplied to participating libraries in card form. The availability of this authoritative information should reduce the time required to research requests for current foreign language materials. It should be emphasized again that the actual procedures, either intra-LC or inter-LC and the participating libraries, have not yet been established, nor have the funds been appropriated.

Price Indexes

The Library Materials Price Index Committee was a busy group during 1965. Several price indexes were published in the 1965 Bowker Annual. These included an index for United States periodicals and serial services (1964), hardcover books by category (1957-59 through 1964), microfilm prices for two years (1959 and 1962), and West German Book prices (1957-59 through 1963). The Committee also completed arrangements with R. R. Bowker Co. to publish a paperback price index in Publishers’ Weekly early in 1966. An index for Swiss book prices, compiled by Emil Frey, was published in the Winter issue of LRTS. The base year for this index is 1947-49; and, although it is not directly comparable with the other indexes which are based on a 1957-59 period, it does reveal price trends.

A useful article prepared by Marietta Chicorel reviews those indexes which have been published and where they have appeared. Her paper underscores one of the major difficulties of using price statistics. They are often difficult to locate and are not always readily accessible, because they have appeared in different publications and often at irregular intervals. The Committee is well aware of this obstacle, and it is confident that eventually all indexes of interest to librarians can be brought together on a regular basis in one publication.

* Editor’s note: Plans for the Title II program entail the securing of additional staff. LC has indicated that it will begin recruiting new personnel toward this end and is interested in interviewing applicants.
The Committee is continuing its efforts to stimulate and direct the preparation of additional indexes. In this connection, Mr. Masato Matsui, of the East-West Center, is preparing an index for Japanese books. Work on this compilation should be completed later this year. Indexes for Canadian and Mexican titles and phono-records are also in the offing, but in the more distant future.

In addition to the above activities, the Committee plans to conduct a survey to learn how price index information is used, who uses it, and what changes in the statistical presentation and format would serve to increase the data's usefulness. A preliminary questionnaire was distributed at Detroit. The results are now being evaluated and reviewed.

The Antiquarian Market and Reprint Publishing

Interest in out-of-print books and how to acquire them seems to be on the increase. Much of the present interest can be attributed to the growth of new colleges and junior colleges and to the schools that have increased the number of degrees offered. The current interest in the OP market is also reflected, and dramatically so, in the recent boom in antiquarian reprint publishing. These recent developments have posed new problems for both librarians and antiquarian booksellers.

Librarians who have acquired the requisite knowledge to work effectively in the OP market are indeed fortunate. The neophyte acquisition librarian is decidedly handicapped until he gains the necessary experience. Two articles on the subject appeared in the literature this year. One survey examined the OP buying habits of a selected group of university libraries; the second focused on the practices in a group of college libraries.

Reprint publishing and the threat it might pose to the antiquarian bookseller was the subject of a timely article by Bernard M. Rosenthal. Among the problems Rosenthal singles out for attention are unrealistic publication dates which result in almost endless delays. Too often a publisher stalls until he has collected sufficient orders. Some reprint publishers continue to neglect to indicate clearly that a title is a reprint rather than a revised edition. In addition, series information is sometimes omitted from prospectuses and advertisements. Of course these practices are as troublesome and irksome to librarians as to booksellers. In addition to these offenses, librarians have been vocal in their criticism of some publishers about prices and the physical quality of titles published.

Burt Franklin, who replied to Rosenthal's article, attributes much of the present trouble to the infancy of the antiquarian reprint business. He states, "Whoever heard of the term 'Antiquarian Reprint Trade' fifteen years or even ten years ago. The majority of the reprinters have been in business for perhaps five years. Franklin believes that the hangers-on or "fast-'buck' boys" will gradually be forced out of business as the industry matures. Moreover, he declares that some of the difficulties have already been straightened out as experience has been

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gained. Most knowledgeable persons would agree that the reprint publishing industry is in a state of flux, and it is becoming increasingly apparent that this is an area in which the profession may well have to exert itself in order to communicate its needs to reprint publishers.

Reprints produced by xerographic methods also received attention in 1965. The growth of xerographically-produced reprints has generated a certain disquiet among numerous booksellers. They view this new technique as a serious threat to the OP market. On the other hand, Sol Malkin, editor of The Antiquarian Bookman, offers the view that such reprint publishing can stimulate interest in OP books, and that there will always be enough people interested in the original. He points to the limitations inherent with a Xerox edition, namely, the high cost per page, the low quality of most graphic material, the weakness of the binding, and poor quality of the paper.

However, these limitations have to be weighed against the advantage of availability. A faculty member who locates a desired title in a University Microfilms OP catalog may not be satisfied by the librarian's warning of high cost, nor may his desire for an immediate purchase be appeased by the librarian's reply that the title can perhaps be acquired in the OP market, simply because the librarian cannot predict the time it will take to acquire the title. After weighing the pros and cons of the xerographic reprint, especially high cost vs. availability, the proper role of Xerox reprints in an acquisitions program still remains unresolved.

Responsibility for publishing the Reprint Expediting Services Bulletin has been transferred from the Resources and Technical Services Division (RTSD) Reprinting Committee to Oceana Publications. The change became effective with Volume 10, no. 1, 1965. The Bulletin will continue to appear six times per year. The Reprinting Committee will be retained, at least for the present, in an advisory capacity. An article recounting the development of the Committee and the RES Bulletin, prepared by Sam Williams, editor of the Bulletin, appears elsewhere in this issue.

Library, Bookdealer, and Publisher Relations

In last year's review, this writer offered several observations concerning the efforts of some publishers to invade the field of book distribution to libraries. The question was then and still remains: is this a desirable trend? Some librarians in recent months have become disenchanted with the attitudes and actions of a few publishers. There have been complaints that publisher's representatives have misrepresented the facts in their dealings with libraries. For example, in his efforts to convince a librarian to deal direct he might deprecate the performance of a jobber(s), or might claim that a neighboring library is dealing with his firm and is satisfied with its services, when in fact neither is true. This writer has had more than one publisher's sales representative at least imply that his firm intended to supplant the library jobber whenever and wherever possible.
It has not been possible so far to document whether such complaints represent isolated cases or a general dissatisfaction, or how many publishers are involved. If a librarian has complaints to register, he should bring them to the attention of the ALA Bookdealer-Library Relations Committee.

The undesirable practices which some publishers of juvenile books have adopted for supplying titles in library binding continues to plague public and school librarians. The quality of the so-called "library" bindings is uneven, and too many of the bindings are still judged over-priced for the quality received. On occasion a publisher has been known to allow a trade edition to go out of print, so that the only edition available to the library is a higher priced "library" edition which the publisher fairly trades net to libraries and jobbers. One librarian summed up the situation this way: "Thus libraries are forced either to drop the titles and weaken their collections or else to pay a big price for a binding of greatly varying quality—they cannot get discount, cannot get a standard binding, cannot have a choice of editions." 15

The repercussions from librarians have already prompted the Bookdealer-Library Relations Committee to consider further action. At present plans are afoot to appoint a joint ALA Committee to investigate all aspects of the problem and its ramifications. 16

The Bookdealer-Library Relations Committee has continued its efforts to fund a proposal to study working relations between libraries and library jobbers. The availability of increased sums of money for the purchase of books has prompted the entry of unqualified commercial firms into the business of wholesale distribution to libraries. When one considers that the book buying power of U. S. libraries was estimated to be approximately $255 million in 1963, 17 it is not surprising that the field has attracted new firms. Moreover, with the addition of various forms of federal and state aid, the figure now might be in excess of $300 million. Some jobbers have not been able to provide libraries with the level of service they need and expect. All too often libraries suffer inordinate delays in obtaining a title or, worse yet, their attempts prove completely unsuccessful. This problem can be particularly acute for libraries that order through a purchasing agent under some system of bidding. Part of the problem stems from an absence of criteria and contractual procedures; without these guidelines a librarian and his purchasing agent have little basis to assess the qualifications and service potential of jobbers.

To improve the situation the Bookdealer-Library Relations Committee proposes to conduct an intensive study. Among the objectives are: (1) to investigate the nature, scope, and background of the problem, (2) to develop criteria or guidelines by which the qualifications of potential jobbers can be evaluated, (3) to develop model procedures to improve the relationships between libraries and purchasing agents, and purchasing agents and vendors, (4) to develop model purchasing procedures, model bidding documents and contracts that will encourage

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uniformity, within a jurisdiction, and maximize price competition without neglecting service to libraries. It is hoped that the study will culminate with the publication of a monograph under the aegis of ALA and one or more summary articles in pertinent journals. The Committee is now negotiating with the appropriate agencies to secure funds and is optimistic that funding will be forthcoming.

Nineteen sixty-five was undeniably an active year for the Bookdealer-Library Relations Committee. In addition to those projects already cited, Carl Jackson, the Committee's Chairman, has kept in close touch with the much-publicized Rizek-Caverly case. These two men had been accused of failing to supply libraries with microfilm of periodical files in exchange for bound volumes contributed by the library. In the first trial, held in Scranton, Pa. on April 20-May 6, 1965, they were convicted on one count and acquitted on five others. In June, 1965 they were again tried, this time in the U. S. District Court in Harrisburg, Pa. The pair were acquitted on all counts. They had been charged with conspiring to take library materials from the Scranton Public Library and transporting them in violation of interstate commerce laws.

With the conclusion of this unhappy incident, it would be a pleasure to report that the matter was settled; but, unfortunately, disturbing reports have reached the Committee that a second dealer operating in the southeastern part of the country has failed to live up to his agreements to supply microfilm for bound volumes. The circumstances surrounding this case are not yet fully known. The Committee intends to investigate the matter as quickly as possible. In the meantime, a library would be wise to exercise extreme caution before relinquishing control of its bound volumes.

Automation of Acquisition Work

Automation of order procedures remains a major interest to acquisition librarians. During the year several libraries reported that they had developed new systems based on business accounting equipment or computer-oriented. Among the libraries reporting new developments were Pennsylvania State University, University of Maryland, University of Illinois at Chicago Circle, and Joint Universities in Nashville.

The literature, though interesting and informative, is still silent on the question of costs. It is difficult to learn how much a specific system costs, either a total systems cost or a unit cost, and all but impossible to locate reliable comparative cost figures. Furthermore, there is still scant information generally available which evaluates the new systems in terms of service performance. On a more positive note, it appears that computer technology has stimulated the profession into reviewing traditional procedures with a more jaundiced eye.

Other Developments

The scope of Public Law 480 has been expanded to include publi-
cations from Indonesia and Pakistan on a regular annual basis. Since January 1962 over four million items have been distributed to American libraries participating in the program.²⁵

Richard Able, a West Coast book dealer, has completed arrangements with ten western university libraries to supply these institutions with pre-selected titles from the lists of over 250 domestic publishers. In addition, Mr. Able has agreed to supply the participating libraries with a Flexowriter tape punched with the LC card data for each book.²⁶ If either or both aspects of this ambitious plan prove advantageous to this group of libraries, the plan could very well have implications for other libraries.

In response to various requests, the Organization Committee of RTSD has authorized the Acquisitions Section to proceed with three new projects. The committees have already been appointed. One group will endeavor to develop requirements which would be desirable in a formal training program in library schools for acquisition librarians, and then to compare them with present curricula of accredited schools. A second committee will concern itself with preparing a pamphlet that will aide public librarians and their public to make decisions regarding the disposal of books. Finally, efforts will be initiated to collect and collate acquisition policies from all types of libraries for deposit with the Division's Executive Secretary. Later a bibliography of the collection will be compiled for publication.²⁸ Nineteen sixty-five was, indeed, an eventful year.

REFERENCES

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1965: Year of the Big Book

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THIS is a very solemn occasion.

Remember the Knowledge Explosion? (Some of the irreverent call it the Word Explosion, but catalogers are above all reverent.) Remember how we were told and told and told and told and told that it is our job to manage the Knowledge Explosion? (How do you "manage" an explosion?) But in this past year we must confess that again we did not manage it. Instead we made it bigger. We tossed in a Molotov Cocktail of our own: The Big Book. Not just one but several.

One big bang was P. N. Kaula's *Library Science Today; Ranganathan Festschrift Volume 1* (Mind you, only volume 1 for all its 832 pages). Here, dear friends you can find everything: Praise of Ranganathan, antique articles on books and doings of the 50's, handwritten
cards in Japan, the mysteries of the Machine—everything! All this and Ranganathan too. Mr. Kaula suggests one tiny modification in Colon: The scheme might be more useful to small general libraries if it had a schedule and an index of ready-made numbers (p. 92). Shades of Mr. Dewey!

And that brings us to another Big Book—or rather three of them: Dewey 17 and Dewey Abridged 9.

Like every new edition of The Master, this one also will have its ardent friends and its caustic foes. Foes will, no doubt, attack such things as long numbers in little libraries and problems of adaptation in large, long-established libraries—and the tentative gestures toward 20th century classification. Friends may praise such things as insistence on subject integrity, division by more than one principle, relocation of subjects, standard subdivisions, and the area table—and the tentative gestures toward 20th century classification.

Friends and foes—as always, both will be right. For Dewey 17 is only another battle in the long war between “keeping pace with knowledge” and “integrity of numbers.” The Master Himself got by with his own enlarged Dewey 2 (1885) and its relocations by proclaiming that in this edition the numbers were “settled.” (Like the promise to Noah after the Flood.)

But what in this world is ever truly “settled”—except death? And what in life is “settled”—except change? What is, then, the function of a new edition of a classification scheme? Is it imperative or only suggestive? Do libraries change everything they have done already when a new edition comes out? Or do they consider the ideas of the new edition only suggestive—proposing solutions in some areas which may be giving trouble? Even if you change, do you have to change everything? Or can you change only the new books as they appear—and continue to find most of the older books under their older numbers? We have long proclaimed that in America we librarians are pragmatic creatures, that a call number is only a book-finding device anyway. Do we really mean it?

If you think Dewey 17 way out, take a look at another Big Book: Classification Research, the proceedings of the second international study conference at Elsinore in September, 1964, edited by Pauline Atherton. Here, it is true, you will find Phyllis Richmond’s thoughtful remarks on a new generalized theory of classification and Richard Angell’s down-to-earth discussion of the future of the Library of Congress classification. But you will also find talk of mathematical classification techniques and relevance, graphic display of concept relationships, the techniques of structural linguistics—and many another tasty cud to chew.

For LRTS it was The Year of Classification. It all began innocently enough with a Report of the ALA-RTSD Cataloging and Classification Section’s Classification Committee in the Winter issue: “Types of Classification Available to New Academic Libraries.” After that the deluge. From the four corners of the earth came letters, papers, oral comments—what not? Dewey had been wronged, LC had been wronged, Bliss was

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not really all that bad, Rider's International had its points—and what about UDC? On one thing they were united: They emoted. (Why does Classification turn people purple?)

So the Fall issue of LRTS was on classification. We ranged from DC numbers on LC cards to Colon and SYNTOL; we were practical as all get-out, and we dreamed like mad. For me the best paper of the batch was Verner Clapp's "DC Numbers on LC Cards." It is good history, it is practical, and it is vigorous and eloquent. And it raises again an over-riding question: Is the Library of Congress really a national library? The LC reply in the same issue properly calls itself only a "supplement" to the Clapp article; it explains but it does not answer.

But at the Library of Congress the truly big thing for us last year was the action by Congress on Title II (Higher Education Act) authorizing an enlarged acquisitions program by LC in order to provide a centralized cataloging service for research and other academic libraries. The impact of this proposed program can be tremendous; it could provide eventually a complete cataloging service for all material of research value. From such a program all types of libraries would, of course, benefit. Meanwhile LC goes ahead with plans for implementation. Perhaps LC will indeed take a long step toward becoming a national library.

LC card sales increased 20% over fiscal 1964—a total of more than 61 million cards distributed to some 17,000 subscribers; this total includes about 6 million cards supplied to 54 wholesale distributors. (The Machine has not yet devoured the Card.)

It was also the year that Congress approved a new annotated card program for children's books in LC. Beginning January 1966 special editions of cards will be printed for current titles, and it is hoped to cover earlier published titles in the program. This means catalog control for LC's Children's Section; it means also LC cards in this area for other libraries.

From LC also came another Big Book: The National Union Catalog of Manuscript Collections, 1963-1964. Together with the first two volumes, the published catalog now describes 14,374 collections in 425 repositories in 47 states. Truly an impressive and useful accomplishment.

Subject Headings gave us one Big Book and promised a Bigger. During the year Barbara Westby's new Sears List of Subject Headings appeared—notable chiefly, perhaps, to library school students because it no longer gives the Dewey numbers for headings. Work on the LC list of subject headings moved ahead; by the end of the year the composition work for photo composition was nearly completed; publication may be before June, 1966.

That hardy perennial, the Cataloging Code, is again about to be published. This time (again "for sure") it will appear in 1966. It will combine rules for author and title entry, description, and "non-book" materials—another Big Book, the most ambitious since 1908.

The Code will come onto the stage running. For hard on its heels is the Machine. In February, for instance, appeared Lawrence F. Buckland's

Studies of the Machine and the Catalog generally begin with the currently-held assumptions about the Catalog, just as the first printed books tried to be simply mass-produced manuscripts. But the Machine, like every new thing, both restricts and sets free. It can do only certain things in certain ways; but it can also do things that have not been done before. In time the printed book ceased to look like a manuscript; already the Machine’s bibliographical products sometimes do not look like (say) LC cards. The problems of cataloging data and the Machine range far: producing printed cards, producing book catalogs, producing tapes and/or lists for subscribing libraries, the concept of a central store of cataloging data—perhaps Jewett’s dream can yet come true.

When the Machine restricts you, it asks a question: Do you really need this thing the Machine cannot do? When the Machine sets you free it asks another question: What of all the new services the Machine can offer do you really need? For the Machine, like that other ingenious device, Man, does not work for nothing. So the two questions merge into one: What kind of cataloging code do we need?

Consider, for instance, an interesting book catalog I came across this year: Phyllis Richmond’s Science Libraries Consolidated Short-Title Catalog of Books and Journals (University of Rochester Library). The product of a computer, it is the second edition of originally separately-published book catalogs of four science libraries. It is a Big Book and it is not a pretty book, but it should be mighty useful. Each entry occupies only one line and this means, of course, drastic reduction of conventional cataloging entry and description. It even means drastic use of abbreviations; but with a book catalog you can list the abbreviations in the beginning. Modestly the preface suggests that this book catalog is designed as a supplement to the Libraries’ regular catalogs on cards. But a book in the hand is worth 500 trays of cards in the library; the “supplement” may well turn out to be the catalog.

Do we need a code for cards or a code for the products of the machine? For the book catalog is only one of the simpler products of the Machine. Indeed, Bernard Vavrek asks if the book catalog is really a necessary step in our search for library service improved by the Machine—or is it really a backward step because it leads us down the by-path of

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printing methods and thereby takes our attention from the main goal (Wilson Library Bulletin, November).

For the small library Esther Piercy's Commonsense Cataloging will mean much more than the Code. Hers is not a Big Book (in size), but patiently and clearly it leads the cataloger through the labyrinth. Why, even you can be a cataloger!

A Big Book suggests another answer to the small library. Mary Gaer's Elementary School Library Collection, although designed primarily to help in book selection, could, as it suggests, be used as a book catalog in a small library. This would, of course, bring standardization in content of libraries as well as in their catalogs.

Another smaller book in the conventional area was the Library Technology Project's Catalog Card Production. It tells you the problems (if you don't know them already!), it tells about the common card reproduction processes, and it tells you how to figure cost. A useful book—as long as you use cards.

It was a year of losses in areas touching on cataloging and classification. Mortimer Taube of Documentarion, Inc., and William Jackson of the Houghton Library each made unique contributions to their specialties and thereby influenced our thinking more than we may have been aware or willing to admit.

The Mann Citation went to Laura Colvin. Our Yankee with a Southern Accent has turned out many a good cataloger; and her other contributions to her profession have been many and varied. Best of all: She is someone good to know.

My nomination for the best article of the year: Margaret Brown's "A Look at the Future through Bifocals" (LRTS Summer issue). She is neither glum nor ecstatic; she is thoughtful and (as always) lucid about the world the Machine opens before us.

And that was The Year of the Big Book. But why not the Big Book? For twenty centuries the codex has served us. Now we talk patronizingly of a gentle ushering off the stage. Why should the book not swagger as it goes? A book, like a man, can be big for reasons other than fat.

Some Aspects of Serials Work in 1965

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The general tempo of serial activities during the past year increased in several areas. A definite acceleration in the number of union lists and general periodical holdings volumes was noted. A large proportion of this increase can be directly attributed to the growing number of libraries, big and small, and associated groups having access to the speed printing and automated organization now possible through computer magic.
Increased Publication of Serials

No attempt has been made by this observer to cite the galaxy of new titles which appeared last year. This type of information may be found in special sections or issues of College and Research Libraries, Library Journal, Bulletin of Bibliography, Stechert-Haefner Book News, LC Information Bulletin, New Serial Titles, and other similar sources. However, some effort has been made to obtain information on serial publications which in themselves function as monitoring tools to keep some sort of order in the labyrinthian maze created by the births, deaths, and amalgamations of serial materials. The observations cited in the following pages are only some serial aspects appearing in an area that expands, splinters, and shears off in so many directions as to make only a limited coverage of a year’s activities possible here.

The information explosion continues. According to S. P. Heckman in an article in the September 1965 issue of Book Production Industry, 60 million pages of published information were written in 1964 which would demand 465 “man” years of round-the-clock reading to cover. Information specialists have estimated that the amount of such material is doubling every 10 years.

Needless to say, a large share of this is published in serial form, with a major portion in the field of science, where the splintering and specializing produces new journal titles which change format and reproduce in amoebic-like manner. This matter of bibliographic control, particularly in the area of serials, makes it even more imperative that “something” be done in the way of better index and abstracting services when it is pointed out (Saturday Review, January 8, 1965, p. 72) that “with more than 90 percent of the scientists in the entire history of the world now alive, and with the great bulk of mankind’s scientific literature having been published in the past ten years, the techniques and facilities for capturing, managing, retrieving, transmitting, and presenting information for society’s use have become central to the management of the human community around the globe.”

The present control on serial information is confused and costly, with small groups going off in their separate directions in order to solve their particular problems. Costwise, the annual expenditure of about 13 billion dollars by the United States on research is rather impressive in itself, and becomes a bit depressive when it is estimated that 45 percent of this is dissipated because information about work already accomplished is unavailable to those researchers who come along later. It is expected that a certain amount of duplication of work will always occur, but it would seem that the percentage could be significantly reduced when improved retrieval systems are made available. The bulk production of serial-type material is enough to make the need for an early solution a “must” in library technology particularly when, as Heckman mentions, every 24 hours enough technical papers are cranked out to permit the filling of seven sets of the 24 volume Encyclopaedia Britannica.

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In line with this, the following news note appeared in the Summer 1965 issue of LRTS:

Representatives from major U. S. information services met in March in Columbus, Ohio, to analyze indexing services, with major emphasis on biology and chemistry. During a panel discussion moderated by Verner Clapp, Bernard Fry, Director of the Clearinghouse for Federal Scientific and Technical Information of the National Bureau of Standards, presented a plan for the creation of four clearinghouses for distribution of abstracts. These would be: (1) agricultural sciences, (2) engineering, (3) physical sciences and chemistry, and (4) biomedical sciences.

Plans were also made for reorganizing the National Federation of Science Abstracting and Indexing Services.

Abstracts, Bibliographies, Directories, and Indexes

For the first time the United States was host to the International Federation for Documentation, October 10-15, 1965, in Washington, D. C. Of particular interest to serial librarians were the two papers which presented the problem of overlap in abstracting services. Although no solutions were suggested, the approaches to this mounting problem were interestingly different.

One paper was the result of a study sponsored by the American Institute of Physics which used statistical counts to illustrate the staggering waste of resources and time through overlaps. The Aslib study approached the matter by an examination of references in representative bibliographies, pointing out the duplication of effort in certain areas while others either received a twilight approach or none at all.

The whole matter of providing serial abstracting and indexing services suitable in number and coverage to provide adequate literature searching is costly and requires the zenith in coordination and cooperation between groups—something which is quite obviously not a governing factor in these areas now.

The Council on Library Resources, Inc., granted the Library of Congress $35,000 for the establishment of a National Register of Microform Masters (NRMM), which will publish at regular intervals bibliographical reports citing the existence and location of master negatives (not for reader use) of microcopied serials, newspapers, and books. The regular publication of these bibliographic reports will be in addition to the work done by the Microfilm Clearing House which presently maintains records for projects involved in filming extensive runs of serials, newspapers, and manuscript collections, whether contemplated, in progress, or completed.

It is hoped that at the end of the first two years of the NRMM project, current as well as past master negatives can be cataloged and thereby produce a completely-published register. The anticipation is that the reporting of a new work will become a supplementary feature of the National Union Catalog.

Beginning in 1965, subscriptions to the computer tapes for Chemical
Titles were made available on a yearly basis. Chemical Abstracts Service announced that it was able to supply tape formats and a computer search program for an IBM 1401/1410, thus making it possible, with these tapes, for the user to search for any combination of terms, as well as permitting the dissemination of specialized information to individuals or groups not requiring the full coverage of Chemical Titles. Another innovation is the availability of Chemical Abstracts on microfilm; and, beginning July 1965, a new title, Chemical Abstracts Information File, was added to the Library of Congress' holdings.

An extensive reference tool in the area of information science is coming on the scene. The American Documentation Institute, assisted by a $60,500 grant from the National Science Foundation, is establishing an Annual Review of Information Science and Technology. These reviews will be comprehensive and critical analyses of progress in documentation and related areas. The announced purpose is to "provide a much needed consolidation, on a regular and systematic basis, of the vast and growing body of research, development, and applications work now being reported in this field." Volume 1 is planned for mid-1966 covering work done in 1965 as well as some earlier years. It will contain the following sections, each having its own reviewer: Professional Aspects of Information Science and Technology; Information Needs and Uses; Content Analysis, Specification and Control; File Organization and Search Techniques; Man-Machine Communication; Automated Language Processing; Evaluation of Indexing Systems; New Hardware Developments; Information System Applications; Library Automation; Information Centers and Services; and National Information Issues and Trends. The project editor is Carlos A. Cudra, System Development Corporation, 2500 Colorado Avenue, Santa Monica, California.

Two new "companion" bibliographical tools in serial form are Sci-Tech Book Profiles and Medical Book Profiles. Both of these monthly periodical services are published by the R. R. Bowker Company and cost $90.00 per year for the first and $60.00 for the second. Each issue of Sci-Tech Profiles will give details on about 150 recently-published books of interest to the scientist and technologist; Medical Profiles will cover 90 books on the clinical and scientific aspects of medicine. It is planned that these services will provide in-depth information on every major new scientific, technical, and medical book. This will include, in reduced form, reproductions of complete indexes, tables of contents, prefaces, and the names of contributors.

A specialized index/abstracting service for a specific area of concern published by the Library of Congress this past year was Arms Control and Disarmament. This is a quarterly bibliography containing abstracts and annotations in English which, it is planned, will cover 1,000 periodicals, trade books, and selected foreign government publications. It may be obtained from the Superintendent of Documents, United States Government Printing Office, Washington, D. C. 20402. Subscriptions are $2.00 per year; $2.50 foreign.

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"Bio-Research Titles" is a new section of Biological Abstracts which began in September 1965. This monthly lists, by subject and author, material which supplements the basic volumes of Biological Abstracts. It does not contain abstracts but provides access to information in reports of research for which it has not been possible to provide information in the traditional manner. Approximately 5,000 articles are scheduled to be reported in each issue.

Indian Science Abstracts is a monthly publication by the Indian National Scientific Documentation Centre, Hillside Road, Delhi 12. The intention of this journal is to fix up an effective bibliographical control of Indian scientific literature in India and abroad. It contains abstracts of review articles, monographs, proceedings, and symposia. There is a subject listing of abstracts along with a keyword and author index. A subscription in the United States is $30.00 a year.

Translation and Technical Information Services, 32 Manaton Road, London S.E. 15, has begun publishing East European Science Abstracts as part of a program to expand their translation services. These abstracts have been taken from Czechoslovakian, East German, and Polish patents and periodicals in the fields of applied chemistry, technology, and other areas in which chemicals are used. Some Russian journals are also covered. The subscription is $24.00 in the Western Hemisphere for sea mail and $33.00 for air mail.

A NASA publication, Reliability Abstracts and Technical Reviews, was published by the Clearinghouse for Federal Scientific and Technical Information (formerly Office of Technical Services), U. S. Department of Commerce. The annual subscription rate is $15.00 per year, on a calendar basis, including an annual index.

Industrial Microbiology Abstracts is a monthly publication of Information Retrieval, Ltd., 20-21 Tooks Court, London E.C. 4. It contains an average of 120 abstracts of patents and papers in each issue. These are arranged in sections and classified according to the nature of the final product. The annual air mail subscription is $100.00 and includes monthly and cumulative annual indices.

The American Institute of Physics, through the support of a grant from the National Science Foundation, began a new program of making available in English those articles appearing in Chinese in the journal, Acta Physica Sinica, which is published monthly by the Chinese Academy of Sciences in Peking. Abstracts of articles will be published quarterly in the abstract bulletin, Acta Physica Sinica Abstracts, which is distributed to those on the subscription list of Soviet Physics JETP.

An abstracting tool which will fill in some of the gaps left in areas outside of the pure sciences is the new publication put out by the College Student Personnel Institute, CSPI Abstracts. It is a quarterly publication of abstracts taken from over 175 professional journals, meetings, and proceedings of conferences. About one-fourth of the periodicals covered are listed in the Education Index. Each abstract will contain 200-400 word summaries of over 500 articles annually on such topics as,

Library Resources & Technical Services
The Director of the National Library of Medicine, Martin M. Cummings, has announced the beginning of NLM's express cataloging service which will be the first computer-produced catalog published by a national library for the use of other libraries. This new publication, National Library of Medicine Current Catalog, will be put out in 26 biweekly issues. The first was published in January 1966. The annual cumulation of this new catalog will supersede the National Library of Medicine Catalog published since 1956. The older catalog will make a final appearance in 1966 as a sexennial volume incorporating all NLM cataloging cards issued from 1960-1965. Major American medical book publishers are to furnish the Library for the NLM Current Catalog advance copy of every new title as soon as published. These publications will then be cataloged immediately and the information processed on computers to produce a biweekly listing of all new monographs and serials cataloged during the preceding two weeks.

A bibliography comprised of much serial material and covering, in a comprehensive manner, the published administrative records of Rhodesia and Nyasaland from 1889 to 1963 was issued by the General Reference and Bibliography Division, Reference Department, Library of Congress under the title, The Rhodesias and Nyasaland; a Guide to Official Publications. It was compiled by Audrey A. Walker of the African Section. Included are six political-geographical parts with each divided into two sections: entries under the names of governmental departments and those entered under titles, personal authors, and official corporate bodies. It is a much-needed reference tool for an area where major study programs are springing up throughout the country.

The initial portion of the Chinese Periodical Microfilming Project has been completed by the Library of Congress Photoduplication Service. The titles filmed were selected by the Joint Committee on Contemporary China of the Social Science Research Council and the American Council of Learned Societies. The issues filmed covered the period October 1959-December 1963 and include as complete a file as possible. A 14-page list of the titles filmed has been printed, and requests for it or positive prints of the titles should be sent to the Photoduplication Service, Department C-49, The Library of Congress, Washington, D. C. 20540.

The American University in Cairo Press (113 Sharia Kasr El-aini, Cairo, UAR) has announced the publication of an Annotated Guide to Journals Dealing with the Middle East and North Africa compiled by Florence Ljunggren and Mohammed Hamdy. This guide lists 356 currently-published journals dealing wholly or in part with Muslim countries in North Africa and the Middle East, covering a period from antiquity to the present. Only scholarly journals in the social sciences and humanities are included. Standard bibliographical data is given.
along with a description of the journal, types of indexes, presence of bibliographies, etc. A subject index and list of publishing bodies is included. It sells for $1.50.

Volume I of *Ulrich's International Periodicals Directory* containing more than 12,000 scientific, technical, and medical periodicals under 116 subject headings came off the press this past year. Volume II, which will give coverage to periodicals in the fields of arts, humanities, business, and social sciences, is scheduled for publication in early 1966. With the publication of this second volume, the 11th edition will give details on over 35,000 periodicals published in the United States, Canada, France, Germany, Russia, England, and other places throughout the world. The gargantuan growth of periodicals is mirrored in the need for a two-volume edition of this 33-year old directory. Certain subject areas have undergone notable expansion, such as "astronautics" under which the 1963 edition listed 38 titles and the new edition cites 67; "automation" carried 38 in 1963 but now has 57. That the acquisition and cataloging of foreign periodicals have also become extremely important parts of serial work is reflected in the fact that the first volume has 86 countries represented. Of significant interest, too, is the fact that of the more than 200 journals in the physics section, 150 are from overseas according to the *Library Journal* (October 1, 1965, p. 4038).

A new approach to a well established serial was set up during the past year with the publication of *British Books in Print* (formerly titled *Whitaker's Reference Catalogue of Current Literature*). It is the first new edition since 1961 and contains over two million details on some 175,000 titles put out by 1,834 publishers in the British Isles at the conclusion of 1964. It has been issued in two volumes containing a total of 2,750 pages. Volume one covers information regarding the publishers, statistics of books published, etc. The second volume is an author and title index, with some titles listed under series. Both volumes may be purchased from R. R. Bowker Co. for $33.60.

A six-volume special directory is being published by the Stanford Research Institute, Menlo Park, California. It is to be kept up to date with quarterly issues, and will cover in two volumes, references to 1,200 chemical companies and their products; a two-volume products section will list the manufactures of over 8,000 chemicals; a regions volume will list 4,000 plants by city and state, with a final volume covering construction activity and plant expansion. This 1,300 page directory will sell for $150.00, plus a $90.00 per year subscription renewal.

*Who's Doing What in Biomedicine* is a new monthly, each issue of which will be about 100 pages and give a list of sources, have a subject index, project title index, alphabetical index to investigators, and an investigator location index. It should be a most useful guide to learning about researchers and their projects, announcements of programs of scientific meetings, progress reports of on-going projects, and grants and contracts. Each year it will index and locate some 20,000 current research projects in the field of biomedicine. It is available from Center
Another new series is *The Directory of Published Proceedings*, a monthly compilation by InterDok citing the current availability of published proceedings of national and international scientific and technical meetings, symposia, and congresses. The directory is arranged in chronological sequence of the original meeting date and gives publisher and price. Conference location and subject descriptor indices are also included. Subscribers will receive the benefit of a centralized acquisition service for those proceedings cited in the *Directory*. In North America the annual subscription rate will be $38.00 (elsewhere $48.00), and it is available from the publishers, InterDok Corporation, 6 Kenneth Road, White Plains, New York.

An important new annual published in 1965 and serving as a buying and selling guide as well as a directory to the international book trade was *Publishers' World* issued by R. R. Bowker at $15.00. In the foreword, Sally Wecksler, compiler and editor, states that this publication "is intended to be first and foremost an exchange of information, offering in printed form an extension of the intense business activity that takes place during the year at Frankfurt and other international fairs, at international meetings and when publishers from one country have occasion to meet bookmen from other parts of the world."

Regarded as a pioneering reference work is the much-anticipated publication with the tentative title, the *International Directory of Irregular Serials, Annuals, and Yearbooks*. It is now in preparation, with publication expected sometime in 1966 by the R. R. Bowker Company. This is planned as a companion volume to *Ulrich's International Periodicals Directory*, with the listings grouped by subject and containing a subject and title index. Entries are to include the title, subtitle, date of first issue, frequency (if there is a schedule), editor, price in the currency of the country and the U. S. dollar equivalent, and the publisher and his address. It is being compiled by Emery Koltay, who graduated from Bolyai University, Cluj, Rumania, and holds degrees in science, economics, and statistics. The Bowker Company has said that it hopes to issue revised editions, possibly every second year and will welcome from librarians' and publishers' suggestions or information which might prove useful in the compilation of the directory.

A new semi-annual supplement service to the 55-year old directory, *American Men of Science*, begins in 1966. The first supplement for the "Physical and Biological Sciences Section" is scheduled for spring 1966, covering A-C and some D-G names. The second supplement is to appear in the fall of 1966, covering A-G and some H-K, cumulating information in the first supplement. It will be issued in cloth binding and be about 300 pages. The third supplement is scheduled for spring 1967, covering data from A-Sr consisting of about 200 pages, and it is to be issued paper-bound. The fourth supplement is to be issued in late 1967, covering new material A-Z. It will cumulate information in Supplement 3, contain about 450 pages, and be cloth bound. Although Supplements 3 and 4 do

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not cumulate data cited in the first two, they will include late biographies as well as A-K revisions. If, as is anticipated, this new approach proves successful, these supplements will appear on a regular basis. The four supplements sell for $50.00 "cash with order," or may be purchased at $10.00 for the first supplement; $15.00 each for second and third; and $20.00 for the fourth.

As of June 1965, H. W. Wilson Company's International Index was succeeded by the new Social Sciences & Humanities Index. The ALA Committee on Wilson Indexes recommended the changing of the name to reflect more clearly the revised coverage of the new index. Coverage was significantly increased for periodicals in the fields of anthropology, language, literature, and sociology. The International Index formerly covered 163 periodicals; the new index covers 209. It is published in June, September, December, and March with permanent annual cumulations, and is sold on the Company's service basis.

Plans have been announced by the National Library of Medicine to publish the 1965 edition of Cumulated Index Medicus early in 1966. This will comprise the annual cumulation of monthly issues of Index Medicus, the NLM's comprehensive listing of current articles from approximately 2,400 of the world's leading biomedical journals. Beginning in 1964, NLM's computer-based Medical Literature Analysis and Retrieval System (MEDLARS) produced Index Medicus and Cumulated Index Medicus. The 1965 edition of Cumulated Index Medicus, some 7,000 pages in four volumes, will be available on an annual subscription basis from the Superintendent of Documents for $40.00 ($50.00 foreign).

The National Library of Medicine is cooperating with the American Journal of Nursing Company in producing the International Nursing Index which is planned as a quarterly publication beginning in 1966. It will contain references from over 125 United States nursing journals. The indices, Cumulative Index to Nursing Literature and the Nursing Studies Index, now provide partial coverage in this area; the new index is the next step in the development of a system of comprehensive coverage.

The National Library of Medicine has also entered into a cooperative arrangement with the American Dental Association and others in conducting a pilot project toward providing an abstracting journal for the world's dental literature. The initial steps will involve the receiving and reviewing of abstracts of articles from the world's major dental journals and some selected journals outside of the field. Basic and applied research will be covered, with about half of the abstracts being taken from U. S. sources. The remainder will be done by the faculty of the Hadassah School of Dentistry of Hebrew University in Jerusalem. The preparation of these latter abstracts will be covered financially through NLM's special foreign currency program in conjunction with Israel's Program for Scientific Translations. After a trial period of several months and the decision to establish such an abstracting program on a permanent basis, it is thought that about 250 dental journals plus a large number of related publications will produce about 9,000 abstracts annually.
During the past year another change developed in the rather involved publication pattern of *Excerpta Medica*. In the approximately twenty years since it began, this reference tool has increased from the original fourteen sections to twenty-three, with some of these subdivided. Three new publications now replace Section II Physiology, Biochemistry and Pharmacology. These are Section II: A, Physiology; B, Biochemistry; and C, Pharmacology and Toxicology.

A monthly publication, *Government-Wide Index to Federal Research and Development Reports*, began in April 1965. This new comprehensive and unified index was issued by the Clearinghouse for Federal Scientific and Technical Information. Bernard M. Fry, Director of the Clearinghouse, stated that this consolidated index to Government-sponsored technical report literature will provide scientists, engineers, librarians, and management with a single source to new unclassified Government technical information. It is another computer-oriented project resulting from a merging of machine inputs from the larger Federal Research and Development agencies and comprises indexes based on supporting agencies, authors, subjects, report numbers, and sources. The single magnetic tape thus created will generate a mid-monthly index which, in addition to including the input from all contributing agencies, will also cover Government-sponsored Research and Development reports from the previous month's issues of *Nuclear Science Abstracts* (NSA), *Scientific and Technical Aerospace Reports* (STAR), *Technical Abstract Bulletin* (TAB), and United States Government Research and Development Reports (USGRDR). It may be purchased from the Superintendent of Documents, United States Government Printing Office, Washington, D.C. 20402, for $10.00 a year; $12.50 a year foreign.

Early in 1965 the Clearinghouse of the U.S. Department of Commerce issued *The COSATI Subject Category List*, a uniform arrangement by subject for the announcement and distribution of United States government scientific and technical reports. The acronym is for the Committee on Scientific and Technical Information of the Federal Council for Science and Technology which has endorsed the list. This publication is systematically arranged by 22 major subject fields, with further subdivision of the fields into 178 groups. It is felt that the purpose of announcement or distribution of these reports, abstracts, and citations can be categorized within these broad groups or subject fields. This publication is available from the Clearinghouse for Federal Scientific and Technical Information, Springfield, Virginia 22151, for $1.00.

The editor of the *Index to Latin American Periodicals*, George Grossman, reports that the G. K. Hall Company announced in April 1964 that they were not ready to set up a new contract for the publication of volume 3 of the index. The Vice-President of the Scarecrow Press, Ralph Shaw, indicated interest in resuming a quarterly publication schedule. The "index" would have a subject heading arrangement and a cumulated author index. Volume 3 was set for distribution in Spring 1965 and final copy for Volume 4 was to be received in May 1965.
In January 1966 a new Bowker title, *Forthcoming Books*, began publication. This annotated index replaces the three *Publishers' Weekly* "Announcement Indexes" and the three "Interim Indexes," the latter of which was announced as a new subscription title last year. It is to be issued bi-monthly and is advertised as a supplement to both *Publishers' Weekly* and *Books in Print*, since it will cover all books of all publishers, and not just the ones cited in PW, so long as the publisher can provide such information five months ahead. A subscription is $12.00 a year.

*Chemical-Biological Activities* is a new biweekly computer-generated publication of The Chemical Abstracts Service and published by the American Chemical Society. It is a four-part index to the current literature on the biological activity of organic compounds, containing a digest section, Keyword-in-Context approach, and molecular formula and author indexes. The coden used follows that found in the *ASTM Coden for Periodical Titles*. Twenty-six issues and two semi-annual cumulative indexes cost $800.00 a year and include up to twenty-five scientists at the subscriber’s address. A $50.00 surcharge is made for each additional group of twenty-five (or less) scientists.

A recently-published periodical put out by the National Federation of Science Abstracting and Indexing Services under a grant from the National Science Foundation is *Science Journals from Mainland China*, a Quarterly Journal Comprising Tables of Contents. In attempting to cover this difficult area, photoreproductions of the tables of contents of all mainland Chinese scientific journals received by NFSAIS will be used. The annual subscription rate is $3.00 from NFSAIS. Microfilm copies of articles or entire journals are available from NFSAIS, 324 East Capital Street, Washington, D.C. 20003. Photocopy-costs are 35¢ a page, with a $1.25 minimum. Microfilm costs include a 50¢ service charge per article plus 3¢ per double page, with a $1.25 minimum.

The first six volumes (1958-1964) of the *Index to Periodical Articles Related to Law* have been cumulated and issued as one volume which includes an author index and a list of the periodicals indexed. It will cost $15.00 for subscribers, $25.00 to non-subscribers, and can be ordered from Stanford University Law Library, Stanford, California 94305.

Probably one of the most esoteric titles attached to any computer-oriented publication in the past year was that of *Perceptual Cognitive Development*. This publication is issued monthly by Perceptual-Cognitive-Development, P.O. Box 35336, Preus Station, Los Angeles, California, and is a bibliographical index to materials on just that: perceptual, cognitive, and creative processes. The listings are intended to cover books, selected journal articles, speeches given at academic meetings, and research projects in progress.

*An Index to MacLean's Magazine, 1914-1937*, compiled by Peter Mitchell, provides a useful retrospective subject approach to one of Canada's popular magazines. References are to volume, page, and date of the issue carrying the article. It is available for $4.00 from the Association, Room 606, 63 Sparks Street, Ottawa 4, Ontario, Canada.

Library Resources & Technical Services
Book Review Index is a monthly looseleaf guide to reviews appearing in scholarly and general publications (including LRTS). It is cumulated every three months, having citations by author, title, and name of reviewing medium as well as reviewer. The publisher estimates there will be an annual total of 15,000 reviews involving 7,500 books. It sells for $24.00 and is available from the Gale Research Company, 2200 Book Tower, Detroit 26, Michigan.

The Curator of Rare Books at Duke University, Daniel F. McGrath, has edited the first volume of Bookman’s Price Index, a new serial title being published by the Gale Research Company. It is an annual index of prices asked for rare books, out-of-print materials (serials and monographs) in catalogs by antiquarian bookmen and specialists in the United States, England, and Western Europe. It is planned that five year cumulation volumes will be issued. The initial volume, published in 1965, cites 32,000 books alphabetically by author in one section; another section lists 28,000 periodical titles. Standard descriptions are given, including title, date and place of publication, author, and condition of the item.

A two-part, 14-year comprehensive index to the Newsletter on Intellectual Freedom has been issued. Part one covers 1952-62; Part two covers 1963-65. The complete index costs $5.00, which should be submitted with the order to the Editor, Newsletter, 48 Arlington Avenue, Kensington, California.

This past year saw the publication of the Cumulated Dramatic Index, 1909-1949, the counterpart of Faxon’s Magazine Subject Index (which was issued last year). This “new” two-volume work is a cumulation of the forty-one volumes originally published by F. W. Faxon Company. There are over 150 American and British periodicals indexed, totaling 300,000 entries interfiled in one alphabet. An appendix adds another 50,000 entries which cover an “Author List of Books About the Drama,” “Title List of Published Play Texts,” and “Author List of Published Play Texts.” This two-volume index costs $490.00; $539.00 foreign.

A Taiwan Periodical Guide is in preparation which will serve as an annotated subject guide to periodical literature available in Taiwan. The citations will include English translations of titles and indicate the cost and availability of back issues of the publication being described. It is being prepared by the Chinese Materials and Research Aids Service Center, Taipei.

Copies of the Bibliography of Social Science Periodicals and Monograph Series: “Yugoslavia, 1945-1963” (75$) and “Czechoslovakia, 1948-1963” (65$) are available from the Superintendent of Documents, Government Printing Office, Washington, D. C. 20402. These are the most recent in the bibliographies of social science periodicals and monograph series which are devoted to Yugoslavia and Czechoslovakia. They were done by the Bureau of Census under a National Science Foundation contract. Over 1,500 publications are cited in these two bibliographies covering cultural anthropology, economics, history, law, political

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science, sociology, statistics, and other areas. This makes a total of 19 in this series of bibliographies in the area of Communist Bloc and other countries having “problem” languages.

Union Lists

The *magnum opus* in the expanding world of union lists was completed this year and printed. In February 1966 the Joint Committee and the H. W. Wilson Company announced the publication of the third edition of the *Union List of Serials in Libraries of the United States and Canada*. This much-awaited edition required over six years to complete and is published in five sturdily-bound large folio volumes. The work totals 4,649 pages; contains 156,499 serial titles held by 956 libraries in the United States and Canada; and sells for $120.00. Including cross references and changes, the total number of individual entries in this edition totals 226,987. The 1,580 pages of the first edition (1927) contained 75,000 serial titles from 225 U.S. and Canadian libraries; the second edition (1943) contained 115,000 titles and holding locations for 650 libraries in its 3,065 pages.

This new edition incorporates into a single alphabet all the entries and information in the second edition, the First Supplement (1945), and the Second Supplement (1953). In addition, selected new titles and holdings up to the beginning of the current Library of Congress publication, *New Serial Titles*, which lists serials published from 1950 to date, have been included. In all probability the third edition will also be the final edition of the old ULS.

The work was financed by a grant of $244,651 from the Council on Library Resources, Inc. (a Ford Foundation-supported group). In 1959 the Joint Committee contracted with the Library of Congress to handle the editorial work. In September 1959 the actual work began with Edna Brown Titus as Editor, under the supervision of John W. Cronin, Director of the LC Processing Department. In 1961 the H. W. Wilson Company was asked by the Joint Committee to handle the publication and distribution of the new edition. The Committee directed that the English firm of Balding & Mansell, printers of the British Museum Catalog, handle the “manufacturing” of the third edition, in order that the unique abstracting system that firm employed might be utilized. The Committee’s specification that this system be used was made in order to save an estimated $100,000 in editorial and preparatory costs, which would otherwise have had to be absorbed by purchasers of this new bibliographical giant. Upon completion of these arrangements, the manuscript of the third edition was neatly packed into nine large trunks; and in June 1963, Mrs. Titus sailed for London with her precious cargo.

All of us, serials personnel in particular, but most certainly all library users in general, are eagerly looking forward to using this new work. It is equally certain that we all extend our thanks to the ones who have made such a publication possible, from those who financed, guided, and edited the work to those who supplied the raw material.

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A useful compilation is that made by the John Crerar Library which published its fifth edition of *List of Current Serials*. This new list contains some 9,000 entries including cross references, and represents about 7,500 titles which have been taken from the total holdings of 12,000. This "list," last issued in 1958, contains 286 pages and is hardbound. It is planned that supplements will be issued during the interim before the next complete edition. The basic sciences (biology, chemistry, physics, etc.) are strongly represented as well as agriculture, medicine, and technology. Photoduplication services will be provided for most of the titles listed, on a cost basis. Serials not included are national, state, and municipal documents with some exceptions where the series is considered an integral part of the literature of science or technology; administrative publications are generally excluded as are AEC, National Aeronautics and Space Administration, and Department of Defense technical reports. The list may be purchased from the John Crerar Library, 33 West 33rd Street, Chicago, Illinois 60616, for $12.50; additional copies cost $6.25.

The Kansas Library Council, comprising six college and university libraries, compiled the *Kansas Union List of Serials*. Almost 22,000 entries (including 4,500 cross references) are cited in this regional list covering over 17,500 titles. Each entry includes title, holdings, publication history for eight different libraries at the six schools. The list is basically composed of serials appearing two or more times a year, thus excluding annuals. Newspapers, looseleaf services, publisher's monographic series, statistical reports, non-journal government documents, and progress reports are also excluded. The 359-page list was written in autocoder for the IBM 1401 computer, and details of the program are available from the Project Director. Copies of the list may be purchased for $10.00 by writing to the Office of the Director, University of Kansas Libraries, Lawrence, Kansas 66045.

Another extensive IBM-generated listing published during the year is the new *North Carolina Union List of Scientific Serials* which updates *A Checklist of Scientific Periodicals and of Selected Serials in the Libraries of Duke University, North Carolina State College, The University of North Carolina, and Woman's College of the University of North Carolina*, done in 1954. In addition to the above North Carolina institutions, the holdings of Chemstrand Research Center were also included. The list, with a cut-off date of June 1963, contains 13,568 titles with 21,439 holdings statements. The arrangement is alphabetical by title or corporate author and title. Standard holdings and location information are given.

One of the internationally important serial publications is the revamped *British Union-Catalogue of Periodicals* (*BUCOP*). The new form of *BUCOP* concentrates on the recording of periodicals and serials for the period in and after 1960 which began publication or changed title, began a new series, or ceased. This quarterly will be superseded by an annual comprehensive volume. In this manner *The World List of...*
Scientific Periodicals will be continued, for all practical purposes, through the publication of this annual volume of BUCOP. To use this revised bibliographical tool most effectively, a careful reading of the Introduction will be well worth the time spent. The earlier editions of BUCOP and The World List of Scientific Periodicals will have to be consulted in order to get a complete picture of the holdings of all libraries in the case of changed titles.

The Montreal Chapter of Special Libraries Association published the Union List of Serials in Libraries of Montreal and Vicinity. This 506-page volume contains 9,000 periodicals representing the holdings of Montreal's university libraries, selected public libraries, and 46 special libraries. It was reproduced by a combination of xerography and offset from sheets of mounted holdings and title cards. The cost is $20.60 (Canadian). Orders should be sent to Mrs. Joyce Kolodny, Treasurer, Montreal Chapter, SLA, Air Canada Library, 38th Floor, 1 Place Ville Marie, Montreal, Quebec, Canada.

The Rochester Area Union List of Periodical Holdings was published late in 1965 by Special Libraries Association members in the Rochester, New York, area. It is a 40-page photographically-produced listing of holdings in 14 special libraries and one college library and contains about 3,000 titles. It sells for $12.50, payable to the Rochester Area Union List, Wilma Kujawaki, Treasurer, 67 Tyler Street, Rochester, New York 14621.

The universities in the Bridgeport, Connecticut, area have compiled a union list of serials containing about 1,500 titles from three institutions. Annual revisions are planned, and inquiries about this project should be sent to William Ready, Librarian at the Sacred Heart University Library, Bridgeport 4, Connecticut.

A Union List of Serials for Public Utility Libraries, compiled by Morris Hoffman, Librarian at Northern Natural Gas Company, is a 245-page spiral-bound holdings list of 17 member libraries of the SLA Science Technology Division, Public Utility Section. This alphabetic listing of current subscriptions as well as retrospective holdings is available for $10.00 per copy from the Library, Northern Natural Gas Company, 2223 Dodge, Omaha, Nebraska 68101.

The Science-Technology Group of the Boston Chapter of the Special Libraries Association has published the fifth edition of the Union List of Serial Holdings in Forty-three Libraries. It may be ordered from Miss Alice G. Anderson, Boston Post Road, Wayland, Massachusetts 01778, by sending $15.00 with the order and making checks payable to the Science Technology Division of SLA (Boston Group).

A third edition of Union List of Serials in the Libraries of Honolulu is the product of a cooperative effort by the Hawaii Library Association and the University of Hawaii. This new edition sells for $20.00 and may be ordered from the Hawaii Library Association, P. O. Box 3941, Honolulu, Hawaii 96812.

A Union List of Latin American Economic and Social Periodicals is
being worked on by the Committee on Latin America, London. This list will be a compilation of periodicals on Latin American economic and social topics, with guides to resources in those fields. A list of periodicals is available from the National Central Library, London.

Annotated World List of Selected Current Geographical Serials in English, Including an Appendix of Major Serials in other Languages with Regular Supplementary or Partial Basic Use of English is the lengthy title of a listing of 62 current geographical serials in English plus 56 in other languages, with supplementary use of English from 43 countries. This revised publication by Chauncey D. Harris has been issued as Paper no. 96 by the University of Chicago, Department of Geography.

Arabic serial holdings in seventeen U. S. libraries have been listed in Occasional Paper no. 75 published by the University of Illinois Graduate School of Library Science. The 61-page paper contains 400 serial titles and was compiled by Mohamed M. El-Hadi.

Another specialized union list is Serials: Advertising, Business, Finance, Marketing, Social Science, in Libraries in the New York Area. It contains approximately 1,800 periodical listings from 192 libraries and gives holdings and location. The computer-produced 165-page volume costs $15.60; checks should be made payable to Committee on Serials and the order sent to Philip Rappaport, Chairman, 80 Centre Street, New York, New York 10013.

During 1965 the San Francisco Bay Region Chapter of SLA published Science-Technology House Journals which was compiled from the holdings of twenty-two science-technology libraries of the Chapter. The entries are by title with a company name and address index. It is a list limited to periodicals published by industrial companies containing informative articles on research and development, rather than being a comprehensive list of house journals.

Newspaper Resources of Metropolitan Detroit Libraries; a Union List, compiled by Howard A. Sullivan and Thelma Friedes, provides access to research material otherwise not readily located. U. S. newspapers in Detroit libraries are cited by state, city, and title; foreign newspapers are listed by country, city, and title. Four appendices give access to lists of labor newspapers; trade, professional, and literary; ethnic and religious; and press summaries and newspaper indexes. In addition to the usual holding information of participating libraries, there is also an indication if the run of a title is on negative microfilm. This 46-page list is available for $1.50 from Wayne State University Library.

A Union List of Latin American Newspapers in the United States is being planned. The American Historical Association has subgranted $15,350 to the Library of Congress' Conference on Latin American History Fund to assist the LC Serial Division and the Hispanic Foundation in developing such a union list. It is anticipated that the project will require eighteen months to determine the holdings of Latin American newspapers, including photoreproductions, held in selected U. S. libraries. This project is regarded as an initial step in a larger program

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which would make available to researchers the major newspaper published in each Latin American country since 1821. The total cost of the project will be about $24,000 which will be obtained from a Ford Foundation Grant given to the AHA for various activities.

Another recent regional list is *Newspapers in the West Virginia University Library*. This 129-page compilation which contains 842 newspaper titles, 647 of which are from West Virginia, was compiled by L. C. Boger. It has title and chronological indexes and is available from the West Virginia University Library.

The Bibliographical Center for Research, Rocky Mountain Region, Inc., in Denver, Colorado, published a checklist, *Guide to Colorado Newspapers, 1859-1963*, compiled by Donald E. Oehlers. The listing is alphabetical by county, city, and title with each title bearing an item number. The index is a guide to cities and titles and gives the item number. Over 2,800 titles are cited, most of which are held by Colorado libraries.

The *Texas List of Scientific and Technical Serial Publications* was published in Houston, Texas, this past year. It sells for $42.50; with the Supplement Program of 3 quarterlies and an annual cumulation, the cost is $50.00; annual cumulations only, $27.50. It contains 13,000 titles held by over 100 participating academic, public, and private libraries in over 25 cities. The term "scientific and technical" is broadly used and includes dentistry, medicine, psychology, statistics, etc. A complete revision is planned for the end of 1966 or the beginning of 1967.

Bibliographical access to post-World War I newspapers from East Central and Southeastern Europe was greatly aided by the Library of Congress publication of *Newspapers of East Central and Southeastern Europe in the Library of Congress* edited by Robert G. Carlton. It is arranged alphabetically by country with minor exceptions.

The Southeastern Library Association issued a *Guide to Union Catalogs in the Southeastern States* describing seven union catalogs in existence in 1961. Information is given regarding the collections involved, service policy, and similar facts. Copies may be obtained from Mrs. Ann W. Cobb, Price Gilbert Library, Georgia Institute of Technology, Atlanta, Georgia 30332, for $1.00.

The Library of Congress recently published the *African Newspapers in Selected American Libraries, a Union List*, third edition, compiled by Rozanne M. Barry (Washington, D. C., Serial Division, Reference Department, 1965). This 135-page publication describes holdings of 33 U. S. and Canadian libraries. This is 13 more libraries than were covered in the 1962 edition. Of the 708 titles included, 283 are newly reported. Holdings of originals as well as those on positive microfilm are cited under country and then alphabetically under city of publication; there is a title index.

As can be seen from the above sampling, this has been a frantic year for the proliferation of regional and special union lists. Whether this is a growing trend or a "stop-gap" measure remains to be seen. As com-
puters, and in the future more advanced technology, play an increasingly-active role in everyday library life and an increased number of international serial reference tools are developed, this apparent need to begin shuffling 3 × 5 slips each time the phrase “union list” is mentioned at a regional meeting may subside. Certainly the need for such lists would become less apparent if in place of these fragmented bibliographic solutions, international reference tools were available. Particularly in the area of newspapers, the absence of an updated Union List of Newspapers and no adequate foreign newspaper list make the problem of location of titles for reference or microfilming exceedingly difficult and time consuming.

**Binding, Preservation, and Reprints**

The increasing magnitude of the bookbinding industry was emphasized with the publication of the Census Bureau’s report for 1963, *Bookbinding and Related Work* (*Library Journal*, April 15, 1965, p. 1850). In 1963, bookbinding expenditures amounted to $243 million, a 27 percent increase over the 1958 figure. In the category of library binding (including rebinds, hardcover binding for periodicals and records, and prebinds, but excluding edition binding), the total was $54.2 million in 1963 as compared with $14.5 million in 1958. An active interest in how libraries can more effectively handle the increasing binding problem resulting from deteriorating paper, higher-binding costs, and the general increase in “books” (including serials) is a matter of research interest to various library-oriented organizations.

A grant was made in March by the Council on Library Resources to the ALA Library Technology Project to foster the development of a sewing machine which seems to offer certain advantages in the rebinding of library books. Among these advantages would be permitting resewn books to lie flatter than at present as well as machine-sewing books now requiring hand-sewing. A working model of this machine was to be designed and manufactured by the James H. Jones Company, Chicago.

This fall the Council on Library Resources also announced another grant of $15,000 to the Library Technology Project to plan a three-volume manual covering the preservation and restoration of “books” and other library materials. The first volume would be devoted to the care and repair of books; the second volume would cover rare books; and the third volume would concentrate on other types of materials collected by libraries such as prints, maps, microforms, recordings, films, slides, clay tablets, and papyrus. The planning of the outline and text will probably take a year, and various specialists will be invited to contribute chapters. The writing of the manual is being done by an advisory committee under the chairmanship of Harold Tribbey, Head of the Extra Bindery Department, R. R. Donnelley & Sons Co., Chicago.

found in the “performance standards” of publisher’s bindings as well as library bindings. Of equal importance with the development of good binding standards is the development of a technical philosophy of good sense as to when to rebind, or when to purchase reprints or microreproductions to fill in or replace serial volumes.

Whether or not photoreproductions of serials are to be preferred over bound volumes is still a volatile issue. One binder, S. P. Heckman, in an article, “Microfilm, Economics Will Determine Its Future” (Book Production Industry, September 1965, p. 43), refers to a doctoral dissertation done at Rutgers recently which indicated that “if a journal were needed as often as once per year, it would be better to buy the journal, check it in, prepare it for binding, bind it, and house it. If the journal were needed less than once per year, it might be feasible to obtain photocopy instead of housing it.” The unanswered question in large research collections is, of course, which journals are used? Those used in the stacks for which no circulation record is ever made cannot be tabulated. Moreover, when it comes to filling in existing files with a microform or a reprint, a very real debate evolves with the economics of a microreproduction on one side and the comparative ease of use and processing of a reprint volume on the other.

In a preliminary summary of the 1964 Survey of Maintenance of Library Materials made by the Library Binding Institute, it was reported that upon querying 1,309 libraries of all types, only 353 sent answers concerning this matter of cost. Of the 190 public libraries responding, processing costs ranged from $8.00 per volume to as little as $1.91, with an average of $1.91. The prices reported by the 153 college and university libraries replying indicated an average of $4.20 per volume with a range from $1.25 to $12.00. More record keeping and/or research appeared to be needed by college and university libraries in this area of cost analysis since 57 percent of those responding to the survey were unable to provide an answer, compared with 44 percent of the public libraries. The binding budget allocations given college and university libraries from their total budget was 6.46 percent, as compared with 2.61 percent for public libraries.

Last year a major emphasis centered around the condition of paper in library materials, particularly in view of the extensive and highly technical work done by W. J. Barrow and associates. This year a large emphasis has been on the quick availability of hard copy for out-of-print serials which can be acquired with a minimum of staff time, both in filling in back files and securing replacement volumes.

During the past twelve months the number, quality, and content of reprints expanded, and as a corollary, prices have risen. Heralding the new era are the full-blown catalogs printed on good stock and filled with extensive listings, and, in some cases, elaborate descriptions of reprints of titles long unavailable. In many cases these reproductions appear to be on better paper than were the originals. With some, the quality of the type is inferior, but in view of the advantage of better paper,
solid bindings, and the ready availability of complete runs, it is difficult to justify a complaint unless it be based on cost.

In addition to the coverage of the *Reprint Expediting Service Bulletin* and the reprint catalogs of publishers such as Abrahams, Canners, Dawson, Johnson, Kraus, and Readex, two new titles were published. *Bibliographia Anastatica* began over a year ago. This periodical, appearing quarterly, covers both serials and monographs. It is published in Amsterdam by P. Schippers, Nieuwe Herengracht 31. The second title is Renate Ostwald’s *Nachdruckverzeichnis von Einzelwerken, Serien und Zeitschriften aus allen Wissensgebieten*. This is a hard-bound volume of 747 pages, published in 1965 by Günter Nobis, Verlag u. Wissenschaftliches Antiquariat, 62 Wiesbaden (Germany), Bahnhofstrasse 61. The foreword indicates a supplement will be issued.

In line with these, the RTSD Serials Policy and Research Committee during the past several years has been trying to get a single index publication issued which would carry a listing of all reprinted serial titles. A final solution to this particular problem has not yet been found.

Tightly allied to the overall binding problem is the matter of preservation and restoration of deteriorating paper. The task of deacidifying the many long serial runs in large libraries would be staggering. An editorial in the *Library Journal* (March 15, 1965, p. 1271) points out some of the questions which require answers before putting into action the provocative and important Report of the Committee on the Preservation of Research Library Materials of the Association of Research Libraries, “The Preservation of Deteriorating Books: An Examination of the Problem with Recommendations for Its Solution,” by Gordon Williams. A summary and comment are in the same *LJ* issue on the succeeding pages.


An especially hopeful note on this matter of “book” preservation is struck in the following statement showing the harmonious blending of theory and practice. It is taken from the colophon of the third edition of the *Union List of Serials* as a “postscript to posterity”:

This work is printed on specially selected acid-free book paper (basic weight British standard 39 lbs. per 500 sheets 23 × 36 inches, approximately U. S. standard 45 lbs. per 500 sheets 25 × 28 inches) manufactured for the purpose by the Wolvercote Paper Mill, Oxford, England. The paper was selected after samples had withstood laboratory tests which indicate that it has excellent characteristics of permanence and durability, promising many years of life and hard use to these volumes. Specifically, the tested samples demonstrated a folding endurance of 585 double folds in the cross direction and 74 grams tear resistance in the

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machine direction of the paper. After accelerated (heat) aging at 100°C for 12, 24 and 36 days (roughly the equivalent of 100, 200, and 300 years of natural aging), these values fell to 320, 149 and 117 folds and to 61, 54 and 53 grams. The original pH (measurement of acidity) was 6.87; this fell after 3 days of heat aging (roughly the equivalent of 25 years) to 6.25. Average opacity was 85.7%. All tests were made in accordance with the procedures approved by TAPPI (Technical Association of the Pulp and Paper Industry). In all characteristics except the last this paper exceeded the tentative specifications for a permanent/durable book paper proposed by Mr. W. J. Barrow and published in the *ALA Bulletin* 57:851, October 1963.

**Documents**

In August 1965 a *Summary Report of Government Documents Questionnaire* was issued by the University of Massachusetts Library. It tabulates the results of a survey of 31 large university libraries made in March. The two-page questionnaire sought to gather special information concerning the policies and procedures practiced in administering document collections in these institutions.

The information obtained from the 26 libraries responding resulted in the following capsule conclusions made with the full realization that "skeletal statistics" can rarely reflect the total picture:

1. No clear mandate given to keep all documents in a complete separate collection.
2. Ordinarily an individual separate collection is arranged in several different classification schemes.
3. 14 of 17 libraries use the Superintendent of Documents scheme for arranging U. S. federal documents.
5. 13 of 17 libraries catalog and classify their foreign documents.
6. 9 of 16 libraries catalog and classify publications of international agencies.
7. Most separate documents collections are located as close to the main floor as possible and proximity to the reference staff is also preferred.
8. 10 of 18 libraries have open stacks in their documents collections—the other 8 have closed stacks.
9. Most documents collections are both processed and serviced by a separate documents staff.
10. Only one library employs a special documents cataloger in the catalog department to catalog the documents when they are all added to the regular collection.

A new publication issued by the General Services Administration to appear each Monday is the *Weekly Compilation of Presidential Documents*. This indexed publication will carry transcripts of the President's news conferences, messages to Congress, speeches, Presidential statements, and other material of this nature. It is available on a subscription basis from the Superintendent of Documents at a cost of $6.00 a year.

*Library Resources & Technical Services*
A 131-page supplement for 1960-63 to the General Catalogue of Unesco Publications and Unesco Sponsored Publications appeared this year. It continues, for the most part, the same format followed by the General Catalogue covering 1946-59. Of particular value is the inclusion of "Unesco sponsored publications" which are bibliographically elusive. Use of this new supplement with the quarterly List of Unesco Documents and Publications assists greatly in the acquisition and reference work of this difficult material.

Other Serial Activities

In the Winter 1965 issue of LRTS Don S. Culbertson had an article, "Computerized Serial Records," which points out some of the interesting and exasperating aspects involved in converting serial records to a computerized operation. Another paper published in this same area was Donald P. Hammer's "Reflections on the Development of an Automated Serials System" in the Spring 1965 LRTS. In this article an outline is presented for some of the procedures and work which go into the evolving of a computer-centered serial check-in system, in this case at Purdue University. This was being done parallel with the existing recording procedure.

The MEDLARS project (Medical Literature Analysis and Retrieval System) in its magnitude alone is tremendous. The developmental phases including planning and the progression to the point of operation is covered in an article, "The MEDLARS Project at the National Library of Medicine," by Charles J. Austin, Chief of the Data Processing Division at NLM. It appeared in the Winter 1965 issue of LRTS.

A review of serial control systems through automation processes, by Louis A. Schultheiss, was published in the Summer 1965 issue of LRTS. The article, "Two Serial Control Card Files Developed at the University of Illinois, Chicago," is a revised and extended version of a paper presented to the RTSD Serials Section at the ALA Conference in St. Louis.

Periodical costs and serial service prices continued to climb during the year as the "Cost Indexes for 1965: U. S. Periodicals and Serial Services" in the Library Journal for July 1965 show. Even a cursory examination will indicate that serial budgets are going to require a substantial increase if libraries are to continue to add new titles and pay the increased subscription costs for the old ones.

In Scientific Information Notes (June-July 1965, p. 16) is cited an observation taken from the U. S. Department of Commerce publication, Characteristics of Professional Scientific Journals, noting that a National Science Foundation-sponsored survey revealed the cost of publishing a technical journal is $54,700 per year, the income of which comes from subscriptions at a rate of $3.00 to $4.00 per year, with almost none from advertising; subsidies and grants help pick up the rest of the budget.

Another point of interest is that it requires from five to seven months to have an article published in any of the 205 technical journals examined.
The average length of papers in university publications is 10,000 words; 6,000 is the rule for commercial and society journals. The majority furnish abstracts to an abstracting service. Along this same vein is an article by D. Bishop, "Publication Patterns of Scientific Serials," in American Documentation (April 1965, p. 113-21).

In the Winter 1965 issue of LRTS an article by Peter Gellatly, entitled "Variant Prices of Serial Publications," points out several "flexible" price practices, citing a number of interesting examples which show serials to be variable in other than bibliographical factors. Fluctuations of subscription costs also must be figured in terms of the foreign circulation of U. S. scientific journals which is on the increase. A survey cited in an editorial in the American Association for the Advancement of Science journal, Science (August 6, 1965), states that its own circulation currently totals 112,000 of which 9,804 copies are outside the U. S. Moreover, domestic circulation has increased only 10 percent as compared to 30 percent overseas. The American Institute of Physics has 30 percent of its circulation foreign, and a third of the American Chemical Society's publications are distributed overseas, including Chemical Abstracts; of 6,759 subscribers to CA, 3,866 were foreign.

Publication-wise, both foreign and domestic, the field of automation produces new harbingers of technical tidings almost monthly. New serial services, such as Computer Applications Service put out by American Data Processing, Inc.; Computer Logic Circuit Characteristics Tabulation compiled by D.A.T.A.; and Computer Digest, also by American Data Processing, are "flooding" the market. Although these titles are definitely signs of the times, they frequently create an aura of bewilderment for the uninitiated.

Nevertheless, education for a new serial technology has begun. Each year we reaffirm the truism that there can be no conclusion to serial operations. More to the point, it seems, no conclusion should be considered, but only a more effective and efficient way of dealing with the present situation in order to be ready to handle even more sophisticated technological approaches in the future.

NEW SERIALS DIRECTORY

The R. R. Bowker Company has announced that a new reference work, tentatively entitled The International Directory of Irregular Serials, Annuals and Yearbooks, is in preparation and will be published in 1966. The compiler is Emery Koltay.

The Directory is planned as a companion to Ulrich's International Periodicals Directory and, like Ulrich's, will be world-wide in scope, including materials using the Roman Alphabet or with abstracts or some information in English. Listings will be grouped by subject, and the volume will have both a title and a subject index.

The initial edition will be necessarily selective. Data is being compiled from a variety of sources, but the Company will welcome suggestions or specific information from libraries or publishers that will be helpful in its compilation.

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Library Resources & Technical Services
Developments in Copying Methods and Graphic Communication, 1965

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The Emergence of Total Graphic Communication Systems

ALTHOUGH 1965 did not see the development of any unique new technical device for reproducing library materials and although it appeared to be a year of quiet consolidation of gains by industry, it witnessed the emergence of a trend which could be of far greater moment than the invention of any one device or process: this was the formation of whole new economic complexes comprising all facets of graphic communication, from production, manufacture, marketing, distribution, and processing, through usage itself. Involved are the Federal Government, computer makers, the telephone and television industry, printing and publishing, and the educational community itself, its administration, scholars, students, and libraries.

The trend began a few years ago when Xerox purchased University Microfilms; following that lead, IBM bought Science Research Associates, and last year RCA tried—but failed—to buy Prentice-Hall.* Then in 1965, Xerox acted again by acquiring American Education Publications, Inc., and its parent, Wesleyan University Press. Xerox has already declared its intention of becoming a world leader in graphic communication and of penetrating the educational market even more actively. E. K. Damon, financial Vice-president, stated that “Xerox is now, and in the future will be, concerned with graphic communications of infinitely greater sophistication.” Further affirming that Xerox’s long-range plans are focused on education, Damon also indicated that “knowledge-flow would be a Xerox service in 1975.”1 But a potent challenger, RCA, also “intends to develop, manufacture and market new electronic equipment and systems for handling all types of printed information.”2 In describing the new graphic systems research unit organized for this task, R. W. Engstrom, President of RCA, said: “Eventually, it will range across a broad spectrum of the graphic arts to embrace such functions as the electronic storage and retrieval of library information and the automatic preparation of photographic printing plates directly from images transmitted electronically over long distances.”2

Nineteen sixty-five will also be remembered as the year when nine universities formed the Eclucom organization to promote the interchange of all types of information between universities by means of networks and data processing, and the year in which the Intrex Planning Conference was convened to activate a boldly-conceived experimental library system at M.I.T. From this year on, it will not be possible to speak of developments in copying methods independently of the interactions produced by this new combination of forces. Meanwhile, let us review what did happen last year.

First, the annual dollar volume of the copying industry rose to nearly two-thirds of a billion dollars, the level predicted for 1965 just five years ago. Second, Xerox garnered an estimated half of this market, a fact that must have been very gratifying to any librarians who bought Xerox stock in the good old days. Not everyone shared this bonanza; Racan Photo-Copy, a Canadian firm, went bankrupt, after vainly trying for five years to perfect its highly promoted 1015 dry copier. Some specific developments originating from Xerox are described below.

**Xerography and Other Electrophotographic Processes**

In response to much demand, Xerox made available a complete system for reproducing catalog cards on the Xerox 914. A document carrier holding four cards is used for exposure; prescored, predrilled card stock is inserted into a special holder in the paper supply tray. Cards are reproduced “four up,” i.e., in batches of four. The system was demonstrated at the ALA Detroit meeting and is already in use in many libraries. (This observer has noted substantial variation in the print quality of cards reproduced on the 914 and suggests redoubling all usual precautions, including zealous maintenance, to assure consistent, satisfactory results.)

Xerox also opened its National Library Card Center in Philadelphia to reproduce cards in quantity by the Xerox Copyflo method at prices varying from $.07 per card to $.045. These prices are for cards requiring no extra handling; an additional $5 per hour is charged for any extra handling. Libraries producing large quantities of cards and/or other Copyflo work might well investigate an in-house Copyflo operation which can produce cards and prints at costs equal to or less than commercial rates, depending upon the work load.

Xerox also modified the per-copy rates on two copiers, the 914 and the new 2400. The modified 914 is now designated the 420; the cost per copy for the first three copies is slightly higher than the cost on the regular 914, but beyond three copies (from the same original, please note) the rate is substantially less. On the 2400, the rate begins at four cents per copy and declines by several steps so that from the 26th through the 44th copy, the rate is only one-half cent per copy. All rates exclude supplies. This writer still believes that the 2400 will have little impact upon the copying of library materials, owing to its curved exposure window, which accommodates loose sheets best.
A Xerox-connected development in facsimile transmission may be of general library interest, owing to the experiments now under way at the University of Nevada Library. The Magnafax 840, which will be distributed by Xerox, is rated to transmit an 8½” x 11” sheet over regular telephone lines in about six minutes. This is comparable to the performance of similar equipment made by Stewart-Warner, and is probably a temporary substitute for Xerox's own much faster LDX (Long Distance Xerography) system, now somewhat dormant owing to a recent FCC decision which required AT&T to raise the price of the necessary Telpak transmission service.

The Philip A. Hunt Chemical Corp., for generations a supplier to the photographic industry, made available its Graph-O-Print Toner, which is claimed to cut toner costs as much as 24% for the 914 copier. Rowland Products, Kensington, Conn., introduced its Rowlox sheets for making transparencies on the 914. The cost of the sheets is approximately $2.56 each in quantities of 100. The transparent sheets are run through the 914 (or the 819) just like regular paper stock.

Both SCM Corp. and Apeco readied new electrostatic copiers. SCM introduced the Coronastat 55 in September. Mounted on wheels, and weighing about 250 lbs., it is claimed to make a copy in 12 seconds and can be set to make up to 20 copies repetitively. Basic machine rental was announced at $50 per month, plus a sliding unit price scale. Federal Division of Victoreen Instrument displayed at the Detroit ALA meeting its Vicostat, a copier somewhat similar in operation to the Dennison Copier. Dennison made available a new “Cost Controller” console accessory; by use of keys, up to twenty-four customers' utilization of one copier can be metered separately. Speed-O-Print Business Machines of Chicago announced its intention to market a new, dry copier, as did Olivetti-Underwood Corp. in conjunction with Quik-Chek, the actual developer of the copier. Since new machines which are likely to be used in libraries will be tested as a matter of course by the Library Technology Project and will be reported in Library Technology Reports, no evaluations will be attempted in this review.

Microfilm: Meetings, Cameras, Readers, and Other Equipment

The 1965 convention of the National Microfilm Association held three general sessions plus a new feature: day-long workshops. Each workshop was led by a panel of experts who conducted a full day's discussion on specific aspects of microphotography. Twelve workshops met on information storage and retrieval, standards, measuring and testing, archival quality and storage, the microfiche and other topics. The International Micrographic Congress met in Tokyo, November 17-19: this marked the first time that a meeting of world-wide scope was devoted exclusively to microphotography. The majority of the papers appeared to be technical or commercial, to judge from the program. The Society of Photographic Scientists and Engineers held a Symposium on Photography in Information Storage and Retrieval. Preprints of abstracts...
and summaries of the papers read at the symposium are available for $5.00 from the Society, P. O. Box 1609, Main Post Office, Washington D. C. 20013.

3M Company offered a new processor-camera, the Filmsort 2000, a big brother to the earlier model 1000D. It provides a reduced cycle time (40 seconds per fully processed aperture card) plus two reductions, 16X and 24X. It is intended for filming engineering drawings up to 24” x 36”. Also added to the line was the Filmac 400B Reader/Printer, in which 3M has eliminated the need to soak a sponge with activator solution and has made it easier to change lenses. The lenses simply lift out and drop in; ten different lenses are available. Some may find the ease of lens changing too tempting! Both 16mm and 35mm film can be read, and a microfiche attachment is also offered. The 400B sells for about $1100. For 16mm film only, 3M offers another reader/printer, the Filmac 400 (no “B”) with a cartridge system designed to compete with the Recordak Lodestar. Compatibility with existing 16mm film systems is claimed, and equipment is provided for making up the cartridges in-house. A digital counter allows quick frame location from previously-noted indexing data, and electric drive provides for rapid look-up. This combination sells for about $2500.

Recordak brought out three new pieces of equipment: the Reliant 300 flow camera, the Reliant 600, and the Microstrip Reader, Model PGR. The 600 offers the highest reduction—45:1—ever provided on a standard flow camera; three other lower reductions are also offered. A significant option for the two Reliants is the Kodamatic Indexer Accessory which provides the between-the-frames lines needed for Recordak Lodestar readers. These cameras are suitable only for loose documents and only for 16mm film.

The Microstrip System is a curious offering. It was devised, this writer was told, under contract for a specific customer, and is now being offered to the general public. Foot-long strips of 16mm microfilm are inserted into grooved plastic sticks after a small plastic button is first fastened to one end of the strip. The plastic stick is inserted into the reader and a pointer which engages the plastic button is pushed along the stick. This allows the reader to scan the contents of each strip on the screen. The system is said to be designed for quick look-ups and “frequently changing” files. A demonstration conducted at the ALA meeting displayed images of catalog cards on a reader/printer version. However, the application of this system to library catalogs seems impractical to this writer, owing to the high cost of updating and maintaining the microstrips. Basically, any strip photographic format is not suitable for records which need to be changed frequently because of the inability of presently-available systems to accept easy interpolation of new data or deletion of obsolete information. New photographic materials and methods may eventually overcome this limitation.

Data Reproduction Systems, Inglewood, California, brought out two portable cameras, the DRS 8514 and DRS 1117, which could be used to
photograph bound volumes owing to a unique design feature: an “open bottom” which permits placement of the camera directly over the pages of an open book of any thickness. Depending upon the features and options, the cameras range in price from about $1000 to $2200; both are for 35mm film. A companion reader, the DRS model 11 is priced at slightly over $200 with a roll film attachment; other carriers are available for other film formats.

Documentation, Inc., introduced its Model 1010 microfiche and roll film reader, a portable unit priced at $199.50. It is one of the few portable readers having a self-contained opaque screen. A $50 attachment allows use of 16mm roll film, but apparently 35mm roll film cannot be handled. The same firm has under development a portable reader/printer promised to “cost less than any other on the market today.” Other readers included the Documat 1824 which can accept a wide variety of film formats and sizes and also gives variable length prints, and the University Microfilms low cost reader priced at only $100. The UMI reader seems to be about the only piece of microreproduction equipment which has no model number or name. Made by DuKane, it is compact, weighs 15 lbs., and affords a magnification of 20X, very satisfactory for most scholarly uses.

With the passing of the Recordak floor model reader, the last library reader with a really big screen (18" x 18") disappeared. Now from England comes a new and bigger reader offered by Micro Methods and priced at £225, about $630. Screen size is 16.5" x 25" and electric wind is offered. A still larger screen is available on the French-made Audomatic reader developed by the ACRPP. Although this reader and a companion reader/printer have been around for several years, none has appeared in the U. S. to this writer’s knowledge. The French prices range from about $1200 to $1800 depending on the model; perhaps this explains why none is in use in this country.

Kalvar Type 80 duplicating film has been made available premounted into aperture cards for use with two matched pieces of equipment, the Model 200 exposer and the Model 240 activator or developer. As mentioned in last year’s review, Type 80 film is processed entirely by light alone. By changing the amount of ultraviolet light used in development, variable contrast can be achieved. Type 80 can be used only for copying existing films, not for original photography. William A. Pfaff, a developer of custom-made microfilm equipment, has built the first working model of a camera designed both to expose and to process Kalvar film. An exposure time of about 5 seconds is required, but further research is expected to reduce this. So much heat is generated from the powerful exposure lamps that the document photographed must be fanned, hence the sensitivity of the film must be greatly increased before Kalvar Film can be used on library materials.

In November, CBS Laboratories brought out the Model 400 Microduplicator, a $4000 unit which enables low- or medium-volume users to duplicate roll microfilm onto diazo copy stock. The diazo process
offers high resolution and reproduces a negative from a negative and a positive from a positive.

**Microfiche**

Houston Fearless, well-known maker of film processing equipment, announced plans to build a microfiche Camera-Processor expressly designed for library materials. An illustration of the prototype shows a vertical camera stand with the camera on top, a glass wedge below it opened to about 120°, and below that a movable bookholder having two platens forming an identical angle. The opened book is placed face up on the platens and the book holder moved upwards against the glass wedge. This flattens the pages and prevents motion during exposure. Presumably the optical system is designed to "open" the book page a full 180°. Fully processed microfiches (called Filmcards by Houston Fearless) are produced at a reduction of 18 to 1. Capacity of the camera is 250 precut film sheets of size 105mm x 148mm, about 4” x 6”. Work on this unit is being supported by a grant from the Council on Library Resources.

In autumn 1965 the Microcard Corporation announced opening of a Microfiche Service Center in Washington to promote the microfiche and to provide facilities for filming, duplicating, and making hard copies. The Microcard Corporation is the principal microfiche contractor to the Federal Government at the Clearinghouse for Federal Scientific and Technical Information. The Corporation issued a well-written Microfiche Systems Planning Guide in 1965; this document is an excellent introduction to the microfiche and to microfiche equipment.

Those libraries which service AEC, NASA, and other microfiche documents may wish to investigate the KalvaFiche system. This consists of a Model K-10 Colight exposing unit and the Kalvar Model 110 Instant Developer. With these, distribution copies of microfiches may be reproduced within a few minutes. The Colight exposer is not a Kalvar product but is available from many graphic arts dealers at $745; the Model 110 Instant Developer is priced at $285.

As reported last year, Xerox has been working on a printer to make hard copies from microfiche. The 1824 Copyflo Printer has been used for this purpose, but its output is comparatively slow. A prototype Enlarger-Printer built in Xerox's laboratories is rated to produce 10 pages per minute and up to 15 copies of a complete microfiche at the same rate. Four different sizes of microfiche are accommodated; the standard enlargement ratio is 16.6X and printout is on 8.5” x 11” paper. In the effort to accommodate many different input formats, a large and complex prototype has been built. It is doubtful that this particular model will ever be marketed; a simpler machine geared to the new COSATI microfiche standards will probably now be developed.

**Publications**

Further refinement of the standards which led to the government-
wide adoption of the 4” x 6” microfiche has resulted in the publication of Federal Microfiche Standards, issued in September, 1965. These standards have been adopted by the Committee on Scientific and Technical Information (COSATI) and are available for $50 each from the Clearinghouse for Federal Scientific and Technical Information as PB 167 630. The Microfiche Foundation, Delft, Netherlands, has issued Bibliography on Microfiche, a classified list. This 1965 publication lists 208 citations, versus about 80 in a compilation made up two years ago. Included is the first citation on the then-unnamed microfiche, Goldschmidt and Otlet’s 1907 article, “Sur une Forme Nouvelle du Livre, Le Livre Microphotographique.”


In September 1965, System Development Corporation issued Recommendations for National Document Handling Systems in Science & Technology. That part of the report containing information on document reproduction systems and equipment is riddled with incredible, grotesque errors; an example is the statement that “currently available devices allow 7200 feet of video tape to be searched in one second for document page images”—which would require tape transport mechanisms to move tape at speeds up to 5,000 miles per hour! Actually, the Videofile system provides for scanning 7200 feet of tape in 115 seconds, a mere 43 mile per hour rate of movement. In another instance, the photochromic process is described as recording documents “on special colored films through the use of heat-developed inks.” Nothing of this kind is involved in the photochromic process. Film processing machines are referred to as “developers,” a term which is never applied to such apparatus. Although the paper deterioration problem is traceable to the 1870’s, this report states that it is serious “with respect to commercial paper since 1900.” No mention is made of the recently-discovered microfilm defects.

To these 1965 publications of reprographic interest should be added some late arrivals from 1964 which were not mentioned in last year’s
review. Paul Poindron edited the *Manuel Pratique de Reproduction Documentaire et de Selection* (Paris, Gauthier-Villars, 1964), the successor to the FID *Manual on Document Reproduction and Selection*. Othmar Helwich of Darmstadt published *Reprographie*, the text of the formal papers delivered at the First International Congress on Reprography, Cologne, 1963. *Reprography and Copyright Law* (Washington, American Institute of Biological Sciences, 1964) contains the formal papers presented at a 1963 symposium on copyright organized by American University. Unfortunately, the lively discussion which took place among the participants was excluded from this book; however, this exclusion was probably essential for the effectiveness of the symposium. It is interesting to note that the relationship to copyright of computer technology and data processing, while hardly mentioned in the text, was debated with some strength at the symposium itself. In *PCMI: Technology and Potential Applications*, Wilbur C. Myers, Manager of Research and Advanced Development at the National Cash Register Company, has written a substantial monograph on the recently-developed photochromic microimages (PCMI). This 125-page book offers much more than the promotional literature one usually associates with a new process; it contains extensive chapters on history, microfilm technology, applications to libraries, publishing, education, and automated information retrieval. Over a hundred footnotes thoroughly document the text, which was issued in 1964, and is available upon application to the Company.

**Copyright**

With the publication of Part 6 of *Copyright Law Revision*, there is now available a complete record of all the studies, proposals, comments, and discussions which have been brought before Congress, including the full text of the 1964 revision.

If the arrival of simple office and library photocopying machines spurred interest in revision of the copyright law, then the fantastic pace of advance in data processing is certain to assure congressional action on new legislation very soon. How secure the author’s rightful revenue from and the user’s proper access to communication in the merging worlds of printing, publishing, and computer technology? This question formed much of the basis for discussion at a two-day meeting held in New York by the American Textbook Publishers Institute. A summary of this meeting and an informal survey of the problems are contained in “The Other World of Publishing,” which appeared in the April 1965 issue of *Book Production Industry*.

Curtis G. Benjamin, Chairman of the Board of McGraw-Hill and one of the publishing industry’s most articulate spokesmen, has vigorously expressed his concern for copyright on several occasions. Most recently he added data processing and retrieval systems to library and educational photocopying, representing both as a sinister combine grinding away at the publishers’ markets to the extent that eventually only one copy of a book need be manufactured; this copy would cost upwards of  

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Some of this gloom may be tongue-in-cheek or hyperbole, one cannot tell which, because obviously data processing and computer technology could be the salvation of the publishers’ copyrights by providing some possibility of adequately monitoring or sampling the usage of copyrighted data, and handling necessary bookkeeping. In other words, it may be possible in the future for national data processing networks to carry out some kind of clearinghouse operation of the type suggested by the Committee to Investigate Copyright Problems Affecting Communication in Science and Education. Users of copyrighted works are divided; the standpoint of the National Education Association—which desires virtually unlimited copying in “not for profit” situations—is at variance with that of the Joint Libraries Committee, although one librarian has claimed that “it is neither burdensome nor oppressive for libraries to operate in compliance with copyright law.”

A newly-developed guideline for British practice, Photocopying and the Law, worked out by the British Society of Authors and the Publishers Association, allows penalty-free creation of single copies not to exceed 10% of the total of a given work, with no provision for making multiple copies. The British apparently want to apply vigorously Anthony Trollope’s dictum: “Take away from English authors their copyrights, and you would very soon take away from England her authors.”

Developments in the Prototype, Research, or Planning Stages

The Ampex Videofile system is now capable of selectively recording a single page at any predetermined spot on magnetic tape. Papers describing the Videofile system in fairly complete detail were given at the 1965 Western Electronic Show and at the National Microfilm Association meeting. It is understood that at least one major university library is considering the Videofile as the next step beyond the computer-produced printed book catalog.

Magnavox delivered to the Army Missile Command its DARE, a high speed, unitized system for storing and retrieving engineering drawings. The DARE (Documentation Automated Retrieval Equipment) is equipped with several hundred magazines, each holding 3,000 35mm x 3” chips containing a drawing plus coded data. A chip is accessed directly, and copied onto an expendable aperture card within one minute. Besides rapid retrieval, the main advantage of the system is that the master copy need never leave the main file.

A novel technique devised by Aeroflex Laboratories, Plainview, N. Y., permits recording up to 500 different pictures on a single negative. Film is processed in the usual way but is read on a special viewer which allows the user to select any “page” at random. Several years ago the Centre National de la Recherche Scientifique, Paris, also devised a method of recording multiple images on the same film, but the number of images was much less than 500. Philco prepared for the Air Force a multifont character reader claimed to be capable of reading even degraded typewritten text at the rate of 500 characters per second.
For a review of character readers, see Business Week, October 9, 1965, p. 185-188.

General Precision, Inc., Pleasantville, N. Y. has been working for a number of years on equipment designed to transmit microfilm images by closed circuit television. Earlier equipment allowed a user to view remotely any portion of an aperture card image with a wide choice of magnifications. The latest version shown at the 1965 Western Electronic Show included the GPL TV Printer which allows the user to take a hard copy of whatever he is viewing on the screen. Prints 8.5" x 11" are delivered in about half a minute by rapid processing of conventional silver halide paper.

General Electric's Advanced Development Laboratories, Schenectady, built a laser holograph reader—a device capable of reading characters in several ways. It can detect a single object out of many without scanning, or if scanning is used, can recognize up to 100 different characters. The holographic reader is said to show wide tolerance for variations in type fonts and is expected to find applications in the computer field. The Advanced Development Laboratories announced two other developments. One is Photocharge, a new photographic recording process. Unlike other electrophotographic processes such as those using selenium, or coated paper, Photocharge material requires no external charging to activate the recording process. The second announcement describes improvements in Photoplastic Recording, a process first brought out by General Electric in 1963. Both processes are dry and produce high resolution images almost instantaneously; both require further development before becoming commercially available.

For some years the Institute for Scientific Information has been working on the Copywriter, a portable device for selectively reproducing a word, line, sentence, or paragraph from a printed page. Its developers estimate that 10% of the total copying market would find a selective copier appealing. Although the device was promised for 1965, no further word on the Copywriter has been seen.

Houston Fearless demonstrated a breadboard model of CARD (Compact Automatic Retrieval Device), a desk top unit capable of displaying within 4 seconds any one of 10,000 pages of filmed data. The recording medium is standard 4" x 6" microfiches, mounted in metal holders housed in magazines holding from 128 to 1,024 microfiches. Each metal holder is edge-notched for retrieval purposes and is magnetically suspended so that microfiches do not scrape against each other as they are withdrawn and replaced.

Abram Games, inventor of the Imagic copying process a few years ago, has come up with another new process called RLF, for Reduced Layer Formation. The process depends upon differential absorbency of inked and uninked paper. A roller coated with some liquid is rolled across a printed page; uninked portions of the page absorb considerable moisture from the roller, while inked portions absorb in inverse proportion to the density of the ink. After this, the roller contains a wet, posi-

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tive, mirror image of the page, and this is simply transferred to another sheet of paper by passing the roller over it at once. Development is accomplished by sprinkling black powder which adheres to the wet image; fixing can be by heat or pressure. About a hundred different fluids, including water, have been tried successfully. It would be interesting to speculate on what the publishing industry could do with inks and papers that have identical absorbency characteristics. At any rate, this process is "still in the early stages of development..."

Bibliographic Control

In direct response to L. K. Born's recent *PMLA* article, "Planning for Scholarly Photocopying," and to recommendations by the Conference on Copying European Manuscript Sources, a Center for the Coordination of Foreign Manuscript Copying has been established in the Manuscript Division of the Library of Congress. The Center will keep track of projects "for photocopying foreign archival records and manuscript material." An attempt will also be made to provide needed technical advice and to coordinate and publicize the variety of photocopying activities, and thereby eliminate possible unnecessary duplication. The Council on Library Resources is supporting the Center's operations for the first several years with a grant of $75,300. Preparation work continues on the *National Register of Microform Masters*; an article by Edmond Applebaum in the Fall 1965 issue of *LRTS* fully describes this project.

Personnel

H. R. Verry, British reprographic expert, died in 1964. He was well known for his regular contributions to the FID's *Revue de la Documentation*, for several books, and as a founder of the Institute of Reprographic Technology. In this country, Ralph Carruthers, retired after thirty years as head of photoduplication at the New York Public Library, Carruthers was voted a Fellow of the National Microfilm Association in honor of his long service to microreproduction. It is pleasant to conclude this review by reporting that for the first time since its founding, the National Microfilm Association elected a president from the library world: Donald C. Holmes, Chief of the Photoduplication Service of the Library of Congress. Mr. Holmes has worked in the Library of Congress since the establishment of the Photoduplication Service in 1938 and is one of the country's foremost experts on the photography of library materials.
REFERENCES


LUCILE MORSch RETIRES

Lucile Morsch retired from the Library of Congress on December 30, 1965. Although she has had various assignments at LC, her last and longest service was as Chief of the Descriptive Cataloging Division. She first came to that position in 1940 when the Division was formed.

Miss Morsch’s contribution to the profession and to library organizations has been wide and notable. She began her ALA services as the first secretary of the Junior Members Round Table, continued in innumerable committee memberships and offices, including two terms as a member of Council prior to her Presidency of ALA which makes her a member of Council for life.

She has been continuously a strong member of the Division of Cataloging and Classification and the Cataloging and Classification Section of RTSD, serving in every conceivable assignment, including Presidency of the former for two years.

She prepared the 1949 Rules for Descriptive Cataloging in the Library of Congress (“The Green Book” adopted by ALA) and has been LC representative on the Catalog Code Revision Steering Committee and the committee revising the descriptive cataloging rules. To the surprise of no one, she was the first recipient of the Margaret Mann Citation when it was established in 1951.

We wish her great happiness in her retirement but assume and hope, of course, that she will continue to work in library affairs and with ALA.

Library Resources & Technical Services
Technical Services in 1965

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and
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The Year 1965 brought to the field of technical services a number of new publications which either consolidate information already well known to most librarians, or which present a perspective view of activities and developments in technical services in the various types of libraries. Specific attention is directed to these publications under the following rubrics: (1) organization and administration, (2) centralized and regional processing, (3) documentation and information storage and retrieval, (4) personnel and training, (5) binding and preservation of materials, (6) quarters and equipment, and (7) efforts at standardization.

Organization and Administration

A series of publications discussing technical services from the standpoint of organization and administration appeared during the year. Administration of the Small Public Library, by Dorothy Sinclair,1 may be useful to many librarians. Chapter 7 of this book is devoted to "Technical Processes," including such areas as processing centers and commercial services; efficient internal processing; binding, mending, withdrawing, replacing; inventory; circulation; and technical processing and public relations. A bibliography is appended to the chapter. The discussion of processing centers and commercial services is well condensed and is concerned with the factors of cost, quality of service, coverage, speed of work, obtaining the agreement of trustees and officials, adapting the collection to the new service, and adapting the staff to the service. All of these factors have been involved in the arrangements that have been made with centers, and librarians should be aware of them in development of technical processing contracts and relationships. Miss Sinclair's comments on other aspects of technical services are straightforward and independent. The brief statement on public relations probably could have been expanded, since this is one area that has been given slight treatment in the literature.

Two English publications may be mentioned as general works embodying discussions of the technical services. These are Technical College Libraries, by Neal,2 and College Library Administration in Colleges of Technology, Art, Commerce and Further Education, by Smith and Baxter.3 The volume by Neal, which has the sub-title, "A Guide to Problems and Practice," runs through the gamut of library activities and programs, and includes consideration of personnel, operations, facilities,
and equipment. It is oriented to English libraries both in discussion and bibliography and adds little new information to the field of technical services. Some details are quite interesting, such as the statement that “only three diseases—smallpox, diphtheria, and ‘open’ pulmonary tuberculosis—can spread infection by means of books.” (p. 97) This quotation is taken from the North Riding County Library staff manual. The volume by Smith and Baxter contains two chapters on technical services, including “Books: Selection, Acquisition and Recording” and “Periodicals and Other Materials.” There are comments about technical processing in other chapters as well. The slant of the book to the technical college is reflected in the consideration of classification, abstracting, and the handling of periodicals. The bibliography, like that in Neal’s book, is almost wholly composed of references from English periodicals and books published in England.

*A Technical Services Manual for Small Libraries*, by John Boyd Corbin, contains a section on order work, and the rest of the monograph is devoted to cataloging and other preparatory processes. The manual is designed for use by librarians in the Texas State Library, and is a revision of an earlier work (1962) which was devoted to cataloging. It is illustrated with forms, cards, and examples of acquisition letters.

*Simplifying Work in Small Public Libraries*, by Donald D. Dennis, (Drexel Institute of Technology, 1965) gives detailed step-by-step routines for organizing library work, principally the technical services. It is designed for untrained and inexperienced librarians in the smallest of public libraries and should be of practical help to them. The project was conceived by Joseph L. Wheeler and financed by the Council on Library Resources.

Because it cuts across several areas of the technical services, reference is made in this review to George Lowy’s *A Searcher’s Manual*. This publication is a useful work which presents, in short compass, the problems of searching in catalogs, bibliographies, lists, and other sources. The functions of searching, principles of card catalog entries, and the technique of the search are considered. The information included in this work may be familiar to most librarians, but the condensed presentation in this single little volume is to be commended. The manual records experiences in searching in the Columbia University Libraries.

*Proceedings of the First Governor’s Library Conference, June 24-25, 1965, Albany, New York,* is a report on the Conference discussions centering about cooperation and new developments in library demands and services. Such matters as Universal Education and Libraries; On Transferring Knowledge for Use; Science, Industry and Libraries; Libraries: Cooperation or Chaos; Automation and Libraries; National and State Organization for Library Services; and Regional and Local Organization for Library Services were each considered by a speaker and a discussant. Again, much of the information may be known to librarians generally, but the meeting represented a first approach to discussion of the problems of library development on a state-wide basis. Effort was directed
toward assessing the present situation and to pointing up ways for the future development of libraries in the State of New York.

Although the basic content in *Commonsense Cataloging*, by Esther J. Piercy, is included in the review of cataloging in this issue, this useful text is mentioned here because it does contain information on the management of cataloging departments which is of interest.

*Library Trends* for October 1965, was devoted to “Junior College Libraries.” Included in the issue are articles on various aspects of the operation of junior college libraries, particularly organization and administration, personnel, developing collections, processing, and buildings and equipment. The issue might well be used with Helen R. Wheeler’s *The Community College Library: A Plan for Action*, published at Hamden, Conn., by The Shoe String Press during the year.

**Centralized and Regional Processing**

The extension of centralized processing during the year included activities involving groups of libraries, as well as services offered by commercial agencies. An article on the implications for personnel arising from arrangements in a centralized cataloging program was prepared by Pierson. He discusses the effects which centralized cataloging might have on cataloging as a career, and the effects that such cooperative arrangements might have on catalogers and clerical staff from the standpoint of management. In the first situation, Pierson visualizes the removal of certain responsibilities from professional staff, freeing time which might be spent in interpreting the catalog to the users and assisting them in other ways. In the second situation, the author visualizes the development of a “talent pool,” which would be of great help to librarians in small units. He assumes, for his discussion, that the centralized cataloging would be of high quality and just as prompt as if it were done in individual libraries. Slowness of service is, apparently, the most common complaint registered against centralized services.


Another paper on commercial operations of general interest is by Westby. She reviews the historical development of commercial services, and then seeks to enumerate the various factors involved in making arrangements with the companies offering this kind of assistance. Again,
the problem of speed of service is discussed. Some commercial enter-
prises are likely to contract more work than they can reasonably handle
with available staff and equipment and, hence, give slower service to all
customers.

During the year, announcement was made of the Library Journal
Cards, a book processing service started in April. Similarly, Kansas pub-
lic libraries planned for a centralized service. Although more concerned
with cooperative cataloging than with centralized processing, the pros-
psects for these activities were discussed by theological librarians. Tauber and Stephens prepared a report for the Southern California Library Study on Centralized Technical Processing. This was part of a larger study, issued in 1965 under the general title of Strength Through Cooperation in Southern California Libraries, edited by Martha Boaz. The study encompassed the counties of Los Angeles, Orange, Riverside, and San Bernardino. In the Tauber-Stephens study, 45 of the 61 li-
braries to which questionnaires were sent responded, and 32 indicated
willingness to participate in a program of centralized processing.

Finally, it may be noted that in Canada there is also a movement to
provide centralized services. The Cooperative Book Centre of Canada,
Ltd., Toronto, which was centralized about ten years ago by a group of
Canadian publishers, developed a plan to provide complete cataloging
and processing for Canadian, British, and American books at a cost of 75
cents per title. Variations in procedures were to be allowed.

The different approaches to centralized processing have been inter-
esting, and we still need information that would be useful to li-
brarians when all sorts of variations occur in a centralized operation.

Documentation and Information Storage and Retrieval

As in the last few years, there have been many efforts to coordinate
information in the general field of documentation and information
science. The death of such leaders as Hans Peter Luhn and Mortimer
Taube undoubtedly will have some effect upon the development in the
field, since they both had so much to give both in new ideas and criti-
cism of other activities.

Some monographic works in the field include works by Kent, Schutze, Sharp, Stevens, Licklider, and Buckland. The three works by Kent contain discussions of electronic information handling, special-
ized information centers, and library planning for automation, which
present generalized information with which students of the field may be
acquainted, but which may be helpful to newcomers. Schutze's Documenta-
tion Source Book covers a wide range of topics, and may be useful to
the general reader, as may the shorter work by Sharp. Stevens' Automatic Indexing launches into an area of considerable importance for
mechanically-prepared indexes.

Libraries of the Future, by Licklider, is based on a two-year study of
the applicability of new information-handling approaches to the per-
formance of the functions of libraries of tomorrow. A system is devel-

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oped which links the library and the computer together, and involves the transmitting of information without the necessity of transporting the material. Within this framework of approaches, Buckland describes the transfer of bibliographic information to a perforated-tape typewriter. If this plan were feasible, information would be supplied by the Library of Congress to other libraries, as machine-readable records that could be processed on data-processing equipment.

Closely related to both the Licklider and Buckland approaches is INTREX, an acronym for "information transfer experiments." Reference is made to this acronym in the report of a planning conference held at Woods Hole, Mass., under the supervision of Carl F. J. Overhage. In a review of the conference in the December 1965 Wilson Library Bulletin, Jesse H. Shera was critical, but acknowledged that there was, within the framework of the meetings, a concentration on changes that are occurring in librarianship. The emphasis on the transfer of information, rather than the communication or retrieval, is apparent. The place of a national network of information centers is discussed, and the character of the Information Transfer System at the Massachusetts Institute of Technology in 1975 is described.

Another volume in the field that may be of interest to readers is Volume VI of Studies in Coordinate Indexing, edited by Vladimir Slamecka. Emphasis in this volume is placed on practical methods of indexing and information retrieval. Two of the papers by the late Dr. Taube, "The Coming of Age of Information Technology," and "Documenta-tion, Information Retrieval, and other New Techniques," are among those in the volume which present an integrated orientation and are worth re-reading by neophytes in the field. There are other papers on indexing, corporate author entries, thesauri, searching, and technical information centers.

Paul Wasserman's The Librarian and the Machine (Detroit, Gale, 1965) is another volume that may be of interest to those concerned with mechanization. It considers the place of machines in library operations, notes applications and limitations, and suggests that librarians should move closer to documentalists by recognizing that changes are occurring and that machines are involved in the changes. It also notes that documentalists might realize that librarians have discovered some essentials that would be useful to them.

Data processing was the subject of a series of articles in the Winter 1965 issue of Library Resources & Technical Services. The papers are revised versions of those presented at the ALA Pre-Conference Institute held at the University of Missouri, June 24-27, 1964. Since these papers should be easily available to the reader, it is necessary only to state here that they include discussions of such areas as the hardware of data processing (C. D. Gull), computerized cataloging (Jean Perreault), automatic classification and indexing (D. V. Black), computerized serial records (D. S. Culbertson), computerized circulation work (R. E. McCoy), data processing aids in acquisitions work (L. A. Schultheiss), dissemination of

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information (I. A. Warheit), The Library of Congress project (G. W. King), The MEDLARS project (C. J. Austin), and the machine and the librarian (R. H. Parker). All in all, the papers, even though they include content that may not be new to some readers who have been keeping up with the field, provide systematic insights into actual installations, as well as suggest potential applications. What might be lacking is detailed evaluations, which will be necessary to aid librarians in their work in the various areas delineated.

The impact of technology on library service is the subject of a paper by Don Swanson,29 of the Graduate Library School, University of Chicago, in Library Service With or Without Automation. Dr. Swanson is concerned with the approaches of librarians in adapting to the new technology. He quietly makes an effort to place equipment, automation, and computers in their proper place in the field of communication and information. Miniaturization of records, book catalogs, information networks, and the electronic transmission of information are among the topics he treats. There is a separate section of questions and answers which pick up many practical issues in the field of documentation.

Other publications in the field include the December 1965 issue of Special Libraries, which contains a series of articles on centralization of library processing, compatibility of computer input and programs, sharing communications networks, sharing vocabulary control, “Auto-indexing,” and indexing by automatic processes, do-it-yourself retrieval systems design, comparative costs of document indexing and book cataloging, government and libraries, and the ad-hoc forum for information center administrators. Studies in Technical Data Management, edited by Vladimir Slamecka,24 which includes five studies prepared by students at the Georgia Institute of Technology, cover the areas of concepts, functions, and principles of technical data management. There is also a study of related policies and programs of the United States Air Force.

Two other publications in the field should be cited in this review of technical services in 1965. The first is the Library Systems Study for Public Libraries of Santa Clara, Alameda, and Contra Costa Counties,25 and the second, the October 1965 issue of American Documentation. The first of these items is an extraordinarily detailed analysis of present library services in the area: patron interest groups and objectives, the collections, public service activities, the cooperative system (bases, organization, centralization, additional materials factors, the computer, readers’ aids, utilization of facilities, and other matters). The report should be examined carefully for specific recommendations which do not always seem to include sufficient background data.

American Documentation, for October, 1965, contains useful papers on technical information systems or centers. The attitudes of scientists toward a specialized information center are discussed by Feinler, Cook, and Heinz.26

Research in the field of classification is the subject of a report by Richmond.27 This FID publication is a closely-knit document which
does not attempt to analyze the better application of classification systems, or the work of the classifier. Rather, it seeks to suggest research that would make for better classification systems. The conclusion goes back to fundamental considerations of "the place and nature of intuition in human thinking and understanding," "the full cycle of communication from person to person in terms in semantic content or meaning," "the nature of self-evidence," "the nature of mathematical models needed to describe a total work of interrelated subject fields," "the nature of meaning and how it is contained in words," and "the degree to which inductive methods, scientific and probabilistic, can be applied to a field as amorphous as classification." She asks "How much is science, and how much is art?" Of course, much is art. The discussion of the Library of Congress classification ends with a puzzling question of why it works. The librarians who have used this system know that it works because it is a set of practical classifications, not a single classification. Each subject class has its own peculiarities, and these are recognized in the differences in the schedules.

There have been a number of developments in the area of book catalogs which should be cited. Two book catalogs, among others which might be mentioned in this review, are those of the Michigan State Library, which started in January, 1965, and of the Science Libraries of the University of Rochester. The first of these is photographically prepared, and the second is a computer product. G. K. Hall, Alanar-Brodart, Documentation, Inc., EconoList, and Science Press, to name a few companies, have been producing book catalogs for various libraries or library systems.

An interesting development in book catalogs is the idea of combining them with centralized processing or as replacement for centralized processing. The Black-Gold System in California (see the Chadwick article in this issue) is an example of this. The North Carolina Library Association is studying the feasibility of producing one book catalog for the public libraries of the State, and Documentation, Inc., has prepared for them a Technical Proposal. Other areas are discussing such plans.

Another publication in the field of information storage and retrieval which appeared during 1965 is by Rees. In The Evaluation of Retrieval Systems, a clear statement is made on the factors involved in the evaluation of systems, and this Western Reserve technical report is useful as a review of the state of the art. Rees suggests that the near future should bring a clearer distinction between practice and research in information science, even though the terminology itself is still somewhat vague.

Personnel and Training

The activities in the training of personnel in the technical services have not altered very much. The program in information science at Lehigh University has been analyzed in detail by Robert Taylor, who has issued several outlines of courses. The development of a separate in-
formation science unit at the University of Minnesota, under the direction of Wesley Simonton, has been announced.

Perhaps the major contribution to the field of education and training of personnel are the two volumes, 1965 Congress. International Federation for Documentation (FID) 10-15, October 1965, Washington, D. C. and Proceedings of the Symposium on Education for Information Science, Warrenton, Va., September 7-10, 1965. The first of these volumes is a set of abstracts which considers “Education and Training of Documentalists” in the present framework and the needs for the next ten years and how to meet them. The volume also contains sections on the organization of information for documentation, information needs of science and technology, information needs of society, and principles of documentation and systems design. The Warrenton papers present detailed discussions of education for information science, and include consideration of theoretical aspects and problem areas in information science education (including course work as well as methods of teaching).

The importance of training personnel, not only in documentation per se, but in all areas of the technical services, has received general attention in the Conference on Library Surveys, held at Columbia University, June 14-17, 1965, under the co-sponsorship of the School of Library Service and the Association of College and Research Libraries. Lowell Martin was the contributor of a paper on personnel problems and the need for recruitment in the field of librarianship. Much of the success of the library depends on the solid development of corps of professional and clerical staffs. It is expected that the papers for this conference will be issued early in 1966.

Binding and Preservation of Materials

W. J. Barrow continues his exceptional efforts to examine the problems of binding and preservation of books and other library materials. During the year he issued Polyvinyl Acetate (PVA) Adhesives for Use in Library Bookbinding. "The purpose of this study was to identify an adhesive having sufficient prospect of stability (as well as other needed characteristics) to qualify for use in unsewn bookbindings for libraries." Those adhesives composed of PVA were singled out for special attention. Although the author indicates that it is hazardous to equate “heat-aging with natural-aging,” it is found that the “very stable adhesives identified in the study may be expected to have a longevity of not less than 450 years, which should qualify them, with respect to the characteristic of stability, for library use.”

Although it appears in the January 1, 1966, issue of the Library Journal, the report by Gordon Williams on “The Preservation of Deteriorating Books; Part I: An Examination of the Problem,” should be mentioned in this review, since it is a detailed analysis of the research of W. J. Barrow. This article includes discussion of the problems associated with the life of collections in research libraries. A subsequent paper, including recommendation for solutions, will appear in another issue of Lj.
Planning Academic and Research Library Buildings, by Metcalf contains a number of comments on the problem of quarters for the technical services (p. 87-88). Among these are the consideration of spatial relationships, and particularly the location of the card catalog, with reference to making it possible for the processing staff to consult the catalog without difficulty and loss of time in walking. Metcalf indicates that the failure of some libraries to provide easy access to the card catalog has necessitated duplication of records and catalogs. The amount of space and the type of space requirements are also considered for the various areas of the technical services (p. 130-31). Finally, Metcalf discusses the various staff requirements, and the need to prevent congestion in the technical units (p. 265). There has been a tendency in many libraries to think of the technical services as needing much less space than is usually required. There are sections in Metcalf's text devoted to discussion relating specifically to acquisitions and order work, cataloging, binding, and photographic laboratories.

The ALA Library Buildings Institute held in Detroit included papers and discussions on processing department planning and lay-out; these will appear in the Institute Proceedings, to be published in early 1966.

One of the fruitful sources of information concerning research in equipment and machinery for libraries has been the Library Technology Reports, issued by the ALA Library Technology Project. In the January 1965 issue, a statement on the Ektafax Process in catalog card reproduction, prepared by W. R. Hawken, provides a basis on which librarians can make use of this approach to card reproduction. The process is regarded as having "considerable potential as a means of reproducing catalog cards in moderate volume, since the Ektafax image can be transferred to standard library card stock." (p. 20). The May 1965 number has an article on "Small Stencil Duplicators," prepared by Buyers Laboratory, Inc. "The Use of Data Processing Equipment in Circulation Control" was issued in July, 1965. Widener Library at Harvard, the University Research Library at UCLA, and the Research Library at the Thomas J. Watson Research Center of the International Business Machines Corporation are the libraries which were studied. Detailed observations were made on the spot, and the report contains descriptions of the utilization of the equipment and an analysis of costs.

The 9th Annual Report of the Council on Library Resources, Inc., as usual, includes description of further activities of the supported Library Technology Project and of other studies. Attention is directed to the Card Catalog Reproduction report, issued at the ALA Library Technology Project in 1965. It is the intention of this to give librarians a selection of appropriate approaches to the reproduction of catalog cards. Comparative costs are provided. The April 1965 issue of Library Trends, edited by Frazer G. Poole, is devoted to "Library Furniture and Fur-
nishings.” Bookstacks, book shelving, furniture for offices and work areas, size and other aspects of furniture, and audio-visual equipment are among the topics which may be of interest to technical services personnel.

Standardization

Note was made in the review last year of the Objectives and Standards for Special Libraries. During the year there were comments on these standards, and the consensus was that they were too general to be of precise use. The first step, however, has been taken, and it would appear that particular standards for different types of special libraries may appear next.

Standards for Library Service to the Blind were developed in preliminary form during the past year. These were considered in a review in the Library Journal,29 and the comments relating to them were that they represented definite progress in an effort to improve service in the field.

The Committee Z39 of the American Standards Association continues to work in a variety of fields, including trade catalogs, bibliographic references, proofreading, as well as other areas. The standard on trade catalogs was approved during the year. It is expected that drafts of other standards will be developed in 1966.

REFERENCES

32. Issued by the Secretariat, 1965 FID Congress, 9650 Wisconsin Ave., Washington, D. C.
35. Ibid., p. 33.
Regional Groups Report

DON RANSOM, Chairman
Council of Regional Groups

Ten Regional Groups have met in recent months and have reported on their programs in time for this issue.

The Arkansas Resources and Technical Services Group heard Elizabeth Rodell (RTSD Executive Secretary) speak on "The Role of the Technical Services Group." Following Mrs. Rodell's paper, two discussion groups considered the problems of processing centers versus commercial cataloging services and discussed ways of establishing a central holdings record for the state.

At the Northern California Technical Processes Group several papers were read describing current trends in technical services in various kinds of libraries, in a program moderated by Mrs. Rodell.

The Resources and Technical Services Section of the Georgia Library Association heard Louis Shores (Florida State University Library School) talk about his recent world trip. The title of his address was "Around the Library World in Seventy-six Days: an Essay in Comparative Librarianship."


Wallace Bonk (University of Michigan Department of Library Science) spoke to the Technical Services Section, Michigan Library Association, on data processing and information retrieval. Preceding Dr. Bonk's address, the members heard a report on first impressions of the 17th edition of Dewey by Mabel Grannis (Western Michigan University Library).

The New York Technical Services Librarians held a panel discussion on methods and costs of card duplication. Panel members were Joseph Rosenthal (New York Public Library), Paul Fasana (Columbia University Library), and Richard Pfefferle (Nassau County Library System).

At a meeting of the Resources and Technical Services Section of the North Carolina Library Association, C. Dake Gull (Indiana University Division of Library Science) discussed the adoption of automated procedures by several libraries and the impact of automation on librarians in general.

At the Technical Services Round Table of the Ohio Library Association, a panel consisting of Margaret Kaltenbach (Western Reserve University School of Library Service), Elizabeth Schultz (Youngstown Pub-
lic Library), and J. McBee Elrod (Ohio Wesleyan University Library) discussed the training of technical service personnel.

A seven-member panel, moderated by Sidney L. Jackson (Kent State University Dept. of Library Science), probed the currently "hot" topic of the changes and problems in the 17th edition of Dewey, at the Northern Ohio Technical Services Librarians.

At the meeting of the Ontario Resources and Technical Services Group a paper by Margaret Cockshutt (University of Toronto Library School) on the 17th edition of Dewey was read by Nancy Williamson. A panel discussion on the teaching of technical services in library schools followed, with papers read by Royce Butler, Katherine Packer (University of Toronto Library), Jean Yolton, and Katherine Ball (University of Toronto Library School).

The Potomac Technical Processing Librarians heard Jack Mills (University of Maryland School of Library Science) speak on "Training for Mechanization," at its luncheon session. At the afternoon session a panel consisting of John W. Cronin (Library of Congress), Scott Adams (National Library of Medicine), and Frederick Kilgour (Yale University Library) discussed the impact of Title II-C of the 1965 Higher Education Act on the Library of Congress, special libraries, and university libraries.

**Standard Times for Certain Clerical Activities in Technical Processing***

Henry Voos

Technical Information Branch
Picatinny Arsenal, Dover, N. J.

The use of standard times has made possible great advances in office management and has expanded greatly over the last generation. Once we know how long it takes to type a character, we can estimate how long it will take to type a catalog card with 200 characters for a scholarly library or one with 100 characters for an elementary school library. The growth of the use of standard time units has been rapid. It is rare, at the present time, for the management study in office or factory work to begin with stop watch measurement of operations. Instead it starts with the handbook of standard times and the list of operations performed.

We have little information on standard time units for repetitive library operations. If the technique and data developed in the course of

*This article is a summary of a doctoral dissertation accepted by the Faculty of the Graduate School of Library Service, Rutgers University, in January 1965. Copies of the dissertation are available from University Microfilms, Ann Arbor, Mich.
the research here reported lead to more widespread availability of such units for library routines, they will result in the development of a powerful new tool for library planning, management, budgeting, and supervision.

Past library studies have been more concerned with costs of broad operations such as cataloging and circulation. However, costs vary depending on the economic area where the library is located, the average hourly wage of the particular employees engaged in the operation, and the time frame within which the operation is being reported. Cost is more subject to change than time is. Broad operations consisting of many components also tend to create more variances in comparative times than do the particular components of these operations. For this reason, the method used in the study was a form of the micromotion technique. This technique measured the smallest parts of the work being done. Among these were the typing time per key stroke, the lettering time per letter for marking books, and the property marking time per rubber stamping or embossing. The micromotion technique takes advantage of the fact that within the great variances in procedure, in library layout, in types of library personnel, and in supervision there are certain elemental parts of the total library technical processes which are similar. To further eliminate any variances such as those cited above, only actual work time was measured, with no allowance for idle time, transport time, or delay time in the processing operations.

The mean was used as the measure of central tendency. It was felt that it is the one valid measure which most librarians can apply with little or no statistical training.

A stop-watch was used for timing the operations measured. In addition, certain typing times were measured with an instrument designed by the author using a Veeder-Root Counter attached to a typewriter. This instrument counted the number of strokes and carriage returns and measured the time these took.

To be certain that the data were valid, the sample size of the work measured at the four libraries observed was determined in two ways: one was to use a nomograph, the second was to take subsets of the entire sample size and test the means of the subsets against the universal mean. The data evolved for certain tasks which are components of the technical processing operations are given in Table I. However, this data should not be applied to any library's operation without reading the detailed text in the dissertation to discover its component parts and the equipment and machinery used in the operation. Every effort was made to measure as many of the various ways of accomplishing a given task as possible.

In addition to the data presented in Table I, certain more general conclusions could be drawn from the study. Among these are:

1. The time required to perform clerical routines used in technical processing can be predicted under many conditions and for a wide variety of machines and devices. It is also obvious that many of these routines

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**TABLE I**

Summary Table of Data

<table>
<thead>
<tr>
<th>Function</th>
<th>Mean Time (Sec.)a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pasting book pockets</td>
<td></td>
</tr>
<tr>
<td>Manually</td>
<td>8.75</td>
</tr>
<tr>
<td>Machine</td>
<td>3.12</td>
</tr>
<tr>
<td>Pasting pre-gummed date-due slips</td>
<td>3.4</td>
</tr>
<tr>
<td>Pasting pre-gummed book plates</td>
<td>9.8</td>
</tr>
<tr>
<td>Removing dust jackets</td>
<td>2.5, 1.95</td>
</tr>
<tr>
<td>Excising holes in dust jackets</td>
<td>21.2, 9.6</td>
</tr>
<tr>
<td>Replacing dust jackets</td>
<td>6.6</td>
</tr>
<tr>
<td>Measuring and noting book size</td>
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</tr>
<tr>
<td>Removing plastic covers from storage racks singly</td>
<td>4.7</td>
</tr>
<tr>
<td>Folding and placing dust jacket into plastic cover</td>
<td>27.1, 36.3</td>
</tr>
<tr>
<td>Folding once, pasting and placing dust jacket into plastic cover</td>
<td>10.23, 10.73</td>
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<tr>
<td>Replacing covers and jackets on books</td>
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<tr>
<td>Scotch taping plastic jacket onto book, per edge</td>
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<td>Pasting plastic jacket onto book, per edge</td>
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<td>Call number and imprint</td>
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<td>Subject</td>
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<td>Rubber Stamping</td>
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<tr>
<td>Outside, per stamp</td>
<td>.81, .73</td>
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<tr>
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<tr>
<td>Graphotyping, per letter</td>
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<td>Running addressograph, per impression</td>
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<td>Tying pamphlets, per bundle</td>
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<td>All, merged, per stroke</td>
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<tr>
<td>Manual, Royal, per stroke</td>
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<td>IBM Executive, per stroke</td>
<td>.30</td>
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<td>Royal Standard Electric, per stroke</td>
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<tr>
<td>Smith Corona, Manual, special, per stroke</td>
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<td>Hot-type printing (Altair machine)</td>
<td>25.4</td>
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</tbody>
</table>

*a* When two figures are provided, they are the results of different techniques for accomplishing the same function.

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are common to a majority of libraries, whether they are public, college, university, school, or special libraries. This data does not depend on the number of people staffing the library. The data gathered can be used for standardizing statistical reporting, for performance measurement, for cost comparison, and for standardization of processes.

2. The use of standard time data will permit library administrators to know what deviation from standard procedures costs them and permit them to evaluate work simplification measures.

3. The knowledge of standard time data permits library administrators to evaluate the quality of supervisory practices in libraries. By simply deducting the predictable standard time, the percentages for personal time, fringe benefits, delay times, and transportation times from a total operational time, they are left with a difference that is largely attributable to supervision.

4. The data can be used to set up work standards on a broad operational basis by preparing a flow-process chart for each operation for which a standard is to be prepared. The standard time which is appropriate is used where applicable, and those for which no time has been yet established can be taken from available industrial engineering sources or by timing it oneself. A summation of the component parts will provide a rough operational standard. Once this standard has been established, performance should be measured against it during a six- to twelve-month period. If the efficiency rate deviates more than between 80 to 120%, the standard can then be adjusted to 100%.

5. A formula has been developed which will permit comparison of the most simple systems. The formula provides a means for graphing and a determination of a point of economic equality between systems. Indications are provided on how to develop the formula to encompass more complicated operations, such as computer versus manual tasks.

In addition to the foregoing general conclusions, some particular conclusions can be drawn on specific operations:

1. Despite maintenance and initial cost, a mechanical pasting device is more efficient and economical than a manual pasting operation.

2. Except for minor exceptions, the data presented in the literature on clerical library operations is relatively valueless for comparison purposes, because, by and large, no detailed breakdown of operation makeup or statistical techniques is presented.

3. If plastic covers are placed on books, it is more efficient to pre-segregate the volumes by size than to handle them individually. It is also better to affix these jackets with two gluings than by taping them individually to the books.

4. For recataloging operations it is cheaper to retype the entire card if the items to be erased take longer than 110 seconds. Furthermore, if esthetics is not the prime consideration, crossing out the old data, insofar as it concerns imprint, collation, series notes, and then typing the revised data above, below or next to it, is definitely cheaper.

5. Clerical routines such as typing can be done more effectively by
trained personnel who spend full-time on them, rather than by fragmenting the duties of library personnel. It is realized that in smaller libraries such specialization is not always possible. However, it then becomes necessary to plan and schedule one's work so that enough time can be spent on each unit task to overcome initial inertia.

6. Until we know the effectiveness of our property-marking techniques, it would be advisable to hold these to a minimum.

7. If LC card numbers are not readily available, it is cheaper to alphabetize the LC card orders than to look up these numbers before transmitting the order.

The study makes recommendations based upon the data and conclusions:

1. Additional time studies should be performed to cover as complete a range of library operations as possible.

2. Time standards, work measurement, and methods of evaluation should be taught in our library schools to help improve the quality of library supervision.

3. Book pockets with gummed or pressure sensitive backs should be tested.

4. Each library operation should be under constant surveillance to determine whether it is necessary and whether it accomplishes the task it was originally set up to perform.

5. Editors of library journals should make it their business to ensure that authors inform the reader exactly what the time and cost constituents of a described operation are when they publish descriptions of or comparisons of library operations.

6. The value and effectiveness of property markings should be studied.

 LATIN AMERICAN NEWSPAPERS

To enable the Hispanic Foundation and the Serial Division in the Library of Congress to develop a union list of Latin American newspapers in United States repositories, the American Historical Association has subgranted $15,350 to the Library to augment the Conference on Latin American History Fund, which the Association recently established in LC. The total project will cost an estimated $24,000, which will be furnished from a Ford Foundation grant of $125,000 to the AHA for various activities and projects of the Conference on Latin American History, a group of approximately 400 historians.

As recommended by the Conference, the Historical Newspapers Project will be an 18-month effort to ascertain the holdings of Latin American newspapers in selected libraries of the United States, including photo-duplicates of periodicals, and to prepare a report on the findings for the Conference to publish. The project is viewed by the Conference as a first step in a larger program to make available for research the principal newspapers published in each Latin American country since 1821—from LC Information Bulletin, 24:311. June 28, 1965.

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A Short History of the Reprint Expediting Service

SAM P. WILLIAMS, Editor
Reprint Expediting Service Bulletin

IN 1938 the Carnegie Corporation awarded a grant of $10,000 to the American Library Association to explore the possibilities of bringing back into print books badly needed in American libraries. The ALA established an Out-of-Print Book Committee to implement a plan whereby libraries would be solicited to suggest titles to be reprinted, sold, and distributed by a reprint publisher. Peter Smith was selected as the publisher since he had expressed a willingness to work within the proposed 350- to 500-copy limit. For his work he received a commission of 10 percent, retained one-third of the dollar sales up to the break-even point, and was allowed to keep the remaining stock. While the original plan was sound, it involved a great deal of paper work, and only four titles were reprinted during the first year of the Committee's existence.1 At the end of the first year Peter Smith withdrew from the operation.2

The original Carnegie grant was husbanded over the next twelve years of the Committee's existence and expended finally in the preparation of a definitive report on the out-of-print book situation in 1951 prepared by G. William Bergquist. Mr. Bergquist travelled across the country interviewing librarians, dealers, and publishers, gathering material for his report. He felt that interviews were helpful in bringing the out-of-print situation to the attention of the book world in general. Among Mr. Bergquist's conclusions were (1) there was a demand to get needed books back into print; (2) this was a matter about which the ALA should concern itself and, more specifically, (3) ALA should establish a committee to solicit and encourage the original publishers to bring the out-of-print books back into print, or, failing that, to set up an organization to print the books through its own efforts. Mr. Bergquist presented his report orally to the ALA Executive Board which subsequently decided not to act because of the great amount of work involved.3

By 1954, three years after the dissolution of the Out-of-Print Books Committee, fifteen separate committees had been created by different units of the ALA operating independently in the field of reprinting. Concerned with the somewhat chaotic state of affairs, the ALA Board on Acquisition of Library Materials set about to secure an agreement among the different groups to work through a single unit dealing with reprinting matters.4 After many months of preliminary negotiations during 1954 and 1955, the Committee on Reprinting was launched in April, 1955 and this signaled the official birth of the Reprint Expediting Service (RES).4

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The ALA Board on Acquisition of Library Materials, Committee on Reprinting consisted originally of Jerome K. Wilcox, Chairman, John M. Cory and Alton H. Keller. The new Committee was successful in its efforts (1) to create a central library agency such as described above; (2) to persuade existing committees to cease operations in favor of the new central agency; (3) to secure financial assistance from both libraries and publishers amounting to some $1,500; and (4) to enlist the interest and support of the publishing industry as a whole as well as individual publishers. The Committee invited the American Book Publishers Institute to appoint representatives to form with it the Joint Committee on Reprinting which would plan and establish in New York City a Reprint Expediting Service. A. L. Fessler was appointed Reprint Expediter, and, with the aid of one clerical assistant, he constituted the original staff of the RES. The service was to be self-supporting and was to be financed by library membership subscriptions of $25.00 a year and supplemented by voluntary contributions from individual publishers.  

Shortly after the formation of the RES, the original committee, feeling that its objectives had been attained, retired in favor of an Executive Committee on Reprinting which, under one form of its name or another, has directed the fortunes of the RES ever since. The original Committee on Reprinting consisted of Joseph N. Whitten, Chairman, representing specialized libraries, John Fall representing large public libraries, and Joseph Brewer representing college libraries.

The Reprint Expediting Service was thus organized to provide a recognized channel through which libraries could notify publishers of their reprinting needs so that publishers might secure information to gauge the probable sale of reprints. One of the Reprint Expediting Service's chief objectives was to "issue a quarterly bulletin to subscribers providing information on book titles being reprinted and other information in the reprinting field." So it was that the Reprint Expediting Service Bulletin came into being. The scope of the RES Bulletin in the beginning was not confined only to providing information on book titles being reprinted; on the contrary, considerable space was devoted to reports of reprint surveys conducted by the Reprint Expediter under the guidance of the Committee on Reprinting.

At this point a second attempt to solve the problem of how to get out-of-print books back into print was begun. The committee, however, did not attempt to follow the example set by the Out-Of-Print Book Committee but restricted itself to the recommendation set forth in Mr. Bergquist's report of 1951: that the ALA should set up a committee to solicit the original publishers of out-of-print books so as to encourage them to bring the books back into print. However, the RES decided to make no further attempts if publishers declined to reissue their own out-of-print titles. The RES undertook to survey a panel of libraries for their suggestions for needed reprints, tabulate the results, and, after determining the status of the copyright, publish all returns in the RES Bulletin.  

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Bulletin. In this way it was hoped that information on reprints could be more effectively disseminated to all interested parties.

A type of consumer reaction survey system was developed by A. L. Fessler. He believed, and later wrote, that these surveys represented the first scientific efforts to gauge the demand for out-of-print books, that is, scientific in the sense that up-to-date polling techniques were used. First, it was necessary to obtain a representative sample of libraries which could be polled regularly. In this case the sample was composed of 250 libraries throughout the country (200 college and university libraries and 50 public libraries). Later the sample was enlarged to include 350 libraries consisting of 300 college and university libraries and 50 public libraries. The selected libraries both suggested titles for reprinting and voted on them as well. A questionnaire was sent out periodically to the sample. Each library was asked to suggest ten titles which it believed should be reprinted. The replies were tabulated and the most frequently suggested titles were resubmitted to the sample asking whether the titles would be purchased if they were brought back into print either in hard cover or in paper back, or whether the book should be reprinted from the original plates or from photo-offset. Full tabulations of the replies were published regularly in the RES Bulletin.

This new system of scientific polling to estimate the potential demand proved successful, as was reported subsequently in an article entitled "After Two Years" and published in the RES Bulletin in 1957. In all seven surveys conducted, 244 titles had been surveyed, and 64 titles (or approximately 25%) had been reprinted. At that time the membership of the RES comprised 160 libraries and 44 publishers, or 204 subscribers in all. By then the membership subscription for libraries had been reduced to $5.00, although publishers continued to pay $25.00 each until late 1960. Approximately $4000 had been spent to operate the RES during its first two years. The Reprinting Committee proposed to expand the personnel of the service, increase the number of working hours, and establish it in its own office, thus removing it from its temporary quarters at the Cooper Union Library. To this end recommendations were prepared for submission to the ALA Executive Board during the Summer Conference at Kansas City in 1957.

By October, 1957, the membership of the RES had grown to 343 libraries, an increase of 139 in only a few months. Then, at this seemingly high point in the fortunes of the RES, Joseph N. Whitten announced his resignation as Chairman of the Reprinting Committee in January, 1958, agreeing, however, to serve as co-Chairman with Joseph Brewer until 1959. The RES Bulletin, which had appeared with regularity until then, came out in a double issue in July, 1958, but did not appear again until June, 1959. During this interim A. L. Fessler resigned as Reprint Expediter, and Karl Brown took over as Director and Editor of the RES Bulletin. The operation of the Bulletin was transferred from the Cooper Union Library, where facilities had always been cramped, to The New York Public Library. Mr. Fessler had originally
arranged for the printing of the *Bulletin* to be done by a small commercial printer in his vicinity; now the printing was done by the print shop of The New York Public Library at cost. The masthead of the periodical was also redesigned. Joseph Brewer became Chairman of the Reprint Committee, and the system of reprint surveys was stopped temporarily. There had been ten surveys in all, with the success indicated above. From this point on, the story essentially becomes an account of the *RES Bulletin* rather than a history of the RES. During the next few years the *RES Bulletin* consisted of news items and lists of desiderata items suggested for reprinting by librarians. Its relationship with the ALA remained tenuous as it always had been. The ALA acted as treasurer for the service but did not support it in any way except through a subscription. The RES has been self-supporting since its inception. In early 1961, Karl Brown resigned as editor of the *RES Bulletin*, and the author of this article was appointed in his place.

New policies laid down by the Reprinting Committee recognized the fact that the emphasis in the reprinting field had drastically changed. The rapid growth of the number of reprints offered to libraries revealed that publishers were now aware of the methods of finding out what to reprint and in how many copies. Therefore, the Committee decided that the *RES Bulletin* should revise its functions and concentrate its efforts on reporting what titles had been or were being reprinted. Accordingly each issue contained announcements of current and forthcoming reprints, arranged at first alphabetically and later by subject grouping based on the Dewey Decimal system. At the end of each year, an index was published: first at an extra charge of 50¢ and later as an extra service at no extra charge. An effort was made to improve the appearance of the journal by using a stiff Ticonderoga paper in green, yellow, pink, and blue for both front and back sheets, then by printing the masthead in contrasting colors, changed each year. The reprint surveys were resumed in 1961 and 1962. In the winter of 1961, 410 college and university libraries were surveyed for their opinions on reprinting 30 titles selected from all of the titles which had been suggested for reprinting by librarians during the year. In the following year 216 libraries were surveyed on 36 titles. Slightly over a year later 9 of the 36 titles were back in print.

A tabulation of the number of reprints announced in the *RES Bulletin* for the period 1961 to 1964 reveals the following: 1961, 641 new reprints listed; 1962, 649 new reprints; 1963, 1015 new reprints; and 1964, 1430 new reprints. How accurately these figures reflect the growth of reprint publishing is not known. Perhaps they reflect at most an increased accuracy of reporting the output of United States reprint publishers since only a sampling of significant foreign reprints were included. Periodicals represented 25 percent of the above totals. The RES has never attempted to deal with any form of microreproduction. The RES has limited itself to dealing with the scholarly reprint or, as it has been aptly described in a recent article, the antiquarian reprint. One characteristic of the membership of the Reprinting Committee was that

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they were usually widely separated geographically and therefore could not meet easily. In retiring as Chairman, Joseph Brewer brought this fact to the attention of the ALA-RTSD Acquisitions Section, and the Committee members appointed in 1963 were all from the New York area. John Fall became the Committee Chairman at that time.

In late 1964, Oceana Publications, Inc., a publisher and replinter of legal, economic, and political material, expressed interest in taking over the RES Bulletin. After a series of meetings culminating in a dinner meeting at the ALA Midwinter Conference in Washington, D.C., the Acquisitions Section gave its approval, and the takeover took place in March, 1965. Oceana asked the present Editor to remain in his post so as to retain the impartiality of the publication. Oceana has increased the frequency of the periodical to six times a year and raised the subscription price to $12.50. Volume X, nos. 1-2, a double issue, was the first to appear under the new sponsorship. The Reprinting Committee at a meeting in Detroit on July 5, 1965 during the ALA Summer Conference, decided to continue to maintain a watch over the progress of the RES Bulletin, at least during the first year of its independent existence, to review its success.

This brings us up to the present in this account of the Reprint Expediting Service. Its ten years of existence have paralleled a phenomenal growth in the reprint industry. While it would be presumptuous for the RES to take credit for having been the prime mover of this growth, at least it can be said that the RES and its parent bodies in the American Library Association did anticipate the great need for scholarly or antiquarian reprints and played a role in stimulating and guiding the publishing industry in its selection of material to be reprinted. It is hoped that the RES Bulletin will gradually become an indispensable tool for achieving bibliographic control in the area of reprint publishing.

REFERENCES

5. Ibid.
Guidelines for Centralized Technical Services*

Preface and Definitions

TECHNICAL SERVICES are those parts of library service concerned with the acquisition, organization, and preparation of library materials. Cooperative processing centers have gained in favor because of advantages in meeting rising technical services costs; the utilization of a highly skilled administrator-cataloger to serve more than a single library; and making possible the common use of expensive equipment. Most important of all, the centers release people for public service. This means more time and/or space for:

1. Additional reference service.
2. Book selection and ordering.
3. Materials-control within the system.
4. Enlarged service areas.
5. The addition of new services or expansion of existing ones.
6. In-service training of non-professional staff members.
7. Greater attention to administrative duties.
8. Greater attention to the evaluation and weeding of the collection.
9. Work with ephemeral materials, vertical file, etc.
10. Public relations activities of the library.

A careful evaluation of different processing systems (including commercial ones) insures the choice of the best possible type for the local situation. These Guidelines are designed to present requirements and suggestions for cooperative action.

A Technical Services Center is an agency ordering, receiving, cataloging, and preparing materials, for two or more libraries. Books and other library materials ordered for cooperating or member libraries follow a logical routine:

1. Delivering the materials to the center by the supplier.
2. Checking and validating invoices for payment.
3. Classifying and cataloging the materials.
5. Pasting pockets, marking ownership, marking the spine, applying plastic covers.
6. Delivering to the member libraries materials ready to shelve, with a set of catalog cards ready to file in the public catalog.

Orders from cooperating libraries may be coordinated through such a center; or each library may send its orders to the sources of its choice for

* Prepared by the ALA Resources and Technical Services Division, Regional Processing Committee: Elizabeth Adcock, Willard K. Dennis, James Hunt, George Moreland, Roger Greer, Brigitte L. Kenney, and Peter Hiatt, Chairman.

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delivery of materials to be made to the center. The wishes of the libraries involved and the type or organization will influence the decisions.

Controlling costs depends greatly on standardizing form, supplies, and techniques within the membership of a center. For instance, adoption of the same style multiple order form, the same style pocket with printed library imprints, and uniform cataloging and classification saves on costs of supplies and on expenditure of staff time. Every exception or deviation helps defeat the purposes of centralization.

**Libraries to be Served by Centers**

Centers may be established to serve homogeneous groups of public, school, college, or other libraries. It is possible to combine public libraries and school libraries in the same group. It is also reasonable to assume that two or more kinds of academic libraries could work out cataloging agreements which would make a center advantageous.

In preliminary planning, consideration must be given to the size of libraries in the group, volume and type of materials to be cataloged, cataloging policies acceptable to the majority, geographic location of the center, and transportation facilities. The librarian and board of trustees of each member library must be prepared to make concessions in order to take advantage of the desired results offered by this arrangement.

**Organization**

The organization of a new center will be based on what is best suited to local conditions. A variety of organizational patterns have been in operation for a number of years. Various types are mentioned below with a recommendation that library literature be referred to for more detail, and that one or more existing centers be visited before forming a new cooperative center.

1. State operated centers.
   a. The state library may furnish services to independent libraries on the basis of an agreement between the state library and each library desiring the services.
      (Examples: North Carolina and California)
   b. The state library may contract with another library to operate a center for service to independent libraries.
      (Example: Wicomico County Library, Maryland)
   (Examples: Southwest Missouri Library Service, Bolivar, Mo.; Library Service Center of Eastern Ohio, Barnesville, Ohio)
3. A voluntary association of libraries.
   (Example: Northern Colorado Center, Greeley, Colorado)
4. A library system offering a choice of various services to member libraries.
   (Examples: New York State and county systems; North Bay Cooperative, Santa Rosa, California)
5. Contractual agreement with an existing library for technical services.
   (Example: Central Florida Processing Center, Orlando, Florida)
Legal Authority

The state library agency will be helpful with regard to the legal procedures entailed in the power to contract. A lawyer should be retained to advise on legal papers and forms required, such as articles of incorporation, constitution, by-laws, and contracts.

It is recommended that the cooperating libraries bind themselves to work with such a center for a period of at least three years. This minimum period may be necessary to demonstrate fully the effectiveness of the arrangement, to insure a period of stability in income, to create efficient methods of operation, and to assure prospective employees of the good faith of all concerned.

Financing

In some instances the state library agency can bear the full costs of establishing and operating a center, and furnish service to local libraries as a sort of state grant-in-kind. The more likely form of financing state-operated centers calls for reimbursement to the state library by the libraries receiving the service.

Groups of libraries forming cooperative centers must provide funds to purchase equipment as well as to finance the operation, including the space. Agreement is necessary on the administration of funds, including requirements for bonding those who are responsible.

1. Various possibilities of obtaining funds for the establishment and purchase of equipment include:
   a. In addition to fees paid for the operation of the center, each library could pay its proportionate share of an establishment grant for the purchase of equipment and the initial overhead necessary to place the center in operation.
   b. The purchase of necessary equipment could be arranged on a lease-purchase plan, which would allow for the amortization of this initial cost over a period of several years.
   c. An incorporated body with contracts for service and fees could borrow money commercially on an open note for amounts necessary to initiate the service.
   d. State library agencies might be contacted regarding availability of state or federal grants available for this purpose.
   e. Grants for the establishment of such a center might be within the scope of certain foundations, private trusts, public-spirited individuals or groups. Because the major portion of the operational cost is in salaries, a Chamber of Commerce or other business or professional group may wish to assist in the financing of a center for the community.

2. Funds for operational costs can also be acquired variously:
   a. A pro-rata fee is one method. In this plan the base sum is the total book budget, income, or the total budgets of all libraries using the center. Each library's share of the cost of operation is the percentage as determined by the proportion of its book
budget or total budget to the total base sum of all libraries participating. Under such an arrangement, even though the individual library buys and is billed for materials from whichever source it chooses, its being a part of a larger group makes collective bargaining for discounts possible. The center-validated invoice is paid to the supplier by each individual library. The pro-rata fee is paid quarterly, or semi-annually, in advance.

b. A per-item charge may be necessary for centers which perform cooperative purchasing services for member libraries. The cost of purchasing may have to be added to the cataloging and preparations costs and billed to the originating library. Unless libraries are willing to advance a fee based upon their anticipated purchases, financing adequate to carry on the operation of the center must be planned. A guarantee of the minimum amount of work must be made by each library each year with the processing cost of this guaranteed work load to be paid quarterly or semi-annually in advance. Libraries cooperating in a central ordering system will have but one statement to pay for books and the technical services costs each month.

c. Whatever the form of charging fees or payment of services, there should be an annual review of costs with fees adjusted accordingly.

Fees should reflect a sum set aside each year to allow for depreciation of equipment and to provide a budget category for unusual or emergency expenses.

Provision should be made to pay the expenses of the administrator to attend state and national library meetings as well as such expenses as may be incurred by periodic visits to member libraries.

An annual audit by a Certified Public Accountant is recommended. Member libraries should be provided with copies of the audit report.

Policies

Libraries desiring cataloging and other processing services from an existing technical services department should satisfy themselves that policies in force will meet their needs. Groups of libraries voluntarily banding together to form a center can set their own policies.

Librarians meeting to consider the formation of a center must agree on the principles and methods of carrying out the operation. This may involve a number of meetings, since the process will be a matter of evolvement rather than a clear-cut decision. Librarians should be willing to accept change; therefore, the problem of examining policies is continuous even after a center begins operation. New methods or techniques and developments in comparable centers should be studied in the continuing effort to cut costs or to improve the quality of the product.

Some of the areas of policy which should be investigated are listed below:

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1. Responsibility of the library to the center and of the center to the library.
2. Line of authority between the center's administrator and the librarians of the libraries served.
3. Book selection remaining the prerogative of member libraries.
4. Ordering procedures for libraries.
5. Agreement on cataloging and classification, including the form of the catalog (such as book catalog, card catalog).
6. Extent of physical preparation of books and agreement on details (location of pocket, date due slips, labeling, etc.)
7. Scope of service: new books, gifts, paper-backs, recordings or other materials, rebinds, etc.
8. Channels of communication of ideas, suggestions, and opinions of librarians.
10. Dealing with libraries delinquent in payments or non-cooperative in attitudes and actions.

**Procedures**

The adoption of uniform policies and regulations is the key to efficient and economical operation. Basic policies governing the operations approved by member libraries should be put in writing and distributed to them. Changes and communications regarding policies should be submitted promptly in writing to member libraries.

Each group of libraries interested in cooperating to form a technical services center will find that procedures will be developed which may not be identical to other centers due to special circumstances, special opportunities or obstacles. The administrator of the center should have the power to evaluate procedures and to make changes for improvement. The administrator should also initiate modification or additions to basic policies for the consideration of the center's board and member libraries.

In general, member libraries must be agreed on responsibility and procedures for:

1. Selecting book jobbers or dealers.
2. Ordering materials.
3. Receiving shipments and handling shortages or errors.
5. Preparing materials.
6. Distributing completed work.
7. Calling meetings of membership and delegating authority.
8. Assigning fiscal responsibility of member libraries.
9. Standardizing supplies and services.

**Staff**

With the exception of the voluntary association or incorporated group, staffing of the technical services center is the responsibility of the
library in which the center is located. Size of staff depends on the work load imposed by the number of volumes handled and the services desired by member libraries.

The administrator of an independent center usually doubles as the cataloger. Because of duplication of titles, dependence on bibliographic aids, and in-service training of personnel, there is rarely need of additional professionally-trained librarians. In general the administrator-cataloger combination suffices for groups of small to medium-sized libraries. The administrator is usually responsible for hiring and managing the staff within the fiscal limits set by the board of trustees of the center.

Quarters

The space planned for a center should be adequate to allow for an efficient flow of work for the volume anticipated from member libraries. The following is a checklist of desirable requirements related to good working conditions and production:

1. Location on ground floor or near service elevator.
2. Convenient access to loading and shipping area.
3. Parking facilities.
4. Adequate floor space to assure continuous work flow on an assembly line basis; space for equipment, files, storage of supplies; and space for receipt of peak-load shipments.
5. Adequate lighting and provision for proper electrical circuits and outlets for mechanical and anticipated automated equipment.
6. Telephones located at points of highest use.
7. Proper heating and ventilation, including air-conditioning.
8. Acoustical treatment of working areas, including isolation of noisy machines in soundproofed areas.
9. Provision for housing and use of extensive and bulky bibliographical tools, LC proof slips, order slips, etc.
10. Provision of private office or work area for the administrator.
11. Provision for rest rooms and staff lounge.
12. Provision for sinks in the work areas, especially adjacent to machines and near section devoted to physical processes.

Furniture and Equipment

In addition to the standard “library furniture and equipment,” useful items may be found among those used in general offices and in industry. Imaginative adaptation of existing equipment may mean the success or failure of a project and financial solvency.

1. Office Furniture. This includes appropriate desks and work tables. Surfaces must be smooth and easily cleaned.
2. Storage Furniture
   a. Shelving for bibliographic tools and for books in process.
   b. Bins or compartments to hold completed work for shipment to member libraries. Books are usually sorted into bins and then boxed.
c. Cabinets and shelving to hold book pockets, paste, cards, and other supplies purchased in large quantities.
d. Filing cabinets for correspondence.
e. Special files to house order forms, LC proof slips, catalog cards, etc.
f. Equipment designed or adapted to special storage uses such as pre-run pocket and card sets, plastic jackets, plates, stencils, and other special materials.

3. Material handling equipment. Book trucks or industrial tables for moving books within the center; flat bed trucks, skids, and dollies for handling incoming and outgoing shipments.

4. Machines. The kinds of machines selected for the center and the extent of automation possible depend upon the number of libraries involved, the workload in volumes, services to be performed, the ordering pattern, anticipated duplication of titles, and the financing available.
   a. Selection of machines, including photographic equipment, copiers, and computers, for card reproduction is based on the following criteria:
      (1) Type of card desired or acceptable to the membership.
      (2) Feasibility of printing single sets as well as many.
      (3) Ability of machine to prepare full sets of catalog cards, pockets, book cards, and related material with minimum number of keyboard operations.
      (4) Operator experience and instruction.
      (5) Cleanliness.
      (6) Registration.
      (7) Possible expansion of center and its services.
      (8) Cost.
   b. Minimum machine needs:
      (1) Typewriters (preferably electric).
      (2) Pasting machine.
      (3) Adding machine.
      (4) Scale to weigh boxes for shipping.
      (5) Paper cutter.
      (6) Postal meter.

5. Miscellaneous small equipment.
   a. Tape dispensers—desk, heavy duty to handle tape on shipping cartons.
   b. Numbering machines.
   c. Knives, scissors, brushes, etc.
   d. Box openers.
   e. Card sorters.

Reports and Evaluation

The form of financial and statistical reports may be determined by what is required by state library agencies; in addition, records are
needed for budget and program planning. The forms of reporting as used by established centers provide means for comparison and evaluation of the services offered.

As indicated previously, a planned continuing method of evaluating the center should be established and maintained. In addition to using the reports prepared by the center, the professional judgment of the librarians in member institutions should be sought. Regular meetings of representatives from these libraries may be monthly, quarterly, or semi-annually, depending on the numbers and distances involved. These discussions serve as opportunities for member participation in problem solving, advising, and criticizing specific services as well as evaluating the entire program.
The Serial Microfilm Program at the Library of Congress*

Charles G. LaHood, Jr., Chief
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The DISCUSSION of this topic necessarily includes several important elements: first the deterioration of the paper on which many serials are published; and second, the matter of storage space. A third factor to be considered, as we shall see later, is acquisition of difficult-to-obtain materials.

Let us briefly discuss the matter of paper deterioration and specifically the deterioration of pulp paper as used by the publishers of newspapers.

The problems of deterioration, as it affects library materials, is, of course, not a new one. The introduction of sulfide paper into the newspaper industry about the year 1870 meant that the problem for those wishing to preserve a newspaper file over an indefinite period of time would sooner or later become so acute as eventually to force a decision on the owner (usually the publisher or library) either to make some effort to extend the useful life of the file, dispose of it altogether, or replace it with some suitable substitute.

The Chief of the Library of Congress Periodical Division, Allan B. Slausen, in his annual report to the Librarian of Congress for the fiscal year ending June 30, 1901, made the following statement:

Wood pulp paper, upon which newspapers are now printed, disintegrates after a few years when exposed to the light, and edges of bound volumes near the windows already begin to show that extra precautions must be taken if the files of newspapers are to last beyond one or at the most two decades. Curtains or blinds to the stack windows, I believe, will be found to be a necessity even for the protection of books, but for the newspapers I would recommend, as a special protection that the binder attach to the inside of the covers, canvas flaps which will fold over the edges of the volumes and completely exclude from them the light. This would not add much to the cost of binding, but will add many years to the life of the volume.**

As the problem of deterioration of newsprint became more and more

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acute (Mr. Slausen’s binding flap idea was never adopted) various pro-
posals were offered to resolve or at least mitigate the effects of deteriora-
tion: one early proposal recommended the soaking of each newspaper
page in a chemical solution, thus effectively lowering the acid content of
the paper; another proposal was made to reprint the leading newspapers
at half-size, presumably on better quality paper; while yet another
called for publishing originally in a rag paper edition.

None of these proposals offered a completely satisfactory solution to
the problem—since then (as perhaps now) the soaking procedure was
too expensive, while the re-publishing at half-size involved not only ap-
preciable expense but also too much reduction in size of print for prac-
tical reader use. The rag paper edition was also expensive and did noth-
ing for retrospective or historical files. A rag paper edition was published
for a few titles, notably the New York Times, beginning in 1927. How-
ever, one could scarcely find a ground-swell for this procedure among
newspaper publishers.

It was indeed fortuitous that quite independently of the newspaper
preservation problem, the Recordak Corporation had been since about
1927 actively engaged in the microfilming of bank records and other
commercial papers. The acceptance of microfilm by the business com-


of George A. Schwegmann, Jr., its own Photoduplication Service, which
included the relatively new practical roll microfilm technique as em-
ployed by Recordak. The Service undertook several large newspaper
microfilming projects, including the filming of such titles as the Wash-
ington Star, the Washington Post, and the National Intelligencer.

Although the desirability of substituting 35 mm. roll microfilm for
files of newspapers continued to receive acceptance among librarians
and newspaper publishers, it was not until the post-World War II period
that the microfilming of newspapers on a current subscription basis be-
came commonplace.

Meanwhile, the Library of Congress was experiencing, in addition to
deterioration, a second problem in connection with newspaper files. By
1949, just one decade after the move of the Library’s bound newspaper
collection from the unfavorable physical conditions of the Main Building
to air-conditioned facilities in the Annex, the bound newspaper collec-
tion had already become so extensive—comprising some 140,000 volumes
—that all available shelf space, measuring approximately 18 miles in
linear footage, was fully occupied.

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With no other shelf space readily available for the Newspaper Collection, the stack area floor space was reluctantly utilized for storage. With the Collection growing at the rate of 3,000 volumes per year, there was, indeed, a critical need to turn more and more to the microfilm approach as the means for mitigating, if not completely solving, the space problem, while at the same time maintaining the long-range preservation requirements of so valuable a library resource.

By the year 1951, the Library had acquired from outside sources and from negative microfilm prepared by its Photoduplication Service, approximately 21,000 reels of positive microfilm. The majority of these reels represented retrospective or historical files. However, these did not necessarily supplant the bound volumes in the Newspaper Collection, so that readers, depending to some degree on their own preference, were served either bound volumes or reels of microfilm.

With the use of microfilm increasing and with space more and more at a premium, the Library adopted the policy which permitted the disposal of current newspaper files at the time microfilm was made available for reader use. By way of exception only a few heavily used titles were bound. Later on, as we shall see, this same rule was applied to retrospective or historical files. Of course, this approach is the key to the ultimate solution of the space problem for the newspaper collection.

As of June 1950, the Library had 88 subscriptions for microfilm—56 for domestic and 32 for foreign titles. Current receipts of newspaper titles, however, exceeded 1,000! While the immediate effect of the 88 microfilm subscriptions was to curtail somewhat the growth of the bound collection, the fact that relatively few newspapers were available on microfilm meant that most titles continued to be bound at the same time microfilms of other titles were being purchased and placed in service. However, additional subscriptions to newspapers on microfilm were placed as they became available. By 1961, although the Library was subscribing to substantially every available microfilm of those newspaper titles which it wished to retain permanently, the number of subscriptions accounted for only one half of the 1,200 domestic and foreign newspaper titles normally retained. The remaining 600 titles were placed, up to the end of 1961, in “permanent” style bindings.

The annual rate of increase in the bound collection at the end of 1960-61 was still a substantial 1,900 volumes. By this date, the bound newspaper collection totalled 160,000 volumes with approximately 20,000 piled on the book-stack floors. The microfilm collection in the meanwhile had increased from 21,000 to 69,000 reels.

The Current Newspaper Microfilm Program

With more funds available in fiscal 1961-62, it became possible to discontinue binding all but a handful of the most important newspaper titles, and to microfilm in our own Photoduplication Service those news-
paper titles for which no microfilm subscription was elsewhere available. The number of newspapers microfilmed at the Library approximated 600.

As of January 1962, the Serial Division found itself with a current newspaper microfilming program of rather large proportions. So large, in fact, was the program and so difficult of accomplishment in some respects, that, while on the whole the program has proven successful, there remain certain problem files which as yet have not been microfilmed. The problem I mention here, inherent to the preparation of high quality microfilm, is that of supplying to the microfilming facility a file ideally in perfect arrangement, and above all as complete as possible.

Prior to the inception of the in-house microfilming program, when newspapers were prepared for binding, it was possible to proceed with the binding operations even though a file might be incomplete. The shelflist record maintained in the Serial Division indicated the bound holdings and listed in detail the lacking issues. As newspaper receipts were processed, needed issues were found—usually from government transfer—within a one or two year period after binding was complete, but at times as long as five or ten years late. Such needed issues were readily tipped into the appropriate bound volume by a professional bookbinder, and the shelflist was amended.

With microfilm, however, it is not feasible to initiate the photoreproduction process until a newspaper file is complete. The reasons for this are compelling. The cost of filming single issues at a later date, the insertion of these issues in an existing negative microfilm, and the preparation of a new service positive of the entire reel for all regular subscribers of the microfilm—all these add up to a prohibitively expensive procedure. Since the in-house microfilming program includes the more difficult titles from the viewpoint of acquisitions, the Serial Division is faced with the task of securing more than the usual number of missing issues which, for one reason or another, never arrive in the Library. Our first recourse for these missing issues is to the publishers themselves; however, because of the delay between publication and claiming, the publishers all too frequently no longer have the required issues available.

Our attempts to solve this problem next shift to the location of a secondary backstop in the form of another library which also acquires a particular foreign newspaper and which is willing to lend or give us such numbers as are needed and available. We have had some success in our endeavor, principally for the countries of Africa; however, there is much yet to be done, else the current filming of many foreign newspapers will have limited value.

Such an ambitious program, you might well ask, must be quite expensive. This I must admit. However, our experience indicates that the binding and storage of newspaper volumes is also expensive. Close analysis of the various processes, however, indicates that the cost of preparing a microfilm negative and service positive, is approximately the same as the cost of binding a three-inch-thick newspaper volume!
The Retrospective or Historical Program

At the time funds were furnished for the complete changeover of current newspaper files to microfilm, substantial funds were also allocated for a preservation program of all historical pulp paper volumes in the Newspaper Collection.

This phase of the program—the replacement of bound retrospective files—is in some respects even more critical than the program for current issues, since here we have newsprint which is in a more advanced stage of deterioration. With time running out for many of the files, our goal of replacing all pulp paper means that 125,000 volumes averaging three inches in thickness must be replaced by positive microfilm either from negatives already in existence and available from other sources, or microfilmed in our own Photoduplication Service. The estimate of the pages to be replaced at the beginning of the program approximated a staggering 75,000,000. Both the current and the retrospective segments of the program call for the replacement of newsprint files with a microfilm which is substantially complete insofar as bibliographic integrity is concerned, and which complies with the technical specifications set forth by the American Standards Association, and more particularly ASA Sectional Committee PH-5, chaired by Donald C. Holmes, Chief of the Library's Photoduplication Service, and sponsored by the ALA Resources and Technical Services Division's Copying methods Section. The obligation for this adherence to standards arises out of a sense of duty to future generations of researchers and a need to help maintain a high standard, which we trust will eventually, if not now, benefit the resource capabilities of the entire library system in the United States. The caliber of microfilm we are striving to purchase or prepare is difficult and expensive to produce, not only at the Library of Congress, but by everyone who would be a producer of archival quality microfilm.

You may recall how earlier I stated that the production costs of microfilm substantially equalled that of binding. I did not mention at that time the cost factor of preparing the files before they ever reach the microfilm camera.

In managing the preservation program, one of the first tasks the Serial Division undertook was the formulation of the requirements necessary for producing high quality microfilm and the procedures necessary for preparing the best possible file prior to the actual microfilming process. Early in the program we learned that the shelflist record of our newspaper holdings did not adequately reflect the information required for preparing a master microfilm negative. The record of missing issues, on close scrutiny, did not always prove accurate: issues were at times bound out of order, and, occasionally, the issue of an entirely-different newspaper title appeared in the wrong file. In other words, we had to correct the errors made out of human frailty, and, in addition, update the file to reflect the effects of use, such as mutilation, mostly, I am sure, of an accidental nature, but nonetheless present.

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Once the new record is established, the volumes are sent to the Government Printing Office Bindery, where newspaper bindings are cut away from the newsprint. The cutting is done with extreme care so as not to lose any text, and the newsprint volume is reduced to a stack of loose sheets which are held between the bindings. On return to the Library, based on the newly established collation record, the misfiled issues, sections, or pages, are inserted in proper sequence. The next task is to attempt to secure the needed portions of the newspaper file which might be available from other repositories.

In practice, we have had difficulty in achieving the part of our objective concerned with the acquisition of missing portions of the files. For domestic newspapers, we find that the Library which owns a particular newspaper file may not have an adequate microfilming facility, or, if it does, is unwilling to permit the volume to be prepared for microfilming in such a manner as to permit the photocopying of the entire page. For foreign newspapers, we are hampered by the lack of a comprehensive union list. In some instances, therefore, we find ourselves microfilming the Library's holdings, and including in the film a record of missing and mutilated issues or pages.

Where a negative microfilm is already in existence, we are acquiring positive microfilm only. The problem here, we find, is the uneven quality of the negatives in existence. The problems generally involve the use of tightly bound volumes in the production of the negative and the resulting loss of a portion of the text, the use of a very poor file, and the technical problems resulting in poor lighting or poor lens focus.

In our effort to secure high quality microfilm, the Library published in 1964 Specifications for Library of Congress Microfilming, by Stephen R. Salmon, which sets forth the "conditions under which microfilm would be considered for addition to the permanent collections of the Library before purchase of a microfilm is consummated."* In pursuing this end, the Library requires the supplier to furnish sample rolls of each file. The samples should be representative of the general quality of the file insofar as possible. On the basis of favorable testing results and assuming the samples are indeed representative, a purchase order is placed for the entire run needed to replace the Library's own pulp file. Receipt of the positive microfilm in the Serial Division Collection is the signal for discarding the pulp file. Because this latter procedure is irreversible and because in some instances the Library of Congress files are the last ones available, the necessity for the cautious approach is obvious. Since 1962 this program has resulted in the replacement of approximately 25,000 bound volumes by microfilm, leaving to be replaced in future years approximately 100,000 volumes. We have, in effect, completed approximately 20 percent of our objective.

As of June 30, 1965, the microfilm collection totalled some 110,000 reels, and grows by approximately 10,000 reels per year.

The Library has not developed as comprehensive a program for the microreproduction of other types of serial publications—namely, periodicals and government serials. To date the microfilming of these types has been restricted to newspaper format pulp periodicals and selected government serials, published on relatively poor quality sulfide paper.

Of these two groups I will first discuss briefly the periodicals. The effort here, as for newspapers, is to replace the titles, of which the Library receives some 500, published in newspaper format and on poor quality paper. As with the newspapers, our policy is to acquire as many microfilm subscriptions as are available from other sources. At the present time the Library acquires 150 titles on microfilm by subscription, of which 20 are microfilmed by the Photoduplication Service. Since the problem of acquisition for these titles is similar to that of newspapers, there is no need to present further details.

The final category worthy of mention is that of official government serials. Our effort in this area has been limited to some significant U. S. non-GPO imprints which are difficult to acquire in complete sets, even at the Library of Congress. These are, for the most part, the various consular press summaries and press release series.

At the present time there are microfilmed on a continuing basis some sixteen series. They are the four currently published series of the U. S. Consulate General in Hong Kong, the three series published by the U. S. Embassy in Tokyo, the U. S. Department of State Press Release series, the U. S. Mission to the United Nations Press Release series, and a few others.

Among the completed projects are the Joint Press Reading Service, 1944-1956, published in Moscow by the Embassies of the U. S., Great Britain, Canada, and Australia, and a recently completed project for the Press Summaries of the U. S. Consulate Offices and U. S. Information Services in China during the period 1944-1950. Positive microfilms of all these series are available from the Photoduplication Service.

I could not complete this part of the presentation without mentioning by name Donald F. Wisdom, Head of the Serial Division's Government Publication Section, who has labored most diligently in the preparation and completion of all these files. Consistent with our objective to produce the highest quality library resource, he has spent many hours in contacting Washington area libraries, research libraries which are known to have an area interest for a particular title, and, as a final effort, placing a location request in the Weekly List of Unlocated Research Material published by the Union Catalog Division. All these efforts generally result in locating items which may be unique in the United States.

Conclusion

In concluding my remarks, I wish to make a special request to the serial librarians. I would ask for their cooperation in helping us in our task of preserving as complete a record on microfilm as possible of ma-
Now in our sixteenth year of distributing paperbound books—both mass market and quality lines. Now you can combine your orders for such publishers as Bantam, Pocket Books, Ace, Avon, Pyramid, Signet, Mentor, with your orders for Scribner, Anchor, Dover, Apollo, Ann Arbor, etc. Virtually all books listed in PAPERBOUND BOOKS IN PRINT may be ordered from us.

*Ask for our circular:*

“One Source for Paperbacks”, (Lists publishers whose books we stock, time to allow for delivery, etc.)
If you're located in the United States, Canada, or Mexico, we'll schedule a seminar for your organization on the science citation index and ASCA and perform on-site searches. Just ask us to arrange it. Write Dept. 23-5.
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Entries for 156,499 serial titles held by 956 libraries in the United States and Canada are included in the just-published Third Edition of Union List of Serials. Incorporated in this new edition in a single alphabet are all the entries and information in the Second Edition (published in 1943), the First Supplement (published in 1945), and the Second Supplement (published in 1953), plus selected new titles and holdings up to the beginning of the current Library of Congress publication New Serial Titles, which lists serials published from 1950 to date. Including cross references and changes, the total number of individual entries in the Third Edition is 226,987.

This new Third Edition has been prepared under the sponsorship of the Joint Committee on the Union List of Serials, Inc., a nonprofit corporation representing thirteen American and Canadian library associations and bibliographical institutions. Financed by a grant from the Council on Library Resources, Inc., the Joint Committee contracted with the Library of Congress to carry out the editorial work of compiling the new edition; Mrs. Edna Brown Titus served as editor.

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