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by William S. Dix

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by Philip M. Morse
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Subscription to CRL is included in membership dues to ACRL of $6 or more. Other subscriptions are $5 a year; single copies, $1.25.

Production and Advertising and Circulation office: 50 East Huron Street, Chicago, Ill. 60611. Change of address and orders for subscriptions should be addressed to College and Research Libraries, at the above address, at least three weeks before the publication date of the effective issue.

Manuscripts of articles and copies of books submitted for review should be addressed to David Kaser, editor, College and Research Libraries, Joint University Libraries, Nashville, Tenn. 37203. Material for the news section should be sent to CRL, 50 E. Huron St., Chicago.

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College and Research Libraries, the official journal of the Association of College and Research Libraries, a division of the American Library Association, is published bimonthly—January, March, May, July, September, November—at 1201-05 Bluff St., Fulton, Mo.

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Of the Arrangement of Books

By WILLIAM S. DIX

In the year 465 A.D. or thereabouts Sidonius Apollinaris described in a letter the private library in the country house of his friend Tonantius Ferreolus: "... books in abundance ready to your hand; you might have imagined yourself among the shelves of some grammarian, or the tiers of the Athenaeum, or a bookseller's towering cases." But pagan writers were shelved in one place, Christian in another. "You had to consult them on different sides of the room," Sidonius complained. "The arrangement had this defect, that it separated certain books by certain authors in manner as near to each other as in matter they are far apart. Thus Augustine writes like Varro, and Horace like Prudentius."

The chance which preserved his letter thus made the observant Sidonius perhaps the first recorded critic of the classification and arrangement of the books in a library. But had they been preserved, I am sure that complaints were made about the catalog engraved upon the walls of the library at Edfu in Egypt, and that the Babylonian Amid-anu, who lived some seventeen hundred years before Christ and is perhaps the first librarian whose name is recorded, had to give ear from time to time to unhappy scholars who wanted to rearrange the clay tablets in their own—conflicting—

For it seems to be a library axiom that no arrangement of books can please all of the people all of the time. And this fact, although it is a nuisance, has functional roots. A library is a collection of books arranged for use. The trouble is that different people use books in different ways for different purposes. One of the categories posted in stone at Edfu was "The Book of how to repulse the crocodile," an admirable classification, I am sure, for the priest whose specialty was repulsing crocodiles; but I suspect that his colleague in the Department of Protecting against Serpents grumbled when a tricky case of serpent-protecting forced him to look up a few esoteric facts which happened to be in one of the crocodile books.

But even though all arrangements represent compromise, some are better than others. When one stops to think about it, there is a surprising variety of ways in which books can be arranged, and it is even more surprising that we apply portions of many of these systems in our libraries today. My predecessor at Princeton, Ernest Cushing Richardson, when he published his little book on the subject in 1901, listed nineteen basic kinds of arrangements which he had seen in use. One could add others. Aside from those systems designed to bring together books which are like each other in subject, which we are inclined to take for granted as the way of arranging books, think for a moment about some of the other ways in which books could be arranged.

Dr. Dix is Librarian of Princeton University. This paper was read to the University of Washington Library Convocation on October 18, 1963.
1. By color. A useful mnemonic device which we all use unconsciously, but of more importance to the interior decorator than the scholar. (But I did have once from a part of the campus which shall be nameless a request for ten feet of green books from our duplicates!)

2. By height. We all necessarily make some divisions by height for the sake of economy, and height is a basic principle of compact storage, which many of us are forced to adopt in some degree.

3. By alphabet. An arrangement according to the surname of the author has obvious merits as a self-finding device (as well as demerits) and is an element of most systems.

4. By date. To be able to see together in one place all of the books published in England, say, in 1688 would have obvious attraction for the historian of ideas; one of our economists makes periodic journeys to New Haven, where there is a special collection arranged in just this fashion. But this is obviously not the best arrangement for all users.

5. By thickness. We commonly treat broadsides in some special way.


7. By weight. A bit esoteric, but we do have about ten tons of marble or plaster casts with carved inscriptions for epigraphic study which cause us endless shelving problems.

A consideration new to me is suggested by an etiquette pamphlet of 1863, quoted in the May/June issue of that lively little sheet distributed by the Columbia University Press, The Pleasures of Publishing: "The perfect hostess will see to it that the works of male and female authors be properly segregated on her book shelves. Their proximity, unless they happen to be married, should not be tolerated."

There is no point in continuing this list. Most of us decided long ago that the best compromise is some system of arrangement based on subject, which attempts to bring together those books which somehow resemble each other in content. To this end formal systems of subject classification have been devised which attempt to provide a logical location for each book which may be added to the collection and usually a symbol by which it may be located. Mr. Richardson lists 170 of these systems which had been described in some detail by 1901, beginning with the classification of the Alexandrian library as expounded by Callimachus. The devising of the perfect universal classification can become a fascinating intellectual exercise, and new proposals have continued to appear during the past fifty years, perhaps most notably in India under the stimulus of Ranganathan. These exercises, intriguing as they are, may have more to do with metaphysics than with practical librarianship, and they need not concern us here. Indeed I venture to be so heretical as to suggest that any reasonably logical and complete classification, applied consistently, will work, admitting of course the economic advantages of cataloging and classification done centrally for many libraries using the same system. I except of course the personalized system of a tall and angular colleague, who hated to stoop and who insisted upon reshelving a book, once he had found it, at eye level, where he—but only he—could always find it again.

Thus I am not talking today about schemes of formal classification but about what we do with books once we have classified them and given them call numbers. There are, of course, great libraries in which the books are not classified, except by size, in which each book is simply placed on the shelf following the one which arrived just before it, to be followed by the one which arrives after it, regardless of subject. This is a marvelously efficient way to pack books, with nearly every cubic inch used and no need...
to allow any open space except at the end of the file. Perhaps the only more efficient ways are to take millions of tiny pictures of books, then throw the books away, or to tear the contents of books apart into bits of information suitable for a computer to digest and regurgitate upon demand.

All of these methods of storing books are in some ways admirable, but they all have serious defects. The computer as yet is not really very useful as a storage bin except for facts, and who wants a library composed of nothing but World Almanacs? Very often both the student and the scholar want not facts but prose or poetry, those admirable arrangements of words in sequence, which can record and transmit love or hate, fear or fortitude. Microreproductions are fine, too, for some things, and no doubt we shall be using more of them, for their development is obviously far from complete. But they too present problems; they are uncomfortable to handle physically, it still seems to be cheaper to store a book than take pictures of it, and sometimes when I want a book, my need cannot be satisfied by a picture of a book but only by the book itself, complete with all that the paper, the ink, the binding have to say to me. Compact storage, with no concessions to subject, author, date of publication, or any consideration except size, does save space, and space costs money. But it seems to me folly for the university library to arrange a very large proportion of the collection in this way unless there are very pressing space restrictions indeed. This is why.

The basic test of the quality of any university library is its ability to get into the hands of the reader the book he wants when he wants it. I suggest that this is the first principle, and that from it stem nearly all of the things we do or ought to do in libraries. (I say "nearly all" because there are other things. For example, we do certain things, and ought to do more, to lead people to want more books, such as display them attractively or provide comfortable chairs in which to read them. But nearly all library activities lead toward this one end: to get into the hands of the reader the book he wants when he wants it.)

Like all simple generalizations this statement turns out to be more complex than it seems at first. It hardly has the significance of $E = mc^2$, but in its own sphere it has a certain relevance to a great deal. No library in the world can pass the test perfectly, supplying all potential wants of all potential readers. But we should do what we can to come as near the mark as possible.

To this end we go through a complex series of rituals to improve our percentage of hits. Since the odds of success are obviously better if we have more books; we raise all the money we can to acquire and house all the books we can. We attempt, by one sort of divination or another, to improve the odds by selecting the books believed, by someone, to be required most often. As we get these books we catalog and classify them somehow, for they must be found to meet our test. We bind and package them in one fashion or another to preserve them physically. We develop elaborate systems of records and of notices and fines to snatch them from the hands of one reader so that they may be ready for the next one. (Our objective is only to get the book into the reader's hands, not to leave it there!) Ironically, the things we do to achieve our goal often seem the very things which deflect us; the book which is wanted always seems to be in the process of cataloging or at the bindery.

Consider for a moment the implications of this basic test of library quality, this First Law of Bibliodynamics, for the arrangement of books. Assuming the existence of a reasonably comprehensive collection, how should these books be

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arranged to get into the reader's hand the book he wants when he wants it? The relevant phrase here is, I think, "the book he wants." Look at several situations.

If he knows he wants a particular book in a particular edition and knows the author and title, it probably does not make too much difference where the book is shelved, provided there is some sort of author catalog giving an index number or symbol to that particular volume by which it can be located and placed in his hands. Even if the book is stored electronically in a computer or on microfilm or in a random location in compact storage the particular book can be found, although in a large, closed-stack collection the reader may grow impatient of the wait while it is being brought, even by a page on roller skates.

Even if he wants a score or more of books which he can identify precisely in the catalog, say to check a series of references—a not uncommon situation—any of these systems will work. But it does begin to seem that an inordinate amount of manpower, albeit low-level manpower, is being expended to retrieve these books if they are scattered at random through a million-volume compact storage or fixed-location library, especially when each of them is wanted for perhaps a minute only.

As the number of books increases, the advantage of some system of classification by subject becomes apparent, for the odds are that many of these books will be of the same type and will thus be found in the same part of the building, if not immediately adjacent to each other. If they are shelved in some kind of subject classification, this type of use situation suggests further that it might be much simpler and more economical to let the reader go to the shelves himself and consult the books at some convenient nearby table, thus avoiding a great deal of filling out of call slips, waiting, and running about.

I suspect however that this situation in which the reader knows precisely the book he wants, whether one or twenty, is by no means the most common one in the university library. Rather, is not the reader more likely to know only in general what he wants and to be fully satisfied only after examining briefly the books themselves and then happily taking the right one away to read? It may be a good text of Hamlet, or a good history of the Crusades, or a good study of business recessions, or the Oedipus complex, or aerodynamic turbulence, or the flora of the Sierra Nevada. It seems to me that a quick look at the subject headings in the card catalog, followed by a quick examination of the shelves of a well classified collection to which the catalog has sent him is more likely to place in his hands the book he wants than any other system. No catalog card, however complete, no electronic console for scanning a bibliographic store, can quite do the whole job.

I recognize that this may seem an anti-intellectual approach, that we librarians are constantly telling students to learn to use the card catalog and the standard bibliographic tools to identify the books they want. Perhaps one should make a list of possibly useful books, then read the reviews of each, then weigh the various merits and demerits, then finally send for the one best book. But few of us can work that way. One should of course use all the tools available, but should he not also cultivate by practice the marvellous flair of the true bookman and scholar for skimming quickly through a series of volumes and then almost by instinct finding the one which fits exactly his needs of the moment? The library that facilitates this practice is the open-stack, classified collection.

Only in this sort of collection can one get at one other type of book he wants, that which he did not know he wanted until he found it. It can happen to a freshman who, hunting for a novel by Stewart
Edward White which he had read in high school, comes for the first time upon the delights of E. B. White, or T. H. White, or even the subtler delights of old Gilbert White of Selburne. It can happen to the mature scholar who, working on the theory of taxation, stumbles upon an obscure seventeenth century sermon which opens up for him a whole new line of inquiry. This kind of browsing is a by-no-means-unimportant by-product of the kind of arrangement of books about which I speak. One of the things which worries me most about the random compact storage arrangement which lack of space is forcing many of us to adopt for parts of our collections is that the seldom-used book which is the obvious first candidate for relegation to a compact storage collection is precisely the book which may never be found and used except by discovery on the open shelves of a classified collection. It may appear in no bibliography, its author may be unknown, its true importance may not be brought out fully by the subject headings assigned to it by the cataloger; yet its discovery by the right scholar may bring to light a point of view or a trend or a literary style that deserves attention. It is the possibility of discovering such a book which makes research in a great library more exciting than work in a collection containing only the standard works.

Assuming that the local situation, always the determining factor, permits us to establish a system of subject classification as the basic organizing principle of the library and that we are so fortunate as to be able to permit our books to be placed on open shelves for anyone to consult, another problem arises. Do we put all of the books on the campus in one building, or do we lift our great chunks of books which cohere by subject and disperse these chunks around the campus? After considerable reflection on the subject and a fair amount of abrasion, I for one have concluded that there is no one right system, no sacrosanct ideology applicable to all situations. So long as the collection is thought of as a single university library, existing for the greatest good of the greatest number of readers and administered with as much tolerant concern for the special interests of the individual as circumstances permit, a considerable variety of local geography can be tolerated by the academic community. I must confess to an increasing aversion to the phrase "departmental library," having seen otherwise respectable collections lose a great deal of their utility by deployment along administrative lines rather than on the basis of the intellectual content of the books.

I must confess also to feeling a certain rightness in the concept of a great library pulled together as a unit, with every book standing in its proper place according to some clearly understood coherent system, all open to every user, with a perhaps austere but comfortable and well-lighted chair within twenty-five feet of it. No book is missing because it is on reserve or in some special reading room; no book is charged out to one of my colleagues who wants to read at home; and especially no book which I happen to want is a mile away across the campus in the Institute of Numismatics library. There is no great library which satisfies all of these requirements.

But I recognize that some concessions must be made. It is hardly practical to make the 862 freshmen in Professor Jones’ History 100 course who must read chapters 5 to 10 of Gibbon by next Thursday fight over that one copy in its, to me, proper place on the shelves. We do have a responsibility to take fairly good care of the only copy of Fanny Hill, London, 1747, in wrappers, between the Huntington and the Houghton. And, above all, my colleagues in the Institute of Numismatics on the North Campus across the river do have a particularly high incidence of varicose veins which
makes it difficult for them to walk, and they do advance persuasive reasons why there are pedagogical and scholarly benefits in having the books they need daily located somewhere nearby, pointing out the irrefutable fact that it is exactly the same distance from the Institute of Numismatics to the main library as it is the other way.

A good case can be made on the basis of local geography and other obvious considerations for some deployment of a large collection in various campus locations, and little harm is probably done if the basic concepts of the single university library with central cataloging is preserved and if the natural lines of cleavage are followed in separating the various parts. What seems to me fatal is the series of separately-budgeted, separately-controlled faculty libraries common in Continental universities, which rob the university library of any meaning or plan. Equally bad is any arrangement along some arbitrary administrative pattern which separates the collections in history from those in the classics or some other abomination of the same sort.

If the collections must be split, I suggest that lines of cleavage do exist between some of the highly applied subjects and their relatively "pure" manifestations and that with comparatively little duplication one can make the applied practitioners happy without destroying the basic unity of the library. Similarly, it may not please Sir Charles Snow, but one can split the natural sciences from the social sciences and the humanities without causing too much pain, except to the historians of science, who are a hardy race anyway, accustomed to inconveniences. Of course, if mathematics goes with the sciences, the mathematical logicians in the philosophy department will cry out in anguish; if it stays with the humanities, the scientists will scream. The exotic languages of the Near and Far East can be safely segregated from the remainder of the collection, but English language books on those areas will then cause a problem.

In the long run, is it not better for everyone, increasing his chances of finding the book he wants when he wants it, to keep as many books as possible together? If it is necessary to serve some subjects by branch libraries in remote areas, the wise librarian will search diligently for the most appropriate lines of cleavage and will resort to somewhat more duplication of titles than his natural frugality quite endorses in order to preserve as much as possible the basic coherence of the library.

You have a very wise librarian indeed, and I am not surprised that my reflections upon the more satisfactory arrangements of books seem to have ended up by describing a system substantially like the one I have seen here. My views seem to be echoed by the most important element of the community, the customer. The Washington Daily editorial this morning says, "It really is easy to find a book." What finer verdict could you want? Library buildings are obviously less important than what they contain, but it is equally obvious that they are of vital importance when they permit and encourage an optimum arrangement of books, one which comes closest to getting into the hands of the reader the book he wants when he wants it. I congratulate you on the progress you have made toward this goal.
A friend of librarians once suggested that a librarian is an unusual kind of traffic engineer, because he tries to arrange collisions, collisions between ideas and people. It is these collisions which give librarians a sense of excitement and sometimes turmoil.

A primary cause of turmoil for librarians is the fact that we are public servants. We serve not merely one boss but all the readers who make up our public. Our situation as everybody’s servant is dramatized by the crowds and the ringing telephones at peak hours at the different service desks. Because the reference and circulation departments are on the firing line, they are most aware of their calling to be servants, but so are the other departments. The technical services are the indispensable “man-behind-the-man-behind-the-gun.” They are the so-called hidden services. If they have not done their part, the public service librarians may be powerless to get the right book to the right person at the right time. So we see that all of us are either directly or indirectly serving the public.

It is interesting to note that as librarians we have stressed the service aspects of our work. This is evident in our language, where the word “service” recurs in many phrases: technical services, reference service, reader’s advisory service, the Library Services Act, the Columbia University school of library service, etc. Librarians sometimes use the word service as a synonym for such impersonal words as process or operation, but they also use the word in the very personal sense that “direct contact is made with patrons.” Using the word service in the latter sense, Raynard C. Swank wrote, “Service is a cardinal principle of American librarianship.” And service is surely fundamental to a fully developed professional philosophy, which Jesse H. Shera called “the great need of the library profession today.”

But granted that a librarian’s purpose is to be a servant and to serve his people, what does it mean to be a servant? Paradoxically, twentieth century Americans understand this word servant to connote both shame and glory. A domestic worker is known as a servant, and finding a good servant is a problem for Americans, partly because the domestic servant is considered to be at the bottom of the ladder by us status seekers. When we find a servant we give him dignity by calling him an “employee,” not a “servant.”

In contrast, we find that servant is one of the honored words in our Judeo-Christian heritage. Servant is one of the key words of the Bible. In the Old Testament, God sometimes addressed His chosen people through the prophets in the words, “My servant Israel” (Isaiah 49:3). The Israelites knew themselves to be a servant people. When God revealed Himself to

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Mr. Kennedy is Business and Social Science Librarian in Drexel Institute of Technology.

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Isaiah knew that God was calling him to serve and he responded, “Here I am; send me” (Isaiah 6:8). At Christmas we remember one who said, “He that is greatest shall be your servant” (Matthew 23:11). Part of the greatness of Christ is that though many wanted him to be their king, he said he “came not to be ministered unto, but to minister” (Mark 10:45). Those who follow Christ are also called to a life of service. The Christian’s motive for serving is not the hope of earning heaven, but sheer gratitude for all that God has given him. “What hast thou that thou didst not receive?” (I Corinthians 4:7).

But is all this theology necessary? There are many who speak of service without referring to the word’s divine dimensions. Ray L. Carpenter, for instance, wrote a lengthy and important master’s thesis on the concept of service in librarianship? and never referred to the Biblical concept of service. Swank wrote that “the attitude of service . . . is simply the attitude of helpfulness, the motive of being useful to other people.” 8 But is service this simple? When we are tested by the most trying times, is our motive strong enough and pure enough to endure, when it is not strengthened and purified by God? Are there not times when the demand for our services becomes very great and causes turmoil within us? Then we are tempted to deny that we are servants. Then we are tempted to try to get away from this frustrating situation and “take it easy.” It is one of the mysteries of life, however, that we can find meaning and fulfillment only in the midst of the conflict and its frustrations. Only when we place ourselves under the burden of our work do we find relevant the words of Christ, “Come unto me, all ye that labor and are heavy-laden and I will give you rest” (Matthew 11:28). Brother Lawrence, a cook’s helper in a monastery, was one obscure Christian who found rest in God in the midst of the turmoil of his work. In the booklet, The Practice of the Presence of God, he is quoted, “The time of business does not with me differ from the time of prayer, and in the noise and clatter of my kitchen, while several persons are at the same time calling for different things, I possess God in as great tranquillity as if I were upon my knees at the blessed sacrament.” If our motive is to serve our readers in the presence of God, then we shall find that our motive is both purified and strengthened.

At this point another temptation needs to be resisted. Just as the librarian ought not to deny that he is a servant, he also ought not to behave as if he were nothing but a servant. The librarian who is serious about service may be tempted to make himself a martyr to the needs of others. The way of wisdom here is to recognize that the servant himself has a need to be served. The servant has needs for privacy, warm human relationships, and opportunity for personal development. To neglect this is to be overcome by the pressure of work, so that one serves as a functionary rather than as a complete person.

If we agree with Socrates that “the unexamined life is not worth living,” we shall want to ask ourselves some searching questions regarding our service. Public service librarians might ask themselves such questions as these: (1) Am I diligent in serving each reader completely and in presenting a friendly, helpful manner? (2) Do I encourage the spirit of inquiry, or do I make the inquirer feel that his question is uninteresting or stupid? (3) Do I cultivate my imagination and initiative to learn the reader’s real needs or am I content simply to repeat the rehearsed response? Librarians in the “hidden services” might ask themselves

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The Use of Medical Theses
As Demonstrated by Journal Citations, 1850-1960

By L. MILES RAISIG and FREDERICK G. KILGOUR

The study reported in this paper arose from consideration of the question whether the Yale medical library should retain in part or in whole its collection of somewhat more than one hundred thousand European medical theses published largely in the last seventy years. Experience of recent years has been that theses attract infinitesimal demand, which suggests that they may never have enjoyed significant amounts of use. The Yale medical library has responsibility for maintaining collections as source materials for historical research, but if theses had not been used in literature of the past, there would be little if any justification in preserving such large holdings. Therefore, it was to determine whether theses had been used in older literature that this investigation was undertaken. The findings are published in the belief that they will be useful to those institutions faced with making decisions on the management of theses, both old and current, and also to those contemplating collecting theses for general or historical purposes.

Methods and Materials

It was believed that an analysis of citation use would provide the most significant data on the medical thesis. Therefore, the following basic statistics were considered to be of primary importance and were sought and recorded: source and bibliographical data of the thesis citation (journal, volume, page, year; author, title, university, year of publication); number of total citations, of citations to journal articles, of thesis citations, and of all other nonjournal citations.

Medical journals were chosen as the best and most easily available sources of citations for analysis, their usefulness having been well established in many earlier citation studies. The period 1885-1960 was tentatively selected for analysis because of the year limits of the Yale medical library's thesis collection, and because it appeared to offer the most significant data on the use of the thesis.

The expected infrequency of the dissertation citation demanded inverse sampling, or complete analysis, of all references appearing within the selected unit of issue of any source journal. This full analysis, together with the necessity to confine the study within the time allowed, limited the number of source journals to ten. A staggered, random pattern of source publication analysis was devised, each journal being studied in its every tenth year, so that with the exception of 1946, complete coverage was secured from 1898 through 1961 without duplication.

To assure objectivity as well as sig-
TABLE 1. CITATION SOURCE JOURNALS

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<th>JOURNAL</th>
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<tr>
<td>Archivio de Fisiologia</td>
<td>'59</td>
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<tr>
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<td>'69</td>
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<tr>
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<td>'99</td>
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<tr>
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<td>'93</td>
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<tr>
<td>Virchows Archiv für pathologische Anatomie und Physiologie und Klinische Medizin</td>
<td>'95</td>
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The primary sources of citations in the investigation were original articles, as well as addresses, reports, case records and letters in the form and with the substance of original articles, correspondence relating to articles, and nonabstracted and unabridged proceedings. The following were excluded from analysis: abstracts of articles and proceedings; editorials; book lists, reviews, and bibliographical notices; reports of societies; obituaries, necrology lists, biographical notices, and appreciations; news items; legal notices; public health statistics; question and answer columns; dissertation lists; unsigned and noncredited materials. No attempt has been made to secure for analysis those few bibliographies omitted by the publisher for lack of space from later volumes of Münchener Medizinische Wochenschrift and Journal of the American Medical Association.

The following definitions and methods have been used throughout the study. Any cited work known to have been published fewer than four times a year has been treated as a nonjournal. If the frequency of a cited work could not be de-

TABLE 1. (Continued)

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<td>'04 '14 '24 '34 '44 '54</td>
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<td>'01 '11 '21 '31 '41 '51 '61</td>
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</table>

* Not published 1946.

termined easily without searching, the citation was included in the total count as a journal. Replicate citations occurring within the same source article, and referring to a single work by the same author, have not been counted. This rule includes citations to theses. Each replicate citation to the same thesis, occurring in different source articles, has been recorded. Every effort has been made to identify by university and year imperfect dissertation references, of which only ten remained incomplete. A citation to an unidentified author, the title of whose work has been omitted, has been included in the count of journal references.

Dissertations accepted and recorded were: thèse; akademisk afhandling; proefschrift; Inauguraldissertation; Inauguralabhandlung; Doktorarbeit; Dissertationsarbeit; Akademische Abhandlung; and the equivalents “D.J.”, “I.D.”, “J.D.”. The following monographs were excluded as theses, but were included in the nonjournal count: Habilitationsschrift; Fakultatsrede; Gratulationsschrift; concours; thèse de concours; thèse d’agrégé; thèse d’agrégation; medical nondoctoral theses; nonmedical doctoral theses. Dissertations published as journal articles were counted as such; a separate recording was kept of these and of four of the classes above, and will be discussed in the results section.

The citation recording technique involved a continuing threefold operation: the counting of every citation on a mechanical hand counter; the tallying of every citation to a nonjournal work (ex-
including the thesis) on a special work sheet; and the separate recording of every thesis reference on a 3×5-inch slip individually numbered by source journal.

Citation counts were assembled in tables by journals and source years. At the completion of the analysis of each journal the percentage relationship of thesis citations to all citations was plotted on a master line graph. This enabled ready contrast of the journal yield of citations and led to the extension of the analysis back to the middle of the nineteenth century.

**Results**

A total of 2,669 citations to 2,452 individual dissertations published as separate monographs turned up in the analysis of 140,534 references. Of the 2,669 citations, ten are incomplete and unidentified as to place or year; except in Figure 1, these ten have been excluded from all calculations and illustrations. Figure 1 provides the distribution by decades of thesis and other nonjournal citations as percentages of total citations, and the relationship of nonjournal to journal citations, for the period 1821-1960. There is seen here a steady growth in the citing of theses from the 0.8 per cent of 1821-30 to the high points of 4 and 3.9 per cents in 1881-1910, with a slight fall dur-
## Table 2.

**DISTRIBUTION OF THESSES BY UNIVERSITY**

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<th>Total Citations</th>
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**Totals:** 2,452 | 207 | 2659

**Total Universities:** 90

The data in Table 2 shows the distribution of theses by university. The table lists the universities and their associated theses, citations, and rank. The data indicates a declining trend in citations over time, with a sharp decline during World War II. The arithmetical mean of thesis citations for the analysis years 1821-1961 is 16 per 1000, with the highest proportion being 40 per 1000 in the years of greatest citation use, 1881-1910. There is a slight rise in citations during the period of the later years of World War II, then reaching a low of 0.7 per cent for the last decade.

The arithmetical mean of thesis citations, as a proportion of total citations for the analysis years 1821-1961, is 16 per 1000. For the years of greatest citation use, 1881-1910, the proportion is 40 per 1000. Of the 2,559 citations to identified works cited, 1,789 (70%) are from the earlier period, 1821-1870, and 770 (30%) from the later period, 1871-1900.

*MARCH 1964*
dissertations, 207, or less than 8 per cent, are replicates.

The steady rise in the citation use of medical journal articles in the last hundred years is clearly shown in Figure 1. Citations to journal literature in the decade 1941-50 accounted for 59.8 per cent of all citations found; from 1851-60 to 1951-60 the proportion of journal citations to all citations rose from 49.4 to 87.3 per cent in an apparently non-reversible trend. This rise should not be considered the absolute cause of the percentage loss in thesis citation use dating from 1901-10. Related measurements of use will demonstrate in the discussion following a real decline in the citing of theses, stemming probably from a variety of factors.

Table 2 offers the numerical distribution of theses cited and replicate thesis citations among all universities represented, with a ranked list of the latter. The very great number of Paris theses is balanced by the reduced total of dissertations from nine other French universities; the combined total of theses cited from all French universities is sixty-seven more than the total from all German universities. Berlin is the most cited of the twenty-eight German universities represented. Neither nation is favored in replicate citations to its theses; for each nation these amount to about 8 per cent of its total thesis citations. Because of its staff, tradition, and influence, Dorpat has been considered a German university outside of Germany, although it was Russian politically and geographically; all Dorpat theses cited were published between 1836 and 1905, almost wholly within the period of German strength.

Figure 2 illustrates the national distribution of individual dissertations cited. Noteworthy is the fact that French, German, and Swiss theses account for 92 per cent of the total cited, as well as the extreme paucity of British, Italian, Spanish, and North and South American dissertations, greatly outnumbered in turn by Russian and Scandinavian theses. The inclusion of replicates in computing the national distribution of thesis citations favors only French theses in this proportion: French, 46 per cent; German, 42 per cent; Swiss, 5 per cent; others, 7 per cent. The disproportion of citations yielded (9 per cent) by the two French source journals, and of citations to French dissertations (46 per cent) is remarkable; the proportion of citations yielded by the two German source journals (32 per cent) more nearly approaches that of citations to German theses (42 per cent).

Illustrated in Figure 3 is the distribution of the dates of publication of theses from French universities. The first noticeable rise in the number of dissertations cited occurs in the period 1851-55, and this quantity remains almost the same until 1870. In the five-year period including the Franco-German War of 1870-71 there begins a series of sharp increases in the number of citations, reaching a
peak in 1896-1900, falling to a low in 1916-20, and showing a fluctuating, diminishing number from 1926 to 1960.

Figure 4 portrays the distribution of the dates of publication of cited dissertations from German universities. This is similar to the distribution of French university theses, but the first great increase in number occurs in 1846-50, five years earlier than the corresponding increase in number of French theses, and reaches its highest point in 1891-95, five years earlier than the French peak. The first marked decrease in number occurs in 1906-10, with a decline continuing to 1956-60. There are noticeably more French theses than German theses cited during the period 1921-60, and the number of French theses remains more than twice that of the German number at the end of this period.

In an attempt to secure an index of citation use based on the number of theses available for citation, those theses most cited—University of Paris—were chosen for sampling. During the calendar years 1891-1900 there were presented to the Paris medical faculty a total of 5,520 theses. Within this same period it was found that forty-nine of these had been cited. By substitution in the formula

\[ \text{index of citation use} = \frac{\text{number of theses subsequently cited}}{\text{number of theses originally published}} \times 1000, \]

the index of citation use for this period was calculated to be 9. During the calendar years 1951-60 there was presented to the Paris medical faculty a total of 11,013 theses, of which thirty-four were found to have been cited in the same years. By substitution in the formula above, the index of citation use for this period was found to be 3, or one-third of the index for 1891-1900.

While these indexes offered new evidence of the decline in the citation use of the medical thesis, they could not yield any measurement of citation use beyond the 1891-1900 index.

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the two decades actually investigated. The Paris theses published from 1891 to 1900 were reviewed, therefore, for citation use from 1891 to 1960. Of these theses 136 were cited, and this number produced for the seventy-year period an index of citation use of 25.

As a further measurement of use there was computed the citation lag of Paris dissertations published 1891-1900 and cited 1891-1960. This was based on citations to 136 individual theses and on fourteen replicate citations. It was found that 49.3 per cent of all citations occurred within the first ten years following publication, and 32.7 per cent within the second ten-year period; thus, 82 per cent of the citation use life lay within the first twenty years after publication. The remaining 18 per cent was spread from the twenty-first to the fifty-eighth postpublication year. The heaviest use occurred during the first and second years following publication, in each of which 9 per cent of the citations fell.

There is offered in Figure 5 the distribution of thesis citations by years of thesis publication, 1645-1960. There is also shown, as the concluding step in the measurement of citation use, a series of adjusted estimates of the numbers of citations to theses published 1901-60. The number of citations to theses published 1891-1900, 502, was selected as a base from which the probable use lag in the six decades to follow 1960 might be computed. The same citations to theses published 1891-1900 were separated by decade of citation use. For the decades 1891-1900 through 1951-60, these citations totaled respectively 120, 204, 91, 55, 20, 6, and 6.

The adjusted number of citations to theses published 1901-10 was derived from the formula

\[
\text{citations 1951-60 to theses published 1891-1900} = \frac{\text{citations 1951-60 to theses published 1891-1900}}{\text{total thesis citations 1891-1900}} \times 100.
\]

This number, 1, was then added to the 1901-10 total of 416. The adjusted number of citations to theses published 1911-20, 2, was secured with the formula

\[
\text{citations 1941-60 to theses published 1891-1900} = \frac{\text{citations 1941-60 to theses published 1891-1900}}{\text{total thesis citations 1891-1900}} \times 100,
\]

and was added then to the 1911-20 total, 178. In this way the citation total of each succeeding decade from 1901-10 through 1951-60 has been adjusted to give a figure to represent estimated citations on the basis of all theses having been available for citation throughout equal periods of time.

The chart clearly demonstrates the continued fall, even after adjustment, in the number of citations to dissertations published since 1900. The decline breaks in 1951-60, and there is insufficient evidence to determine if the 1951-60 total represents an actual leveling-off or merely a temporary cessation in the decline.

Although this study has been con-
cerned primarily with the dissertation prepared for the doctorate in medicine and published and distributed as a separate monograph, other medical and nonmedical theses have been found and recorded separately: sixteen medical non-doctoral theses, including those granted by the University of Minnesota for study at the Mayo Clinic; twenty-five theses submitted for doctor of philosophy degrees in the nonmedical sciences; twenty-nine thèses de concours (competition essays) and Habilitationsschriften (introduction-to-teaching essays); forty-seven medical doctoral theses published as articles in the various Scandinavian Acta and their supplements, and two similar theses published in other journals. These total 119, and with twelve replicate citations account for less than 0.1 per cent of all citations analyzed.

We may dismiss without further consideration these extra theses, with the exception of those appearing as articles in journals and other serials. This type of publication in recent Scandinavian Acta is the later expression of a phenomenon associated with German medical theses since before 1895. Such publication of the latter is of particular interest, since there is reason to believe that it has been and continues to be a factor in the decline of the citation use of German theses in their separate monographic form.

In a full count of the German university medical theses listed in Jahresverzeichnis der deutschen Hochschulschriften every fifth year from 1895-96 through 1936, it was found that the number published as serial articles rose in an almost unbroken sweep from fifty-two to 547. The proportion of theses published as serial articles rose from 4.4 per cent in 1895-96 to 18.4 per cent in 1916, dropped to 3.7 per cent in 1921, then rose to 14 per cent to 1931, and declined to 11.7 per cent in 1936. It is remarkable to find that these two periods of increasing serial publication occurred during a continued fall in the citing of German theses as separate monographs.

TABLE 3

Distribution of German University Theses Published as Serial Articles in Six Selected Years, 1895-1921*

<table>
<thead>
<tr>
<th>Rank</th>
<th>Serial</th>
<th>Theses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Beiträge zur klinischen Chirurgie</td>
<td>50</td>
</tr>
<tr>
<td>2</td>
<td>Virchows Archiv für pathologische Anatomie und Physiologie und klinische Medizin</td>
<td>32</td>
</tr>
<tr>
<td>3</td>
<td>Annalen der städtischen allgemeinen Krankenhäuser zu München</td>
<td>25</td>
</tr>
<tr>
<td>4</td>
<td>Frankfurter Zeitschrift für Pathologie</td>
<td>18</td>
</tr>
<tr>
<td>6</td>
<td>Deutsche Zeitschrift für Chirurgie</td>
<td>16</td>
</tr>
<tr>
<td>7</td>
<td>Monatsschrift für Geburthilfe und Gynäkologie</td>
<td>16</td>
</tr>
<tr>
<td>8</td>
<td>Deutsches Archiv für klinische Medizin</td>
<td>14</td>
</tr>
<tr>
<td>9</td>
<td>Zeitschrift für Hygiene und Infektionskrankheiten</td>
<td>13</td>
</tr>
<tr>
<td>10.5</td>
<td>Naunyn-Schmiedeberg’s Archiv für experimentelle Pathologie und Pharmakologie</td>
<td>12</td>
</tr>
<tr>
<td>12.5</td>
<td>Beiträge zur Klinik der Tuberkulose und spezifischen Tuberkulose-forschung</td>
<td>12</td>
</tr>
<tr>
<td>14.5</td>
<td>Pflüger’s Archiv für die gesamte Physiologie des Menschen und der Tiere</td>
<td>11</td>
</tr>
<tr>
<td>16.5-</td>
<td>Zeitschrift für Immunitätsforschung und experimentelle Therapie</td>
<td>11</td>
</tr>
<tr>
<td>104.5</td>
<td>Archiv für Psychiatrie und Nervenkrankeiten</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Monatsschrift für Psychiatrie und Neurologie</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>114 journals, annuals, and proceedings</td>
<td>320</td>
</tr>
<tr>
<td></td>
<td>Total theses</td>
<td>586</td>
</tr>
</tbody>
</table>

Total serials: 129

* Source: Jahresverzeichnis der deutschen Hochschulschriften, academische years 1895-96, 1900-01, 1905-06, 1910-11, and calendar years 1916, 1921.
Further evidence which seems to support this belief is revealed when the ranks of German universities by number of theses cited (from Table 2) is compared with their ranks established from the proportions of their theses published as serial articles (from the Jahresverzeichnis sample). With the exception of Köln, which did not grant medical degrees until after World War I, there appears to be an inverse correlation of varying degree in their standings. Frankfurt, ranked twentieth of twenty-eight German universities in distribution of theses cited, was the first of twenty-four in the proportion of its theses published in serials. Heidelberg, seventeenth in theses cited, was second in theses published. In the same order Berlin ranked first and sixteenth.

Distribution in serial article form offers to the dissertation of merit and substance greater circulation and currency than it might secure as a separate monograph. This publication device, for a long period peculiar to German theses, has likely had considerable effect on the citation use of the separate German monographic dissertation. The following additional factors have probably contributed, in varying degrees, to the universal disuse of the separately published thesis by the medical writer: shifting emphases in medical education; the growth in the variety and number of medical journals; the stress upon currency in the communication of medical information; and the team approach to medical research, with its possible minimizing of the thesis contribution of the individual.

Table 3 offers a ranked list of serial publications containing German university dissertations in article form, derived from a complete count of theses in Jahresverzeichnis der deutschen Hochschulschriften, for every fifth year from 1895-96 to 1921.8 The wide variety of medical subjects and specialties, and the large number of serials represented, are noteworthy.

Conclusions

The greatest citation use of the medical thesis as a separate monograph was made from about 1880 to 1910. Theses cited in this period of heavy use have become a part of the historical record of medicine, and appear to have no worth now other than a clear historical value.

The thesis has suffered increasing disuse in the scientific information-communication explosion of this century, and its rate of disuse is higher generally than that of books, reports, etc. Unless the trend noted since 1911-20 is broken or reversed, the thesis as a source for medical citation seems doomed to insignificance. The dissertation of today, except perhaps in the Scandinavian countries and France, appears to be little more than an educational or research exercise, offering almost nothing to medical progress.

Available data demonstrate only a token citation use of the thesis now. Although local, state and national considerations may demand the general collecting of theses as depository material, their selective collection for actual or expected historical value would appear to offer the fairest exchange for processing expended and shelf space used.

The authors are grateful to Ursula E. Price, reference librarian, Yale medical library, for assistance in procuring needed materials; to Dr. Bruno Z. Kisch, curator, Edward C. Streeter, collection of weights and measures, Yale medical library, for information on German medical education; to Dr. Colin White, associate professor of public health (biometry), Yale University school of medicine, for statistical counsel; to Dr. André Hahn, head, library of the faculty of medicine, University of Paris, for information on Paris theses; to Lee Ash, editor and research analyst, selective book retirement program, Yale University library, for many useful suggestions; and particularly to the Council on Library Resources for the grant which made this study and report possible.
During the last six years a large body of valuable research materials known as JPRS translations has become available to research libraries and to the general public. Much of this material is unique because the original sources are often completely unavailable to organizations outside the government. Furthermore, in the case of translations from difficult languages, such as Arabic and Chinese, it would be impossible for undergraduate and graduate students as well as for many scholars to make use of the original materials. Organizations distributing the translations have received many letters from scholars and librarians testifying to the great value of the materials. Theodore Kyriak of Research and Microfilm Publications, Inc., says of the period 1957-1961: "The JPRS social science translations represent over 90 per cent of all scholarly translations produced in English during that period in the social sciences."

The quantity of materials issuing from this source has been voluminous. By the end of 1962, more than thirteen thousand and five hundred JPRS translations had been issued in the social sciences. Many thousands more had been issued in scientific and technical fields. Amounting to approximately one million pages since March 1957, about seven hundred thousand of which are in the social sciences, these materials now form one of the most complete and current collections of translations available in the United States.²

² Written information provided to the authors by T. W. Miller, Jr., Chief of JPRS, October 29, 1963.
ment Publications began listing and indexing the translations in the October 1958 issue, and these were then automatically reproduced by the Readex Corporation in its Microprint edition of U.S. government publications listed in the Monthly Catalog.

Also in 1958, the Office of Technical Services assumed responsibility for the distribution of all nonclassified government translations in science and technology and began selling Xerox copies of JPRS and other translations. OTS also began abstracting and indexing current translations (JPRS and other) for inclusion in the first edition of Technical Translations, volume I, number 1, January 2, 1959. OTS restricted itself to significant scientific and technical translations due to the sheer volume of other categories and to limitations of manpower.5

At the same time, the government publication's reading room of the Library of Congress began building a collection of JPRS reports and making photocopies of individual items available to the public from the library's photoduplication service.

In 1960, as a result of increasing academic need for the social science translations, the Social Science Research Council obtained a subsidy from the National Science Foundation to distribute, at less than cost, paper copies of JPRS social science reports on Communist China to a group of libraries which had indicated interest during a nationwide survey. The following year, 1961, the American Council of Learned Societies obtained a similar grant to distribute the social science materials on East Europe and the USSR. These subsidized distribution programs were terminated July 1, 1962, because of financial and other problems.

A new commercial firm, Research and Microfilm Publications, Inc. (RMP), was then formed and began offering sets of JPRS social science reports on microfilm arranged by geographical area and subject. This new firm was also persuaded to distribute Xerox copies of the Chinese social science translations by subscription, but this program met with technical difficulties and was discontinued in February 1963.

The demise of the RMP China Xerox set, following the termination of the ACLS-SSRC program, left a significant void in the supply of full-size paper copies of JPRS social science reports available on a subscription basis. Libraries and individuals made numerous requests to JPRS for full-size processed copies. Heeding these requests, JPRS announced distribution programs4 which included availability of individual reports issued after February 1, 1963, as well as subscription services for social science reports issued after February 1963. In October 1963 subscription services were expanded to include scientific and technical reports, and all reports including those issued prior to 1963 were made available on a single-report basis.

At the present time, JPRS reports can be purchased from four sources: OTS (JPRS), Library of Congress, Readex Microprint Corporation, and Research and Microfilm Publications, Inc. (One other possibility is borrowing JPRS reports on interlibrary loan from the eight depository libraries for translations, which are listed in each issue of Technical Translations. However, these libraries receive the scientific and technical translations but not the social science reports.)

Bases for Decision

Deciding where to buy individual translations or small sets is not much of a problem. The real difficulty comes in deciding on large sets of JPRS translations and where to buy them. Here, a library

4 The actual sale of reports and subscription orders are handled by the Office of Technical Services, parent organization of JPRS.
will have to consider a number of factors. Does it wish to have a complete set of permanent back files? Does it want the social science translations, the scientific and technical materials, or both? Does it want complete current coverage, or current reports only in specific subject fields likely to be used heavily by its clientele? How fast are current reports wanted? Will its patrons insist on full-size paper copy, or will they accept microfilm or microprint? Will the translations be kept together in a central location, or will it be necessary to send Chinese and Asian translations to a Asian collection, the USSR translations to a Slavic library, etc.? How much can the library afford to spend for the translations themselves, and for the personnel time necessary to service them?

**Present Sources**

Each of the four present sources seems to fill particular needs. A description of the services of each source follows. Much of the factual information has been outlined in the accompanying chart. Information has been obtained from publish-

<table>
<thead>
<tr>
<th>Source &amp; Form</th>
<th>Coverage</th>
<th>Arrangement</th>
<th>Access</th>
<th>Time Lag</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Readex</strong></td>
<td>Every report listed in <strong>Monthly Catalog</strong> 1957-62: 80% of total 1962-63: 95% of total May 1963 on: 100%</td>
<td>By <strong>Monthly Catalog</strong> entry number</td>
<td><strong>Monthly Catalog</strong></td>
<td>8 months</td>
<td>1/4-1/2¢ page</td>
</tr>
<tr>
<td>Microprint (microprint cards)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1957-62: $1,375² 1963: $400¹ 1964: Unknown, but increase over 1963³</td>
</tr>
<tr>
<td>Research &amp; Microfilm (microfilm reels)</td>
<td>A. Social Sciences: complete coverage planned.</td>
<td>Primarily geographical (Can be purchased in geographical or chronological subdivisions)</td>
<td><strong>Guides to contents of reels,” some indexes</strong></td>
<td>6-8 weeks</td>
<td>1/2¢ per page</td>
</tr>
<tr>
<td></td>
<td>B. Sci. &amp; technical: All book-length now, 85-90% planned.</td>
<td>Subject</td>
<td>Currently in planning stage</td>
<td>Unknown</td>
<td>1957-60: $1,590, plus USSR⁴ 1963: $1,000⁵</td>
</tr>
<tr>
<td>Office of Technical Services (JPRS) (processed or Xerox copy)</td>
<td>All JPRS reports</td>
<td>Individual numbers</td>
<td><strong>Monthly Catalog, Technical Translations</strong></td>
<td>1-3 weeks</td>
<td>1¢ per page by subscription; individual reports higher</td>
</tr>
<tr>
<td>Library of Congress (microfilm or Xerox copy)</td>
<td>All JPRS reports</td>
<td>Individual reports or several numbers ordered at once to be on same reel</td>
<td><strong>Monthly Catalog, Technical Translations</strong></td>
<td>2 weeks after ordering</td>
<td>Varies</td>
</tr>
</tbody>
</table>

¹ Time lag: figured from date of imprint of report to date received by subscribing library.
² Includes both social science and scientific and technical reports.
³ Amount uncertain. Estimate based on 1/4-1/2¢ per page would put the cost for 1964 at $800 to $1,000. Past years' costs were underestimated by the company due to unpredictable output from JPRS.
⁴ Includes social science reports only. Cost of USSR set uncertain, but would probably add about $500 when completed.
⁵ Social sciences only.

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er's brochures, through examining and using the materials, and through correspondence.

**ReadeX Microprint Corporation**

A fairly complete set of all JPRS translations, including both social science and scientific and technical reports, is available from ReadeX Microprint Corporation. The ReadeX set contains those JPRS reports listed in the *Monthly Catalog of U.S. Government Publications* as part of a regular program to reproduce all government publications listed in the *Monthly Catalog*. For the initial period of JPRS production, 1957 to May 1963, *Monthly Catalog* listing (and the ReadeX set) is 80 per cent complete, including 18,103 of the first 22,501 translations issued. Moreover, the *Monthly Catalog* did not begin listing JPRS translations until October 1958, and a careful check shows a majority of the omissions are from the very earliest translations, for the most part those issued prior to January 1959. Therefore, for translations of materials published after 1958, i.e., anything issued in the last five years, or for the great bulk of the JPRS collection, the *Monthly Catalog* (and ReadeX set) is 90 per cent complete. In addition, some omissions are reports which, though issued with standard JPRS numbers, were meant for "government use only" and were never available for public use, and thus as a rule were not listed in the *Monthly Catalog*. Beginning with the July 1962 issue, the JPRS took special pains to assure the completeness of current and future *Monthly Catalog* listings, and as a result, the *Monthly Catalog* is 95 per cent complete for July 1962 through April 1963, and 100 per cent complete from May 1963 on.

The ReadeX set is on microprint cards arranged by *Monthly Catalog* entry numbers, not JPRS numbers. Reports are arranged roughly in chronological order, although there are many exceptions and substantial overlapping of JPRS numbers between monthly issues. Each microprint card can contain a maximum of one hundred pages and often contains more than one report. ReadeX is now preparing a list which will indicate the *Monthly Catalog* entry number for each JPRS number.

The chief attractions of the ReadeX set are its low cost and relative completeness, the minimum of space and effort required for shelving, the ease of pulling out individual reports from microprint cards as contrasted to reels of microfilm, the good quality of reproduction in the microprint process, and the close relationship between the ReadeX set and the *Monthly Catalog*, which provides a subject approach to the set. (Admittedly, much of the subject indexing is general and broad, rather than specific, since about 70 per cent of the JPRS material is grouped into serials, which the *Monthly Catalog* does...
not analyze for the most part. However, the serials are often specialized by subject and area, thereby providing a rough subject approach.)

There are several possible disadvantages of the Readex set. Heretofore, microprint has not been as easy to read as microfilm, a problem which some libraries may consider a serious drawback. Readers have been improving in recent years, and further improvements are promised, but how much better they will be remains to be seen. Also, there is no satisfactory means at present for making full-size copy from microprint. Readex does claim, however, to have a new reader-printer under development which will solve this problem. Other disadvantages are lack of flexibility, since the complete set has to be shelved in one location, and an eight-month time lag between imprint date and date received at the library.

RESEARCH AND MICROFILM PUBLICATIONS, INCORPORATED

Research and Microfilm Publications is a newcomer to the field. When the SSRC-ACLS projects were halted in July 1962, RMP began operation as a commercial firm to supply JPRS translations in the social sciences. The company says its coverage of current social science translations is complete. Back files were originally designed to complement the SSRC-ACLS distributions and were first issued for the 1957-60 period. However, coverage will now be extended up to July 1962. Back files for all areas except the USSR are now available for the period 1957-60, and some areas are complete through June 1962.

Recently the company announced plans to supply the scientific and technical translations. However, it does not intend complete coverage of this material, either past or current. Emphasis will be on serial and monograph items, omitting the *ad hoc* group (short, nonserial articles) unless there is “sufficient need for such service.” Back files of scientific and technical translations will be approximately 85-90 per cent complete.

RMP film reels are not arranged by JPRS number but by the company’s own rather complex geographic-subject arrangement. Current films are available in five geographic groupings: USSR, East Europe, China, Asia, and International Developments (the rest of the world). These five groups are then subdivided into three sections: serial, *ad hoc*, and book-length translations. Reports are grouped within these three sections by subject. Reels are issued either monthly or bimonthly. Back files are available in ten different geographic divisions, three mentioned above plus Afghanistan, Indonesia, Mongolia, North Korea, and North Vietnam. With the exception of International Developments, the translations are grouped by subject areas such as press reports, sociology, politics, and economics. There are further divided by a third level according to form: books, serials, and *ad hoc*. Within each of these subdivisions, finally, the JPRS numbers appear in order.

This arrangement has the advantage of flexibility, since part of the set can be sent to branch or special libraries. Also it is useful for specialists who are interested in translations pertaining to one country or one aspect of a country. It is also possible to purchase only what is needed, such as translations applicable to only one country. Other advantages are the greater ease of reading microfilm as compared to microprint and the ability of current microfilm reader-printers to reproduce relatively good full-size paper copy from film for direct reading.

The disadvantages of the RPM microfilm set can be serious ones. A major

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15 Ibid.
problem is the complexity of the arrangement of the film reels, which make it quite difficult for a researcher or a librarian to find an individual JPRS translation. This is especially significant due to the lack of any comprehensive subject or numerical indexes for gaining access to the set. Various guides, bibliographies, subject indexes, and cross reference indexes are issued, but these do not seem to make the task of retrieval much easier, since most of them are about as complicated as the film sets themselves. Most back files have Guides to Contents which are more in the nature of inventories of the contents of each reel rather than numerical or subject indexes. Because of the large number of countries involved, International Developments back files have an index listing the page number of reports which contain information on specific countries. The cumulative indexes of report numbers issued since January 1963 are helpful but are complicated by a unique "information retrieval" code which necessitates further interpolation before the exact reel containing a specific report can be determined. Despite present shortcomings, however, bibliographic compilations and indexing efforts of RMP are commendable and improvements are being introduced.

Another major consideration with regard to the RMP set is the high cost, compared to microprint, if a library wants a complete set of all JPRS translations. Other disadvantages are the lack of completeness for scientific and technical translations, and the time elapsing between date of publication and the date a report is received by a subscribing library. In general, this source seems to be a compromise between the service offered by OTS and the edition published by Readex, both in terms of speed of delivery and cost.

OFFICE OF TECHNICAL SERVICES (JPRS)

The United States Office of Technical Services, parent organization of JPRS, now sells all JPRS reports in full-size paper copy. Reports issued before February 1, 1963, must be ordered on an individual basis. Those issued after that date can be ordered either individually or on a subscription basis. The translations bought by subscription cost one cent per printed page; the cost of individual translations begins at one and one half cents per page for printed stock copy or ten cents for Xerox copy and decreases per page as the length of the report increases.

Subscriptions can be custom-tailored. An organization or individual can subscribe to any JPRS report series, to all of the ad hoc reports published in any or all of the specified subject categories (by geographic areas), or to any combination of these. Reports received on subscription arrive from several days to two weeks after imprint date.

Advantages of the JPRS set are the readability and preference of users for full-size copy, the speed with which the translations are received, the availability of single numbers, and the fact that small subscriptions tailored to individual needs can be obtained inexpensively, ranging in cost from sixty cents to several hundred dollars per year.

Accumulating at the rate of over two hundred thousand pages per year, these unbound copies have three very significant disadvantages as a comprehensive set: shelving problems, impermanence,

17 and cost. For example, a complete set of current social science translations alone would cost $2000 a year; a complete set (social sciences and scientific and technical sciences) would cost about $2700 a year.

16 Written information from T. W. Miller, Jr., October 29, 1963.
17 Mr. Kyriak, in a mimeographed announcement entitled "Addendum to the announcement of February 15, 1963, addressed to libraries participating in JPRS-SS-C (China) 1962-63 hard copy distribution project," contends that "due to the chemical properties of the paper, the mimeo copies should not be regarded as permanent records. According to archival and government standards, their life expectancy is limited to five years or less." Our own experience is that the JPRS mimeographed reports are beginning to deteriorate after two to three years.
The Library of Congress collection of JPRS reports is virtually complete. As of November 1963 it lacked only 136 of the first twenty-four thousand translations. At the present time, reports can be obtained from the Library of Congress photoduplication service on a single report basis only, in either of two forms, microfilm or Xerox copy. Theoretically, this limited service could be expanded, since the photoduplication service does the filming for both Readex and RMP projects and has all reports on hand. However, the Library of Congress has no definite plans for expansion of services at this time.

**SUMMARY AND RECOMMENDATIONS**

Obtaining individual translations is no great problem. They can be purchased from OTS in processed paper copies (or Xerox copy if reports are out of stock), and they can be purchased from the Library of Congress in microfilm and Xerox copy. And, as mentioned earlier, the scientific and technical translations can be borrowed on interlibrary loan from the nearest of the eight regional depository libraries for translations.

Nor are small sets a problem. RMP offers some small back files on microfilm. Small current sets can be purchased from OTS or RMP, depending on whether the delivery of current paper copies, or slower delivery of more permanent film files, is desired.

The more difficult decisions arise when the library begins considering large sets. For large current sets, OTS is the only source for full-size paper copies. The RMP microfilm sets and the Readex microprint set are considerably less expensive, require less shelving space, and provide permanent files, but they are also considerably slower in arriving for current use, and are not as easy to read.

If a library wants comprehensive permanent back files, the choice narrows to the Readex microprint set versus the RMP microfilm set, since the OTS processed paper copies cannot be considered permanent. In our view, the Readex microprint set has the edge as an over-all back file. It is more complete at this point, easier to use, is better indexed, and much less expensive. Microprint readers are being improved, and obtaining full-size copy is not a serious problem. One library owning both the microprint and RMP microfilm sets reports the microprint set is used more often because of the greater ease of access. Although for the early years the microprint set is not as complete as the RMP microfilm set for the social sciences, it is more complete for the scientific and technical translations, and after May 1963 it is certainly as complete for the social sciences. If Readex would offer a complete set of the DC, DC-L, NY-L series, plus the NY series, numbers 1 through 607, its over-all set would then be at least 95 per cent complete. If Readex could not be persuaded to make its set more complete by issuing these reports, a group of libraries could probably obtain a set of these early numbers on microfilm from Library of Congress at reasonable group rates.

However, if a library definitely wants to be as complete as possible in the social sciences, or wants a set it can break up and place in various locations, and is willing to cope with the less desirable arrangement and more difficult access, and can afford a higher price, it will probably choose the microfilm edition from Research and Microfilm Publications, Inc. The value of this set would be greatly enhanced if the firm could develop a comprehensive, cumulative, easy-to-use subject and numerical index to the entire set, but financial obstacles seem to prevent such a project.

Other choices for a permanent back

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19 Ibid.
20 This would pick up 2,930 of the 4,398 reports missing from the Readex set.
file are theoretically possible, if libraries are not satisfied with the existing sets. These would include comprehensive sets on microfilm or microfiche, arranged consecutively by JPRS number. A group purchase might make possible a reasonable price. Such a set would have the advantages of completeness, film's greater readability and reproducibility, and a simple arrangement for easy access. As another possibility, libraries might want to build permanent files of JPRS translations in microfilm or microprint and in addition obtain paper copies from OTS for temporary current use by subscribing to those series which would be most heavily used.

The availability of JPRS reports has changed many times since 1957 and, in fact, is still changing. Some libraries might want to press for alternate formats such as microfiche. However, the authors feel that the greatest need at the moment is for a more adequate comprehensive index to this body of research materials and that librarians might do well to urge the compilation of such an index. The Monthly Catalog lists all reports currently, but does not analyze them in the subject index of any of the series, which comprise over 70 per cent of the reports. Technical Translations gives adequate coverage to the more significant scientific and technical translations but does not touch the social science areas. A proposal by ACLS-SSRC to the National Science Foundation asking for funds to sponsor a retrospective index of the social science material has not received a positive response.

Further information and details on prices can be obtained from the following:

T. W. Miller, Jr., Chief
Joint Publications Research Service
Office of Technical Services
U.S. Department of Commerce
Washington 25, D.C.

Photoduplication Service
Library of Congress
Washington 25, D.C.

G. William Bergquist, Vice President
Readex Microprint Corporation
5 Union Square
New York 3, New York

Theodore E. Kyriak, Executive Director
Research & Microfilm Publications, Inc.
Riva Road
Post Office Box 267
Annapolis, Maryland

Appreciation

THE ACRL BOARD OF DIRECTORS, being aware of the great concern of college and university librarians regarding the publication of the statistics for their libraries, would be very pleased if these people would take the opportunity to show their appreciation individually to the U.S. Office of Education.

The following letter was sent to the Commissioner Francis Keppel, U.S. Office of Education, at the request of the ACRL Board of Directors:

DEAR COMMISSIONER KEPELP:

The Board of Directors of the Association of College and Research Libraries has asked me to express its appreciation to the U.S. Office of Education, Library Services Branch, for collecting and publishing the statistics for college and university libraries for 1962/63, according to the prearranged schedule, by January 1964.

The Board of this Association also expressed the hope that in future years this same publication schedule will be observed and that libraries and other agencies will cooperate with the U.S. Office of Education, Library Services Branch, in making an increasingly larger percentage of these statistics available.

GEORGE M. BAILEY, ACRL EXECUTIVE SECRETARY
THE BIOLOGICAL SERIAL RECORD CENTER (BSRC) is one phase of a continuing effort to improve the flow of information to the scientific community. It will bring together in one location information hitherto scattered or inaccessible; provide a census of existing life science serials, as well as those that have ceased publication; indicate what portion is available to American biologists; and, in general, give access to worldwide data useful for studies in depth of the scientific serial literature in at least one subject discipline.

Implemented by the Biological Sciences Communication Project of the American Institute of Biological Sciences¹ and supported by a three-year grant² from the National Institutes of Health, the center was activated on August 20, 1962, with offices in Suite 700, Headquarters Building, 2000 P Street, N.W., Washington 6, D.C.

The goal towards which the staff of ten (two full-time, eight part-time) is working is a descriptive record on cards of the serial publications (periodicals, proceedings, transactions, annual reports, etc.) of the world related to the life sciences (agricultural, biological, medical).

Interrelated are these objectives: to organize, analyze, and disseminate continuously the comprehensive data obtained. A few details are outlined for each objective.

¹ The Project was transferred to the George Washington University on June 1, 1963.
² Grant GM 11711-01.

I. TO OBTAIN THE FOLLOWING DATA PERTINENT TO EACH SERIAL TITLE

A. Title and subtitle.

B. Title abbreviation (abbreviations are those found, in the following order of preference, in (1) Chemical Abstracts; (2) Biological Abstracts; (3) Bibliography of Agriculture; (4) Index Medicus; (5) other.

C. Publisher and publisher's address.

D. Editor (not included for society and similar journals, the editors of which frequently change).

E. Editorial policy (included only when significant).

F. Nature of contents (e.g., research, review, or popular articles; abstracts; collection of reprints; book reviews; biographic information; bibliographies; indexes; advertising).

G. Price and/or availability for exchange.

H. Language.

I. Copyright.

J. Type, or sponsorship (e.g., society, institute, laboratory, museum, educational, commercial, industrial, government).

K. Format (size, illustrations, figures, charts, general makeup (e.g., one or two columns to a page, average number of pages).
L. Frequency.
M. Volumes issued (v.1, no.1 and date—latest found).
N. Coverage (by abstracting and indexing services, e.g., Biological Abstracts, Chemical Abstracts, etc.).
O. Subject (based on numerical subject outline devised for use in coding for mechanical retrieval).
P. Area (country in which published).
Q. Location (library in which serial was located and examined).
R. Reference (source, or lists where title was discovered).
S. Date (date searched).

Inasmuch as it is not the intention to accumulate publications but rather to accumulate information about them, access to library collections is a prime requisite. The BSRC is most fortunate in having the privilege of utilizing, for the most part, five Washington area libraries designated as cooperating libraries, not only because of their important holdings in biology subjects but also because of their representation on a BSRC advisory committee which meets at intervals to advise on problems and procedures. These libraries are the ones in which the above listed data are found—Library of Congress, National Agricultural Library, National Library of Medicine, and the libraries of the Department of Interior and the Smithsonian Institution.

II. TO STORE DATA IN A RETRIEVABLE FORM

A preliminary or working file is presently managed by the use of edge-notched cards. A second phase of the program provides for conversion of the working file to IBM punched cards. As the center has been in active operation for little more than a year, Phase I, the accumulation of titles, is still under way and few cards have been coded. An alphabetical-numerical form of coding guide has, however, been devised.

III. TO ANNOUNCE NEW SERIAL TITLES

Arrangements have been made to list newly published journal titles in the American Institute of Biological Sciences Bulletin as a regular feature.

IV. TO ANALYZE THE SERIAL LITERATURE OF BIOLOGY

The volume of completed cards is not yet large enough to attempt any analysis of the data by subject content, geographical distribution, and the like, but answering of queries is anticipated.

V. TO PUBLISH AND DISSEminate INFORMATION

One publication, Aquatic Biology Serials has already resulted from concentrating, during the first few months of operation, on describing the serial literature in one subject area. Current work is devoted to serials which include drug information. Projected for the near future are investigations of the serial publications concerned with aspects of human development, and of those relating to food and nutrition. Other subject areas will be covered as time permits.

Although “one stop shopping” for the world’s biological journals is one step nearer, the road ahead for BSRC is a long one, for in its files are some forty-five thousand titles. These titles were obtained from library lists and catalogs, from major bibliographic tools, from library-oriented individuals traveling abroad, from publisher’s announcements—in fact, from all possible sources. Undoubtedly there are other, untapped resources, and, if there are, BSRC hopes to learn about them.

By adhering to a policy of cooperation with other information collecting centers, and by remaining alert to further opportunities for achieving expanded coverage of biological serial literature, it is the expectation that a more comprehensive final product will ultimately become available for all who care to use it.
Eskimo Art in a Community College Library

By BERNARD C. RINK

THE MARK OSTERLIN LIBRARY at Northwestern Michigan College has literally translated *Ars gratia artis* into an active program of presenting original art to its academic and civic communities. It all began when an enterprising Chicago executive donated a rare collection of Eskimo carvings to be sold for the benefit of the college library. The library, with the assistance of a committee of art-conscious citizens, then organized an Eskimo art exhibit and sale. The donated carvings were enhanced with stonecut and sealskin stencil prints from Cape Dorset, Baffin Island, Canada. Enough money was realized from the sale to subsidize a year-round art exhibit program in the library. In fact, the event was so successful that the Eskimo art exhibit and sale has now become an annual summer event. Furthermore, the Mark Osterlin library has become one of the few authorized outlets for Eskimo art in America.

The proceeds from the sale are placed by the library in a separate account labeled “the Eskimo art fund.” The benefits of this fund are manifold. The most gratifying service provided, of course, is a year-round program of original art exhibits in the library. A different art show is presented each month. The exhibitions shown have ranged from “African Sculpture,” loaned by the Segy Gallery in New York, to “Painters of the Western World,” from the permanent collection of the International Business Machines Corporation. Cost of rental, shipping, and insurance is covered by the Eskimo art fund.

Mr. Rink is Librarian of Northwestern Michigan College.

In addition to subsidizing the monthly exhibits, the funds derived from Eskimo art enable the library to buy original prints and paintings from them. This collection now includes fifteen carvings and forty prints and paintings. These, coupled with the modest but growing fine arts collection, represent the source for a program of circulating art works to the college faculty for home or office use. Eventually, the Mark Osterlin library hopes to assemble enough prints to sponsor a traveling Eskimo art exhibit at a moderate rental fee. Prior to receipt of the Eskimo art, the college had no art collection.

The purchase and sale of reproductions and post cards of the great masterpieces represents further service stemming from the Eskimo art fund. They are bought with fund money and sold to the students on a nonprofit basis. Consequently, any student can familiarize himself with the classic art works by tacking them up in his room. Since we began selling these reproductions in the library, we have noticed little or no mutilation of fine arts reproduction books.

This blueprint for presenting art to students and citizens represents only one way that a library can patronize the arts and enhance the cultural environment of its users. Much of its success originates in the excellence and popularity of Eskimo art—an art that is primitive yet sophisticated enough to captivate those who are exposed to it.

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Some librarians no doubt object to using library space to display and promote the fine arts. To them it represents an intrusion on the library "sanctum sanctorum." One must judge such projects, however, in their settings, where specific differences overrule general library beliefs or practices. First of all, Northwestern Michigan College is a two-year community college without a fine arts building, located in a small city that has no art gallery or museum. In such an area, devoid of an art gallery within several hundred miles, the display and sale of art objects in the library assumes a cogency that would not be justified in more culturally-endowed urban areas where facilities for the preservation and presentation of art already exist.

From an academic standpoint it also befits a community college library to patronize the arts if the opportunity arises and the space exists. One of the most pressing tasks of a two-year college is to provide its students with an educational and cultural experience that approximates that in a four-year college or university experience. Exposing the two-year student to at least a few of the cultural advantages that his four-year counterparts enjoy will certainly assist rather than shortchange him when he does transfer to a university where he will have to compete and associate with individuals who have lived and studied in richer cultural environments.

The effects of original art display are far from immediate or measurable in a setting that has never had such a program. We are convinced, however, that our humble beginning will accrue interest and eventually pay dividends—possibly a fine arts center at Northwestern Michigan College. At least, our hope is that Eskimo art proceeds will be parlayed into even greater benefits for our college and community during the next decade. A recent letter concerning our library exhibit series from August Heckscher, special consultant on the arts to the White House, states the challenge we are attempting to meet: "That such an undertaking should be carried on by a community college library is particularly interesting. The relationship of the college to the arts—and of the arts to the community—is a big opportunity which needs to be explored through just such initiatives as your own."

Of course, examination will show that we often fail to be faithful servants. But fortunately we need not be overcome by despair. Power to amend life is available, as the Alcoholics Anonymous and countless men of God have demonstrated.

Sometimes, as we examine the reasons we are librarians, we are able to rise above the details of our daily work and see it in a larger perspective. Our work will always have its painful moments, but this need not kill our spirits, if we find meaning and purpose in what we do.

Perspective . . .

(Continued from page 92)

such questions as these: (1) Do I take such care in my work that a minimum number of books are lost due to my typing errors, wrong labeling, or inaccurate cataloging? (2) Am I trying to keep the proper division of my time between socializing with my fellow workers and doing my job? Are too many books or periodicals not reaching the shelves because I have wasted my time? (3) Am I engaged in a systematic study program in order to improve my skills?
At first sight, a large library appears to be a "natural" for the application of data processing techniques. Many library operations appear to be routine actions which could easily be mechanized; since libraries are notoriously understaffed the mechanization would not create unemployment; more fundamentally, since a library is "just a collection of data," it should be peculiarly amenable to the newer techniques of data processing; in addition libraries are growing so rapidly they must mechanize or they will become unmanageable.

Closer examination, however, brings to light a number of basic difficulties impeding rapid mechanization. These difficulties will surely be solved, and the large libraries of the future will almost surely be using electronic data processing techniques to a large extent in their operations. But the full application of these techniques may take several decades. In fact it may turn out that it is easier to "automate" banks and insurance companies than libraries.

This does not mean that a start should not be made soon.

In fact, unless large university libraries begin soon to mechanize, their operating effectiveness will deteriorate with increasing rapidity.

To see why this is so, and to see where a start should be made, let us list some of the activities of a library which may be improved by mechanization:

1. Handling the present contents of the library. This includes the operations of circulation, control of material on reserve, keeping an inventory of the book stock and maintaining it in good physical condition.

2. Bringing new material into the library. This includes accession of new or duplicate books; reception of serials such as periodicals, reports, and continuing publications; cataloging and other processing to ready the material for use.

3. Helping the user find the material he desires. This includes the activities of the reference librarian and the maintenance of various catalogs and book lists.

4. Making the material more available to the user. This includes the providing of microfilms and other copies and, eventually (perhaps) the transmission of desired excerpts over wire to distant users.

All of these activities are, of course, interconnected. Improvement of any part of one can help the others. Automation of one part must be planned to be compatible with possible later mechanization of other parts.

In all of these operations the need for mechanization depends on the size of the library. In a small library, not only are mechanical and electronic aids uneconomical, but they are also not (or at least not yet) as efficient as the librarian. As long as the collection is small enough for one trained person to keep control of the material and to maintain personal relations with the users, the standard library techniques are still effective and satisfactory. When the collection grows beyond a certain size or the users increase in number and range of interest beyond a certain

Dr. Morse is Director, Operations Research Center, Massachusetts Institute of Technology. This article, in slightly modified form, constituted a portion of a report, with recommendations, on plans for the development of the M.I.T. library system.
degree, there seems to be a sudden change in the character of the library and of its service. The larger mass of material makes it hard for the user to find what he wants and hard for the librarian to keep track of the material, and the larger number of users and their wider variety of interests decrease the personal contact between librarian and user. At some stage, the librarian finds that he no longer has control over his material and no longer has contact with the user, and the user soon loses the feeling that this is his library, and begins to misuse it.

This stage has been or is being reached in many larger university libraries. Today, such libraries are not able to be as much help to students and faculty as they were twenty years ago, and they are being treated with correspondingly less appreciation by their users. In appears unlikely that the trend could be reversed by splitting the larger collections into smaller departmental libraries. Most library users at present cover too wide a range of subjects to be satisfied with the coverage of one department. Many users would have to travel back and forth between several departmental libraries, or else each departmental library would have to broaden its coverage with consequent duplication of books, periodicals, and space. These library collections have passed the point where simple, personal control of material can suffice. More complex methods of operation and control, whether by machine or by people, are needed.

The experience of the science library at Massachusetts Institute of Technology is an illustration of this point, an illustration which is not at all unusual. Initial results, from a survey now in progress, seem to indicate that when a user comes to get a book or periodical which is listed in the catalog, in about one quarter of the "tries" he does not find the item where it is supposed to be. Part of the time, of course, the material is not there because another user has it or because the material is being bound or repaired. But in a nearly equal number of cases the library is not sure where the material is; perhaps it is mis-shelved, perhaps it is not yet shelved, or perhaps it has disappeared, unrecorded, from the library. More than half of these "lost" books eventually turn up again, but meanwhile they are not available. Indications are that the "frustration factor" for this library—the mean fraction of times the user cannot find the material he desires—has roughly doubled in the past five years. If the present value turns out to be as large as one-quarter, then it is larger than it should be, and if it ever rises over one-half the library will rapidly lose its value as a repository of accessible reference material. Less detailed investigation indicates that a similar situation obtains in many other libraries.

The basic difficulty seems to be lack of control, in the engineering sense of the word "control." There seems to be no built-in feedback to the present system, no regular and frequent way by which the library staff can check its own operations to see whether the operation is actually running the way it is supposed to be running. At present, for instance, the usual way in which the average library learns that one of its books is "lost" is to be told by a user, who wished to use the book, that he could not find it; there is no regular procedure for the library staff itself to learn of the loss so it could be made good before the prospective user turned up. Such a feedback, resulting in a continual awareness of "how the system is doing," is a necessary part of any well managed operating system. In small libraries it can be maintained without procedural systematization, by the personal efforts of an intelligent and interested librarian. In larger libraries it can only be achieved by planned procedures of recording, systematic checking, and inventory. These procedures must soon be instituted if the growing collections of most university library systems are to continue their usefulness; already some of the pro-
cedures probably can be carried out more cheaply by machine than by person. The introduction of machine data processing techniques into the Class 1 type of operations (controlling the present contents of the library) is thus a necessary concomitant of the growing size and complexity of library operations and is now required if the larger university libraries are to continue as systems with adequate feedback controls. With appropriate planning, the techniques and equipment to be used can be made compatible with those other aspects of operation of a large university which must shortly be mechanized, so that the library will not need to defray more than its proportional part of the cost. For example, there are many parts of the university activities (student registration, infirmary records, some financial transactions) which could be simplified for mechanization by providing each student and faculty member with a machine-readable identification card. These cards could be used in any of several possible systems of library circulation control which are now available. The library can arrange its record-keeping and control procedures to share the same equipment used by other parts of the university administration.

These procedures should be designed to enable the library staff to know accurately and immediately "how the library is doing." Several systems have been worked out, for example, which enable overdue notices to be printed out automatically and which can print out accession lists and other special lists of use to faculty as well as to library staff. Presumably any of these systems could be programmed to provide shelf lists which would simplify frequent inventorying of the collections so that missing items could be replaced before they are next needed (or their cards removed from the catalog if they are not to be replaced). And any of them could keep records of the use of individual books, which are at present seldom collected but which could be of importance in purchasing and discarding books. Whatever system is to be introduced would, of course, need to be tailored to fit the university's particular requirements, and should be accompanied by a thorough replanning of library procedures by a task force of machine experts and library staff which will take full advantage of the new data made available by the equipment.

For example, it might be possible to institute a planned program of retirement of less-used material from the more accessible parts of the library to more centralized (and less costly) stacks, thereby reducing the continual pressure to increase the size of library branches. It is likely that such a retirement program, by holding the number of books and periodicals on open shelves down to those items which are used more than once a year (for example), would result in an actual reduction of time spent by the user in finding the material he wants. But to implement such a system would require more available data on book use than most libraries can now easily collect.

It is therefore suggested that plans for mechanization of some of the operations of Class 1 should be first priority items for university library staffs. Such plans will require coordination with plans for mechanization of other university record-keeping and control operations. The increasing diversification of courses, schedules, and classrooms, for example, may require greater mechanization of registration procedures, room assignments, and class record controls than now exists. Standardization of identification cards, record cards, and processing equipment will materially reduce costs of the total changeover.

Once plans for mechanization of operations of Class 1 are under way, consideration of the operations of Class 2 (introduction of new material) could become active. Equipment and procedures for some of these operations are now being developed. Data generated by the mechanization of Class 1 operations will provide useful and necessary inputs to Class 2 operations; for example, lists of "lost" books can be scanned to decide which should be reordered, and indications of high use factors can be utilized to order duplicates while the demand is still high. Much of the clerical work required in duplicating catalog cards and other listings could be carried out automatically if the original material were recorded on a punched card or magnetic tape rather than typed. Alternatively, the card could be microfilmed and copies made photographically; but this would not allow the sorting operations which can be made on punched cards or with taped data. Similarly, many of the control operations in ordering material and paying for it could be mechanized.3

Many of the basic actions of Class 2 operations, however, cannot yet be mechanized. Someone still has to decide which books to order, or reorder; a trained cataloger has to prepare the original card for the catalogs, and so on, though the work of these persons can be considerably lightened by the output of the mechanization of Class 1 operations and the techniques just mentioned. Eventually all large libraries should band together to prepare a standard catalog "card" in one place, to be used by all; but this must wait until a consensus appears regarding the form and format that this card should take.

The prospects of mechanization of much of the operations of Classes 3 and 4 (helping the user find the material and making the material more available to the user) are still further off, though a few aspects show promise of early development. The basic difficulty seems to be the plain fact that information printed on a piece of paper is more convenient to read and use than is the same information projected optically or electronically on some screen. A catalog card can be carried over to a shelf to copy, a book can be scanned or studied anywhere and from any posture; any presently competing methods of displaying information are so handicapped in comparison that it would seem unwise to plan to depend on them until one is forced to. Thus arises the basic dilemma of present-day libraries, which will have to be solved in the next two decades.

This dilemma turns up in every aspect of operations 3 and 4. It is (so far) so much better to take out a copy of a bound periodical to study an article in it than it is to try to read a projected microfilm copy that many users refuse to use the latter. On the other hand, demand for such bound periodicals is so great that, even at present, they are not allowed out of many libraries and, because of the great demand (and probably because of the restrictions), these volumes are rapidly wearing out (and occasionally being willfully dismembered), so that even greater restrictions shortly will have to be placed on their use. A card catalog of a few score drawers, or even a few hundred, is comparatively easy to use, but what happens when the catalog grows to tens or hundreds of thousands of drawers? And while books are so useful, how does one store, control, and even find books if there are ten million of them?

It is thus not enough to devise an electronic catalog or to copy all periodical pages on microfilm. Until copies of the catalog entry or the periodical page can be made on paper, quickly, and cheaply,
the pressure for use (and even misuse) of the actual printed material and for continued extension of the card catalog, ad infinitum, will be well-nigh irresistible. Copying equipment is being used, of course, in many libraries, but it usually requires the book or periodical itself to make the copy, with consequent increased wear on the more popular items. It must be possible to devise a better, quicker, and cheaper copying process than this. When it arrives it will then be appropriate to plan the mechanization of some or all of the operations of Class 3 and 4.

By that time many other problems should be nearer solution than they are now. The very large number of questions which now are unanswered regarding the way journal articles (or even their abstracts) should be stored (electronically or microphotographically?), how they should be classified (what should be the descriptor language? should the author or a cataloger prepare the classification?) and the practical details of programing the operation of searching among millions of items, may at that time be answered in toto or in part.4 It will then be easier to agree on the sort of information retrieval system the library should install, and to determine whether the university can afford to get it.5

Thus, for the less humdrum aspects of library mechanization, it is likely that there will be some decades of watchful waiting on the part of most university librarians before a decision can be made to mechanize the informational aspects of their libraries. There is a concomitant requirement, however, for libraries to take an active part in trying to find answers to the questions raised in the previous paragraph. Unless various methods can be tried out in practice as they are being developed technically, no real progress can be expected. But such experimentation is costly, since it cannot be tried out on a piecemeal basis. More funds from federal as well as private foundation sources will be required to build and experiment with the various proposed solutions. Some libraries will have to offer themselves (or some major portion of themselves) as guinea pigs. Only by such trial and error can we be in a position to decide quickly and accurately, when the time comes to do so, how Class 3 and 4 operations can be mechanized.

Meantime it will be necessary to start now to mechanize the less romantic parts of the library operation, those of Classes 1 and 2, if there is to be an operable library when the time does come for the storage and retrieval aspects of the operation to be mechanized. And, even more important, it will be necessary to learn what the library operation actually is, which books are being read and how often, what library users do and what they desire, in greater detail than is now known about most libraries. The librarian need not be a computer expert, but when the time comes to mechanize if he cannot specify quantitatively what the data processing equipment will be expected to do and in what operational environment it must work he will infallibly get the installation he deserves.

5 R. P. Bristol, Closed-Circuit TV Equipment as Used in a Decentralized Library Situation (Charlottesville: Alderman Library, University of Virginia, 1968), 131.
FIVE YEARS AGO an internal committee of the Library of Congress was charged to study potential applications of electronic processing equipment to library procedures. . . . The library took the stand that it was not immediately concerned with mechanizing a few operations; it sought a plan to provide a blueprint for its actions during the next 5 or 10 years. . . .

On April 23, 1961, the Council on Library Resources, Inc., announced a $100,000 grant . . . for "a survey of the possibilities of automating the organization, storage, and retrieval of information in a large research library . . . not only from the point of view of the functioning of an individual institution but also from that of a research library whose activities are interrelated with those of other research libraries."

To undertake this investigation the Librarian of Congress invited Gilbert W. King to head a survey team of technical specialists. . . . According to the grant from the Council, the survey was expected to result in a statement "of the feasibility of mechanization of research library activities and of requirements for such mechanization." The report obviously cannot do more than provide guidelines for consideration by the library administration. The team, in accordance with the stipulations of the grant, considered both current technology and foreseeable developments. . . . The survey team reached the following conclusions:

1. Automation can, within the next decade, augment and accelerate the services rendered by large research libraries and can have a profound effect upon their responsiveness to the needs of library users.
2. Automation of bibliographic processing, catalog searching, and document retrieval is technically and economically feasible in large research libraries.
3. The retrieval of the intellectual content of books by automatic methods is not now feasible for large collections, but progress in that direction will be advanced by effective automation of cataloging and indexing functions.
4. Automation will enhance the adaptability of libraries to changes in the national research environment and will facilitate the development of a national library system.
5. Automation will reduce the cost-to-performance ratio; however, the Library should aim at the expansion of services rather than the reduction of total operating costs.

. . . The immediate objective of automation will be to solve the pressing problems that face research libraries, among which are problems of bibliographic organization and control. In the long run, however, the most significant effect of automation will be the focusing of the services of the library on the individual user for the optimal satisfaction of his research needs. . . . —Section I, "The Automation Survey: Background and Conclusions."
Library Equipment Specifications, a Dialogue

BY ROBERT N. BROADUS

Q. Why does the writing of specifications for library furniture and equipment seem to present such knotty problems?

A. There are several respects in which this kind of merchandise is so unusual as to be out of the range ordinarily discussed in the standard treatises on purchasing procedure. For one thing, there are comparatively few reliable manufacturers who concern themselves with this product. Again, library equipment is much more technical than is generally realized. Certain details have to be spelled out, if the equipment is to function satisfactorily.

A third factor has to do with the comparative degree of flexibility possible in the manufacture of library equipment. To illustrate: on the general building contract, the architect writes careful specifications, the contract is awarded on the basis of the lowest responsive bid, and the builder is expected to follow the requirements completely. If an exterior facing of field stone is called for, no contender whines that this requirement is a handicap to his bidding, nor does the successful bidder try to substitute brick. The contractor is flexible. He can adapt easily to the specifications.

Hardware for the doors is a different problem. The manufacturer has far less flexibility than the general contractor. Because of the relatively small amount used in one library, any specification calling for variation in a firm's standard design is likely to eliminate that firm from the competition. This means, of course, that specifications for hardware have to be very loose if the owner is willing to accept the offerings of a wide range of suppliers, but that if a specific design or quality is the only one acceptable, then the specification may limit the possibility to one manufacturer. Indeed, it is not uncommon to remove hardware from the arena of competitive bidding.

From the standpoint of flexibility, library furniture and equipment manufacturers normally fall between these two. The bidder's costs are less (quality for quality) if he can follow his standard design and manufacture. Yet he is able to make certain adaptations without seriously affecting his total bid. For instance, in a $100,000 steel book stack contract, a specification requiring a manufacturer to add one punch for each otherwise standard end panel would be a handicap, but it would not be a disastrous one. On wood equipment also, since each piece involves some hand work, a small variation is possible without prohibitive costs.

There are some firms which, having excellent engineering staffs, are more adaptable than others. Furthermore, some manufacturers are adept at using standard parts to create new designs and functions with a minimum of special additions. On the other hand, it is not unfair to state that the flexibility of some companies is limited to the pirating of ideas already developed by their competitors.

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It may be added that the sizable modern library planned with any imagination at all will require some equipment items of special manufacture. It cannot be limited to the standard offerings of any company or group of companies.

These are some of the factors which make library equipment specifications different in kind from those used on the building contract, and from those used to buy office desks and classroom chairs.

Q. What is the purpose of a specification?

A. Perhaps we should start with the obvious: a good specification is a document which insures that the owner will obtain equipment of the design and quality he needs or wants at the lowest price. It is amazing how often this assumption is overlooked.

Q. But I thought a specification was good if it attracted a great many bidders.

A. A large list of bidders is desirable, but as a means, not as an end. The fact that numerous firms submit bids may indicate keen competition, and competition usually means a lower price. But such a conclusion does not always hold. A project may attract many bidders merely because the specifications have such loopholes that anyone can bid with the expectation of a good profit.

Contrary to some views, it is only common sense that the library itself will be better served by two responsive bids in the neighborhood of $215,000 than by eight bids ranging from $223,000 through $287,000 assuming (unlikely thought) that the products be exactly equal in value to the library. Others may say, of course, that newspaper accounts of eight bids are worth the $8,000 in public relations value.

Q. But shouldn’t a specification be neutral, so that many different firms can bid?

A. The specification should be neutral to the extent that neutrality serves the purpose of getting the material needed at the lowest cost. The chances are that “neutral” specifications will attract more bidders, and hence increase the element of competition. But there is an inverse relationship between neutrality and the likelihood of obtaining the precise equipment needed. As needs are defined more sharply, the specifications are tightened, and the degree of neutrality is reduced.

Let me illustrate: If a library specifies that card catalog trays be made of wood, then all firms offering metal only are quickly eliminated. Neutrality has been sacrificed (most librarians would say justifiably) for the sake of obtaining suitable equipment.

Of course a performance specification (e.g. “The joint shall stand 100 pounds of pressure applied at right angles to the length of the tray”—not “The joint shall be secured by six drops of Elmer’s glue distributed evenly”) can solve many issues of this kind and should be used wherever feasible, but if wood is required it is easier to be explicit rather than to write such detailed performance requirements that all other common materials are eliminated. Furthermore, a performance specification is only as strong as the tests which it proposes to apply to the delivered product. These tests can be difficult to devise and expensive to administer.

So then, we have to give up the idea of complete neutrality if we expect to buy equipment which is even remotely like the kind we want.

Q. But can’t we still be neutral in the matter of sizes and quality, so that we assure ourselves of a dozen bids?

A. Even here the problem is not simple. Let us take the question of size as a crude illustration, since this is a thing we can picture easily. Let us say that the following firms offer library reading tables of the lengths given:

| Company A | 59 inches |
| Company B | 60 inches |

Company C, 64 inches
Company D, 66 inches
Company E, 67 inches

In the interest of neutrality, we may say that the tables must be 63 inches long. If we do, we probably shall get five bids reasonably close together, but all five will be a little higher than they should be, for our specification calls for a size that is special (nonstandard) to all. No one bidder can give us his best price.

Let’s try another possibility: we shall specify that any length 59 through 67 inches will be acceptable. If our furniture layout is so loose as to allow this much tolerance in size, it is poor to begin with. But more to the point at issue: such a specification is not neutral, for it clearly favors the manufacturer of the smallest (supposedly cheapest) table. In the same way, it penalizes the manufacturer of the largest by saying that his table is no more acceptable than the smallest.

It would be far more practical to forget neutrality and specify tables of optimum size for our particular floor plan (e.g. not less than 66 inches nor more than 67 inches in length). Thus we gain the probability of two favorable bids rather than five unfavorable ones. Such a specification does not prohibit companies A, B, and C from offering tables which are “special” to them. One of the firms may be able to adapt so skillfully as to present the low bid. This possibility serves as a warning to companies D and E to keep their prices in line.

I use this oversimplified example for the sake of clarity. The same principles hold with those factors which are more difficult to describe; such as quality of materials, construction, finish, durability, and attractiveness.

Q. But that seems so unfair to some bidders!
A. That I deny. Let me remind you again of the basic purpose of the specifications. The owner has no obligation to need what a manufacturer can supply; it is the company’s responsibility to provide what the library needs. A specification calling for glass windows (or a performance specification which clearly eliminates all products save glass and similar materials) can hardly be called “unfair” to the waxed paper industry.

I’m glad, however, that you consider fairness so important. The specifications and bidding procedures most certainly should be fair to all concerned. Fairness is assured when all firms bid on the same things, with confidence that the specifications will be adhered to—that no specification will be altered after the opening of bids. Unfairness is practiced when the owner calls for bids on one quality, then accepts a bid based on a different quality.

Q. Should not each vendor have the right to try to sell his product after the bids are opened?
A. All “selling” should be done before the specifications are completed. If the specifications are to do their job, they must represent the best information the owner has been able to assemble, both from his own resources and from presentations and arguments of salesmen. Then each firm bids on the same thing, and there is no attempt to “sell” changes in specifications after the bid opening.

Though most bid documents contain the clause “The owner reserves the right to waive formalities and to purchase any product best suited to owners’ needs,” or words to that effect, this statement should not give the owner license to alter the specification to favor any firm after the bids have been received.

Q. But don’t we need to know the approximate prices of all the features offered by the various companies before deciding which we can afford to specify?
A. Should it be necessary, alternates may be called for in the specifications. To take another example, oversimplified for the sake of clarity, let us say that the owner prefers walnut, but thinks he may have to settle for maple, hence needs to get firm quotations on both. In such case, it should be clear that all bidders are
invited to submit prices on either or both species of wood and that the price for each must be plainly indicated. To call for bids on walnut only, then waive the specification and purchase the equipment of a vendor who, on his own, proposes the alternate of maple (whatever the price differential) is grossly unfair to the other bidders—those who had no opportunity to bid on maple. It may be interpreted as downright dishonest.

Q. Why not let each firm bid on all the alternates it can offer?

A. Most firms could not list in reasonable space all the possible variations in materials, construction, and design they are capable of producing. No owner could make an intelligent tabulation of these masses of alternates. The owner, not the bidder, is the one who knows what is required. He should not try to avoid the responsibility of stating his needs clearly.

Q. But let's back up: if your specifications happen to be easier for one or two manufacturers than for others, and if you buy strictly according to the specifications, aren't you leaving yourself open to the charge of rigging?

A. Only one firm will get each part of the contract. All others are going to be disappointed and are likely to express that disappointment in some way—appropriate or otherwise. If any potential bidder thinks the specifications unfair, his protests should be heard beforehand, and then the owner can make whatever corrections are wise before the documents are released for bid. After the specifications are complete, each firm can decide whether to invest time and money in submitting a bid. The proprietor of Sam’s Sheet Metal Shop may be disappointed that he is not equipped to bid on wood bookstacks. He has invested no money, however, and he has no reasonable ground for complaint.

Let’s look at the other side: a firm expends time figuring a bid closely according to specifications, goes to the expense of furnishing samples (perhaps making them up especially for the occasion), and then loses the contract because, after the bid opening, specifications are changed to favor a lower priced (or higher priced) competitor. Here is just ground for a serious accusation. The unfairness may be rectified, but only in part, by throwing out all bids and allowing each firm to submit a new bid on the revised specifications. This procedure inflicts an extra cost on the owner and all others involved, and it delays completion of the contract.

Incidentally, the bid form should provide that the successful contender post a performance bond stating clearly that the bonding company will be responsible for the completion of the contract regardless of the final cost of performance. Surely librarians have learned from this kind of experience with such outfits as low-bidding periodical subscription agencies, so that this warning need not be elaborated. Libraries have too long been considered soft touches by “low” bidders who will not, or actually cannot, deliver the goods.

Q. Why can’t we just list the equipment by the catalog number of an acceptable manufacturer, and say that this item “or equal” is to be supplied?

A. Such a specification says practically nothing. Who can define “or equal”? Everything in the universe is equal to everything else, at least in the sense of being in existence, while no two objects in the universe are absolutely alike. Think of the dispute about the meaning of “equal” in the Declaration of Independence! If a specification can’t spell out why a certain cataloged item is acceptable—what aspects of it are necessary and what irrelevant—then the effort should not be called a specification at all.²

Your fear of rigging, by the way, might be more appropriate here.

²See the panel discussion “Specification Writing and Bidding Procedures for Furniture and Shelving,” ALA Library Equipment Institute, Library Furniture and Equipment (Chicago: ALA, 1963), p. 34.

124 COLLEGE AND RESEARCH LIBRARIES
Q. Should specifications be prepared by an equipment contractor?
A. This is a tough one. In favor of the practice are:

1. The equipment contractor has more up-to-date information about planning and manufacture than any one else readily available to the library, even at a healthy fee. He has access to the latest research and knows what new products are to be made available in the immediate future.

For the average librarian or purchasing agent to write a good specification requires about as much research as completing a master's thesis, especially if the contract be large and the equipment complex.

2. If an equipment contractor writes the specifications the owner is assured of at least one responsive bid.

On the negative side there are these major considerations:

1. The equipment manufacturer, unless unusually well qualified, tends to pour all libraries (particularly those of schools) into the same mold without imagination or originality. The same charge certainly may be brought against architects, however, even the best.

2. The equipment maker or dealer will tend to write specifications which favor his own firm and may so shape them as to prohibit bids from competitors. This tendency is not necessarily intentional; naturally the firm is accustomed to its own equipment and considers it superior, or at least adequate.

Fortunately, these two problems can be solved. In dealing with the first one, the librarian must work closely with the planners and specification writers if a decent job is to result. If the architect's blueprints are turned over to the planners with no statement of program or other instructions, the results will be crude—justifiably so.

As for the second, the specification writers should be told clearly what qualities are needed, even if they vary from this particular manufacturer's standard. Presumably the librarian will work with the firm he believes best able to perform a contract of the kind under consideration; thus such exceptions can be held to a minimum. Better yet, the discussions incidental to such planning may result in new products, thus becoming an advantage to both library and manufacturer. The librarian may be stimulated to express freely his requirements and wishes, while the equipment specialist suggests ways to meet these requirements within the limits of the achievable.

It should be understood that the owner will scrutinize the preliminary draft carefully to be sure the specifications are as competitive as possible, consistent with the library's needs and purposes. It should be agreed further that other firms will be allowed to try to sell variations favorable to themselves, and that some of these suggestions may be incorporated in the final specifications.

Before embarking on such an expensive and time-consuming project, it would be wise of the librarian, in the interest of fairness both to himself and to the planners, to obtain assurances, preferably in writing, from those who are to make the final purchasing decisions that the completed specifications will be held inviolate and that no deviations will be permitted.

With these allowances, there is no reason for reliance on an equipment contractor defeating the purpose of the specifications as stated in the beginning.

Adequate specifications then involve a great deal of thought and effort, but they represent time well spent, even though perfect clarity and justice be unobtainable. Such documents assure that bidding will be fair and that the library will receive the equipment it needs at the lowest price. The general application of this approach also should make a positive contribution to the health of the library equipment industry.
IN EVALUATING the procedures of the acquisitions department of the Pennsylvania State University library system, the cost of searching information to order a book was found to be $.73. In addition, an order form had a rather high in-process time. An analysis of the flow of order forms through the department showed that a bottleneck was occurring with the searching procedure. As a result of this many order forms were being marked "rush," and routine items were faced with an even higher in-process time. The library was faced with adding searchers or with accepting the fact that there would almost always be a backlog of unprocessed orders. The latter would result in a high in-process flow time thus reducing service to patrons and requiring that needed course material be ordered well in advance of the time when it was actually needed.

The technical services librarian, the catalog librarian, an industrial engineer, and the librarian in charge of library systems research met and compared the amount of searching needed to identify adequately a publication to be purchased with the amount of searching needed for complete bibliographic information. At the time, it was decided that the library would adopt for a trial period an "adequate information" philosophy. The possibility that duplicate copies would occasionally be received was considered together with the increased probability of obtaining the wrong books. However, the fact that searching time would be considerably reduced thus increasing the number of possible searches in a given period of time was assumed to outweigh the disadvantages in accepting the philosophy.

The definition of adequate information was also discussed. It was decided that adequate information would include the author, title, publisher, and date of publication. It was also assumed that the latest edition would always be ordered unless otherwise specified.

With this in mind, a study of the searching procedure was made by the industrial engineer. Out-of-print items and foreign language items were not considered in the study. Out-of-print items required special processing by acquisitions personnel, and foreign items required searching in a large variety of bibliographies. In addition, the bulk of the books ordered by the acquisitions department were in the English language.

The searching sequence was considered to be an area for study. What was the optimum searching sequence? Realizing that one bibliographic source would contain more information than another and that the time for searching varied considerably with the source used, a method was needed to determine in what sequence bibliographic information should be sought. In other words, should a searcher first look in the LC catalog, and if adequate information was not found then continue the search in Books In Print, and again if not found, continue in the Cumulative Book Index, etc., or should some other sequence be used?
It was decided that Books In Print, Publishers' Trade List Annual, LC proof slips, Cumulative Book Index, and the LC catalog would be studied as the sources of bibliographic information. The two variables which had to be measured were the per cent of time in which adequate information was found in each of the sources and the average time to complete a search in each of the sources. The first of these, the percentage, is really the probability of finding adequate information in each of the sources.

**The Study**

A random sample of twenty-five English language order slips were selected. A searcher was asked to take the twenty-five slips and check each of the five sources to see if the items could be identified with adequate information. The percentage of time adequate information was found was recorded for each bibliographic source. Another searcher was then given five random samples of ten order forms and was asked to search the samples in the five bibliographic sources while being timed separately for each source. The outstanding order file and the public catalog were not studied, since previous studies indicated that about 20 per cent of the orders received in acquisitions were for books on order or already in the collection. These sources would always be searched first. Books In Print and Publishers Trade List Annual were both included for control and comparison purposes. The results of the study are summarized in Table 1.

The second column in Table 1 shows the average time of a search in minutes. The third column shows the probability of finding the item searched. It should be noted that the probability of not finding adequate information after searching all five sources is .03. That is, we can expect that 3 per cent of the books searched will not be identified if we search only the five sources.

**Table 1**

<table>
<thead>
<tr>
<th>Source</th>
<th>Time to Search</th>
<th>Probability of a Successful Search</th>
</tr>
</thead>
<tbody>
<tr>
<td>Library of Congress Catalog</td>
<td>3.24</td>
<td>.72</td>
</tr>
<tr>
<td>Cumulative Book Index</td>
<td>2.14</td>
<td>.60</td>
</tr>
<tr>
<td>Books In Print</td>
<td>.56</td>
<td>.40</td>
</tr>
<tr>
<td>Publishers' Trade List Annual</td>
<td>1.09</td>
<td>.36</td>
</tr>
<tr>
<td>Library of Congress Proofs</td>
<td>.94</td>
<td>.28</td>
</tr>
</tbody>
</table>

There are two commonly accepted philosophies in this type of sequencing situation. One person would argue that we should put the least time-consuming source first in the sequence, the second time-consuming source second, and the most time-consuming source last; whereas others would argue that the source with the best chance of a successful search should be put first, and the source with the least chance of a successful search last. However, neither of these philosophies will necessarily result in the optimum sequence, that is, the least time-consuming sequence. One could argue that all combinations should be evaluated. However, there would be 51 or 120 possible combinations. Fortunately, operations research and industrial engineering have solved this sequencing problem for an analogous industrial application. The optimum sequence in this instance can be determined by taking the ratio of the time consumed to the per cent of success and ordering the tests such that the ratios will be in increasing sequence. The ratio for each of the bibliographic sources is shown in Table 2.

**Table 2**

<table>
<thead>
<tr>
<th>Source</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Library of Congress Catalog</td>
<td>4.50</td>
</tr>
<tr>
<td>Cumulative Book Index</td>
<td>3.56</td>
</tr>
<tr>
<td>Books In Print</td>
<td>1.40</td>
</tr>
<tr>
<td>Publishers' Trade List Annual</td>
<td>3.03</td>
</tr>
<tr>
<td>Library of Congress Proofs</td>
<td>3.36</td>
</tr>
</tbody>
</table>

The optimum searching sequence together with the “least time first” sequence...
TABLE 3

<table>
<thead>
<tr>
<th>Possible and Optimum Sequences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Least Time First</td>
</tr>
<tr>
<td>------------------</td>
</tr>
<tr>
<td>BIP</td>
</tr>
<tr>
<td>LC Proof</td>
</tr>
<tr>
<td>PTLA</td>
</tr>
<tr>
<td>CBI</td>
</tr>
<tr>
<td>LC Catalog</td>
</tr>
</tbody>
</table>

and the “most success first” sequence are shown in Table 3.

Based on this study, it was pointed out that adoption of the optimum searching sequence would result in 27 per cent more searches per year of English language publications. Certain exceptions to the procedure should be followed based on certain idiosyncrasies of the sources. For example, the publications listed by an obscure scientific society would rarely be listed in Books In Print. Therefore, one would be wasting his time searching in Books In Print.

Special considerations were also given to the LC proof file, a rather recent addition to the Pennsylvania State acquisitions department. The other sources are rather stable bibliographic sources which are not likely to change in the searching sequence in the years to come. Since the use of the LC proof file is still in its infancy at Pennsylvania State, it is expected to grow in size and usefulness. It was therefore recommended that the LC proof file be re-evaluated annually as a searching tool.

One weakness of the study should be noted. In order to make the times and percentages more accurate, a larger sample would have to have been taken. This was not done because neither the industrial engineer nor the searchers had the time to gather as much information as would have been necessary. Further data is being collected, and the searching procedure will continuously be re-evaluated.

The least-cost searching sequence method is derived from a methodology described by L. G. Mitten. This method also has promise in other areas of library work. For example, the reference staff might establish a card file of searching sequences for certain general types of questions. The searching sequence preferred would be determined by the probability of searching success in specific sources and the searching time through these sources. The sequence might also be determined by the other variables such as the level of competence of the requestor or the librarian.

To carry this one application a step further, one would expect its most fruitful area of use in the middle ground between the very special narrow topic and the extremely broad “encyclopedia” topic. These two extremes usually direct the searcher to the obvious sources. There is usually not a choice of six or eight different sources and sequences for this type of search.

Another possible application lies in the area of “state of the art” searches. The questions, “What is the probability of finding useful information in source X since date Y?” and “What is the expected redundancy between indexes V and W?” are tied in very closely with the economics of literature searching versus laboratory experimentation.

Least-cost searching sequence methodology might profitably be applied to the oft-stated proposition that it is cheaper to re-invent than to search the literature. It might also reduce the cost of searching.

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INDEXES and abstracting services head the list of new periodicals in 1963. Current events are reflected in several publications on disarmament and international relations. There are the usual number of new scientific publications and these as before have for the most part been listed only in the alphabetical section at the end, distinguished by an asterisk.

ABSTRACTS. BIBLIOGRAPHIES. INDEXES. The Journal of Economic Abstracts covers twenty-six journals published in sixteen countries in eight languages. The abstracts are in English and in most cases are prepared by the authors of the original articles. This service is published cooperatively by the contributing journals under the auspices of the American Economic Association. A more specialized publication is Atherosclerosis and Hypertension Abstracts prepared with the cooperation of the College of Physicians library in Philadelphia. Although its field is limited, its coverage is comprehensive with pertinent material from over twenty-six hundred foreign and domestic publications. Each issue includes author, corporate source, and subject indexes. Cumulative indexes will be published at intervals. The arrangement of Theoretical Chemical Engineering Abstracts is by general subject group. The first issue was not indexed but a projected annual index was mentioned.

The International Social Security Association has replaced the "World Bibliography of Social Security," which was issued as a section of its Bulletin, with a new multilingual publication, Bibliographie Universelle de Sécurité Sociale. This attempts to be a complete bibliography of all nonperiodical literature on this subject. It will also include information on selected periodical articles and notes on current legislation. A semiannual supplement, Recueil Documentaire, will contain bibliographical material on selected aspects of social security. A similar publication in the field of mathematics is the Announcements issued by the Mathematical Sciences Service Bureau (an agency organized to serve three professional organizations: The American Mathematical Society, the Mathematical Association of America, and the Society for Industrial and Applied Mathematics). The first four issues of each year will list mathematical research monographs and informally published lecture notes, while the fifth issue will be a combined membership list for the three organizations.

Several new indexes complete the list of librarians' aids. The International Guide to Indic Studies is the latest in the series of indexes to periodical literature published by the American Bibliographic Service. Each issue lists articles by author with a subject index as well as an index to book reviews of pertinent works. All indexes will be cumulated at the end of each volume. The Index to Jewish Periodicals appears to be a complete author and subject index to some forty-five magazines on Judaism. From Latin America comes Indice Econ6mico Colombiano issued by the Biblioteca de Ciencias Económicas of the Universidad de Antioquia. This publication covers all articles in thirty-three Colombian economic journals.

The Library of International Relations is publishing an annotated index to the books, pamphlets, documents, directories, and periodicals which it receives under the title International Information Service. Each issue will include a geographical index and will supply addresses of magazines listed. This publication supersedes World in Focus which was published from 1945 to 1951. With the rising tide of scientific confer-
ences, the Technical Meetings Index should be one of the more valuable serial publications of the year. Each issue will list all known technical meetings to be sponsored by United States or Canadian organizations for the next two years. Information will include name, date and headquarters, sponsor, content, estimated attendance, deadlines for abstracts and papers, and information on publication of papers. Access to this material will be through five indexes by topic, sponsor, date of meeting, location, and deadline.

Areas. Interest in Africa continues to manifest itself in a multiplicity of new publications. From South Africa comes the International Bulletin of the Africa Institute, an organization founded in 1960 as a joint venture of the South African Academy of Science and Arts and the nine major universities in the country. Articles are surprisingly objective in their discussion of the black African countries, their problems, and their relationship to South Africa. Revolution—Africa, Latin America, Asia is edited in Algeria and published in Lausanne, Switzerland. This is a propaganda magazine from the far Left with a popular format something like the old Coronet. It may be an unstable item for it has already suffered a change of name; the first two issues appeared under the title African Revolution.

In sharp contrast to the magazines above, Greek Heritage will devote itself to classical Greece and its influence on modern Greece and today's world. Published quarterly with hard covers, articles written by experts in a popular style, and many colorful illustrations, this should be one of the more popular magazines if anyone can afford it at $25.00 a year.

Art. An important item for art libraries is Master Drawings, a quarterly publication devoted to articles on the sketches and prints of the master painters. Each article is illustrated lavishly with plates, many of which previously have been unpublished. The first issue includes such artists as Goya, Géricault, and Dürer.

Economics. The Journal of Accounting Research is published by the Institute of Professional Accounting of the Graduate School of Business of the University of Chicago and the London School of Economics and Political Science. Papers will deal with all phases of research in accounting, and articles will be published from contributors all over the world. The National Industrial Conference Board's Business Record and its Management Record have been merged to form the Business Management Record. The new publication will include both theoretical and practical articles of interest to the businessman, the labor leader, and the economist, as well as statistics and information on recent mergers and acquisitions. Realm is a large colorful periodical for "women of accomplishment." Articles concern business women, their problems and interests.

The British Journal of Industrial Relations is an academic publication, largely British in interest, but including articles on developments overseas. The first issue features information on British trade union political independence, immigration and unemployment in the United Kingdom, and Soviet wage structure.

Education. The Journal of General Education is published by the University of Bombay and is concerned with theories and methods of liberal arts education at the college level. Teaching Arithmetic; the British Elementary Mathematics Journal is published for the nonspecialist elementary mathematics teacher at the primary level and will emphasize new techniques, philosophies, and apparatus for teaching.

General. This category might better be termed "miscellaneous" since the journals included are general only through the fact that they do not fit neatly into other categories. Folia Humanistica is concerned with humanism and all its aspects. Members of the advisory board come from all over the world. The first issue includes articles on the death of Mozart, developments in modern music, and Boris Pasternak. The Rocky Mountain Review is published and edited by faculty members from several colleges in the Rocky Mountain area. There is virtually no limit to the scope of subject matter or geographical location of the authors and the first issue includes articles on China, origin of man in the Americas, and religious toleration. Report; the News of the Month in Perspective is a monthly news magazine which will discuss the important political and cultural events within a framework of Christian perspective. This publication is
entertainingly written with many photographs in a layout reminiscent of *U.S. News and World Report*.

**INTERNATIONAL AFFAIRS.** Reflecting the tensions which have produced the recent world crises and the Nuclear Test Ban Treaty are several new publications on disarmament. *War & Peace* is published in London by the Campaign for Nuclear Disarmament and will discuss the world situation as it influences and is influenced by the possibilities of nuclear warfare. From a more academic point of view, Pergamon Press is publishing *Disarmament and Arms Control*. The editors feel that disarmament is "unprecedented" and that any success will require the formulation of new concepts. The editorial board includes representatives of both political and scientific research centers and it is hoped to provide an international forum for the discussion of this topic.

*International Relations* is an English language publication from Greece which consists of articles on the reaction of Greece to various international developments and the effect of internal developments on Greek allies, opponents, and neutrals. Most of the papers in the first issue are written by members of the Greek government.

**LAW.** The *Modern Practice Commentator* will deal with "practice under the federal rules of civil procedure," including both original papers and reprints from the best of other journals. *Law Today* is the magazine of the Independent Bar Association, a new organization with a conservative bias. The first issue discusses the World Court and proposals to liberalize United States relations with this court—all of which the association opposes. Another publication concerned with international law is the *Common Market Law Review* published with the cooperation of the British Institute of International and Comparative Law and the Europa Instituut of the University of Leyden. It will include articles by qualified lawyers and others interested in the legal situation of the Common Market, as well as reviews of some of the decisions of the Court of Justice, information on national legislation relevant to the Market, and reviews of literature dealing with the new law.

The *Servicio Legislativo de Puerto Rico* will publish texts of Puerto Rican laws and resolutions, directories of government officials, and text of United States legislation concerning the Commonwealth with access to all this material through cumulative indexes. At the end of each year the subscriber will receive a bound volume containing all laws and resolutions passed during the year. Similar information on Poland will be issued in *Droit Polonais Contemporain*, published by the Institute of Legal Sciences of the Polish Academy of Sciences. It will provide information on contemporary Polish laws, regulations, and court decisions with text in English, French, or Russian.

**PHILOSOPHY.** The *Journal of the History of Philosophy* is an international journal in English, French, and German sponsored by Claremont College, Stanford University, the University of California, and the Winchester Foundation. A new Dutch publication is *Vivarium; a Journal for Mediaeval Philosophy and the Intellectual Life of the Middle Ages*, which will study the secular or profane thought in medieval philosophy. *Atlantida* is a Spanish magazine of current thought primarily on philosophy and religion. Most of the contributors to the first issue appear to be from Spanish and German universities. *Systematics* is the journal of the Institute for the Comparative Study of History, Philosophy, and the Sciences. This institute in its seventeen years of existence has come to believe in the idea of progress and the usefulness of systematics in reconciling what appear to be irreconcilable differences in theory. Contributions will be welcomed in all branches of history, philosophy, and science that have a bearing on the systematic hypothesis.

**LITERATURE.** A new "little magazine" is the *Stolen Paper Review*, published in Arizona. It includes poetry, prose, literary and artistic criticism, and reproduction of art. The contributors appear to have published widely in other literary reviews. A similar publication is *The Classic; Johannesburg Quarterly*, but this publication has special interest in that it claims to be the only literary magazine published in South Africa by the native population. *Le Livre Slovène*, published in Ljubljana by the Association des Écrivains Slovènes, will make available poetry and prose in French by Slovenian writers. It also includes some pieces in
English translation from the original Slovenian, as well as examples of contemporary art and literary criticism.

Book Week is a new Sunday supplement published by and issued in the New York Herald Tribune. It will also be distributed by the Washington Post and the San Francisco Examiner. Many reviews contain pictures of the authors. The first issue includes reviews by many writers in their own right: Eugene Burdick, André Maurois, Jerome Weidman, and Dorothy B. Hughes.

Science. Most of the periodicals of note which would appear in this section can be characterized as highly technical or scholarly publications which will be of value only to experts in the field. For this reason they have not been listed here but may be found in the alphabetical listing at the end, distinguished by an asterisk. Those listed below require a little more explanation.

Hommes et Terres du Nord is published by the Institut de Géographie of the University of Lille and the Société de Géographie de Lille, superseding the geographical issue of Revue du Nord and the Bulletin of the Société de Géographie de Lille. Primarily devoted to the northern part of France with some interest in the Netherlands and Belgium, articles will deal with physical, human, and economic geography. Each issue will feature a bibliography of works of current interest. On a less technical plane, Science and Children is published by the National Science Teachers Association, superseding Elementary School Science Bulletin. It hopes to aid teachers in planning their science programs and to this end in addition to the usual articles, each issue will include information on film strips, books, and science equipment available.

Social Sciences. Trans-action, a publication of the Community Leadership Project of Washington University, is one of the more interesting journals of the year. It attempts to bridge the gap between the social sciences and the general public through a collection of articles on all phases of this immense field, written in a popular way. The first issue includes information on urban renewal, the political situation in the South, the school drop out, the culture of the corner gang, and the public library. All these articles are written by professional social scientists and from their rather specialized point of view.

More technical are two new journals from Germany. Sociologia Internationalis hopes to synthesize the practical and theoretical schools of sociology through the interrelation and comparison of ideas of prominent sociologists from all over the world. The text will be in English, French, German, and Spanish. Deutsche Studien confines itself to Germany and Europe with material on all aspects of German life, especially in comparing East and West Germany. This journal is published by the Ostdeutsch Akademie and the Gesamteuropäische Studienwerk and supersedes Ostbriefs. From the other side of the world, the Center for Japanese Social and Political Studies will publish the Journal of Social and Political Ideas in Japan, hoping to transmit to other countries the social and political ideas and trends as they relate to international and domestic affairs. Each issue will contain translations in English of approximately thirty condensations of Japanese articles.

Technology. The International Journal of Electrical Engineering Education is edited by the Manchester College of Science and Technology superseding the Bulletin of Electrical Engineering Education. This publication will devote itself to scientific developments which influence methods of education, experiments in new types of courses and curriculums, reports of educational conferences, and book reviews. In a more specialized field, The Textile Institute and Industry will provide a somewhat popular journal reporting new advances in the technology of textile processing written by experts but in language suitable for the non-scientist. This magazine will complement but not replace the institute's Journal.

Recognizing the current interest in the need for control and conservation of the water resources of the world, the Journal of Hydrology will present articles of a technical nature written by experts from all over the world. Another crucial problem today is the agricultural development of Africa and Machinisme Agricole Tropical published by the Centre d'Études et d'Expérimentation du Machinisme Agricole Tropical contains articles on technical improvements, news of technical meetings, and bibliographies of pertinent new publications.

Theater. Films. Gambit; an International Drama Quarterly contains texts of plays with the hope of making them familiar to
people who will not have the chance to see them produced. The first issue contains the text of "Vasco" by French playwright Georges Shehadé and "Gone" by Dannie Abse. Exploring the low caliber of the current crop of German films and hoping to promote a new climate more conducive to the growth of good film making, *Film; Zeitschrift für Film und Fernsehen* will be a magazine of articles and criticism with emphasis at present on foreign films. This is a serious magazine in attractive format with little of the sensationalism usually found in magazines in this field.

**Periodicals**


_British Journal of Industrial Relations._ London School of Economics and Political Science, Houghton St., Aldwych, London W.C.2. v. 1, no. 1, Feb. 1963. 3 no. a year. $6.50.


_The Classic; Johannesburg Quarterly._ The Classic Magazine Trust Fund, P.O. Box 6434, Johannesburg. South Africa. v. 1, no. 1, 1963. Quarterly. $3.


_Des Frères de L'Institut._ Société de Géographie de Lille, 116, rue de l'Hôtel Militaire, Lille, France. no. 1, 1963. Quarterly. $15.50.

_Gambit; an International Drama Quarterly._ Editor, Robert Rietty, Cav., 40 Old Church Lane, London N.W.9. no. 1, 1963. Quarterly. $4.50.


_Index to Jewish Periodicals._ 16620 Lomond Blvd., Cleveland, Ohio 44120. v. 1, no. 1, June/Aug. 1963. Frequency not given. Price not given.


_Film; Zeitschrift für Film und Fernsehen._ Filmkunst-Verlag, 8 München 2, Promenadeplatz 10. v. 1, no. 1, Apr./May 1963. Monthly. DM 2.80 per issue.


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International Relations. 5 Zalocosta St., Athens (134), Greece. no. 1, Nov. 1962. Quarterly. $8.


Journal of Accounting Research. Editor, Graduate School of Business, University of Chicago, Chicago 37. v. 1, no. 1, Spring 1963. Semiannual. $4.50.


The Journal of General Education. Manager of Publication, University of Bombay, Bombay 1, India. v. 1, no. 1, Jan. 1963. Frequency not given. $3.


Mathematical Sciences Service Bureau. Announcements. 190 Hope St., Providence 6, R.I. v. 1, no. 1, Dec. 1962. 5 no. a year. $10.


(Continued on page 138)
Brief of Minutes
January 27, 8:30 p.m.

Present: President, Neal R. Harlow; Vice President and President-elect, Archie L. McNeal; Past President, Katharine M. Stokes; Directors-at-large, Andrew J. Eaton, Jack E. Brown, Lucile M. Morsch; Directors on ALA Council, Dorothy M. Drake, Walfred B. Erickson, Elliott Hardaway, Mrs. Frances B. Jenkins, Russell Shank, Mrs. Margaret K. Spangler, Edward B. Stanford, Robert L. Talmadge; Chairmen of Sections, Dale M. Bentz, Wrayton E. Gardner, Eli M. Oboler; Vice Chairmen of Sections, Carson W. Bennett, H. Vail Deale, Orville L. Eaton, Mrs. Marjorie Eloise Lindstrom; Past Chairmen of Sections, Charles M. Adams, David Kaser; ACRL Executive Secretary, George M. Bailey. Committee Chairmen present were George S. Bonn, Lorena A. Garloch; Editor, Richard K. Gardner; Representative, John H. Moriarty; guests, Thomas R. Buckman, Richard A. Farley, Robert R. Hertel, Frank Schick.

The minutes of the Board of Directors meeting as reported in CRL, September 1963, were approved. A report of nominations received to date for the 1964 division and section elections was presented by Mr. Bailey. A complete list of the nominees appears elsewhere in this issue.

Miss Stokes, ACRL representative to PEBCO, reported on the Midwinter Meeting of that ALA committee, noting that the two days of meetings were devoted to statements of needs by ALA, division, committee, and project representatives, and spokesmen for kinds of libraries and chapters. In addition, headquarters and financial needs were stated. In a summary, the broad needs were listed as personnel, research and planning, improved communication, strengthening headquarters operations, legislation, extended and improved quality of library services, and improved program for intellectual freedom.

Mr. Bailey reviewed briefly the schedule of activities for officers and committee chairmen between the Midwinter Meeting and the annual conference. A detailed schedule will be mailed in February to persons responsible for ACRL activities. The need to communicate through correspondence was emphasized by Mr. Bailey.

Mr. McNeal reported, as chairman of the Planning and Action Committee, the objectives and goals of ACRL, reading from a letter, dated January 4 in which Mr. Harlow noted the need to outline the goals of ACRL. He asked for suggestions from the ACRL Board of Directors. The committee reported the following major objectives to the Board: increasing assistance to college and junior college libraries, suggesting improvements in direct library service to users, encouraging libraries to come up to the approved standards, developing resources, and improving communication within and among the various groups interested in the libraries of these institutions. The committee had briefly discussed two recommendations submitted for ACRL consideration from the Conference-Within-a-Conference.

Mr. Bonn reported on the plan of the Library Services Committee, in cooperation with the University Libraries Section, to sponsor the first general session in St. Louis, at which three speakers will present specific approaches to solving the problem of making libraries effective in the teaching and learning process. Mr. Harlow stated that Alvin M. Weinberg, director, Oak Ridge National Laboratory, would speak at the second general session on service to users of academic and research libraries.

A highlight of the meeting was the presentation by Dr. Schick, assistant director, Library Services Branch, U.S. Office of Education, of the report on “Library Statistics of Colleges and Universities, 1962-63,” which had just been published (in January, on time, as promised by U.S. O.E.). After receiving the applause of the Board
members, Mr. Schick noted that 70 per cent coverage (instead of the expected 50 per cent) had been attained by the September 30 deadline. State agencies were used in collecting the statistics, although some academic libraries did not cooperate in this pattern. Junior college libraries were most incomplete in reporting. The Office of Education now has about 85 per cent returns and hopes for 92 per cent to be included in the analytic report. The statistics were made available in time for use in the National Library Week program. The Board discussed the possibility of publishing the remaining statistics for 1962/63 and what procedures should be followed in the future. Mr. Schick also reported on an inquiry about a preferred publication date but it was noted that the findings were no longer valid since they were based upon an anticipated return of only 50 per cent.

Mr. Farley, chairman of the LAD Buildings Committee, stated that two kinds of inquiries are coming to the committee: how to begin planning programs—these are answered by the headquarters office; and inquiries about presenting plans at an annual institute. No buildings institute will be held in 1964, but an equipment institute is scheduled for St. Louis.

The first issue of CHOICE: Books for College Libraries will be published March 1. Mr. Gardner, its editor, reviewed the activities for the first six months and noted that thirty-five thousand copies of a promotion piece were being mailed to libraries. He listed subjects for which reviewers were needed: Social Science, Economics, and Political Science. The Choice staff has negotiated with the ALA Editorial Committee in respect to plans for publishing the University of California college book list.

The preconference institute of the Rare Books Section will be held at the University of Kansas and Linda Hall libraries on June 25-27, 1964 with financial support from those libraries in addition to the registration fee. According to Mr. Buckman, chairman of the program committee, the theme will be “The Bibliography of Natural History.” Speakers will be secured from the United States and abroad. Plans are being made to publish the proceedings.

Mr. Moriarty, ACRL’s representative on the AASL-ACRL-LED-DAVI Joint Subcommittee of the ALA Audio-Visual Committee, read a letter from Mrs. Grace Stevenson regarding its status and recommended that the subcommittee be discontinued. The possibility of an ACRL audio-visual committee was considered.

Miss Garloch reported upon the plans of the ACRL National Library Week Committee, with mailings to librarians for eighteen states, including a personal letter, statistical summary, and sample State fact sheet. Emphasis will be placed on recruitment.

The meeting was adjourned at 10:30 p.m.

January 28, 8:30 p.m.

Present: President Neal R. Harlow; Vice President and President-elect Archie L. McNeal; Past President Katharine M. Stokes; Directors-at-large, Andrew J. Eaton, Jack E. Brown, Lucile M. Morsch; Directors on ALA Council, Dorothy M. Drake, Walfred B. Erickson, Elliott Hardaway, Mrs. Frances B. Jenkins, Russell Shank, Mrs. Margaret K. Spangler, Edward B. Stanford, Robert L. Talmadge; Chairmen of Sections, Dale M. Bentz, Wrayton E. Gardner, Eli M. Oboler, Benjamin B. Richards, Norman E. Tanis; Vice Chairmen of Sections, Carson W. Bennett, Orville L. Eaton, Mrs. Marjorie Eloise Lindstrom; Past Chairmen of Sections, Charles M. Adams, David Kaser; ACRL Executive Secretary, George M. Bailey. Chairmen of Subsections present were Laurence H. Miller, Robert C. Miller, Kirby B. Payne; Committee Chairmen, John M. Dawson, Mark M. Gormley, Frances Kennedy, Edmon Low, Stanley L. West; editor, William V. Jackson; guest Frank Schick.

Nominations for the College Libraries Section were reported by Mr. Bailey.

Mr. Harlow discussed the schedules of programs and business meetings for the St. Louis Conference.

A memorandum announcing a meeting of the Committee on ALA Publishing on January 29, 1964 to discuss ALA publishing activities and programs, was called to the attention of the ACRL Board. Representatives of all ALA agencies, divisions, sections, and committees concerned with publishing activities were requested to attend this meeting called by the chairman of the Committee on ALA Publishing. Mr. Harlow asked Mr. Moore, chairman of the ACRL Publications Committee, to attend, along with all ACRL editors.
Two recommendations made by the study-discussion groups at the Chicago Conference-Within-a-Conference had been presented to the members of the Planning and Action Committee, who noted that the problem raised in one of the recommendations had already been identified as one of the general objectives of ACRL by the committee. The committee agreed that the recommendations needed clarification, and Mr. Harlow stated that ACRL would be pleased to work with other divisions concerned in relation to them. The recommendations were distributed to Board members who were asked to make additional suggestions to Mr. Bailey during Midwinter.

In applauding the success of the U.S. Office of Education, Library Services Branch, in collecting and publishing academic library statistics for 70 per cent of the libraries of such institutions, according to the prearranged schedule, the Board expressed the desire that the additional statistics, not included in the January publication, would be made available as a supplement in the same form; and stated its position as favoring the same regular schedule of publication with the possibility of greater coverage in future years. Dr. Kaser moved that an official resolution of appreciation be sent to the Commissioner of Education, Francis Keppel, with copies to Dr. Schick and John Lorenz. A letter to this effect will be written by Mr. Bailey. Members of the ACRL Board were asked to write letters of appreciation to Commissioner Keppel.

Mr. Gormley noted the report of the Grants Committee as published in CRL, January 1964. The Board members were especially concerned about the small size of the grants which varied from $250 to $1200. A number of Board members favored larger grants, perhaps using a portion of the amount available in this way. It was stated that even the small grants are very valuable to the smaller libraries.

Mr. Gormley, acting for Dr. Tauber who was unable to attend Midwinter, noted the activities of the Committee on Library Surveys in developing a manual of surveys, planning a workshop on surveys, and training qualified surveyors.

The College Library Section is planning a conference program on "The Federal Government and College Libraries." The section Steering Committee also discussed a proposed joint committee with the Association for Asian Studies on non-Western library resources for undergraduates. The possibility of establishing an audio-visual committee in this section was discussed by the Board. Mr. Bailey will investigate the possibilities of such a committee.

Edmon Low gave an extensive report on activities pertaining to federal legislation for libraries of colleges and universities. State commissions will be established by the state governors to select the institutions to receive funds under the Higher Education Facilities Act. It is not certain whether appropriations for the Act will be available in 1964. The Board voted to leave action to implement the legislative proposal for materials for college and university libraries to the judgment of the ALA Committee on Legislation.

Frances Kennedy, chairman of the Membership Committee, referred to the report submitted before Midwinter. She noted that much possible activity of the committee is already being handled at ALA headquarters. The committee is developing a brochure for the division.

Norman Tanis reported that he will attend the meeting to be held in Washington, D.C., February 17-18, 1964, sponsored by the Council on Library Resources, to discuss the proposed study for strengthening library services in junior college education.

For the Subject Specialists Section, the biggest problem is to identify the membership of each of the four subsections since provision for selection of subsection membership was made only on the membership renewal form, but has not yet been provided on the membership form for new members. This section agreed to cosponsor the program already planned by the Library Services Committee for St. Louis. The Law and Political Science Subsection hopes to provide a complete slate of officers for 1964/65. Plans are to attempt to cosponsor a program with the American Association of Law Librarians. The Agricultural and Biological Subsection's program at St. Louis will be concerned with the theme of library service to users at the research level. The Slavic and East European Subsection will submit bylaws for approval at St. Louis. The latter subsection officers hope to secure funds to compile a directory of librarians, archivists, and information specialists with
Slavic competence. This subsection is planning to obtain a speaker in the Slavic field for its program at St. Louis.

Mr. Richards reported on the Teacher Education Section and several Board members noted the changing academic picture, with fewer teachers colleges. Mr. McNeal requested statements from Mr. Richards and Mr. Oboler about the positions of these colleges and the need for the Teacher Education Section.

The University Libraries Section is making studies of academic status, according to Mr. Bentz. The ULS Urban Universities Library Committee is planning a luncheon in St. Louis where a report on the New York metropolitan program of library cooperation will be presented.

Mr. West, chairman of the Advisory Committee on Cooperation with Education-Periodicals... (Continued from page 194)

Periodicals...

(Continued from page 131)

Rocky Mountain Review. Editor, 1511 Poly Drive, Billings, Mont. v. 1, no. 1, Spring 1963. 2 no. a year. $2.


Teaching Arithmetic. Pergamon Press, 122 East 55th St., New York 22. v. 1, no. 1, Spring 1963. 3 no. a year. $2.50.


Trans-action. Circulation Department, Trans-action, Box 43, Washington University, St. Louis, Mo. 63130. v. 1, no. 1, Nov. 1963. 6 no. a year. $3.50.


War & Peace. Campaign for Nuclear Disarmament, 2 Carthusian St., London E.C.1. v. 1, no. 1, Jan./Mar. 1963. Quarterly. 17s. 6d.
Indicted for Library Thefts

On November 6, 1963, an indictment was returned in the United States District Court for the Middle District of Pennsylvania, naming James S. Rizek and Richard Caverly as defendants. The former was a book dealer and the latter the former chief librarian of Scranton public library. The indictment charged that Caverly and Rizek conspired together to transport in interstate commerce books, documents, and periodicals that they knew to be stolen or taken by fraud from the Scranton public library in violation of the Federal Statutes.

The indictment charged further that Rizek had done business under the names of Academic Sales Company, The Academic Service Corporation, Raritan Book Company, and other names.

As part of the unlawful plan, Rizek and his associates approached and made proposals to public and college libraries in different parts of the country to exchange books and their bound periodicals for microfilm of these and other titles.

The Government charged that in furtherance of the conspiracy the defendants, Rizek and Caverly, would steal or convert to their own use, from the Scranton public library, books, documents, etc., and that Rizek and his associates would establish contacts with other public and college libraries to dispose of books and documents so stolen.

The Government alleged further in the indictment that Rizek and Caverly would authenticate the disposal of books to purchasers by the use of letterheads and order blanks of the Scranton public library.

These acts complained of in the indictment have occurred during the period from February 1961, through June 1962. However, it is believed that these activities continued over a much longer period.

The activities complained of in the Scranton indictment have not been confined to Rizek and his companies. From recent press reports there has been a veritable epidemic of thefts of books, manuscripts, and documents during the past year.

Most of the cases complained of follow the pattern of the Rizek indictment and have to do with the unlawful acquisition of publications from libraries.

The favorite approach of the book dealer involved is the exchange of bound volumes for microfilms of these volumes. In many of these cases the individual book dealer has failed to carry out the provisions of his contract or has failed to make payment for the merchandise bought, or has delivered microfilm not up to the minimum of standards. As a consequence of the failure of these book dealers to fulfill their agreement, there have been many complaints received by the Bookdealer-Library Relations Committee of the American Library Association. The function of this committee is the study of all aspects of book dealer–library relations. The chairman of this committee is Carl Jackson, who has been actively engaged in the investigation of numerous complaints of alleged frauds perpetrated by the dealer. In view of the widespread character of the operations complained of and the losses sustained by the libraries of the country, those libraries that have been victimized and that have not already done so, might wish to communicate with the chairman, Mr. Carl Jackson, Associate Director, University of Colorado Libraries, to the end that there be an investigation of the facts and if the facts warrant, the matter may be called to the attention of the proper officials.

March 1964
Nominees for ACRL

PRESIDENT
Archie L. McNeal, University of Miami, Coral Gables, Florida

VICE PRESIDENT AND PRESIDENT-ELECT
Helen M. Brown, Wellesley College, Wellesley, Massachusetts
Sarah Dowlin Jones, Goucher College, Towson, Baltimore, Maryland

DIRECTORS-AT-LARGE
(1964-68)
(two to be elected, one from each bracket)
Ruth Madeline Erlandson, Ohio State University, Columbus, Ohio
Christine L. Reb, University of Chicago, Chicago, Illinois
Catherine Cardew, Briarcliff College, Briarcliff Manor, New York
Ruth Ellen Scarborough, Centenary College for Women, Hackettsstown, New Jersey

DIRECTOR ON ALA COUNCIL
(1964-68)
Rev. Oliver L. Kapsner, St. Vincent College, Latrobe, Pennsylvania
Rev. Jovian Lang, Quincy College, Quincy, Illinois

COLLEGE LIBRARIES SECTION
Chairman: H. Vail Deale, Beloit College, Beloit, Wisconsin
Vice Chairman and Chairman-Elect:
  Anne Carey Edmonds, Douglass College, New Brunswick, New Jersey
  Helen L. Sears, Wells College, Aurora, New York
Secretary:
  D. Nora Gallagher, Adelphi College, Garden City, Long Island, New York
  Ermine Stone, Sarah Lawrence College, Bronxville, New York

JUNIOR COLLEGE LIBRARIES SECTION
Chairman: Mrs. Marjorie Eloise Lindstrom, Stephens College, Columbia, Missouri
Vice Chairman and Chairman-Elect:
  James F. McCoy, Trenton Junior College, Trenton, New Jersey
  James W. Pirie, Flint Community Junior College, Flint, Michigan
Secretary:
  Mrs. Alice B. Griffith, Mohawk Valley Community College, Utica, New York
  Helen Paragamian, Pine Manor Junior College, Wellesley, Massachusetts
Officers, 1964/65

RARE BOOKS SECTION

CHAIRMAN:
Robert O. Dougan, Henry E. Huntington Library and Art Gallery, San Marino, California
Clyde C. Walton, Illinois State Historical Library, Springfield, Illinois

VICE CHAIRMAN AND CHAIRMAN-ELECT:
Marcus A. McCorison, American Antiquarian Society, Worcester, Massachusetts
Wilbur J. Smith, University of California, Los Angeles, California

SECRETARY:
Miss Marion E. Brown, University of Toronto, Toronto, Ontario, Canada
Mrs. Maud D. Cole, New York Public Library, New York, New York

SUBJECT SPECIALIST SECTION

CHAIRMAN: Carson W. Bennett, Heidelberg College, Tiffin, Ohio

VICE CHAIRMAN AND CHAIRMAN-ELECT:
James Humphry, III, Metropolitan Museum of Art, New York, New York
Lillian Tudiver, Brooklyn Public Library, Brooklyn, New York

SECRETARY: (1964-67)
Mary Frances Pinches, Case Institute of Technology, Cleveland, Ohio
Jack L. Ralston, University of Missouri at Kansas City

TEACHER EDUCATION LIBRARIES SECTION

CHAIRMAN: Orville L. Eaton, Central Michigan University, Mount Pleasant, Michigan

CHAIRMAN-ELECT AND SECRETARY:
Richard Alan Farley, Kansas State Teachers College, Emporia, Kansas
Mrs. Mildred Hawksworth Lowell, Indiana University, Bloomington, Indiana

UNIVERSITY LIBRARIES SECTION

CHAIRMAN: Andrew J. Eaton, Washington University, St. Louis, Missouri

VICE CHAIRMAN AND CHAIRMAN-ELECT:
Everett T. Moore, University of California, Los Angeles, California
David C. Weber, Stanford University, Stanford, California

MARCH 1964
News From the Field

ACQUISITIONS

The Geary papers, a collection of some nine hundred Civil War manuscripts, were donated to the Mobile (Ala.) public library by Mrs. John H. van Aken, a member of the library board. For the most part the documents are in good condition and will be available to scholars for study.

The Journal of the C.S.S. Alabama has been donated to the Mobile public library by a group of Mobile businessmen. Mrs. Clara Stone Fields, state legislator, solicited public support for placing the document in the Mobile public library. The journal will be on display at all times, and microfilms will be available for scholars.

Stanford University Library has received some seventy rare sixteenth-, seventeenth-, and eighteenth-century volumes in the areas of religion, philosophy, and classical literature. Donor was Stanford professor of music Leonard Ratner.

Boris I. Nicolaevsky’s collection of materials on Russian revolutionary movements has been acquired by the Hoover Institution of Stanford University. More than twenty thousand books and pamphlets, a large number of periodicals and newspapers, thousands of rare leaflets, handbills, etc., and private archives, manuscripts, and correspondence dating from 1860 to the present are included.

University of Delaware’s Hugh M. Morris library has received a collection of fore-edge paintings on late eighteenth-century and early nineteenth-century books assembled by the late Mrs. Christopher L. Ward and presented by her daughters. Two of the forty-nine items have double fore-edges.

Mrs. Ward’s collection of Horace Walpole’s Strawberry Hill Press imprints has also been presented to the library by her daughters. The collection comprises some one hundred titles, the imprints being supplemented by scholarly works on Walpole, the Press, and eighteenth-century England.

The Memorial library of the University of Notre Dame has acquired the Stanley Barney Smith collection of Greek and Latin classics and also his Robert Burns collection.

The Archives and Library of the First Corps of Cadets and the library collection of the Military Historical Society have been acquired by the libraries of Boston University. The catalog of the First Corp archives has been completed and is available at Chenery library, although the documents will remain in the First Corp Armory until the university’s new central library is constructed. Cataloging of the twelve thousand books in the acquisition is still in progress.

Michigan State University library, East Lansing, has acquired its millionth volume—an illuminated Book of Hours ca. 1440, with eighty-six miniature paintings. The volume is the gift of the university’s Friends of the Library.

The Daniel S. Adams collection of five hundred Shakespearean volumes has been established at New England College library, Henniker, N.H., the gift of Mrs. William B. Severance of Manchester.

The personal library of Robert Frost has been given to New York University by his daughter, Mrs. Lesley Ballantine. Some three thousand volumes will eventually be housed in a seminar room in a projected new library building at NYU.

Cornell University has acquired from the Fabius family in Paris a collection of papers, correspondence, and other items pertaining to the Marquis de Lafayette which for many years was maintained by the descendants of the French hero of the American Revolution. Some eight hundred items in the collection were presented by Cornell and the Fabius family to the French National Archives. All documents presented to the French government were microfilmed for Cornell, and Cornell papers were microfilmed for the French National Archives.

The Ohio State University Libraries has purchased a rare first edition of Nathaniel Hawthorne’s “Celestial Railroad.”
A METALLURGICAL REFERENCE BOOK COLLECTION of more than two hundred volumes was presented to the Free Library of Philadelphia by the Philadelphia chapter of the American Society for Metals. The collection is known as the Theodore Wiedemann Library in memory of its founder, King of Prussia (Pa.), industrialist.

The University of Vermont's Guy W. Bailey library has been given a collection of 147 different editions of Ovid, mostly from the fourteenth and fifteenth centuries, by Mrs. Lester M. Prindle.

University of Vermont's Bailey library recently received the papers of Warren Austin, former United States ambassador to the United Nations, given by Mr. Austin's widow. The papers include correspondence, memos, clippings, speeches, annotated copies of documents, and memorabilia. It is expected that the material will be available to researchers by midsummer.

AWARDS, GRANTS, SCHOLARSHIPS

Applications for three internships in medical librarianship for 1964-65 are being accepted by the biomedical library at University of California, Los Angeles. The program offers a year of planned work combined with enrollment in a limited number of courses in foreign languages, documentation, biological sciences, and history of science. It has been approved for level II certification by the Medical Library Association. The program is supported by a grant from the U.S. Public Health Service and applicants must be citizens of the United States (or have applied for citizenship), and must hold masters' degrees from accredited library schools. Application forms and information may be obtained from Miss Louise Darling, Librarian, Biomedical Library, University of California Center for Health Sciences, Los Angeles, Calif. 90024. The committee must have completed applications by March 30.

Library of Congress has been granted $70,565 for continuing work on the National Union Catalog of Manuscript Collections, by the Council on Library Resources.

A MANUAL on methods of reproducing research materials will be prepared by the Library Technology Project of ALA working with a grant of $66,994 from the Council on Library Resources. William R. Hawken is editor.

India, Costa Rica, and Argentina libraries have received grants from the Ford Foundation to develop and improve library facilities. The University of Singapore received $70,000 for training staff members; the University of Costa Rica $307,200 for general studies faculty and library facilities, and the Argentine Chemical Association received $25,500 for developing library facilities, publication program, and lecture series.

BUILDINGS

Auburn (Ala.) University dedicated its new library building—four stories to house up to one million volumes—on Nov. 5.

Southern California College, Costa Mesa, dedicated its new library in November.
Eureka (Ill.) College has started a campaign to obtain $550,000 for a new library building and equipment.

University of Chicago received the first major contribution toward a new central library building when a check for $500,000 was turned over to the university in early January by the Harriet Pullman Schermerhorn Charitable Trust. The gift will be used to plan the building, probable cost of which will be fifteen million dollars. The plans look toward a collection of four to five million volumes; present collections now total two million two hundred thousand.

University of Illinois, Urbana, envisions an underground undergraduate library on two floors with central light and ventilation courts, space for one hundred thousand volumes, and reading rooms for forty-eight hundred students. Construction costs are estimated at seven million dollars.

University of Notre Dame will dedicate its new thirteen-story, twelve-and-one-half-million-dollar library building on May 7. The college library occupies the first two floors, with seats for 2,411 readers and shelving for more than two hundred thousand volumes. The university's research library occupies the eleven-story high-rise, with a capacity of two million volumes and carrels for 586 readers. The building was occupied last September.

The President of India officiated at the opening of a new university library at Sri Venkateswara University in Andhra Pradesh in January.

Meetings

A meeting sponsored by the Council on Library Resources, Inc., was held in Washington, D.C., on February 17-18 to discuss a proposed study for strengthening library services in junior college education.

The Midwest Academic Librarians Conference will be held at the University of Notre Dame on April 17 and at Valparaiso University on April 18.

The Ohio Valley Group of Technical Service Librarians will hold their 1964 meeting at Purdue University Libraries, Lafayette, Ind., on April 24-25.

The National Microfilm Association's 1964 convention will be on April 28-30 at Philadelphia. Theme will be "Microreproductions, Media of Progress for Information Control." Further information and registration blanks are available from National Microfilm Association, P.O. 386, Annapolis, Md.

An all-day conference will be held at Brooklyn College library on April 14. The topic will be "Reference Services for Foreign Area Studies." Additional information may be obtained from Mrs. Rose Z. Sellers, Associate Librarian, Brooklyn College, Brooklyn 10, N.Y.

International Federation for Documentation will have its thirty-first meeting and congress in Washington, D.C., on October 7-16.

Miscellany

University of Illinois division of university extension and the graduate school of library science announce a five-week course in medical literature and reference work (Library Science E439) starting June 15. Meetings will be at the University of Illinois Library of Medical Sciences, 1853 West Polk Street, Chicago. Preregistration applications must be made before May 1; forms are available from Mr. A. J. Proteau, Division of University Extension, Illini Center, LaSalle Hotel, 10 N. LaSalle St., Chicago, Ill. 60602.

A directory of documents librarians and persons responsible for government documents in the libraries of the United States is being compiled by the RTSD-RSD Interdivisional Committee on Public Documents of ALA. The committee requests that these persons send their names, titles, and business addresses to Thomas R. Shaw, Chairman, RTSD-RSD Interdivisional Committee on Public Documents, Library School, Louisiana State University, Baton Rouge, La. 70803.

Massachusetts Institute of Technology has initiated a long-range program for the application of principles and methods of information processing to library operations. Director of the program will be Carl F. J. Overhage, former director of MIT's Lincoln laboratory, who will work closely with the new director of libraries, William
N. Locke. The program will begin operation July 1.

MICHIGAN COLLEGE OF MINING AND TECHNOLOGY at Houghton and Sault Ste. Marie has been renamed Michigan Technological University.

International Pharmaceutical Abstracts began publication in January 1964. It will be published in English, twice a month, by the American Society of Hospital Pharmacists.

The March issue of Wilson Library Bulletin has several articles on public relations discussing the importance of PR in college and university libraries. We are informed that reprints will be available from the periodical's offices.

LEHIGH UNIVERSITY, Bethlehem, Pa., will include the training of information scientists in its graduate program, starting in the fall of 1964. The program leading to an interdisciplinary master's degrees will be conducted by Lehigh's division of information sciences. Graduate fellowships and assistantships will be available at the university.

The graduate school of library science at Drexel Institute of Technology, Philadelphia, is offering a course in law librarianship starting April 6.

Drexel Institute of Technology is offering a course in work simplification in libraries during its summer session June 22-July 24. Applications should be directed to the Admissions Office, Drexel Institute of Technology, Philadelphia, Pa. 19104.

A duplicate abbreviated shelf list on IBM cards is the goal of a four-year program at Indiana (Pa.) State College library. Each department of the college will eventually receive a print-out in book form. Immediate benefits are duplicate print-outs of new acquisitions, and selected areas of the shelf list, and development of circulation and acquisitions controls.

Library Moving Techniques are analyzed in a monograph prepared by Peter Spyers-Duran, University of Wisconsin-Milwaukee, and available at $2.50 per copy from Miss Elspeth Pope, Editor, University Library, University of Wisconsin-Milwaukee, Milwaukee, Wis. 53211.

Fellowships, Scholarships, Grants-in-Aid, Loan Funds, and Other Financial Assistance for Library Education has been revised by a committee of the Library Education Division of ALA, and is available from the division office, 50 E. Huron St., Chicago 60611. Price is 50c for single copies; 10, $4.50; 25, $11.00; 100, $40.00.

Guidelines for Establishing Junior College Libraries is a reprint of the article that appeared in the November 1963 issue of CRL. Copies are available at 20c from ACRL, 50 E. Huron St., Chicago 60611.

A second supplement to Photocopying from Bound Volumes has been published by the Library Technology Project of ALA. It evaluates three photocopiers, the SCM Corporation's Wedgelite, the new model Coppease Duplex Book Copier, and APECO's Panel-Lite. The twelve-page supplement is 8 1/2 x 11 inches and is punched for insertion in standard three-ring notebooks.

A list of federal government publications printed outside the government printing office will be compiled under the supervision of Jennings Wood, chief of the exchange and gift division of the Library of Congress. Mr. Wood is chairman of the Advisory Subcommittee on Depository Libraries of the RSD/RTSD Interdivisional Committee on Public Documents. The project has received $5,000 from the Council on Library Resources to assist the compiling activities; the list is to be published early this year.

The former U.S. Information Service Library at Tours, France, has been turned over to Stanford University, and will be available to Tours residents, students at the University of Poitiers, and Stanford students at that university's study center in Tours. It occupies the mezzanine floor of the Tours Municipal library. The collection of sixteen thousand volumes has been renamed the "John F. Kennedy Memorial Library."

Brazil has asked the Peace Corps for six volunteer librarians to help set up library facilities for the University of Brasilia. A central reference library, an educational faculty library, and a library for the science institute of the university are planned.
ANNE CAREY EDMONDS will become the librarian of Mount Holyoke College on July 1, upon the retirement of Flora Belle Ludington. Miss Edmonds has been for the past three years librarian of Douglass College, the women’s undergraduate division of Rutgers—The State University of New Jersey. She went to Douglass after a year of postgraduate study at the School of Library Science of Western Reserve University.

Miss Edmonds was born in Penang, Malaya, and was educated in England; she received the certificate in commerce from the University of Reading (England) and began her career outside the library profession by working for the War Damage Commission in London. Coming to the United States, she studied at Barnard College for her A.B., and then, after a year in professional work at the Enoch Pratt free library in Baltimore, returned to Columbia for her master’s degree from the school of library service.

She began her experience in academic libraries with a year in the commerce library of City College of New York, and in 1951 went to Goucher College as reference librarian, moving to assistant librarian for readers’ services in 1958. Before she left Goucher in 1960 for further graduate work, she took a second master’s degree (this one in historical geography) from the Johns Hopkins University, and varied her experience with a year as exchange reference librarian at the British Broadcasting Corporation’s reference library in London.

Miss Edmonds has had further experience which stands a college librarian in good stead: she has taught college courses. While at Goucher College she taught classes in freshman composition, and she has also taught in the library schools of Syracuse and Rutgers universities.

Miss Edmonds has been an officer in the library associations of Maryland and New Jersey, and is secretary to the College Section of ACRL.—Sarah Dowlin Jones.

LOUIS KRONENBERGER, Brandeis University’s newly appointed librarian, is a truly modest and soft-spoken man who combines in his career distinguished service to several fields of American literary life, and who brings a truly humanistic yet tough-minded approach to the current activities of Goldfarb library.

From 1926 to 1933 Mr. Kronenberger was a member of the editorial staff of Boni and Liveright. At the same time he wrote his own first novel, *The Grand Manner*, as well as reviews for the leading serious magazines of the day.

He later joined the house of Knopf as an editor, and soon took leave to go to England, where he started work on his *Kings and Desperate Men: Life in Eighteenth Century England*, about which Clifton Fadiman later wrote: “Kronenberger would rather be right than be startling . . . .” He consciously shuns showiness and is deeply concerned with the abiding interests of the library and the scholarly community it serves.

Kronenberger developed his talents as a judge of literary and artistic quality when he found a job as drama critic on *Time Magazine*, where he started in 1938 and continued, with a short interruption, until 1961. From 1940 until 1948 he also served as drama critic for the newspaper *PM*. Kronenberger was not one of those journalists who saw their own careers solely in terms of their day-to-day writing and their positions within a huge bureaucratic publishing organization. He always kept his sights on questions of a less ephemeral nature; and he published novels, translations, anthologies, literary articles, as well as many contributions to literary symposia considering serious critical questions. His books include *The Thread of Laughter*, *The Republic of Letters*, *Marlborough’s Duchess*, *Company Manners*, *Grand Right and Left*, *The Grand Manner*, and *Kings and Desperate Men: Life in Eighteenth Century England*. —Sarah Dowlin Jones.
A Month of Sundays, and—to be published next spring—The Cart and the Horse, a collection of essays on contemporary American culture.

Kronenberger is no newcomer to Brandeis University: he marched in the university's first commencement procession. He also started courses in comedy and contemporary drama at Brandeis in 1951. He has had experience with the problems of teaching the latest generation of students, and he knows very well the seriousness and depth of their interests.

In Louis Kronenberger, Brandeis has acquired a librarian with the qualities vital for an institution where intellectual aspirations are deeply serious. He responds in a profound way to real literary values; he is sympathetic to innovations and freshness, but he is not bowled over by flashiness. His great modesty evokes modesty in persons who deal with him. Both the experience and the personality of Louis Kronenberger are now available to help Goldfarb library ascend to the level of a first-class library with an abundance of the very best materials for use by the very best scholars.—Irwin Weil.

RICHARD J. SHEPHERD, recently-appointed librarian at State University College, New Paltz, New York, brings to his post a background which must be envied by any college president searching for a director of libraries.

A native of Massachusetts, Mr. Shepherd received his bachelor's degree in English from Harvard. He began his professional career as a reporter for the Cleveland Plain Dealer only to have it terminated by a four-year hitch in the U.S. Army. He returned to journalism as a writer for Art News and subsequently was associated with the New York Public library in the reference division.

Shortly after obtaining a master's degree in library service at Columbia, he accepted an appointment to the staff of the University of Illinois at Chicago. While serving in this capacity, he was recognized quickly as a respected professional librarian and a trusted member of the faculty, as well as a friend and confidant to students and colleagues. He displayed a keen appreciation for the bibliographical requirements of the patron. The rapport which he developed with the art and architecture faculty was admired by all of his library associates.

After three years in academic librarianship, he was lured into the special library field as director of the information center of the Public Relations Society of America in New York City. In this demanding position, he was called upon to collect and provide data for the members, originate and prepare research studies, write speeches, serve as conference and institute planning consultant, and counsel job applications and make referrals to public relations executives.

Dick possesses an even temperament. As one of our former mutual colleagues once commented, he has the ability "to make haste slowly" while employing a fine sense of humor and a wry wit. As a student, writer, counsellor, public relations expert, and most importantly, a professional librarian, he has found in New York a position which will test his mettle. Mr. Shepherd is worthy of the challenge.—Le Moyne W. Anderson.

ROBERT SOMERS, who assumed the position of chief librarian at Alabama College, Montevallo, last fall brings a wide and varied library experience to an old, established but thoroughly alive and ready-for-a-new-expansion library situation. A native of Meriden, Connecticut, where he completed his elementary and high school education, after a stint in the army during 1945-47, he attended Brown University, later transferring to Wesleyan where he obtained his bachelor's degree. Part of the year following he was a library assistant at the Olin memorial library and left in the fall of 1952 to attend library school at Florida State University, where he worked in the materials center.

A job at Air University in periodical and general reference work kept his active and fertile mind occupied to the hilt and, for a change of pace, classified documents acquisition work gave him an insight into the procedures for acquiring and processing materials. A job as literature research specialist at Rome Air Development Center, Griffis Air Force Base, enticed him away but wasn't exciting enough to keep him, nor was the Akron public library reference section in 195 7-58 where supervisory experience was his chief gain. In 1958 he returned to our library as bibliographer especially in the
fields of air defense, communication, and electronics. In that year he obtained his master's degree. A year at Mobile public library and a year at Brookley Air Force Base library demonstrated the fact that college and university library work was what he really loved so he was most happy when the call to assume the position at Alabama College was made.

Here his intellectual curiosity, his wide and keen knowledge of books, and his strong interests in the arts will surely be a great asset to a rebirth of an excellent basic college collection which needs rejuvenation in both physical plant and book collection. — John Kenneth Cameron.

DESMOND TAYLOR was recently appointed librarian at the University of Puget Sound, in Tacoma, Wash. After joining the university staff as reference librarian in 1960, Taylor became acting librarian in the spring of 1963, and head librarian on September 1, 1963.

Raised in Toledo, Ohio, Taylor received his bachelor's degree from Emory and Henry College in Virginia, and his master's degree in science from the University of Illinois. After he received his BA in 1953, Taylor served as a member of the U.S. Army Security Agency, a post he held for the next three years.

Taylor's interest in research grew out of his early training at Warder public library in Springfield, Ohio, where he spent three years as reference assistant. He has since participated in Library 21's first group as a standby member. Here, as a direct result of the training course, he became especially concerned with the potential use of automated devices and techniques.

The special training and new-found interest resulted in two articles which were published in the Northwest's regional library quarterly. The first deals with the implications of Library 21 training for the profession at large, and the second explores the feasibility of automating the Pacific Northwest Bibliographic Center.

Taylor's work at the university library has received commendation from administration and faculty alike. He has added several new members to his staff, and is an active member himself of the AAUP, PNLA, SLA, and Beta Phi Mu, the national honorary library science fraternity. He has initiated special techniques for alerting faculty members to new materials in their respective fields and has, altogether, made himself indispensable to those who care about books. — Leroy Ostransky.

APPOINTMENTS

SISKO ALAVA has been appointed to the acquisitions staff at the University of California, Berkeley.

NORMAN ALEXANDER is now head of public services at Portland, Ore., State College library.

KARIN AUGERSON has joined the college library staff at UCLA.

JAMES M. BARRY has been appointed medical school librarian at Rutgers University, New Brunswick, N.J.

MRS. MEREDITH R. BASKETT is a new member of the University of Washington library staff, Seattle.

HELEN S. BOSTON has joined the reference department of the Department of Health, Education and Welfare library.

MELVERN BROWN joined the documents section of University of North Carolina library, Chapel Hill, in October.

ANA GUERRA DERÉN is the Latin American exchange librarian in the gifts and exchanges section of UCLA's acquisitions department. The appointment is for six months.

MILDRED S. DUGAN is newly appointed assistant librarian, processing division, Ohio University library, Athens.

WALTER T. DZIURA has been named editor of the Bulletin of Bibliography.

MANIE FRANKLIN is the new chief of the special services library, U.S. Military Academy, West Point, N.Y.

PEGGY GLOVER is head librarian of the technical data management office of the Defense Industrial Supply Center, Philadelphia.

PEARL JEANETTE GONDRELLA has been appointed librarian in the Department of the Army Special Services, Korea.

Mr. Taylor
Mrs. Roma S. Gregory is now assistant librarian, Missouri Botanical Gardens library, St. Louis.

C. Dake Gull has been appointed professor of library science and information systems consultant to the Aerospace Research Applications Center at Indiana University.

Omer Hamlin, Jr., has been named head librarian at University of Kentucky medical center.

William F. Harrison, Jr., has joined the University of South Florida library staff in Tampa, as assistant cataloger.

Morrison C. Haviland became assistant director of Tulane University's Howard-Tilton memorial library in February.

Charles L. Higgins is now librarian of Nazareth College, Rochester, N.Y.

Mary Jeannette Householder has been appointed librarian in the Department of the Army Special Services, Germany, Italy, and France.

Carroll Sam Iden is now in charge of library facilities at Delco Radio Division of General Motors Corporation, Kokomo, Ind.

Mrs. Dorothy B. Jamerson is curriculum materials and serials librarian at Savannah, Ga., State College.

Elizabeth Knapp is now head of public services at Sir George Williams University library, Montreal.

Richard James Lietz became reference librarian in the social sciences library at University of North Carolina, Chapel Hill, in December.

Mrs. Joanna Liu has joined the cataloging staff of Massachusetts Institute of Technology libraries, Cambridge.

William N. Locke, for eight years director of libraries and head of the department of modern languages at Massachusetts Institute of Technology, will devote his entire time to management and development of the libraries.

Frederick Lynden is newly-appointed to the staff of Bancroft library at University of California, Berkeley.

Michael J. Macahill is now head of technical services at Sir George Williams University library, Montreal.

Mrs. Kathleen A. McClane is reference librarian at University of Washington library, Seattle.

Margaret Otto has been named assistant science librarian at Massachusetts Institute of Technology, Cambridge.

Lucia N. Parker is a subject specialist in the reference division of the University of Washington library, Seattle.

Giles B. Robertson has been appointed head of public services of the undergraduate division library, University of Illinois, Chicago.

S. Donald Robertson is now head of the serials department at Wisconsin State College library, Whitewater.

Robert D. Schalau is now law reference librarian at Nevada state library, Carson City.

Hilda E. Steinweg has been appointed chief cataloging librarian at Ohio University, Athens.

Ruth Elaine Stone has been appointed lecturer and librarian for school of library science at University of North Carolina, Chapel Hill.

Eileen Thornton, librarian of Oberlin College, will be on leave until April 30 to visit universities and university libraries in England.

S. Padraig Walsh is head cataloger at University of Delaware's Morris library, Newark.

Lee H. Williams assumed the duties of assistant director for technical service, a new position, at State University of New York at Stony Brook on March 2.

Mrs. Muriel Wood became health sciences librarian at University of Washington, Seattle, in November.

FOREIGN LIBRARIES

Ludwig Bornhäuser is now director of the Westdeutsche Bibliothek in Marburg, Germany. He was director of the Hessische Landes- und Hochschulbibliothek at Darmstadt.

NECROLOGY

Svend Dahl, former director of the Danish Royal library, died on November 15.

Alice Gay, head cataloger at Occidental College, Los Angeles, since 1939, died in January.

Florence S. Hellman, chief of the former division of bibliography of the Library of Congress from 1938 to 1943, died on December 28 in Washington, D.C.
HIDEO KISHIMOTO, director of the University of Tokyo library since 1960, died on January 25.

LEO E. LAMONTAGNE, former assistant chief and principal cataloger in the subject cataloging division of Library of Congress died on December 25.

ANNA M. TARR, until her retirement librarian of Lawrence College, Appleton, Wis., died on December 26.

LUELLA B. MONTGOMERY TORR, retired librarian at Beekman Downtown Hospital in New York City, died on November 21.

## RETIREMENTS

EDITH E. AVERITT retired in February from the staff of University of North Carolina library, Chapel Hill, after nearly forty years of service, first in cataloging, then as geology-geography librarian.

### ACRL Membership

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<th>Section</th>
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<td>Total</td>
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<td>Rare Books</td>
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Approximately 750 members do not select membership in any ACRL Section, and almost 500 members select more than one ACRL Section. Over 1,500 are institutional memberships.

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**ACRL Preconference**

A conference on the bibliography of natural history under the auspices of the Rare Books section of ACRL and cosponsored by the University of Kansas libraries and the Linda Hall library will be held in Lawrence and Kansas City on June 25, 26, and 27. Registration will begin at noon on Thursday, June 25 on the University of Kansas campus where the program will continue through Friday evening. The Saturday morning session, June 27, will be at the Linda Hall in Kansas City, adjourning with a luncheon at noon. Bus transportation from Lawrence to Linda Hall will be provided on Saturday morning.

Program speakers will include historians of science, bibliographers, collectors, antiquarian dealers, and librarians. Several program participants from abroad are expected. The program will focus attention on the uses of rare books, manuscripts, and illustration in the historical studies of the natural sciences, and will seek to stimulate and advance studies of the bibliography of natural history in this country. A volume of proceedings will be published following the conference.

The final program and other details will be announced in April. Further information may be obtained by writing to Thomas R. Buckman, Director of Libraries, University of Kansas, Lawrence, Kans., who is in charge of program planning and local arrangements.

The conference registration fee is $30.00, which includes meals and lodging in a university dormitory near the Memorial Union and the library where the meetings will be held. All of the buildings used by the conference are air-conditioned.

Kansas City is easily accessible by air or rail from any part of the country. Lawrence is thirty-eight miles to the west by turnpike. Bus transportation will be provided on Thursday. St. Louis, site of the annual ALA conference in 1964, is less than an hour by air from Kansas City.

Everyone interested in the bibliography of natural history is invited to attend.
Charles Evans, American Bibliographer.

Here, at last, we have a very full, detailed biography of one of the great figures of American bibliography. The childhood, education, and early influential friendships are investigated, and their relation to the mature and old man pursued.

An orphan at nine, Charles Evans received most of his formal education at the Boston Asylum and Farm School for Indigent Boys. One can hardly imagine a less likely school for a bibliographer. At sixteen he went to work in the Boston Athenaeum as an apprentice in the library presided over by William Frederick Poole and later by Charles A. Cutter. This first job is the key to his whole life. While Poole lived, he continually advised and helped Evans.

Dr. Holley has had the use of all of the important sources for this biography, both published and unpublished, and he has also been careful to interview members of Evans’s family as well as others who knew and worked with him. Yet some questions remain unanswered, and may remain so always. Why was Evans so stubborn in sticking to bibliographic practices against which he was constantly warned by those whom he respected and trusted? Why did he invariably antagonize those in authority over the libraries he headed? This cost him his employment not once but several times, until at last he was no longer employable. By then his influential friends were dead.

How did he and his family live? From 1902 until his death in 1935 he held no salaried position but rather devoted his time to his great bibliography. Several times this work was stalled until his friends helped him borrow money to print the next volume. The profits from the venture could not have sustained the family. Dr. Holley has seen the Evans ledgers and bank books but does not tell us much about the family income. Perhaps the sources are unclear.

One rather serious piece of misinformation is the statement, on page 250, that Evans worked on each volume separately, and that he left, at his death, only a handful of titles for the 1801-1820 period. As a matter of fact, there are seventeen corset boxes full of his manuscript slips, representing many, many thousands of titles of that period, in the possession of the American Antiquarian Society. One explanation of this error is that the slips had not yet been found in an old trunk at the time Dr. Holley was in Worcester, but the reviewer saw and used these slips three years ago.

No one interested in American bibliography can do without this definitive biography of Charles Evans. One can only wish that Dr. Holley were a more felicitous writer and had edited this dissertation more rigorously before its publication. Much important information is relegated to the very voluminous footnotes, while at the same time, a good bit of trivia remains in the text. It probably is not cricket, however, to carp about style when presented with such a thorough, searching biography of an important American librarian and bibliographer. Dr. Holley deserves our thanks for his contribution to library history.—Richard H. Shoemaker, Rutgers University.


With this biography of Joseph Charless of Dublin, Pennsylvania, Lexington, Louisville, and St. Louis, David Kaser makes another solid contribution to the history of printing and publishing in nineteenth-century America. Charless is best known as the first Missouri printer, indeed, the first printer of the trans-Mississippi west (but not the first printer of the Louisiana Territory, since Braud, Boudousquié, and James Lyon had worked in New Orleans long before Charless saw St. Louis).

The story of Joseph Charless is not much different from that of John Bradford, Elihu Stout, Matthew Duncan, William Maxwell,
or other early Ohio Valley printers. The early tribulations of the frontier printer and his ultimate emergence as a community leader follow a fairly routine pattern. Charless is almost a prototype, although the others are all worthy of a biography. Professor Kaser refers to Joseph Charless as "a relatively unimportant man." Viewed from a perspective of world history, this comment is true; but viewed from the history of Lexington or St. Louis, Charless was an important man, a founding father of the community. Henry Clay thought Bradford and Charless were important enough to include them on his select list of card-playing companions.

With this captious note the present reviewer has exhausted any adverse criticism of Professor Kaser's work. Step by step, from the parish register of Killucan in County Westmeath, through the advertisements of Charless' St. Louis hostelry in his own Missouri Gazette, the source material on Charless has been excavated, interpreted, and put together to give a full picture of one of St. Louis' most important early citizens. As a practitioner of "the black art" Charless was a typical frontier printer and publisher but this rôle takes away none of his individuality.

The chapter on "The Kentucky Country" fills in the history of early printing, book-selling, and publishing in Lexington with several important details. If this chapter is any measure of the accuracy of other sections dealing with Charless against a local background (Ireland, Pennsylvania, or Missouri), Professor Kaser's use and interpretation of his sources cannot be questioned. The portrait of St. Louis in the first half of the nineteenth century is a chapter of western history which ought to be a point of departure for studies of the plains, Rockies, and far west. The merchants, factors, trappers, military men, politicians, and adventurers who created the mosaic of early nineteenth-century St. Louis are a part of this colorful picture of the first city of the trans-Mississippi west. The Story of Charless' feud with Thomas Hart Benton is a minor classic of American politics and journalism.

There are two appendices, one on Charless' family, giving short biographies of each of the five children, and the other giving a list of Charless imprints. Locations and full bibliographical descriptions of the latter would have been helpful, but most of this information can be found elsewhere and inclusion in this work would have expanded it to a point beyond which the commercially oriented university presses will not go without fat subsidies. Perhaps such a subsidy should be sought unless we want to wait for the next depression when we will again have an employers' market. There is a full index.

If the proto-typography of every North American jurisdiction were as well documented as is that of St. Louis with this study, life would be far easier for students of nineteenth-century American publishing, printing, and bookselling. The Ohio Valley, the "old Southwest," and the plains, Rockies, and Pacific coast urgently need this type of study. There are many rather superficial masters' essays and articles in state and regional historical journals on the life and work of individual early printers, but studies of the scope and quality of Professor Kaser's work are the exception. We may hope that a trend has been started with this work.—Lawrence S. Thompson, University of Kentucky.


The disclaimer on the dust jacket of this book, that it "is primarily for the newcomer to medical librarianship," is scarcely adequate to excuse the thinness of its contents. It is largely reportorial, citing miscellaneous facts and figures about hundreds of institutions, publications, and medical bibliographers. The Medico-Chirurgical Society of Aberdeen was founded in 1789, and among other things preserves the minutes of the society since that date; in 1947 the British Medical Association launched two abstracting journals, one of which lasted for only a few years; the name of Conrad Gesner's uncle was Hans Frick. These nuggets are interspersed with frequent rhetorical questions, pious homilies, and conventional exhortations. One-sixth of the volume is devoted to an alphabetical listing of 700 medical libraries, with dates of founding.

There is naturally a British bias to the
material, but even so one is surprised to find the chapter on "Libraries in Hospitals" dealing with all sorts of libraries, medical school libraries as well as medical sections of public libraries. There is little in the chapter on "Cataloguing and Classification" except outlines of various medical classification schemes, the finding that in 1957 nine out of 109 British medical libraries were using sheaf catalogs, and the fact that author catalogs are essential.

Mr. Thornton, the medical librarian at St. Bart's in London, has provided us with some useful works, but the book under review is not one of them. It is to be feared that the hope expressed—"that all medical librarians will find material for discussion in the summaries of controversial topics"—is entirely vain.—Frank B. Rogers, University of Colorado Medical Center.


This guide presents information on nearly twenty-four hundred French scholarly libraries and documentation centers. Since the present work will, for most purposes, replace the Répertoire des Bibliothèques de France (3 vols., Paris: Bibliothèque Nationale, 1950-51), the user's first reaction is to compare it with its predecessor. At the outset he notes the basic similarity: a directory of libraries and documentation centers with information presented on a fixed number of points and with an index to facilitate use. The differences between the two compilations fall into three groups: (1) scope, (2) information presented, and (3) arrangement.

The later directory has a narrower scope than the earlier; it includes only scholarly libraries and documentation centers and thus contains no information on the central lending services of the départements or on certain municipal libraries (even for those which are included there is no mention of lending and children's services or of branches). Beyond metropolitan France two libraries (in French Guiana and Guadeloupe) are included as well as one in Monaco, but gone of course are listings for Algeria. Neither Martinique nor Réunion (both in the earlier list) figure here. Nevertheless, total coverage has increased from 1634 to 2382 institutions, or about 45 per cent.

Each entry contains the following information: name of library or documentation center; name of parent organization to which it belongs; address, telephone number, cable and teletype address; hours of service and dates of annual closing; purpose and activities of parent organization; lending policies; subject strengths and special collections; statistics (1960) of volumes, additions, periodicals currently received and of other forms of material held; classification used; catalogs available; documentation (i.e., special bibliographical tools and services to facilitate the reader's work); translation services; union catalogs to which information is supplied; publications; photoduplication services; historical data and references. Although this corresponds generally to information found in the 1950-51 guide, three items (reading rooms; administration, including the names of the director and department heads; and source of funds) have been dropped, while three (classification, documentation, and translation services) are new. The fullness of entries varies; those for the larger libraries being longer and more complete than those for the smaller. As one might expect, the longest entry (I, 60-72) deals with the Bibliothèque Nationale; divided into eleven sections, it covers general information and the library's departments (viz., Maps, Acquisitions, Prints, Printed Books, Manuscripts, Oriental Manuscripts, Numismatics, Music, Serials, and the Annex at Versailles). The average listing seems to require between one-quarter and one-half page. In a few cases the Répertoire merely serves to indicate the existence of a collection, since little information is provided other than that access is strictly limited.

Users of the earlier compilation will recall that it devotes one volume to Parisian libraries, one to those in the provinces, and one to documentation centers. The new version incorporates the last category into the first two groups. The first volume, however, now comprises not only organizations in Paris but also those in the two surrounding
départements (Seine and Seine-et-Oise); and the arrangement of entries has also changed. The division into four parts (the Bibliothèque Nationale, the University of Paris, general libraries, and special libraries) has given way to an alphabetical arrangement by name of organization (from Abbaye Sainte Marie to Yacht Club de France). This has resulted in a considerable number of listings under such generic entry words as association, center, institute, laboratory, library, school, and society; the user with an inaccurate memory will of course search in vain for an entry under “Association” when the organization happens to be “Société,” but fortunately the key word entries in the index will solve most difficulties of this type. One undesirable result—at least to this reviewer—is that this practice scatters the libraries of the University of Paris through the volume (the index does not bring together all collections belonging to the same organization). Those interested in this very important (but complex) group can only do what this reader did: scan the entire volume, where he will find 117 entries (the first being no. 84, the last no. 958), plus three more in the supplement. Of the university’s seven libraries of first magnitude, four appear under Université de Paris (nos. 953, 954, 955 and 957), and the remaining three under their own names. (While this same objection applies in theory to the fifteen provincial universities, no city’s listings begin to approach those for Paris in number or complexity, and hence a relatively easy scanning of entries will produce the desired result.)

Volume II presents data for the remainder of the country, now grouped under cities rather than départements. By way of contrast with over eight hundred institutions in Paris (excluding those in Seine and Seine-et-Oise), entries for other leading cities total as follows: Grenoble 43, Lille 63, Lyon 68, Marseille 42, Strasbourg 71, and Toulouse 51.

Although Volume III contains supplementary entries and a list of cities and towns represented in the work arranged by département, it is devoted chiefly to an extensive index (146 pages), which deserves comment. This section contains in a single alphabet various kinds of entries: acronyms for all organizations so designated in the Paris region and a selection of those located elsewhere; former names of libraries, if a significant change has taken place; key words in names (especially useful for those names beginning with a generic term, as mentioned above); names of special collections; and subject entries. For the subject approach the introduction points out that some limitation in entries had to be made. Thus for libraries whose coverage is encyclopedic, only entries for subjects covered under the rubric “specialties” are provided. For such subjects as commerce, local history, and agriculture cross references lead to lists of cities with organizations like Chambers of Commerce, departmental archives, and libraries of the Direction des Services Agricoles, thus avoiding double listing under both subject and generic group. Each reference is to the number of the entry rather than to the page; subject listings give, in addition, the names of libraries. Generous use is made of cross references (both “see” and “see also”). To check on the accuracy of the index each item in the first three pages of “L” listings was searched; only two discrepancies appeared. One reference to Lamartine gave the correct number for the library but placed it in Aix-en-Provence instead of Aix-les-Bains. The other proved to be a blind reference; the Langeron collection does not appear in the entry cited (the Bibliothèque Municipale in Brest). The earlier Répertoire, however, lists both Langeron and Sardou collections for this library (neither mentioned in the present description); apparently entries from the earlier guide’s index were incorporated into the present directory without checking to see whether deletions had occurred in the listing itself.

To summarize, the improvements in the present directory of French libraries are four: (1) increased coverage for scholarly collections, (2) better arrangement, especially the listing under provincial cities, likely to be more familiar than names of départements, (3) a single index instead of three, and (4) a better physical appearance, resulting from larger and more legible type and coated paper.

The volumes are well printed; there are extremely few printer’s errors. Unfortunately they are paper-bound and the covers appear to detach with even the slightest use;
libraries will find it imperative to bind the volumes before making them available.—
William Vernon Jackson, University of Wisconsin.


William Frederick Poole (1821-1894) was one of the giants of librarianship. Yet there are probably few librarians who are familiar with his work, except for a vague awareness that he compiled the monumental nineteenth-century periodical index which bears his name. The library profession is fortunate indeed that William L. Williamson, Butler librarian, Columbia University, has revised his doctoral dissertation and produced the definitive treatise on Poole. Possibly the highest praise that can be given is that Williamson's biography does not read like a dissertation at all; it is an absorbing account of a "librarian whose career epitomized library development in the United States during the last half of the nineteenth century." Although Williamson apologizes for the lack of a complete picture of Poole the man because almost none of his private correspondence survives, he need not have. He has gleaned the public and printed sources well and there emerges a very human portrait of a man with a paternal interest in his subordinates, generous to his opponents, and zealous for his profession.

During the span of Poole's life he served as a student librarian at Yale, he was librarian of the oldest mercantile library (Boston) and the foremost social library (Boston Athenaeum), and he led two public libraries to greatness (Cincinnati and Chicago). His last seven years were years of "stress and strain" as he acquired collections, planned a building, and set the organization for what was to become one of the nation's great research institutions, the Newberry library. Williamson has recorded all of these activities with a clear insight into Poole's qualities as an administrator, both good and bad. Certainly one of Poole's most interesting innovations was his decision to use a sewing machine manufacturer in Europe as a transfer agent for paying the bills of his European book dealers!

Here too is the story of Poole and the ALA. One of the legends of librarianship, propagated by its high priest Melvil Dewey, has to do with Poole's initial opposition to the 1876 conference. Williamson treats the Poole-Dewey clashes with a thoroughness and fairness which leaves little question about the case. The present reviewer would like to obtain that correspondence to which Poole referred when he said that he had letters which showed the truth of the matter and even called into question Dewey's own claims to having originated the conference idea. No doubt Williamson would also have found them intriguing; but as he earlier remarks, "A collection of books, perhaps a building, some reports, catalogs, and correspondence, and a set of dry statistics are the major things a librarian leaves behind him" (p. 17). It is almost inexplicable that some of the chief figures in librarianship felt so little need to preserve their private correspondence.

Poole did become one of the major forces behind the ALA and was said "never to be so happy as when he went off by train on one of his regular trips to attend the association's conference" (p. 92). The association was also an important factor in the preparation of the third edition of the Index. By assigning the work of indexing certain journals to a number of libraries, Poole brought into being the first really significant cooperative venture among librarians. Yet his was the chief work, that of editor, and he also indexed by far the largest number of journals himself. Poole was positive that a cooperative enterprise could succeed at length because the final authority and direction were in the hands of one individual.

One of the unusual facets of this book is the author's willingness to make interpretations in terms of today's situation. Of Poole's falling into difficulties in his later years through lax administration, Williamson comments "It is an unfortunate but perhaps necessary characteristic of librarianship that the head of a library can never pick out and concentrate upon one aspect of his library's operation to the neglect of the whole. . . . The history of librarianship in the United States is filled with sad stories of librarians
who, having made great contributions and reputations, relaxed their vigilance over the whole in order to pursue one aspect which particularly appealed to them or in which they were particularly gifted" (p. 179). And in speaking of the Newberry's cataloging ar­rearage he remarks, "It is always difficult for a layman to understand that cataloging takes time and a certain amount of backlog is a necessity to efficient operation of a catalog­ing department." Not that Williamson ex-
cuses some of Poole's mistakes; he has given as objective a view as a biographer probably can, and there is no special pleading to cover his subject's weaknesses.

The reviewer shall resist the temptation to cover the final chapter with Williamson's evaluation of Poole's contribution to professional life. This is an excellent biography, well written and thorough, and every librarian ought to read it for himself.—Edward G. Holley, University of Houston.

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