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Status of Academic Librarians in Retrospect

A century ago few if any American academic librarians held faculty rank by virtue of their library work. Slowly some came to be recognized as responsible academic officers, usually at first without rank, and then in more recent years increasing numbers of them have been accorded full faculty status and rank. Although the struggle for improved status for academic librarians continues today, it does so "with increasing prospects for general acceptance."

The idea of the college and university librarian as a bona-fide member of the academic community has matured slowly, and rearguard actions against it continue to our own day. How far the profession has progressed over the past one hundred years may be judged by a brief historical review.

Examination of a cross section of the annual catalogs or registers of United States universities, private and public, for 1870-71 reveals something of the status of librarians in leading institutions nearly a century ago:

Columbia College (later Columbia University) lists the librarian, assistant librarian, and school of mines librarian under "Officers of Instruction and Government," without academic titles. California at Berkeley included William Swinton as librarian and Professor of English, under "Faculty and Officers." Cornell University placed Professor Willard Fiske as "Librarian" under a special heading after "Faculty of the University." Dartmouth College, however, recorded the librarian's name with "Faculty," though without rank. Harvard's solution was to list the librarian and assistant librarian under "Officers of Instruction and Government." The University of Illinois used a curious title: "Librarian and Assistant Teacher." Indiana University lumped the librarian under "College Officers." At Iowa State University, the librarian doubled as Professor of Latin. The University of Michigan included the librarian and assistant librarian under the heading of "Members of Faculties and Other Officers." There was a remarkable situation at the University of Minnesota, where William W. Folwell held the combined position of president and librarian. Neither Northwestern University, nor the University of Pennsylvania, nor the University of Wisconsin was sufficiently aware of the librarian's existence to mention him in its catalog. At Princeton, the librarian was Professor of Greek, and the assistant librarian was Tutor in Greek. Yale listed the librarian, assistant librarian, and registrar at the end of the section entitled "Faculty, Instructors, and Officers."

As of 1870-71, according to this representative sample, none of the univer-
Colleges gave their chief librarians academic titles, unless they were members of the teaching faculty. Apparently there was a feeling in some institutions that the head librarians ought to be grouped with the faculty, but what the relationship should be was undetermined. Consequently, the usual practice was to list them after the regular teaching staff, with their professional titles, together with registrars, museum curators, and other miscellaneous officers.

In extenuation of the institutions for their uncertainty about the place of librarians in the academic scene, it should be noted that a century ago American college libraries were in their infancy. When the American Library Association was organized in 1876, only two college libraries in the country contained more than fifty thousand volumes each, Harvard alone possessing more than one hundred thousand volumes. Library staffs were minuscule in size, in part because of the minuteness of the libraries and in part because demands on them were limited. Few faculty members held doctorates or carried on research, and students had little occasion to use the library collections.

In the famous 1876 United States Bureau of Education special report *Public Libraries in the United States of America,* F. B. Perkins and William Mathews proposed the creation of “professorships of books and reading,” to guide students through the mazes of what even then was regarded as a bibliographical explosion. The instruction recommended would be primarily for the acquisition of knowledge, “the scientific use of books,” i.e., sound methodology, and for “literary production.” A chair of books and reading, it was suggested, might be filled by “an accomplished librarian.” The first library school was still eleven years away.

By the beginning of the present century, modest advances in the status of librarians were evident. In no instance, however, among eighteen major universities checked did the librarian hold an academic title as librarian *per se.* The situation was as follows:

- Brown University listed the librarian, assistant librarian, and four library staff members with “Officers of Administration and Instruction.”
- California at Berkeley included the librarian in the Academic Senate, but without academic rank; the remainder of the library staff was lumped under “Assistants and Other Officers.”
- The University of Chicago recognized the librarian by making him a member of the University Senate and University Council.
- At Columbia, the librarian was among “Officers of Administration”; other staff members were listed at the head of a brief sketch of the library.
- Cornell listed the librarian and his staff as a group under “Officers of Instruction and Administration.”
- Harvard did the same.
- At Illinois, the librarian was a member of the Senate and Council and a professor, but by virtue of being director also of the library school; other librarians were listed with “Laboratory and Other Assistants.”
- Indiana used the heading of “Library Officers” following the listing of “Faculty.”
- Iowa placed the librarian with “Administrative Officers” and also listed the librarian and his staff as a group under “Members of the Faculties,” between lecturers and instructors. Under “Members of the Faculties and Other Officers,” Michigan placed the librarian with full professors, though without rank.
- At Missouri, the librarian was one of “Other Officers.”
- North Carolina included him among “Officers of Administration” and listed two other staff members under a sketch on the “University Library.”
- Northwestern’s heading of “Officers of Instruction and Government” included

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the librarian, and Pennsylvania named its librarian and assistant librarian under "Administrative Officers." Like Michigan, Princeton listed the librarian with full professors, but without an academic title; the associate librarian and reference librarian were in the list of assistant professors, again minus formal rank. A similar plan was followed by Stanford, where the librarian and associate librarian were grouped with associate professors, the assistant librarian with instructors, and other staff members with assistants. Both Texas and Wisconsin grouped the librarians and their staffs together following the listing of faculty and other officers. Finally, at Yale, the librarian and assistant librarian were under the heading of "Faculty and Instructors," again without titles; the rest of the library staff were with "Other Officers" at the end of the faculty list.

A definite trend is observable in the 1900-1901 sample in the direction of rating the head librarians as faculty, despite the fact that no breakthrough had been made toward conferring formal academic titles on them. Other than the chief librarians and one or two top associates, however, it is obvious that professional library staff members lacked any definite place in the educational hierarchy.

Voices crying in the wilderness were trying to make themselves heard at an early date. H. A. Sawtelle, writing on college librarianship, is quoted in the Library Journal, June 1878, as follows:

Time was when if a college librarian cataloged and placed his books and for half an hour twice a week charged the borrowed volumes and checked the return ones, he had sufficiently discharged his duty. But it has come to be understood that it becomes him to be daily ready to be consulted in relation to any book or subject, to converse freely with the students in regard to their reading, inspiring their literary interest, guiding their taste, bringing to their attention the right kind of appetizing works, and if needful gently leading on the reader from light and tasty books to those of high quality and permanent utility. To us nothing in the life of the college student seems to be of greater importance than just this inspiration and guidance. But all this is time consuming and requires no small amount of understanding and skill.

The writer concluded that such college librarianship as he described "ought not to be annexed to a professorship, but be itself a professorship."2

As early as 1891, President Gilman of Johns Hopkins University made the statement that: "The librarian's office should rank with that of professor. . . . The profession of librarian should be distinctly recognized. Men and women should be encouraged to enter it, should be trained to discharge its duties, and should be rewarded, promoted, and honored in proportion to the services they render."3

Enlightened librarians realized that they ought to have more clearly defined status, as is revealed by stirrings in the profession early in the current century. For example, W. E. Henry, librarian of the University of Washington, speaking at the ALA conference in Pasadena in 1911, after defending the training and scholarly nature of the work of college librarians, asserted:

With such preparation and such relationship to the educational processes I shall claim that the library staff must rank with the faculty or teaching staff of any department. The librarian or head of the staff should have the rank and pay of a professor; the assistant librarian . . . should be accorded the rank and pay of an associate professor; and the other members of the staff that of assistant professor or instructor, this to be determined by the nature of the work, the preparation and particular ability

required; and those not fitted to so rank should not be members of the staff but some other name should be adopted. 4

Mr. Henry's goal had not been achieved at the University of Washington at the time of his address. The librarian and five members of his staff were grouped under "Library Staff," without academic titles, near the end of the section on "Faculty and Officers." According to returns from questionnaires sent by Henry to sixteen college and university libraries across the country, however, he reported, "it appears that the librarian usually has the rank of a professor sans title."] Below the librarian all sorts of conditions prevail." 5

An important step forward was taken in the same year, 1911, by the Columbia University trustees, who ruled: "The librarian shall have the rank of professor, the assistant librarian that of associate professor and the supervisors shall rank as assistant professors and bibliographers as instructors." From Harvard University it was reported that "librarians and assistant librarians" were eligible to participate in the faculty retirement system.

A few years later, E. C. Richardson, noted librarian of Princeton University, reviewed the place of the library in a university and concluded that its position would be determined by the effectiveness with which its teaching function was discharged. Richardson pointed out that the growth of research work, the advent of the research professor, and the establishment of library schools had brought librarians "into the circle of the teaching faculties." 6 Authoritative support for this contention came from President Nicholas Murray Butler of Columbia, who held that the library was coordinate with the various professional schools and main departments of the university, the librarian ranking as a dean, and various members of the professional staff standing in parallel order with professors, assistant professors, and instructors of the other faculties. 7

About the same time a strong statement from W. N. C. Carlton, librarian, Newberry Library, objected to the fact that in some institutions "the librarian is not granted a seat and vote in the faculty. This," the writer went on, "is a viciously bad practice. Its evils are too patent to need illustration. If a man is not qualified for the duty and responsibility of sharing in the debates, consideration, and decisions relating to general university policy and administration, he ought not to be appointed librarian, whatever his technical qualifications may be." 8

A subordinate staff member was heard from nearly fifty years ago when J. T. Jennings, then reference librarian of Iowa State College, wrote about "Librarianship as a Profession in College and University Libraries." Jennings was convinced that the chief librarian's position in most college and university communities had become well established "in dignity, in importance, in salary," ranking as the head of one of the most important departments. "But what about the remainder of the library staff?" he asked. "With the exception of a possible assistant librarian they are usually considered 'mere clerks,' as is shown by their salaries, their hours of work, and the attitude of their superiors toward granting them opportunities for advancement." Jennings was inclined to blame this state of affairs on the head librarians who were not sufficiently energetic in encouraging and assisting junior staff members to improve their educational and professional prepara-

5 Ibid., 262.
7 Ibid., V (1911), 13.
8 W. N. C. Carlton, "Universities and Librarians," Public Libraries, XX (December 1915), 455.
tion, as junior members of the teaching faculty were expected to do.9

The same conclusion was reached by another reference librarian, Edith M. Coulter, of the University of California, writing in 1917. Even the chief librarians, she pointed out, lacked certain privileges customarily belonging to the teaching faculty, such as extended vacations, leaves of absence, and sabbaticals for advanced study and research. Proper recognition would come to librarians, Miss Coulter held, if they participated more actively in teaching e.g., bibliographic instruction to university students; if the programs of library schools were standardized, more doctoral degrees were held by librarians, requirements for appointments to university library staffs were raised, professional and clerical duties were differentiated, and more study and research were done by librarians. Miss Coulter displayed remarkable foresight in urging a doctoral program in library science more than a decade before the establishment of the graduate library school in Chicago.10

The first full exploration of the status of professional librarians was undertaken by George A. Works, in his *College and University Library Problems*, based on data collected in 1925. In a chapter devoted to the subject, Dr. Works reviewed types of library work, factors affecting the status of a library staff, current conditions, the relative preparation of library and teaching staffs, comparative salaries, work schedules, and retirement provisions. Among the important conclusions were these: (1) insufficient distinction is made in libraries between clerical and professional types of service, but there are a number of positions in every large library whose requirements in professional education and experience are comparable with the requirements for positions in the various grades in the teaching staff; (2) among the seventeen institutions studied, wide differences were found, varying from those in which librarians held faculty rank to others in which the library staff, except the librarian and perhaps one or two others, were classified as clerical; (3) in some universities, e.g., Columbia and Stanford, librarians were given equivalent status, but not considered members of the instructional staff; (4) except for the head librarian, salaries of the library staff were generally lower than those of comparable members of the faculty; (5) the academic preparation of faculty members of all professional ranks was more advanced than that of library department heads; (6) no account was taken of the fact that annual periods of service were ordinarily longer for members of the library staff than for the teaching staff; (7) retirement provisions varied: seven institutions had no allowance for faculty or librarians; six had the same retirement arrangements for both groups, and three had different arrangements for faculty and librarians.11

A decade later an outstanding university president, Henry M. Wriston, whose ideas have had considerable impact on academic library service, set forth his concept of the proper relationships between the college librarian and the teaching staff. "The librarian," concluded Dr. Wriston, "despite his administrative duties is primarily an officer of instruction. He should have the scholarly interests and tastes which are expected of other members of the faculty. He should be given faculty status and should participate in all the committee and other discussions incidental to that status." In harmony with this proposal, the writer added that the li-

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10 Edith M. Coulter, "The University Librarian: His Preparation, Position and Relation to the Academic Department of the University," *Bulletin of the American Library Association*, XVI (July 1922), 271-75.

brary "should be treated not as an ancillary enterprise but as one of the central sources of motive power for the operation of the institution."\(^{12}\)

During the past thirty years, the literature relating to the status of college and university librarians has proliferated, including the findings of a number of comprehensive surveys. The first, after Works, was Miriam C. Maloy's study, published in 1939. Among the 129 institutions investigated, Mrs. Maloy found that ninety-eight chief librarians had faculty status, and thirty-one did not; among assistant and associate librarians, thirty had faculty status and forty did not; department heads had faculty status in twenty-seven libraries and no academic rank in four; and professional assistants were granted faculty status in twenty libraries, but not in thirty others. In each of the four categories, the status frequently was nominal.\(^{13}\)

Following shortly after the Maloy study were a number of other general or limited investigations: James A. McMillen examined the status of library staff members of large universities (1940);\(^{14}\) Robert W. McEwen, the status of college librarians (1941);\(^{15}\) Rice Estes; faculty status in the City College Libraries (1941);\(^{16}\) general surveys were reported by Leonard H. Kirkpatrick (1947),\(^{17}\) Morris A. Gelfand (1948),\(^{18}\) Humphrey G. Bousfield (1948),\(^{19}\) and by Frank A. Lundy (1951)\(^{20}\) and Lawrence S. Thompson (1952)\(^{21}\) as well as by Robert B. Downs (1954 and 1957);\(^{22}\) and Robert H. Muller reviewed the question of faculty rank for library staff members in medium-sized universities and colleges (1953).\(^{23}\) Evidence of lively continued interest is shown by more recent articles published by Carlson,\(^{24}\) Knapp,\(^{25}\) Branscomb,\(^{26}\) McAnally,\(^{27}\) Veit,\(^{28}\) and others.

Progress achieved by university librarians since the first feeble beginnings a century ago may be estimated further from a summary of conditions prevailing in 1964.\(^{29}\) Academic status for librarians, it was then reported, had become firmly established in a considerable number of American universities. New converts, principally among state institutions, had swelled the ranks of those universities where librarians are accorded the responsibilities and perquisites of academic or faculty status. Considerable diversity was discovered, however, among the forms of recognition received. In certain instances, agreement upon the principle of academic standing for librarians was limited or qualified.

The struggle by academic librarians for improved standing obviously continues, but with increasing prospects for general acceptance.


\(^{13}\) Miriam C. Maloy, "Faculty Status of College Librarians," ALA Bulletin, XXXIII (April 1939), 232-33, 302.

\(^{14}\) James A. McMillen, "Academic Status of Library Staff Members of Large Universities," CRL, I (March 1940), 138-40.

\(^{15}\) Robert W. McEwen, "The Status of College Librarians," Ibid., III (June 1942), 256-61.

\(^{16}\) Rice Estes, "Faculty Status in the City College Libraries," Ibid., III (December 1941), 43-45.

\(^{17}\) Leonard H. Kirkpatrick, "Another Approach to Staff Status," Ibid., VIII (July 1947), 218-20.

\(^{18}\) Morris A. Gelfand, "The College Librarian in the Academic Community," Ibid., X (April 1949), 129-34, 139.

\(^{19}\) Humphrey G. Bousfield, "College Libraries with Dual Roles," Ibid., IX (January 1948), 25-32.

\(^{20}\) Frank A. Lundy, "Faculty Rank for Professional Librarians," Ibid., XII (January 1951), 11-19, 109-22.

\(^{21}\) Lawrence S. Thompson, "Preparation and Status of Personnel," Library Trends, I (July 1953), 95-104.

\(^{22}\) Robert B. Downs, "Are College and University Librarians Academically?" CRL, XV (January 1954), 9-14; and "The Current Status of University Library Staffs," Ibid., XVIII (September 1957), 375-85.


\(^{27}\) Arthur M. McAnally, "The Dynamics of Securing Academic Status," CRL, XVIII (September 1957), 386-95; and "Privileges and Obligations of Academic Status," Ibid., XXIV (March 1963), 102-08.

\(^{28}\) Fritz Veit, "The Status of the Librarian According to Accrediting Standards of Regional and Professional Associations," Ibid., XXI (March 1960), 127-35.

Guards, Turnstiles, Electronic Devices, and the Illusion of Security

Based on evidence indicated by a four-year study of book thefts, the author offers hypotheses to show the conditions under which books will be stolen and theories to explain why they are stolen. He proposes the theory that scholastic pressure, resulting in high potential use of a collection by persons granted access but denied borrowing privileges, will result in a high rate of loss. The paper concludes with explanations as to why current methods of exit control are ineffective, and what librarians might do to alleviate the problem.

The purpose of this paper is to examine the problem of book thefts—the volume, rate, and cost of thefts in academic libraries, as indicated by a study of one library over a period of some four years. This, however, is but one purpose, for besides presenting the grim and dismal facts, the author hopes to establish a relationship between thefts and some of the factors which may influence losses, such as rate of growth of the collection, intensity of use, location of the library, and borrowing policies. The theories and hypotheses presented will be the foundation upon which attempts will be made to fathom the motivation of book stealing and to construct a general theory of thievery. Theories, hypotheses, and even opinions, then, there will be; but when all is said and done, the fundamental significance of the problem does not rest for belief or doubt on opinion but rather on fact, or, failing that, at least on the distinct probability that academic libraries not only lose books but lose them in considerable numbers.

It may surprise, or it may dismay, the reader that this should be the raison d'être of an entire essay. "Everybody knows that books are stolen!" it may be said, perhaps in derision. But in fact does everyone understand the true nature of the problem? Perhaps not. For in what volume, or at what rate are books stolen? Are the losses increasing, decreasing, or constant over a period of time? What connection, if any, is there between losses and the number of duplicate copies available? What is the cost of book thefts? And, finally, if everybody does understand the problem, why has so little been done about it? The questions that may be asked are legion; the answers, unfortunately, seem to be in short supply. The literature is not lacking in comments on security in general and book thefts in particular, but it seems to be notably lacking in what could be called a "control" study. Insofar as such a study of book thefts and li-

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1 At least one writer has expressed the opinion that thefts represent something less of a problem today (written in 1956) than in years past, primarily because of mass production of books and relaxation of lending regulations. See Rolland E. Stevens, "Loss of Books and Library Ownership Marks," in CRL, XVII (November 1956), 494.
The need for real and factual evidence is obvious, at least to this writer. What is less obvious is the apparent paucity of statistical evidence. There are, one might propose, three basic reasons for this. In the first place, there is a natural hesitancy to attempt to discover the true extent of losses, not only because of the possible traumatic effect, but because when the truth becomes known something will have to be done about it. Second, some librarians feel that nothing can be done about it, that losses are an inescapable condition of open stacks and free access. And third, the prevailing opinion seems to be that inventories are too expensive, that the cost of such an undertaking is far greater than the monetary loss in books.

This harks back to reason one. But is it true? It is difficult at best to equate book losses, especially of out of print books, with anything, even time and reader inconvenience. Doubtless a yearly inventory of an entire collection is out of the question; but research in such depth is hardly necessary to determine with a great degree of accuracy what the over-all losses are, the factors influencing these losses, and the direction in which one must proceed in order to control them. One can discover just what is to be expected throughout the collection, and so determine rate, volume, and cost by means of a fairly small sample.

After many hours conducting the present study, the author found to his amazement that he was not dealing in hundreds of dollars but in tens of thousands. Disregarding for the moment the not insignificant costs involved in locating, buying, and cataloging replacements, let alone the irretrievable inconvenience to borrowers, the library's losses in monetary equivalent exceeded $150,000 over a three-year period. An inventory is expensive in terms of time or money or both—perhaps it should be a "labor of love," to use a favorite expression—but in wandering about the stacks in the early hours of the morning, in the nascent glimmering of still another day one has time in which to consider how the library might have enriched its collection had it not been required to spend so much in replacing missing books. It is at this time that the real tragedy of book losses becomes manifest.

Obviously the library itself is not the principal sufferer in these matters. It is the public that has the most to lose in tolerating book losses; and the attitude of the borrowing public toward library security problems is strange and perplexing. Indeed, it affords a major clue in unraveling the mysteries of borrower morality. A department store manager, for example, who reported to his board of directors that ten per cent of the annual inventory had been lost to shoplifters might well expect those gentlemen—in the manner related by Dostoevsky's Marmeladov—not to chase him out of their presence with a stick, but to sweep him out with a broom. Consequently, department store managers, as well as others in comparable occupations, have clamored long and loud about pilfering and what to do about it and have gained, to a certain extent, the support of a righteously indignant public. It may be that the public is more concerned with price increases than with the morality of the thing; but whatever the reason, shoplifting is beginning to receive the attention many

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2 Statistical evidence is not entirely lacking. The Brooklyn public library has reported appalling losses. See: "Brooklyn Takes Action on 'Staggering' Book Losses," in Library Journal, LXXXVII (July 1962), 2509.

3 Open stacks to all, but free access to what? That is the question. What is the great virtue of free access if the desired book cannot be found? Access and availability must go hand in hand, else the value of open stacks is greatly diminished. And besides, who benefits if the library must spend part of its book funds for replacements? Such queries bring up the pertinent question of just when the library finally reaches the point where book losses become intolerable.
think it deserves. But in libraries, the situation seems to be different. Perhaps because we are so eager to rid ourselves of the last vestiges of the custodial image, we have done little to overcome the problem or to educate the public in the matter of thefts.

Education is desperately needed. The prevailing attitude seems at times to be that it is a person's "right" to steal a book, much as it is his "right" to walk on the grass in front of city hall, if he so chooses and as long as he is not caught. Why, a borrower might ask himself, cannot I take whatever I want from the library? Who owns these books, anyway? It is a curious but by no means inexplicable attitude. It stems in large part apparently from a kind of arrogant individuality and from immaturity. That adults, too, steal books does not negate the argument, for age alone has never been a guarantee of maturity. The individual in this country, or perhaps in any country, for that matter, seems to have far greater respect for individual property than for corporate or public property. A man's property is his own; therefore to an honest man it is sacrosanct; but public property, to that same honest man, whatever its form, belongs to all; ipso facto, stealing a library book is not really stealing at all.

**SUBJECTS SELECTED FOR STUDY**

Ten LC classes were selected for the present study. They were:

*Social sciences*
- Psychology (BF)
- Sociology (HM-HX)
- Political science (J)

*Language and literature*
- English literature (PR)
- American literature (PS)

*Humanities*
- English history (DA)
- French history (DC)
- American history (E)

*Other*
- Medicine (R)
- Military and naval science (U-V)

From a statistical aspect, a purely random sample of classes would have been preferable and might have resulted in slightly less deviation in the projections which were made to include the entire collection. There were several reasons for not taking a random sample. One was the desire to compare classes experiencing heavy, moderate, and light use. Although the entire collection might have been divided into three parts according to degree of use, and the selection made from there on a random basis, certain obstacles stood in the way of doing this. The inclusion of class R, for example, which in the main library consists in the majority of books pertaining to psychiatry, made it possible to join (and compare) R with BF, to which it is closely allied. To have been able to include BF and R in the sample by means of random selection would obviously have been all but impossible. Second, another purpose of the study was to compare subject areas, such as between humanities and literature. Here, too, a random selection would not have accomplished the desired purpose. Finally, certain classes had to be arbitrarily eliminated because most of the books in those classes were in other libraries on the campus.

In conclusion, although the principal purpose of the project was to determine over-all losses by means of a sample, to have eliminated classes not represented in the main library and to have divided the remainder by use and then by subject would have fragmented the collection to such an extent that a true random selection would have been virtually impossible, and, in addition, would probably have defeated two major purposes of the study. The sample used, on the other hand, is large enough and covers such a broad spectrum of classes both
in use intensity and other important characteristics, to warrant belief that the figures gathered can be projected to encompass the entire collection in the main library.

Books in the social sciences receive much greater use than those in the humanities, and about the same as those in literature. Psychology and sociology represent high circulating classes, whereas political science falls considerably below average, at least in comparison with the other social sciences. All books in the western languages and literatures (including classical literature!) enjoy heavy use; therefore PR was selected because it represents an average, and PS because it was known that American literature was entering a stage of very rapid growth. Finally, military and naval science was selected because it was virtually a dormant collection. But interest in military science—as in guerrilla warfare—mushroomed shortly after the study began; and to a certain extent this was fortunate, because U-V circulation increased from less than .5 per cent to more than 4 per cent in one year, while losses, which were infinitesimal in the pilot inventory, increased as circulation increased.

**HYPOTHESES AND THE CONDITIONS UNDER WHICH BOOKS WILL DISAPPEAR**

The hypotheses adopted for the study represent intralibrary conditions, involving both borrowers and the book collection, which encourage or deter book thefts. There are, in addition, other conditions, which alternately might be called interlibrary factors, over which the library may or may not have control. As it turned out, these conditions have even greater influence over losses than intralibrary factors. Because they are theoretical (not in the dictionary definition of a theory as “an analysis of a set of facts,” but defined as “a more or less plausible general principle offered to explain phenomena”), and difficult to verify, they can be proved or disproved only after investigation by many libraries.

**Hypotheses (intralibrary factors):**

1. A collection of large size, relative to another collection within the same library building, will suffer a lower rate or percentage of loss; the larger the collection, the lower the rate. The actual number of books lost may be greater, but the rate of loss will be lower. The reason for this is that borrowers have a greater range of selection and will be less inclined to appropriate a particular book for their exclusive use. The obvious weakness in this hypothesis is that a large collection in one subject area may not be comparable to a smaller collection in another subject area, particularly if the larger collection has not been kept up-to-date. If, however, the intensity of use of the two collections is comparable, the hypothesis should be valid.

2. In any given collection, a higher ratio of multiple copies to volumes will result in a lower rate of loss. This is because borrowers will have greater opportunity of securing titles in great demand, and therefore will be less inclined to take a copy for their exclusive use. This hypothesis presupposes that the library will have multiple copies of titles in demand at the time and not merely many copies of books used at some time in the past. It also assumes an awareness on the part of the borrower that multiple copies are available.

3. The greater the intensity of use made of any collection, the higher the rate of loss will be, because a greater number of borrowers will be competing for a fixed number of volumes.

4. It follows, then, that given a constant rate of use, a collection experiencing a greater rate of growth will suffer a declining rate of loss. The difficulty here is that it is impossible to control the
rate of use and difficult to predict the rate of growth. In addition, the state of the collection is of considerable importance. A relatively undeveloped collection undergoing rapid expansion with basic titles will differ markedly from one which is already fairly well developed and being filled out with peripheral titles. This makes rate of growth a rather nebulous concept; however, in conjunction with the first hypothesis above, a rapid rate of growth should promote a declining rate of loss.

5. The greater the number of books on reserve (i.e., closed reserve), the lower will be the rate of loss. The reason for this, presumably, is decreased access. Hypotheses one, two, four, and five represent inverse ratios, that is, the higher or greater the first (controlling) factor, the lower will be the second (rate of loss). Hypothesis three, on the other hand, represents a direct ratio. The various hypotheses must be presumed to be interdependent—a large collection being used intensively will experience a greater loss rate than one of equal size undergoing less use, but its loss rate should be lower than that of a smaller collection being used with equal intensity, of a collection of equal size with a lower ratio of multiple copies. And so on.

The weakness in proposing hypotheses to predict book losses is lack of control. This is especially true in the short run. The number of multiple copies can perhaps be controlled over the long run, as can rate of growth to a limited extent. Size, quite naturally, is largely a product of age, unless as a matter of policy size is restricted. Intensity of use is a factor the library should not even attempt to control, except by increasing the rate of growth. But even though control over the hypothetical factors is not always possible, it does not seem unreasonable to expect the factors named to have some influence over losses.

There are other intralibrary factors which will affect the rate of book loss. These factors involve the library and its patrons, but do not, except in one case, involve the book collection directly.

6. Relevancy of collection. Since books are stolen almost exclusively because people want to use them, a library that maintains a collection that is not or cannot be used will experience a low loss rate in that collection. A library with an Oriental collection, for example, but existing in an environment that includes no one who reads Oriental languages, may expect its losses in Orientalia to be practically nil. Why the library would have such a collection is another matter.

7. Lending policy, including the degree of difficulty involved in obtaining a library card and the subsequent difficulty encountered in trying to borrow a book. The less red tape involved in obtaining and using a library card, the less a potential borrower will be tempted to "borrow" a book illegally. This thesis—free access without borrowing privileges—will be explored in greater detail further on.

8. Type of exit control. This factor will also be considered in some detail later. It suffices to say at this time that exit controls, regardless of their type, are successful only to the extent that they keep honest men honest. No exit control can frustrate the designs of a determined thief, unless he is totally inept.

**Theories (interlibrary factors):**

Interlibrary factors come into play between one library and another, or between the same library in two time periods, and between the library and the community it serves.

9. Open or closed stacks. It would seem beyond question that a library with closed stacks would suffer fewer losses than one with open stacks. And yet it cannot be proved. It is virtually impossible to compare an open stack library with one having closed stacks, even if they are comparable institutions in the
same area. Furthermore, a single library with open stacks at one time and closed at another cannot compare the difference very readily because so many conditions will have changed in the interim.

10. Type of borrowing public. A university library serving primarily graduate students, or a public library serving mainly post-school adults, should experience lower losses, because there will be less concentration on the basic core collection, which exists in every library, and more on peripheral works relating to the particular interests of the individual borrower. There will be less competition for specific titles; therefore less likelihood of their being removed surreptitiously.

11. Urban or rural location. A library located in a rural or small town area should suffer lower losses than a comparable institution in an urban area, because losses in an urban public or university library will vary directly with the quality of other libraries—specifically college and school—in the area. The ratio of potential patrons to total library resources may be the same in both areas, but in a rural area the patrons may have but one (convenient) choice, whereas in an urban area, the library with the finest collection will find itself serving a disproportionately high number of borrowers. If the urban school and college libraries cannot meet the needs of their students, and apparently many cannot, their students will eventually gravitate to the well equipped public or university library; and if it is the policy of those libraries not to lend to high school or college students, some may find the temptation, a product of desperation and immaturity, to remove books irresistible.

THE STUDY

A word about percentages. Several sets of percentages will be offered, pertaining to use, number of multiple copies, books on reserve, rate of growth, and, finally, number of volumes missing. Since the figures for losses are of the greatest importance and will be the only figures projected to include the entire collection—and in the process converted into a monetary equivalent—they are the only ones which will be carried to two (or four, as in a decimal) places, in order to assure the greatest degree of accuracy. This will be done even though it is a known statistical principle that the results of any computation cannot be more accurate than the least accurate figure involved. But in the use here, although loss figures will be compared with other figures, they will not be involved in computations with them; therefore we can be excused for a little variation from the rule. This being the case, in all calculations other than volumes missing, a figure such as 7.48 per cent, for example, will be rounded off to the nearest significant figure, e.g., 7.5 per cent.

Method of anticipating books that will be found. A certain number of books thought to be missing in any one year will be found the following and subsequent years, consequently some method must be devised to account for them, otherwise the loss figures for the last year of the inventory will be disproportionately higher than those of the first. If we know how many of the books missing in 1963 (the first year of the inventory) are found in 1964, 1965, 1966, and 1967, respectively, we should be able to determine how many will be found in 1968, 1969, and so on, as well as how many of those missing in 1964, 1965, and 1966 will be found in ensuing years. We can in this manner reduce our loss figures accordingly.

The experience available indicates that subsequent to the number of missing volumes found the first year following the inventory, roughly two-thirds as many will be found the third year as were
### TABLE 1

<table>
<thead>
<tr>
<th>Year</th>
<th>Volumes</th>
<th>Duplicate Copies</th>
<th>Total Volumes</th>
<th>Per Cent Rate of Growth</th>
<th>Volumes Missing</th>
<th>Per Cent of Volumes Missing</th>
<th>Volumes in Circulation</th>
<th>Per Cent</th>
<th>On Reserve</th>
<th>Per Cent</th>
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<td>(121.33)</td>
<td>121</td>
<td>1.95</td>
<td>(121.33)</td>
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<td>1,075</td>
<td>5,161 = 20.8 per cent</td>
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Class DA (History—Great Britain) | | | | | | | | | | | |
| 1963 | 6,987   | 318              | 7,305         | 2.6                     | 25             | .33                       | 104                    | 1.4      | 196       | 2.6      |
| 1964 | 7,156   | 337              | 7,493         | 3.8                     | 31             | .40                       | 115                    | 1.5      | 200       | 2.6      |
| 1965 | 7,402   | 379              | 7,781         | 4.2                     | 33             | .41                       | 122                    | 1.5      | 213       | 2.6      |
| 1966 | 7,695   | 409              | 8,104         | 3.5                     | 30             | .38                       | 114                    | 1.5      | 203       | 2.6      |
| Average | 7,418 | 375              | 7,793         | (29.67)                 | 30             | .38                       | 114                    | 1.5      | 203       | 2.6      |
| Ratio of duplicate copies to volumes | 375 | 7,418 = 5.1 per cent |

Class DC (History—France) | | | | | | | | | | | |
| 1963 | 4,816   | 189              | 5,005         | 2.4                     | 21             | .41                       | 81                     | 1.6      | 108       | 2.1      |
| 1964 | 4,925   | 200              | 5,125         | 3.1                     | 22             | .42                       | 88                     | 1.7      | 110       | 2.1      |
| 1965 | 5,063   | 223              | 5,286         | 3.6                     | 19             | .35                       | 88                     | 1.6      | 117       | 2.1      |
| 1966 | 5,226   | 249              | 5,475         | 3.0                     | 21             | .39                       | 86                     | 1.6      | 112       | 2.1      |
| Average | 5,071 | 224              | 5,295         | (20.67)                 | 21             | .39                       | 86                     | 1.6      | 112       | 2.1      |
| Ratio of duplicate copies to volumes | 224 | 5,071 = 4.4 per cent |

Class E (America [general] and United States [general]) | | | | | | | | | | | |
| 1963 | 8,037   | 908              | 8,945         | 1.7                     | 58             | .64                       | 220                    | 2.4      | 469       | 5.2      |
| 1964 | 8,152   | 946              | 9,098         | 3.5                     | 65             | .69                       | 248                    | 2.6      | 479       | 5.1      |
| 1965 | 8,436   | 978              | 9,414         | 8.1                     | 64             | .63                       | 330                    | 3.2      | 548       | 5.4      |
| 1966 | 9,135   | 1,039            | 10,174        | 4.4                     | 62             | .65                       | 266                    | 2.8      | 499       | 5.2      |
| Average | 8,574 | 988              | 9,562         | (62.33)                 | 64             | .65                       | 266                    | 2.8      | 499       | 5.2      |
| Ratio of duplicate copies to volumes | 988 | 8,574 = 11.5 per cent |

* Averages derived from 1964-1966 only.
### TABLE 1 (cont.)

<table>
<thead>
<tr>
<th>Year</th>
<th>Volumes</th>
<th>Duplicate Copies</th>
<th>Total Volumes</th>
<th>Per Cent Rate of Growth</th>
<th>Volumes Missing</th>
<th>Per Cent of Volumes Missing</th>
<th>In Circulation</th>
<th>Per Cent</th>
<th>On Reserve</th>
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<td><strong>559</strong></td>
<td><strong>5.3</strong></td>
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<td><strong>Ratio of duplicate copies to volumes</strong></td>
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<td><strong>9,701</strong></td>
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<tr>
<td><strong>Average</strong></td>
<td><strong>19,333</strong></td>
<td><strong>2,255</strong></td>
<td><strong>21,588</strong></td>
<td><strong>5.6</strong></td>
<td><strong>240.33</strong></td>
<td><strong>1.11</strong></td>
<td><strong>1,163</strong></td>
<td><strong>5.4</strong></td>
<td><strong>1,059</strong></td>
<td><strong>4.9</strong></td>
</tr>
<tr>
<td><strong>Ratio of duplicate copies to volumes</strong></td>
<td><strong>2,255</strong></td>
<td><strong>19,333</strong></td>
<td><strong>11.7</strong> per cent</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Class PS (American Literature)</td>
<td>1963</td>
<td>1964</td>
<td>1965</td>
<td>1966</td>
<td>Average</td>
<td>Ratio of duplicate copies to volumes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------------</td>
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<td>------</td>
<td>---------</td>
<td>-------------------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1963</td>
<td>7,546</td>
<td>813</td>
<td>8,359</td>
<td>1,220</td>
<td>11,258</td>
<td>10,153</td>
<td></td>
<td></td>
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<tr>
<td>1964</td>
<td>8,475</td>
<td>969</td>
<td>9,444</td>
<td>1,127</td>
<td>11,473</td>
<td>10,153</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1965</td>
<td>10,346</td>
<td>1,127</td>
<td>11,473</td>
<td>1,220</td>
<td>11,473</td>
<td>10,153</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1966</td>
<td>11,638</td>
<td>1,220</td>
<td>12,858</td>
<td>1,220</td>
<td>12,858</td>
<td>10,153</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>10,153</td>
<td>1,105</td>
<td>11,258</td>
<td>1,105</td>
<td>11,258</td>
<td>10,153</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ratio of duplicate copies to volumes</td>
<td>1,105</td>
<td>10,153 = 10.9 per cent</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Class R (Medicine)</th>
<th>1963</th>
<th>1964</th>
<th>1965</th>
<th>1966</th>
<th>Average</th>
<th>Ratio of duplicate copies to volumes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1963</td>
<td>2,449</td>
<td>407</td>
<td>2,840</td>
<td>439</td>
<td>2,750</td>
<td>2,750</td>
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<tr>
<td>1964</td>
<td>2,570</td>
<td>407</td>
<td>2,977</td>
<td>439</td>
<td>2,750</td>
<td>2,750</td>
</tr>
<tr>
<td>1965</td>
<td>2,763</td>
<td>431</td>
<td>3,194</td>
<td>479</td>
<td>2,750</td>
<td>2,750</td>
</tr>
<tr>
<td>1966</td>
<td>2,916</td>
<td>479</td>
<td>3,395</td>
<td>479</td>
<td>2,750</td>
<td>2,750</td>
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<tr>
<td>Average</td>
<td>2,750</td>
<td>439</td>
<td>3,189</td>
<td>61.6</td>
<td>2,750</td>
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<tr>
<td>Ratio of duplicate copies to volumes</td>
<td>439</td>
<td>2,750 = 16.0 per cent</td>
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<table>
<thead>
<tr>
<th>Class U-V (Military and Naval Science)</th>
<th>1963</th>
<th>1964</th>
<th>1965</th>
<th>1966</th>
<th>Average</th>
<th>Ratio of duplicate copies to volumes</th>
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</thead>
<tbody>
<tr>
<td>1963</td>
<td>831</td>
<td>28</td>
<td>859</td>
<td>49</td>
<td>974</td>
<td>974</td>
</tr>
<tr>
<td>1964</td>
<td>892</td>
<td>31</td>
<td>923</td>
<td>52</td>
<td>974</td>
<td>974</td>
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<tr>
<td>1965</td>
<td>974</td>
<td>52</td>
<td>1,026</td>
<td>65</td>
<td>1,023</td>
<td>1,023</td>
</tr>
<tr>
<td>1966</td>
<td>1,055</td>
<td>65</td>
<td>1,120</td>
<td>49</td>
<td>1,023</td>
<td>1,023</td>
</tr>
<tr>
<td>Average</td>
<td>974</td>
<td>49</td>
<td>1,023</td>
<td>49</td>
<td>1,023</td>
<td>(19.33)</td>
</tr>
<tr>
<td>Ratio of duplicate copies to volumes</td>
<td>49</td>
<td>974  = 5.0 per cent</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<table>
<thead>
<tr>
<th>Composite</th>
<th>1963</th>
<th>1964</th>
<th>1965</th>
<th>1966</th>
<th>Average</th>
<th>Ratio of duplicate copies to volumes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1963</td>
<td>68,236</td>
<td>7,540</td>
<td>75,776</td>
<td>6.7</td>
<td>75,873</td>
<td>75,873</td>
</tr>
<tr>
<td>1964</td>
<td>71,228</td>
<td>8,270</td>
<td>79,498</td>
<td>6.5</td>
<td>75,873</td>
<td>75,873</td>
</tr>
<tr>
<td>1965</td>
<td>73,756</td>
<td>8,925</td>
<td>84,681</td>
<td>6.7</td>
<td>75,873</td>
<td>75,873</td>
</tr>
<tr>
<td>1966</td>
<td>80,634</td>
<td>9,705</td>
<td>90,339</td>
<td>6.7</td>
<td>75,873</td>
<td>(943.67)</td>
</tr>
<tr>
<td>Average</td>
<td>75,873</td>
<td>8,965</td>
<td>84,839</td>
<td>6.0</td>
<td>75,873</td>
<td>75,873</td>
</tr>
<tr>
<td>Ratio of duplicate copies to volumes</td>
<td>8,965</td>
<td>75,873 = 11.8 per cent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
found the second, and in the fourth year about two-thirds as many will be found as in the third year. This projection may be carried out until we reach a point where none or only one book will be found. For the purpose of this study the projected loss reduction was calculated to one. Thus the individual and composite figures for losses do not represent the number of volumes presently missing, but a smaller number, that should be missing at a calculated time in the future. Admittedly, this is a somewhat rough method of arriving at a true figure, but it has the advantage of indicating losses at a minimum and is certainly more accurate than simply recording the figures as they now stand.

Method of calculating volumes out and on reserve. The figures given for volumes out and on reserve do not represent total circulation, or the total number of volumes on reserve in any given year. They were derived from an average of the greatest and least number within the year, as obtained from two one-week periods representing the high and low points within the year. The second week in May was selected for the high point, and the first week in September for the low. This method, while not indicating total use, is quite acceptable, as the figures for all classes were derived in the same manner.

The inventory. All classified monographs and serials were included in the inventories, and, while separate figures were recorded for each, only the combined figures for monographs and serials are included herein. The total number of volumes and duplicate copies in each class was obtained from a shelf list count taken immediately preceding each inventory.

In the correlation charts, the validity of the five hypotheses is examined against the losses. The loss figures are arranged from high (class R) to low (class DA). The factor intensity of use is also arranged from high (class PS) to low (class DA), because this hypothesis stated that a greater intensity of use would result in a greater rate of loss. With the other hypotheses, however, the classes are ranged low to high, in keeping with our prediction that the higher the percentage of multiple copies, the greater the rate of growth, the larger the collection, and the greater the number of books on reserve, the lower would be the rates of loss.

In the factor of multiple copies, to give but one example, class DC (4.4 per cent) ranked last, whereas class HM-HX (22.9 per cent) ranked first; consequently, on the basis of this one hypothesis, we should expect to find class DC first in rate of loss and HM-HX last. The fact that class DC was ninth in losses means that it was +8 positions from its predicted position, while HM-HX, being third in losses, was -7 positions from its predicted location. We must therefore say that there seems to be little relationship between losses and the rate of multiple copies (as an isolated hypothesis). Had the ranking of percentage of multiple copies been DA, DC, E, J, PR, PS, U-V, HM-HX, BF and R (low to high ranking), and the rate of loss the same as the study demonstrated, we would have had perfect correlation (0), and would have been able to assert that, in any collection, losses are directly related to the number of multiple copies available—i.e., the greater the latter the lower the former. Sad to say, we cannot make this assertion.

The maximum correlation possible is 0, as we can see from the listing on the left (Table 2), while the minimum is +24 (right, Table 2).

The correlation between losses and the five measurable hypotheses is given in Table 3.

Lest the reader be misled by the fig-
TABLE 2

<table>
<thead>
<tr>
<th>1st Factor</th>
<th>2d Factor</th>
<th>Variation</th>
</tr>
</thead>
<tbody>
<tr>
<td>e.g., Losses</td>
<td>e.g., Use</td>
<td></td>
</tr>
<tr>
<td>BF</td>
<td>BF</td>
<td>0</td>
</tr>
<tr>
<td>DA</td>
<td>DA</td>
<td>0</td>
</tr>
<tr>
<td>DC</td>
<td>DC</td>
<td>0</td>
</tr>
<tr>
<td>E</td>
<td>E</td>
<td>0</td>
</tr>
<tr>
<td>HM-HX</td>
<td>HM-HX</td>
<td>0</td>
</tr>
<tr>
<td>J</td>
<td>J</td>
<td>0</td>
</tr>
<tr>
<td>PR</td>
<td>PR</td>
<td>0</td>
</tr>
<tr>
<td>PS</td>
<td>PS</td>
<td>0</td>
</tr>
<tr>
<td>R</td>
<td>R</td>
<td>0</td>
</tr>
<tr>
<td>U-V</td>
<td>U-V</td>
<td>0</td>
</tr>
<tr>
<td>Total variation</td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1st Factor</th>
<th>2d Factor</th>
<th>Variation</th>
</tr>
</thead>
<tbody>
<tr>
<td>e.g., Losses</td>
<td>e.g., Use</td>
<td></td>
</tr>
<tr>
<td>BF</td>
<td>U-V</td>
<td>+ 9</td>
</tr>
<tr>
<td>DA</td>
<td>R</td>
<td>+ 7</td>
</tr>
<tr>
<td>DC</td>
<td>PS</td>
<td>+ 5</td>
</tr>
<tr>
<td>E</td>
<td>PR</td>
<td>+ 3</td>
</tr>
<tr>
<td>HM-HX</td>
<td>J</td>
<td>+ 1</td>
</tr>
<tr>
<td>J</td>
<td>HM-HX</td>
<td>- 1</td>
</tr>
<tr>
<td>PR</td>
<td>E</td>
<td>- 3</td>
</tr>
<tr>
<td>PS</td>
<td>DC</td>
<td>- 5</td>
</tr>
<tr>
<td>R</td>
<td>DA</td>
<td>- 7</td>
</tr>
<tr>
<td>U-V</td>
<td>BF</td>
<td>- 9</td>
</tr>
<tr>
<td>Total variation</td>
<td></td>
<td>± 25</td>
</tr>
</tbody>
</table>

ures for book and dollar losses, it must be pointed out that not all lost books are actually replaced; hence the expression "monetary equivalent." Obviously, since the figure 17,342 is derived from a sample, only those books known to be lost are considered for replacement, and, in general, only titles of which the library has but one copy are replaced, unless demand indicates the need to replace duplicate copies.

**Evaluation of hypotheses.** We have seen that the maximum correlation possible between rate of loss and any hypothesis is 0, and the minimum ±25. A correlation of ±25 would indicate no relationship between a so-called controlling factor and losses, while one of 0 would indicate perfect or absolute correlation. As it turned out, of all the hypotheses, only one proved to be closely related to losses. That intensity of use is directly related to losses is unquestionable, and hardly surprising. It is surprising, though, that the other hypotheses had so little apparent influence. At the beginning of the study, it seemed a foregone conclusion that a high percentage of multiple copies would result in a lower rate of loss, but apparently it does not. HM-HX, BF, and R have a high ratio of duplicates, and therefore should have experienced a low loss rate, but they actually were the highest in losses! A low rate of growth, such as experienced by classes DC, J, and DA, should have resulted in a high rate of loss. It did not. The same observation may be made of volumes on reserve, with the possible exception of classes U-V. The only other controlling factor which seemed to have any influence at all was size of collection, and even here the correlation was far from outstanding. In conclusion, then, we must say that of the five hypotheses, only intensity of use had any real direct effect, and that the others either had little or no effect, or, and this is more likely, were simply overshadowed by the factor of use. So much for hypotheses.

**Theories.** We must now examine the policies and characteristics of the library itself with regard to several of the theories put forth at the beginning of the study.

The reader will recall that we theorized: (a) that a liberal lending policy will deter thievery, whereas a policy that excludes potential borrowers will

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4 The sample consisted of approximately ¾ (16 per cent) of the collection in the main library.

5 Although the hypotheses must be assumed to be interdependent, and therefore to some degree self-canceling, it does seem odd that four hypotheses should be so completely dominated by one.
encourage it; that an open stack library will suffer heavier losses than one with closed stacks; (c) that a library serving a specialized public will lose fewer books than one serving a primarily undergraduate college, or school students; and (d) that a library located in an urban area will experience greater losses than a comparable institution in a rural location.

Few would deny that any attempt to fathom the motivation of thievery by means of theoretical devices is risky. But we have seen that even the most valid intralibrary factor, while serving well to show why losses are great, does not explain the behavior of the thief. The fact that heavy use and high losses are closely related does not explain why books are stolen. Nor could it. There must be another factor, or factors, which provide the impetus. We must, therefore, seek some plausible theory relating to use and losses. It is of the greatest importance that we do so, unless we can establish a theory, we cannot hope to achieve a lasting solution.

The library we have examined has the simplest of registration procedures. All full-time students, staff, and faculty are issued ID cards, which also serve as library cards. Part-time students, and others, of whom there are many, need only fill out an application, whereupon they are issued a library card immediately. We can say, then, that there are few impediments placed in the way of the qualified borrower obtaining and using a library card. In addition, the library has a very generous lending policy, offering unlimited renewals, unless wanted by other borrowers, by mail, telephone, or in person. Books are loaned for two and four weeks to undergraduate and graduate students respectively, and on an indefinite basis to faculty, and any book in circulation will be reserved and held for any borrower. No charges (other than tuition) are made for library cards or services. There is no limit to the number of books that may be borrowed; and a complete listing of all books in circulation is available for use by the public. Finally, faculty and graduate students of other institutions in the area are permitted to borrow.

There are restrictions, however; and within them we may find the answer we are seeking. Undergraduate students of the other twenty-odd colleges in the area, as well as high school students, are not permitted to borrow; but all college students are permitted to use materials in the library, and it is well known that

### TABLE 3

<table>
<thead>
<tr>
<th>BOOKS LOST PER CENT RANKED HIGH TO LOW</th>
<th>INTENSITY OF USE RANKED HIGH TO LOW</th>
<th>RANKED LOW TO HIGH PER CENT MULTIPLE COPIES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Class</strong></td>
<td><strong>Rank</strong></td>
<td><strong>Lost</strong></td>
</tr>
<tr>
<td>R</td>
<td>1</td>
<td>2.15</td>
</tr>
<tr>
<td>BF</td>
<td>2</td>
<td>1.95</td>
</tr>
<tr>
<td>HM-HX</td>
<td>3</td>
<td>1.93</td>
</tr>
<tr>
<td>U-V</td>
<td>4</td>
<td>1.89</td>
</tr>
<tr>
<td>PS</td>
<td>5</td>
<td>1.17</td>
</tr>
<tr>
<td>PR</td>
<td>6</td>
<td>1.11</td>
</tr>
<tr>
<td>J</td>
<td>7</td>
<td>.84</td>
</tr>
<tr>
<td>E</td>
<td>8</td>
<td>.65</td>
</tr>
<tr>
<td>DC</td>
<td>9</td>
<td>.39</td>
</tr>
<tr>
<td>DA</td>
<td>10</td>
<td>.38</td>
</tr>
</tbody>
</table>

Total variation ±5 ±22
high school students use the library despite efforts to prevent it. Thus we have access without the privilege of borrowing.

But access alone does not explain losses.

If the number of books in circulation at any time is indicative of intensity of use, then it should also be indicative of potential use by non-borrowers. Conditions will not be the same, but they will be similar to the extent that broad subject areas used intensively by one group may well be used by another group, given the opportunity, which though not exactly the same in nature, is at least comparable.

Literature and the social sciences, which are the classes most heavily used and greatly depleted, are more likely subjects of general interest than are English and French history, or military and naval science. Admittedly, there are weaknesses in this argument, but it cannot be denied that of the ten subjects considered, the five in the top half of use were with but one exception the same group which suffered the heaviest losses. And it is these subjects that are of “universal” interest and subject to the greatest demand by library-using segments of the population within the potential environment of the library. This would indicate very strongly that rigid interlibrary relationships, taken in conjunction with known facts, provide a solid foundation upon which to build a theory of book losses.

The library and its environment. The library has open stacks, except for special collections and about five thousand books on closed reserve. It is located in a metropolitan area of approximately two million persons, and, along with the public library, ranks as the finest general library in the area. Not a great amount of pertinent information is available concerning the numerous school and college libraries in the area, but what there is indicates very strongly that many are inadequate (and some grossly inadequate) in comparison to the major libraries in the area. In fact, two of the largest colleges in the area (with a combined enrollment of more than 10,000 students) are relatively new, and have what might at best be described as embryonic library facilities.

The milieu in which the library operates would seem to fit our theory very well: a large urban complex, open stacks, free access, and a very large group of potential borrowers. It is impossible to overlook the basic fact that the library is convenient to two groups: a small group that is permitted to borrow, and a much larger group that is not.

It would be less than wise to be entirely unyielding in attributing losses to those who are not permitted to bor-
row. A theory must be proved before it can be stated as an axiom, and a theory such as ours is most difficult to prove. But we do have a beginning. It would seem that there must be some connection between losses and inability to borrow. Taking into account the inadequate library facilities of many institutions in the vicinity, both secondary and higher, and considering the fact that the faculties of those institutions cannot and will not scale down their own standards because of inadequate library resources in their own institutions, and, finally, recognizing the tremendous pressure put upon students to achieve high scholastic ranking, it is not surprising that a library which permits and even encourages free access, and possesses one of the finest book collections in the area, would suffer heavy losses. We can, therefore, offer as a tentative theory that the pressure of scholastic achievement in association with freedom of access to those persons who are not permitted to borrow will result in a high rate of loss.

Methods of preventing thefts. Given that libraries lose books in sufficient numbers to warrant remedial action, we must consider the current methods employed to prevent thefts, their shortcomings, and the possible alternatives.

It would be best to begin by admitting that there is no known method of preventing a determined thief from making off with a book. This is so because the effectiveness of all systems, regardless of their type, is contingent on the cooperation of all borrowers, and since there are borrowers who obviously do not cooperate, all systems must fail to the exact extent to which that cooperation is withheld. It is ironic that exit control systems, all of which are expensive (some more so than others), are effective only to the extent that they remind cooperative borrowers to check out books, whereas they can be rendered ineffective by a determined thief.7

The two major methods employed today are guards and turnstiles, and a method employing magnetic influences—electronic detection.

Guards and turnstiles. Somewhere in this land there may be a library that has but one exit. Most have two or more, although only one may be legal; and since we are dealing with the minority who steal books, either we guard all possible exits or the battle is lost, for honest men always walk out the front door, but thieves do so only when they are confident or desperate. Obviously, even in a modern building, not all exits can be guarded. Windows that open, ungarded doors, fire escapes, crash doors, delivery entrances and exits, and the like all provide ready roads of egress for the clever thief. There is no way

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1 For comments on this see William L. Emerson, "To Guard or Not to Guard," in Library Journal, LXXXIV (January 15, 1959), 145-46.

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TABLE 5

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Volumes in Collection</th>
<th>Per Cent of Volumes Missing</th>
<th>Total Volumes Missing</th>
<th>Cost per Volume</th>
<th>Losses in Monetary Equivalent</th>
<th>Total Allocated for Books and Continuations</th>
<th>Loss as a Percentage of Total Book Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>1964</td>
<td>.</td>
<td>1.06</td>
<td>5,249</td>
<td>$9.00</td>
<td>$47,241</td>
<td>$322,041</td>
<td>14.7</td>
</tr>
<tr>
<td>1965</td>
<td>.</td>
<td>1.13</td>
<td>5,841</td>
<td>9.00</td>
<td>52,569</td>
<td>361,547</td>
<td>14.5</td>
</tr>
<tr>
<td>1966</td>
<td>.</td>
<td>1.14</td>
<td>6,252</td>
<td>9.00</td>
<td>56,268</td>
<td>478,700</td>
<td>11.8</td>
</tr>
<tr>
<td>Total</td>
<td>17,342</td>
<td></td>
<td></td>
<td></td>
<td>$156,078</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Median figure for twelve month period, main library only.
† Estimated average price, books, and continuations. This figure, while probably low, is adequate for the purpose intended.
of guarding all of them. As for the rare
(and probably nonexistent) library that
actually has but one exit, the book thief
is confronted by a more formidable but
by no means insoluble problem. The
methods he may employ are numerous—
by concealing books under coats and
belts, in innocuous looking packages and
typewriter cases, in laundry bags and
handbags, in dust jackets and newspa-
pers, or brazenly walking past dis-
ttracted guards and preoccupied attend-
ants, and on and on ad infinitum. It is
pointless to dwell on the many methods;
it is enough to remark that they are all
too effective.

Electronic devices. The writer recalls
having visited the display booth of one
of the electronic detecting companies at
a recent ALA conference. Included in
the propaganda handed about was a
short story, one that reminded him no
little bit of the famous dime novels so
prevalent in the post-Jesse James era.
In this thriller, one John was to be seen
skulking about the stacks of a library
carrying what could be described either
as a large briefcase or a small suitcase.
John was looking for valuable books;
and, disdaining the dealers' catalogs, he
was looking for them in the dark and
dingy stacks of a dark and dingy library.
He wanted only valuable books because
he intended to peddle them—to whom
was not disclosed. Be that as it may,
John crept from range to range, and
with many a surreptitious look up and
down the aislesways, selected his books.
Finally, case bulging with loot, John
headed for the front door. All was quiet
in those halcyon halls. But lo! Barely had
John stepped through the front door,
when the long arm of the law claimed
its hapless victim. John had been caught
by the electronic detector, with the as-
sistance of an alert librarian who, upon
hearing the warning bong, had signaled
the library guard who just happened to
be at the front door waiting in breathless
anticipation. And so there was a happy
ending. The library's books were spared
an ignominious fate, the theory of elec-
tronic detection by means of the sinus-
oidal propagation of the magnetic influ-
ences was vindicated, and John was
carted off to jail, there on "the torture of
the mind to lie in restless ecstasy." One
more book crook consigned to limbo.

It was a good story. It warmed the
heart and emphasized three salient fea-
tures of electronic detection. First, the
system presumes not only that valuable
books alone are stolen, but that thieves
are interested in books only as artifacts.
Second, even though the system pur-
portedly does away with exit attendants,
inherent in its operation is the continu-
ous presence of someone in authority
at the front door to apprehend the
would-be thief. And third, the system is
predicated upon the belief that electron-
ic devices are infallible. Therein lie the
fallacies of electronic detection.

We have contended that books are
stolen because people want to use them;
that is, they want the intellectual con-
tent of the book, not necessarily the
whole book itself. If this is true, and
there is no reason to believe otherwise,
a system which in effect protects the
cover or spine of a book, but not the
contents, can be circumvented simply
by removing the contents and leaving
the protected part behind. In truth, such
a system might even be said to make
book stealing easier and safer! One can
readily envision a library floor littered
with book covers. It is true that some
books are stolen for their intrinsic value
and thus can be protected by the elec-
tronic device; but they represent only
a small percentage of the vast number
of books pilfered from libraries every
year.

The reader may wonder at this scorn-
ful and invidious attitude toward elec-
tronic detection. It stems in part from
the brash manner in which the promot-
ers of the devices seem to rejoice in their conviction that conventional turnstiles are antediluvian and must be replaced at the first opportunity by the miracle of magnetism. And all this with little or no foresight or thought about the reasons people may have for stealing books. Here, once again, is a case of nonlibrarians telling librarians what is best for them. It stems also from the happy abandon with which they recommend converting to a new method, while letting the library itself worry about how much it will cost. How much, indeed, would it cost to "protect" a collection of five hundred thousand volumes? At that same conference I was told—in a whisper, as though the speaker feared that some guardian of the living wage might be hovering about—that it could be done for about one cent a volume, not including the cost of the discs and equipment. An experiment along these lines indicated that at one cent per volume the person performing such labor would be receiving approximately $ .09 an hour! Furthermore, the discs are usually attached to the board paper and then covered by the fly leaf, which is then glued to the board paper. Unfortunately, the misuse of the endpaper would defeat the purpose of the hinge, which is designed to prevent the covers from being torn away from the book.

It is unfortunate that electronic detection is not the answer to the theft problem. It is a reasonably good idea in theory; however, its cost makes it impractical, while its inherent weaknesses make it unworkable.

CONCLUSION

Is there no way in which losses may be reduced? Before we can answer this question we must ask another: what level of losses are we willing to tolerate? Is one per cent of the collection per year too high a price to pay for open stacks and so-called free access? Many would say it is. What, then, is an acceptable level? If zero per cent is the goal then the library may as well close. The individual library must recognize that it is going to lose some books, the number being directly related to the environmental and other conditions under which it operates; the essential idea is to reduce losses to the lowest possible level within those conditions.

There are several possible approaches, only a few of which can be considered in brief at this time. First, the library might simply accept losses as they are and request of its governing board an increase in book funds to compensate for them. This, however, is no solution and, in addition, it might be much easier to reduce losses than to convince a board of the merit of such a program.

As a second approach, it is entirely possible that losses could be reduced to an acceptable level by reducing access. This need not necessarily involve closing the stacks to all; the library could simply turn its exit control about and screen all who come in rather than those who go out. Bar the door to all who do not have library cards! But such a solution might well turn into a hydra of enormous proportions. Not only would a "no-access to outsiders" policy bring forth strong protests, and doubtless reciprocal treatment, but it would be inimical to the spirit of librarianship. A college or university library, to be sure, owes its first obligation to its own faculty and students; but all libraries, university as well as public, are obligated to a greater or lesser extent to serve the community. It is a sticky problem.

8 To get around this embarrassing predicament, the promoters sometimes recommend that only certain books be protected. If by this they mean an entire reference collection, or any other complete group of books, that is one thing; but if they mean every fifth or tenth volume in the general stack collection, they are merely encouraging the disappearance of the other four or nine books.

9 Books sent for binding or rebinding can have the discs attached directly to the board. This would be much better for the book, at least until someone tore off the cover.
Third, since we cannot hope to prevent people from stealing books if such is their intent, we must attempt to convince them that it is not in their own best interest to do so. This is not so naive as it may at first seem. Another writer once said, perhaps with tongue in cheek, that "education is usually prescribed for every ailment of democracy, and to some extent it can be used to develop a more healthful attitude toward publicly owned book collections." This was written in 1935 and, unless we can prove it invalid, it is still worth serious consideration. However mushy it may sound, education must be one of our basic approaches. Those of us who are committed to the educational process, and presumably all of us are, and who believe in its great virtues, should at least attempt to reach out to those who stand so painfully in need of education.

We need not preach that stealing books is morally wrong—the function of librarianship is not to preach morality, and, in any event, the attempt would fail, for morality is not something that adults or near adults learn easily. We need not preach at all. The would-be book thief must be convinced by irrefutable logic that stealing books inevitably becomes a reciprocal curse; that the theft of a book injures all; that stealing books represents the ultimate in folly.

We must persist in our attempt to educate the book thief. It is not enough to put up an occasional poster, or print a few notices in newspapers; it must be a personal approach, and it must be hammered at over and over again. For we must assume that library users are rational beings, and rational beings do not set out deliberately to hurt themselves, which is what they do when they steal books. If they are rational they will see the truth; if they are not, then there is little point in worrying about the problem at all.

Finally, it is possible that the ultimate solution lies in a combination of education and cooperation. Instead of reducing access, we might expand it. A comprehensive interlibrary metropolitan cooperative lending plan could prove to be less costly in the long run than thefts. No doubt such a program would place heavy burdens on the well-endowed libraries and might cost them more than they are willing to pay. But that is something that cannot be answered at this time.

Ultimately the most unfortunate consequence of book thefts is not the monetary loss, but the irreplaceable loss in human effort. To the casual reader a lost book may be an inconvenience; but to the serious reader it can be a minor tragedy. And it is little comfort to the scholar to be told that a missing title will be reordered and may be available some time in the future.

It is to be hoped that there will be further exploration of the problem, with the idea of attempting to discover the relationship, if any there is, between determining factors and the types of books stolen, as well as of devising an effective program of education and cooperation to counteract losses. Book stealing is an intriguing problem; its cost warrants more than passing attention.

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Observations on Archivists, Librarians, and the National Union Catalog of Manuscript Collections

The Anglo-American Cataloging Rules have incorporated the descriptive cataloging rules used for entries in the National Union Catalog of Manuscript Collections. The relevancy of these rules and of "cataloging" itself is questioned. Experience with NUCMC should enable librarians to learn how manuscript collections are researched thereby to devise appropriate descriptive techniques. Recommendations for improving NUCMC: more extensive indexing of names (but largely eliminating them from contents note), use of broad subject headings, and addition of chronological index.

This paper is a critical analysis of the methodology underlying cataloging for the National Union Catalog of Manuscript Collections and of the new Anglo-American Cataloging Rules for nonbook materials. It also includes recommendations for changes in the light of this criticism.

The NUCMC represents a single interphased system of national bibliographic control. This fact is of the utmost importance; it is the really important contribution of NUCMC to the methodology of bibliographic control of manuscript collections.

It has guide entries and a cumulative name, subject, and place index which refers users to the appropriate manuscript groups wherever they are. And this is done by a uniform method. However, this method and its implications for librarians at the repository level bear examination. The librarian normally has had little or no exposure to archival methods so he is inclined to apply methods of the librarian, particularly if they bear the imprint of the Library of Congress and of the American Library Association.

These methods have been developed from forms and techniques that librarians have traditionally used for the descriptive cataloging of publications. It might be appropriate and timely to analyze how scholars actually use manuscripts and at what stage in their research. Librarians, and archivists (by default), tend to act as if the user of manuscripts differed in his approach to his material from the user of books and serials. Experience with referrals

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from NUCMC and at the repository level cast doubt upon this view.

It may be well to turn first to the section in the new Anglo-American Rules that applies to “nonbook materials.” NUCMC descriptive cataloging rules as enshrined now in the new Anglo-American “Code” unfortunately set in train a misleading line of thought about bibliographical control of manuscript collections.

These rules represent a “technocratic” approach to an organismic problem. They view “cataloging” as separable from the total process of bibliographic control. They lead manuscripts people to believe that “cataloging” can be done directly from the manuscripts themselves, and done effectively. This is merely an extension of the technique that the Code recommends for individual manuscript items—a method modeled upon those used for book cataloging. As such they are an inducement to item description or a variant thereof. Item description, with rare exceptions, is justifiable only after comprehensive control has been already established for the collection as a whole. To attempt item description prior to establishment of broad comprehensive bibliographical controls results in the limiting of access to manuscript groups not yet processed, either because little is known about them, or, as often happens, because unprocessed groups are restricted from use until they are actually processed. When the NUCMC cataloging rules are followed, the temptation—if not the tendency—is for the reporting repository to catalog its own holdings simultaneously and to do so by cataloging directly from the manuscripts themselves rather than from the synopses of the manuscript groups, whether the synopsis be a register, inventory, guide, or similar finding aid. This indeed was the hoped-for result as expressed by Lester K. Born, the first head of the Manuscripts Section for NUCMC, in a letter to the present author dated October 19, 1959, wherein he hoped that “... these rules ... will, presumably, be followed in the future by most repositories that have not already set up elaborate catalogs.” The important step preceding that of “cataloging” should be, in the judgment of many, production of a register, guide, or other synopsis that is to be cataloged, not the cataloging of the manuscripts themselves.

A repository, however, need not do “original” cataloging. One of the saving features of the NUCMC reporting system is that reporting can be done in synopsis form with the data sheet. The data sheet is closely analogous to the repository’s own “register” or inventory/guide. By its use of the data reports, NUCMC can legitimately catalog without simultaneously imposing its cataloging system upon the reporting repository. It might therefore be recommended that NUCMC ask for reporting by data sheet alone, thereby escaping the onus for spreading an unproved, if not wrong, bibliographic method across the manuscript and library world. Its cataloging methods appear much too young to be enshrined.

Present practice in fact suggests that the card catalog should be the basic finding aid to the holdings of a manuscript collection. Although the card catalog is the basic finding aid at most repositories, this is not necessarily good. The card catalog, as a form, simply developed out of a vacuum that existed long before archival techniques were developed. But even after archival methods began to spread, they were long thought to be applicable almost exclusively to public records. And, as evidenced by the strong representation of the archival profession on the Advisory Committee for NUCMC, even the archivists themselves thought they were inapplicable to the management of manuscript collections, for the end result showed little archival influence. So instead of following Dr.
Born's suggestion that those repositories "... that have not already set up elaborate catalogs..." be guided by the NUCMC rules for descriptive cataloging, they might better be urged to consider whether NUCMC rules are applicable at all. It does not follow necessarily that uniformity of end product, which is desirable at the national level of bibliographical control, should be required at the repository level itself. It is perhaps unfortunate that the "Anglo-American Rules" imply that it should be.

Quite the contrary; the inventory/guide and register, which are basic archival finding aids, should be seriously considered as the basic finding aids for manuscript collections as well, for the kind of records being described are essentially the same: file items or units usually arranged in record series and organic subgroups. There should in turn be cumulative indexes to names, subjects, places, and dates. In recognition that some users approach their materials by dates, there should be a chronological index that enables the researcher to find references by year or period. NUCMC itself would be made more useful with such an index. These indexes would accommodate effectively to the diverse ways in which manuscripts are approached by the researcher. Whether these indexes be in catalog card form, sheet form, or in a form for machine retrieval is less important, for scale will or should largely help to determine form. In all of this, however, the form which the description will take should not be allowed to influence arrangement of the manuscript groups themselves.

Discussion of "subject grouping" of small and/or miscellaneous units of manuscripts for cataloging purposes reflects another line of library thinking and methodology (NUCMC Information Circular No. 2 revised). One of the unfortunate results of such discussion is to suggest that repositories can validly classify manuscripts by subject. To do so would probably encourage violation of the principle of provenance in due course. It would therefore appear more desirable for the manuscript unit to be reported according to its own integral characteristics or not be reported at all.

It would be well to be guided by the archivists' principle of provenance and its ramifications—keeping papers according to the source that generated them—and to extend this rule to reporting as well. It is indeed unfortunate that the Anglo-American Rules include only a slight and misleading reference to "provenance," limiting it to "donor or other source of acquisition" (p. 270). The essence of provenance is the organic origins of the papers themselves; the papers are generated out of activity and reflect that activity. This concept is fundamental to sound practice in manuscripts and archival work and should not be subordinated to a casual note applied only to a description. As a concept it might better have prefaced the section in the Anglo-American Rules which is devoted to manuscripts (pp. 259-71). In this position and with a full statement of its theoretical implications, it would have more properly qualified the recommendations that followed.

A total view of the bibliographical process is needed in dealing with manuscript collections extending through both arrangement and description. "Cataloging," if that term be used, should be restricted to a description based upon
the finding aids or apparatus of the finding aids, and should not be done or encouraged to be done directly from the manuscripts themselves.

NUCMC's experience with the subject headings problem should make librarians and archivists wary. It started with the Library of Congress subject headings list, which was then abandoned for the wrong reasons, and is now using the more flexible but relatively uncontrolled topical headings. This area is of great concern to specialists in information retrieval and will be the main concern of a member of the National Archives staff in a forthcoming study being done under a grant from the Council on Library Resources. Strong reservations appear to be warranted about subject headings at this stage. There is too much to be learned before fixing upon a system. Dr. T. R. Schellenberg, for example, suggests using a few broad subject headings corresponding to the main lines of human activity. Such a system is now being experimented with at the University of Washington. But its system is based on wholly different methodological considerations than those of Dr. Schellenberg; they are based on its own analysis of methods employed by scholars in their approach to manuscripts, recognizing the function of name control.

One important by-product of NUCMC is that it provides or can provide much of the data that is needed for an analysis of the methodologies of those who use manuscript collections. Librarians and archivists may well miss an important opportunity if they do not make the analysis and alter their methods of bibliographical control accordingly.

Some experienced manuscript curators have found that more than 95 per cent of the inquiries from scholars using NUCMC are for materials by way of personal and corporate names; thereby responding, consciously or not, to the fact that persons, real or corporate, create manuscript and archival materials. Yet there has been little response methodologically to this fact on the part of manuscripts people. And at the more "sophisticated" levels of methodology represented in the April 1967 issue of the American Archivist which was devoted to advanced information retrieval techniques—only one article, that by Russell Smith on the Presidential Papers, stresses the importance of names and name control, and this is a matter largely of historical accident, not design. All others are concerned with minute subject analysis, largely ignoring the main approach that scholars use in approaching manuscript collections. The forthcoming study of information retrieval techniques in this field, being financed by the Council on Library Resources, should take this fact into consideration.

Names and name control are very important and central to the methodology on which a national system of bibliographical control should be constructed. The reason names are so important is that by the time the scholar is ready to use manuscript and archival material he has already associated names of persons and corporate bodies with his particular subject more specifically than can the person who describes the manuscript group. This mental association is structured into the researcher's own methodology. He has done this inevitably in the normal course of reading published sources including newspapers, books, periodicals, government documents, and so on, prior to using manuscript and archival sources. If this be true, then name control should influence the kind of subject control needed, a choice between

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5 Dr. Schellenberg's oral criticism was that it was more specific than it could reliably be, and as a result it would mislead researchers into believing that all specific references made did in fact exhaust all leads to the particular subject being sought.

broad clues to the manuscript group or the more subjective but specific and item-keyed technique. NUCMC now provides the chance to make these analyses.

With what has just been said about names it appears justified to recommend that NUCMC entries eliminate names from the contents notes except where they can indicate organic relationships as, for example, names of subgroups that often exist within a given manuscript group, or organizational affiliations that are often reflected in it. They should be in the cumulative index, of course; by conserving space through their elimination from the contents note more names can be entered in the index. The more names, the less arbitrary their selection. This too would make it more truly an interphased system wherein the user proceeds from individual name and subject leads successively to more detailed contextual information in NUCMC and then to the repositories themselves—interphasing without pointless repetition of information as he proceeds through the phases of information retrieval.

NOTE—Other articles of interest on NUCMC are:
The development of the separately housed undergraduate library on the modern university campus is a recent innovation. As the university library became larger and more complex and more emphasis was placed on graduate education, the separately housed undergraduate library developed as a solution to some of the problems caused by size and shift in emphasis. The separately housed undergraduate library differs from the traditional university library in six ways: (1) by providing open access to the collection; (2) by centralizing and simplifying services to the undergraduate; (3) by providing a collection of carefully selected books; (4) by attempting to make the library an instructional tool; (5) by providing services additional to those given by the research library; and (6) by constructing a building with the undergraduate's habits of use in mind.

The development of the separately housed undergraduate library on the modern university campus is a recent innovation. The interest in effective undergraduate education which led to the creation of these libraries, however, is not of such recent origin. Most universities and their libraries were relatively small until this century. More important, they were largely undergraduate institutions. The great expansion of graduate education is a twentieth-century phenomenon. The problems of the undergraduate in using university collections were greatly compounded by the striking growth in the size of collections and an increasing emphasis on the acquisition of materials suitable for research.

The large university collections became increasingly difficult for the undergraduate to use. If he were confronted with five drawers under "Shakespeare" or twenty-five under "United States," he was apt to be discouraged from beginning a search for what he wanted. If he had to select his books from the card catalog and obtain them through paging in a closed stack system, he might well abandon the attempt before finally locating a book which was not checked out, missing, or at the bindery—and which was suitable for his purposes. The university library was also frequently difficult to use because it was crowded—often study conditions were unsatisfactory and staff was insufficient to handle the volume of work.

Arthur McAnally summed up the difficulties facing the undergraduate in his attempts to use university collections:

Books are not very accessible to the undergraduate and reserve room service, which was about all most of them got freely, was not very satisfactory educationally. Of
course, the enterprising undergraduate could surmount the obstacles of huge card catalogs, impersonal circulation desks, etc. but he was discouraged at every hand.1

At the same time that university libraries were becoming more difficult for the undergraduate to use successfully, there was a change taking place in teaching methods which sent him to the library with greater frequency. Wider independent reading was being encouraged as teachers moved away from the traditional textbook/reserved book reading pattern. Thus the undergraduate was trapped by this double development: increasing emphasis on the use of the library at a time when the library was becoming increasingly difficult for him to use.

The first response to this problem was the development of the undergraduate collection housed in the main library. The University of Chicago and Columbia University founded early undergraduate collections. Many other universities have since adopted what might be called the "undergraduate plan." Examples are (or in some cases were) found at the University of New Mexico, University of Cincinnati, University of Illinois, University of Tennessee, Duke University, and Yale University. Many new libraries built in the past decade, some presently being built, and others in the planning stage incorporate the "undergraduate plan" in some form.

Most take the form of setting aside one or two floors of a new building for undergraduate purpose. Small institutions may only provide a large reading room. An undergraduate collection may be little more than a reserve collection for lower division students; it may be a browsing collection of light fiction, periodicals, and non-course-related materials; or it may be a "learning center"—a relatively small collection of books, some of which relate to the curriculum and some of which are of general interest.

With the constant growth of the central university collection, the increasing demand for service to graduate students and faculty, and the increasing inadequacy of the central library to handle these demands and resources, the undergraduate collection housed in the main building began to be viewed as an unsatisfactory solution to the undergraduate's problems, and the separately-housed undergraduate library on the university campus was advanced as a more satisfactory solution.

These separately housed libraries were to differ from the traditional university library in six ways:

1. By providing open access to the collection to avoid the difficulties of the closed stack system;
2. By centralizing and simplifying services to the undergraduates;
3. By providing a collection of carefully selected books, containing the titles all undergraduates should be exposed to for their liberal education, as well as incorporating the reserved book collection;
4. By attempting to make the library an instructional tool by planning it as a center for instruction in library use, to prepare undergraduates for using larger collections, and by staffing it with librarians interested in teaching the undergraduate the resources of a library and the means of tapping those resources;
5. By providing services additional to those given by the research library;
6. By constructing a building with the undergraduate's habits of use in mind.

The first of these changes—provision of open access to the collection (exclusive of some reserve books)—would allow the student to do his book selection directly from the shelves, rather than re-

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1 Arthur M. McAnally, "Library Service to Undergraduates: A Symposium—Introductory Remarks," CRL, XIV (July 1953), 266.
lying on the card catalog as his only approach to the collection. By surrounding the student with books—not separating him from them—it was hoped that he would be encouraged to read more than assigned titles. Open access was envisaged as one of the most important contributions of the undergraduate library.

Second, centralization of services was intended to remove the obstacles which impede the undergraduate in his search for library materials, making the learning process easier and more satisfactory. It was hoped that the undergraduate library could bring together in one place all aspects of library service relating to the undergraduate curriculum, thereby encouraging the student to learn. The undergraduate would no longer be faced by a system in which he had to go one place to read reserve books, another to find materials for a term paper, a third to find avocational reading, and yet another to find a place to sit and read these materials. He would no longer face the dispersion of reserve materials among the main library and the several branch libraries. No longer was he to be discouraged by being subjected to the idiosyncrasies of a treasure hunt to find the books he needs. The needs of undergraduates and graduate students, it was increasingly felt, were vastly different; the two did not mix well. The undergraduate library would try to furnish a kind of service that was not possible in the large university library, and it would provide one place in which the undergraduate could do most of his work.

In addition, these centralized services would be simplified. Because the collection would be relatively small, the catalog which would confront the student would not be huge and forbidding. Likewise, there would not be so many books on any one subject that the student would become confused by the large array before him. The library staff would also be able to assist him more readily in the use of this smaller and more easily approachable collection.

Third, the undergraduate library was to house a carefully selected duplicate collection of books which would support the curriculum to provide a selection of the best writings of all times and all peoples. It was to attempt to satisfy the instructional needs and general reading interests of the undergraduate throughout his four years of college. Besides providing the general collection, the undergraduate library was to include the reserve books which are a part of the curriculum. But in no case was the undergraduate library thought of as satisfying only the needs of course assigned reading. It was seen as an “educational breakthrough in our universities . . . Its potential is far beyond the simple purposes of providing course assigned readings. . . . Its real strength is in its provision for individual differences, it balance of overspecialization and its creation of a true learning climate.”

Keyes Metcalf saw Lamont library’s general collection as one of its greatest contributions.

Fourth, the undergraduate library was to serve as an instructional tool. It was envisaged as a workshop in which the undergraduate could learn on a relatively small scale those library skills which could later be applied to larger and more complex collections. The staff was seen as having a teaching function as one of its most important tasks. It was felt that the library should be “staffed by a group of librarians who have a keen interest and an understanding of undergraduate education.”

The card catalog was to be a tool used in teaching the student how to approach


3 Interview with Stephen A. McCarthy, director of the University libraries, Cornell University, October 20, 1965.
the collection. The same was true of the periodical indexes, the reference collection, and the vertical file which were also to be used as sources of information. The book collection itself was to be used to help mold student reading habits. The collection was to be a tool used to supplement and to implement the instructional program of the university. Thus the librarians were not primarily to help the student do his work, but to teach him how to do it; to lay a foundation on which the student could build in the future, not only during his college years, but in the years following his graduation.

Fifth, the undergraduate library was to embody something more than the traditional university library. Not only were there to be facilities for reading—books and chairs—but there were also to be facilities for listening to recordings, for holding meetings and discussions, for viewing art exhibits, and other activities. By combining various media from which to learn, the undergraduate library would afford the student a broader opportunity.

Sixth, the undergraduate library was to be designed and built with the express needs and habits of the undergraduate in mind. How, why, and when he uses the library were to dictate the character of the building. The building was to be conveniently located in terms of student habits. At some universities this would be interpreted as on the central campus near an important student traffic route. At other places, it was thought best to locate it near the student living quarters. In the design of the building, simplicity of layout was considered desirable.

These then are the aims of the separately housed undergraduate library on a university campus. Whether or not they have been achieved at institutions which have established undergraduate libraries has to be answered in terms of individual institutions. In most cases, however, the results were uniform enough to be able to assert that these criteria have been met although in varying degrees and with varying interpretations.
An Anemometer for I.L.L. Winds

What factors govern interlibrary loans? Recording interlibrary loan transactions on punched cards makes possible analysis of such factors as type of material requested, form of material received, transaction time, failure to receive material, and type of library involved. The results of a two-year study of such a system are presented, and some conclusions are drawn about interlibrary loan.

Interlibrary loan has long been an essential library function. As the publication mass grows larger and larger, the ability of any one library to meet its users' needs within its own collection becomes less and less. In 1964 Pings and Orr estimated that two million dollars annually were spent on the interlibrary loan operation in the biomedical library network. In 1967 the Medical Library Association reported an annual volume of over one million transactions.

Although these transactions represent a significant national expenditure of time and money, they have infrequently been analyzed. Undoubtedly the major cause of this failure has been the difficulty inherent in handling massive mounds of clumsy paper records. Data processing techniques, however, can now replace these records with machine readable files. The clerical capability of these files in producing many forms of printouts from a single record is easily and frequently exploited. Their analytical capability is an extremely powerful tool that needs to be more widely used. Once a function can be defined in quantitative terms, working methods can be experimentally manipulated to determine the most efficient procedures. The University of Louisville medical library's interlibrary loan operations are a microcosm illustrating the application of both of these capabilities to an actual library function.

In 1965 the interlibrary loan traffic in the University of Louisville medical library had reached a thousand out-of-town transactions annually, a twenty-fold increase in a decade. In July of that year the library began to record its transactions on IBM cards, maintaining two card files. The first is a detail file containing a card for each transaction. When a request is initiated, either by another library or by a local user, the interlibrary loan assistant records it on a form sheet. The first entry consists of a transaction number, title, and codes for the library, borrower, form of material requested, and request method. Transaction time, form of material received, and charges are added when the transaction is completed. If the material

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Mrs. Atwood is Director of Information Services, Medical Library, University of Louisville. The author acknowledges the assistance of her colleagues, Mrs. Mary Stahl and Mrs. Kay Shotts, in carrying out this study.
requested is not received, the reason for failure is recorded; the loan is requested again using the same transaction number, with subnumbering counting the number of repetitions. The second file lists the libraries involved in the detail file. Each card contains the library's code number, name, and codes for its geographical location, distance from Louisville, size, type, teletype use, and fee policies. Maintenance of these two files is easy and inexpensive. Two hours of keypunching weekly keeps them current. These files are used clerically in many ways.

At the weekly updating of the detail file a list of incomplete loans is printed in transaction number order. This list gives an up-to-date, easily accessible record of tardy receipts that need follow-up. The previous time-consuming search for these items through the bulky old file has been eliminated.

These files, together with borrower files, produce a variety of printed lists.

1. **Summary counts** of borrow and loan transactions by individual library, type of library, type of material requested (these counts include data on loan repetition), method of request (this measures growth of the TWX installation), form received or set, reasons for failure to receive material.

2. **Analysis** of borrowing population by individual borrower, borrower category (e.g. faculty, graduate student, etc.), departmental category (e.g. anatomy, biochemistry, etc.), failure to obtain material for user after repetitive requests.

3. **Financial analysis**—charges for material, TWX costs.

4. **Title analysis**—alphabetical listing of book and journal requests.

These clerical productions are very helpful. They have made routine daily operations more efficient. They have also given a complete and detailed view of the interlibrary loan function. Patterns of use are discernable so that for the first time planning for the future can be done on a sound basis.

The analytical capability of these files is astonishing. These records contain quantitative measurements of interlibrary loan characteristics. Investigations have led to changes in routines that greatly improve service. They have also engendered a new concept of the role of the interlibrary loan in the total library function.

These analyses have been completed in several ways. Investigations were first performed on a sorter and calculated on an adding machine. It is not necessary to use a computer for the initial analysis. A preliminary trial with small samples and simple machines leads to the thorough understanding of problems and desired solutions that is a prerequisite to computer programing. What affects transaction time? Can it be manipulated to improve service?

A thirty month sample of sixteen hundred records was first submitted to Chi Square and Rho analysis at the University of Louisville medical school computer center. Loans to other libraries and local borrowings were not included in the sample. All the recorded factors were found to affect transaction time significantly. After consulting with statisticians, the data were divided into three time periods and average transaction times were compared within each descriptive group.3

The time periods are constant for each set.

| Period 1: July 1965-June 1966 |
| Period 2: July 1966-June 1967 |
| Period 3: July 1967-December 1967 |

The descriptive groups, varying for each set, may be divided into two sections, the first containing uncontrollable

3 Ronald Kelsay, Director Computer Service, University of Louisville Medical School; Cornelius Mack, Reader in Applied Mathematics, Institute of Technology, Bradford, England. Personal communications.
factors, and the second containing controlled factors.

**UNCONTROLLABLE FACTORS**

**Form of material requested.** (This is controlled by users.)
1. Book
2. Journal
3. Thesis

**Form of material received.** (This is controlled by the lending library.)
1. Photocopy
2. Original
3. Microfilm

The results of these analyses may be summarized in the following tables.

There is no significant difference in book and journal transaction time, but theses are significantly slower. This may be related to the form of material received as shown in Table 1.

Originals and photocopies are de-
TABLE 2. REASONS FOR FAILURE TO COMPLETE LOANS

<table>
<thead>
<tr>
<th>Reason</th>
<th>Per Cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not owned by library</td>
<td>50</td>
</tr>
<tr>
<td>No reason given</td>
<td>20</td>
</tr>
<tr>
<td>Noncirculating</td>
<td>11</td>
</tr>
<tr>
<td>Missing</td>
<td>10</td>
</tr>
<tr>
<td>Incorrect information</td>
<td>5</td>
</tr>
<tr>
<td>Checked out</td>
<td>3</td>
</tr>
<tr>
<td>Bindery</td>
<td>3</td>
</tr>
<tr>
<td>Issue not yet received</td>
<td>1</td>
</tr>
</tbody>
</table>

Delivered at about the same rate, while microfilm is considerably slower. The customary microfilming of theses apparently accounts for their delayed delivery. Fortunately, the numbers of these dilatory theses are relatively few, accounting for only 2 per cent of the borrowing. Photocopy has become the usual method of journal transmission. Original volumes are still mailed when the articles desired are very lengthy, difficult to copy, or when the borrower wishes to examine the entire volume.

In the great majority of transactions the transaction time was unaffected by these uncontrollable factors. This analysis, however, led to another disheartening discovery. The inefficiency of the interlibrary loan became concretely and horribly apparent. In a two-year period the “first attempt” book failure rate was 37 per cent, and the journal failure rate 19 per cent. Furthermore, Louisville gave no better service to libraries borrowing from it. Louisville failed to mail 70 per cent of the books and 23 per cent of the journals it was asked to loan. The cumulative failure rate for all transactions was 31 per cent. When this failure rate persisted over a two-year period, the reasons for failure were sought. The reason for Louisville’s failure to lend are given in Table 2.

It is obvious that although union lists do lower the failure rate for journals in comparison with books, they do not eliminate failure completely. A completely accurate union list compiled on Day X will not reflect the reality of any working library’s collection on Day Y. These are powerful reasons for the establishment of central collections whose only function is interlibrary loan. The obvious obverse is the questionable utility of the publication of huge, detailed holdings statements in Union Lists.

CONTROLLABLE FACTORS

Manipulation of the second group of characteristics, those within control, has led to dramatic improvements in service.

Method of request
1. TWX
2. Mail

Characteristics of lending library
1. Size in number of volumes:
   a. 50,000
   b. 50,000-100,000
   c. 100,000-500,000
   d. 500,000-1,000,000
   e. 1,000,000
2. Type of library:
   a. Medical
      (1) Academic
      (2) Government
      (3) Society
      (4) Commercial
      (5) Hospital
   b. Non-medical
      (1) Academic
      (2) Government
      (3) Society
      (4) Commercial
      (5) Public
3. Distance from Louisville:
   a. 200 miles
   b. 200-500 miles
   c. 500-800 miles
   d. 800-1,400 miles
   e. 1,400-2,000 miles
   f. 2,000 miles

The analytical results expressing the effect of these factors is summarized in Table 1.

The improvement in service due to TWX justifies the annual thousand-dollar
An Anemometer for I.L.L. Winds

An investment in the system. The rapidity of the negative reply counts heavily here, as a new request can be immediately initiated without further loss of time. The large number of negative replies further reinforces the importance of this factor. The permanence of this improvement has been questioned. Will shorter TWX transaction time persist after the glamour and novelty of a new method fade and everyone is using it? Some of the improvement has been so great that it is obvious that elimination of half of the mailing time cannot account for it. Greater attention to the request at the lending institution also plays a part. The answer is not yet clear. However, continuous monitoring of loan data will make any change immediately apparent.

The most efficient interlibrary loan library is one of 50,000-100,000 volumes. After that the familiar phenomenon of the inefficient giant appears.

The types displayed in order of efficiency are:

1. commercial-medical
2. academic-medical
3. society-nonmedical
4. hospital
5. government-nonmedical
6. society-medical
7. academic-nonmedical
8. government-medical
9. public

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TABLE 4. TRANSACTION DAYS, FORM OF RECEIPT

<table>
<thead>
<tr>
<th>Library</th>
<th>Negative Reply</th>
<th>Photocopy</th>
<th>Original</th>
</tr>
</thead>
<tbody>
<tr>
<td>001</td>
<td>5.0</td>
<td>9.7</td>
<td>5.5</td>
</tr>
<tr>
<td>002</td>
<td>17.0</td>
<td>16.2</td>
<td>8.7</td>
</tr>
<tr>
<td>013</td>
<td>7.1</td>
<td>8.5</td>
<td>14.0</td>
</tr>
<tr>
<td>032</td>
<td>7.7</td>
<td>19.8</td>
<td>16.0</td>
</tr>
<tr>
<td>050</td>
<td>10.5</td>
<td>22.0</td>
<td>16.1</td>
</tr>
<tr>
<td>052</td>
<td>5.5</td>
<td>7.2</td>
<td>9.8</td>
</tr>
<tr>
<td>100</td>
<td>20.8</td>
<td>16.0</td>
<td>11.9</td>
</tr>
</tbody>
</table>

The distance factor gave the most startling results. It has long been a maxim that the library chosen from a union list’s array should be the library geographically closest. This maxim has not been borne out by our investigations. Why should distance Zone 4 (800-1400 miles) be the most efficient? Some other factors must be cancelling out the travel time. The libraries in Distance Zone 4 are a heterogeneous group, not all medical, academic, public, or of one size.

We therefore began to investigate the possibility that the individual library’s intrinsic operation is the factor of maximum force. We first arrayed libraries within the same city, using the same request method, by average transaction time. The results with distance from Louisville are shown in Table 3.

Obviously, individuality triumphs over geography in these sets. Similar variations are apparent in form of receipt arrays.

Here again in some libraries the photocopy operation is faster than wrapping and mailing the original; in others, the

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* Vern Pings, Wayne Medical Library; Estelle Brodman, Washington University of St. Louis Medical Library, personal communications.

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TABLE 3. TRANSACTION DAYS, CITY

<table>
<thead>
<tr>
<th>City</th>
<th>Miles</th>
<th>Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lexington, Ky.</td>
<td>80</td>
<td>8.0, 8.1, 11.2, 20</td>
</tr>
<tr>
<td>Cincinnati, Ohio</td>
<td>109</td>
<td>5.0, 6.0, 9.0</td>
</tr>
<tr>
<td>Atlanta, Ga.</td>
<td>438</td>
<td>4.0, 6.0, 6.0, 6.0, 6.0</td>
</tr>
<tr>
<td>Washington, D.C.</td>
<td>640</td>
<td>10.0, 21.0</td>
</tr>
<tr>
<td>Chicago, Ill.</td>
<td>302</td>
<td>7.2, 10.0, 0.7, 13.2, 13.2</td>
</tr>
<tr>
<td>New York City</td>
<td>783</td>
<td>9.0, 14.8, 15.0, 15.0, 17.0, 82.0</td>
</tr>
<tr>
<td>Philadelphia, Pa.</td>
<td>690</td>
<td>8.0, 11.0, 16.0</td>
</tr>
</tbody>
</table>
reverse is true. Checking routine for negative replies shows similar variance. Let us now consider a further data arrangement that reinforces the conclusion that it is the intrinsic operation of each specific library, rather than any particular characteristic, that has the greatest effect on transaction time. If we arrange the average transaction time in descending order by library, we can break the data into four samples of approximately equal size, Set 1: 2-5 days; Set 2: 6-8 days; Set 3: 9-12 days; Set 4: 13-82 days. Set 1 is the most, and Set 4 the least, efficient. Analysis of the components of each set does not show groups of similar libraries within sets, but rather a heterogenous composition throughout.

We can discern here the inefficiency of large sizes.

Once we had determined the factor of maximum effect, we were able to manipulate it experimentally to improve our service. We calculated transaction times by library and arranged them in tables of descending order. The fastest times are listed first, the slowest last. The range is from 2 to 82 days. The tables are updated monthly. The request is always made from the library with the lowest transaction time. In the past six months these tables have improved our transaction time 25 per cent.

Recording our interlibrary loans on punched cards has enabled us to analyze the loan as an acquisition aid. Two excellent papers have already appeared indicating that the loan is useless as an acquisitions guide.

Our file was examined for repetitive requests. If we had ordered all journal titles requested during the first year, we would have added 281 titles and reduced our interlibrary loan requests that year by 29, the second year by 37, and in the last six months by 14. In the second year, if we repeat the procedure, we would add 283 titles and


<table>
<thead>
<tr>
<th>TABLE 5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Distance zone—delivery efficiency</strong></td>
</tr>
<tr>
<td>----------------------------------</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Library size—delivery efficiency</strong></th>
<th>Set 1</th>
<th>Set 2</th>
<th>Set 3</th>
<th>Set 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6</td>
<td>10</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>10</td>
<td>6</td>
<td>8</td>
<td>4</td>
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<tr>
<td>3</td>
<td>5</td>
<td>14</td>
<td>9</td>
<td>5</td>
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<tr>
<td>4</td>
<td>1</td>
<td>1</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>2</td>
<td>11</td>
<td>18</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Library type—delivery efficiency</strong></th>
<th>Set 1</th>
<th>Set 2</th>
<th>Set 3</th>
<th>Set 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical school</td>
<td>13</td>
<td>8</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>Hospitals</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Med.-governmental</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Med. societies</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Med. commercial</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Academic</td>
<td>7</td>
<td>13</td>
<td>23</td>
<td>22</td>
</tr>
<tr>
<td>Governmental</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Society</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Commercial</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>
reduce our requests that year by 15 and during the next six months by 4. The book yields were very low. Only one title out of all book requests during a thirty-month period was asked for more than once. This is attempting to supply the user’s need after he has appeared with a request we cannot fill immediately. The size of the journal title pool necessary to anticipate his needs would be astronomical. Calculations based on title number of use ratios of 7/1 indicates we would have to add a pool of over two thousand titles, in an obviously futile attempt to meet our user’s needs. The statistically rare event characteristic of the loan is reinforced by a subject examination. Some 80 per cent of the books asked for were out of print, and of the remainder 30 per cent were non-medical. Similar patterns prevail in the journal requests.

In summary, data processing techniques have enabled us to examine easily and inexpensively the interlibrary loan procedures. We make no claims for the universal validity of these results. Since these methods are now available to most libraries, it would appear desirable to urge other institutions to undertake such studies. The interlibrary loan has become such a leviathan that data regarding it has become a national necessity. The small beginning at Louisville has given the administration an accurate detailed picture of this part of the library’s structure. The efficiency of the interlibrary loan department has increased, and service to users has improved markedly. The necessity of the interlibrary loan has also been more clearly recognized; it can never be eliminated by increasing the size of the collection within feasible limits. The whole world is necessary as an interlibrary loan source for users. Efforts should be concentrated on more efficient access to the world rather than futile attempts to encompass it within our own respective walls.

E. E. Graziano6 said five years ago in his analysis of interlibrary loan, “a quantified service will be the only hope for the libraries of 2000 A.D.” These studies have proven to our satisfaction that they work extremely well in the libraries of the 1960’s.

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Reclassification in the Libraries of the Great Lakes Colleges Association

A comprehensive survey of the reclassification situations in the libraries of nine reputable colleges was made by questionnaire. This summary of the findings shows that approaches to reclassification differ considerably according to institutional financial support and available professional skills. Besides defining the general pattern that library reclassification appears to be taking at this time, the survey also indicates the means by which reclassification is supported financially, an apparent shortage of catalogers experienced in the use of the LC Classification system, and a possible trend toward the further overburdening of cataloging department staffs.

The Great Lakes Colleges Association, incorporated in 1961, is composed of twelve liberal arts colleges located in Ohio, Indiana, and Michigan: Albion, Antioch, Denison, DePauw, Earlham, Hope, Kalamazoo, Kenyon, Ohio Wesleyan, Oberlin, Wabash, and Wooster. The association is probably best known for its program in international education under which its students study in certain foreign universities and receive transferable academic credits for their work. Until recently, the program has been mainly concerned with non-Western areas: the Far East and Latin America. The special language programs necessary for such study—Chinese, Hindi, Japanese, and Portuguese, in addition to the usual ones—are available at designated home campuses. There are other cooperative programs in the humanities, urban studies, social and natural sciences, and there is a sharing of ideas among the schools' admissions personnel, business officers, and librarians.

Communication among the GLCA libraries has been good from the start and has been aided by the GLCA Librarians' Newsletter, edited by Richard W. Ryan, librarian at Denison. Reflecting the current interest of academic librarians in the possible adoption of the Library of Congress Classification system, the member libraries sponsored two conferences on reclassification. The first conference was held at Ohio Wesleyan University on October 16-17, 1966, and the second at the College of Wooster on April 28-29, 1967. Both were well attended and included a large number of non-GLCA librarians from the tri-state area. A survey by questionnaire was made in October 1967 to determine the respective catalogers' experience with the Library of Congress Classification system and to find out, in as much detail as possible, how the various libraries were approaching reclassification. This report is a summary of the findings.

Of the twelve GLCA libraries, nine

Mr. Gaines is Reclassification Director in the Antioch College Library, Yellow Springs, Ohio.
(Albion, Antioch, Denison, DePauw, Earlham, Hope, Ohio Wesleyan, Wabash, and Wooster) have changed to LC since mid-1966. One (Kalamazoo) has been using LC for over thirty years, and two (Kenyon and Oberlin) are presently continuing with Dewey. The latter three have been excluded from this discussion because they are not in the process of changing to LC and, to a lesser extent, because Oberlin’s library is so large (over six hundred and thirty-five thousand volumes and with a budget of more than $450,000) as to skew the institutional data summarized in Table 1. All of the figures are for 1967-68.

Almost within a year’s time, all nine libraries had changed to LC. Six of them changed between May 1 and December 27, 1966, and the other three between January 1 and May 10, 1967. All of the libraries which began using LC in 1966 waited from somewhat less than a month to a full year before beginning their various reclassification programs. The average time elapsed was slightly more than four months and the median time three months. Of the three libraries starting in 1967, two began to reclassify at the same time they began using LC for new acquisitions. Reasons for changing to LC, listed according to the frequency with which they were mentioned are: (1) the possibilities for national cataloging, cooperation, and automation; (2) economy; (3) greater suitability of LC; (4) speed; (5) inefficiency of Dewey; and (6) opportunity to re-evaluate the collection, a reason which is more closely related to reclassification alone. It is interesting that none of the libraries had previously approached their college administrations about a possible change to LC and that their cataloging staffs had never approached their head librarians about the matter.

All nine libraries presented some sort of report or program to their respective college administrations before the change to LC was made. With only two exceptions, those included cost estimates (ranging from $30,000 to $94,000) and time tables (two to ten years) for reclassification. One of the libraries (Antioch) asked for and got an initial appropriation of $80,000 to set up a special reclassification unit with its own director to make all possible speed in getting the job done. Another (Albion) was authorized to hire a cataloger experienced in the use of LC Classification to head its project. At least one of the libraries did not ask for a lump sum to take care of reclassification. That library, and probably most of the others, reached some sort of agreement with its administration whereby it got permission to change to LC but at the same time agreed to make no large demands for reclassification funds.

Thus in eight libraries reclassification costs (less the reclassification director’s salary, in the case of Albion) are being carried, for the time being at least, by the library’s regular operating budget, strengthened by whatever extra funds the librarian can garner. Several libraries
reported that they are getting various budgetary increments for additional personnel, equipment and supplies, most of which are connected with reclassification. Aside from the two reclassification directors, additional personnel include typists, full or part time nonprofessional assistants, and students—but mostly students. Only in one library (Wooster) is a high-output reclassification project being carried out without additional professional catalogers being hired. In seven of the libraries, the reclassification is being done mostly by the regular cataloging department staff, reinforced to various degrees, in its own office space.

The proposed time tables have been revised according to forthcoming financial support. Two of the libraries have no announced completion date. Three have kept theirs, and one has extended its completion date. The remaining three say that they will probably declare reclassification effectively completed when the most-used Dewey-classed books have been done. It seems likely that others will join that category as the work progresses and the eventual cost becomes apparent. The priorities under which materials are reclassed generally follow the same pattern in all the libraries: (1) continuations, older editions of added titles, and older materials which the catalogers must handle for other reasons; (2) parts of the collection already designated by a letter such as B (Biography) or R (Reference); and (3) block by block (usually in areas where the shelves are overcrowded or where shifting is the most practical) and/or as books are returned from circulation.

Reclassification speed and costs vary considerably, and unfortunately comparison is made even more difficult because some of the libraries do not keep careful statistics. Apparently reclassification costs are so inextricably bound up in the regular operating budgets of most libraries that it is almost impossible to establish the true unit cost. Not, of course, that the unit cost figure is worth anything without a detailed description of the operation itself—there are just too many factors which affect the cost. All such factors can best be summarized as the library’s standard for cataloging. If the library is going to adjust to LC’s choice and form of entries and subject headings, do the necessary recataloging, regularize its treatment of series, mend, weed, and initiate binding and replacement, then the cost will be high. If the library retains book pockets and cards, they will add to the cost also. Three of the libraries are just getting started at reclassification, but the output and available unit cost of the other six are given in Table 2.

The nine libraries have a total of 144 professional catalogers (including the two separately financed reclassification directors), but only four of them have had any previous experience classifying with the LC system. One of the reclassi-

<table>
<thead>
<tr>
<th>INSTITUTION</th>
<th>RECLASSED</th>
<th>PERIOD COVERED</th>
<th>UNIT COST</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Volumes</td>
<td>Titles</td>
<td></td>
</tr>
<tr>
<td>Wooster</td>
<td>64,754</td>
<td>49,930</td>
<td>one year</td>
</tr>
<tr>
<td>Antioch</td>
<td>46,402</td>
<td>37,524</td>
<td>one year</td>
</tr>
<tr>
<td>Ohio Wesleyan</td>
<td>35,000</td>
<td>n.a.</td>
<td>one year</td>
</tr>
<tr>
<td>Wabash</td>
<td>29,000</td>
<td>26,000</td>
<td>eight months</td>
</tr>
<tr>
<td>Earlham</td>
<td>17,500</td>
<td>n.a.</td>
<td>fifteen months</td>
</tr>
<tr>
<td>Denison</td>
<td>c.11,000</td>
<td>n.a.</td>
<td>nine months</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Volume</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Title</td>
</tr>
<tr>
<td>Wooster</td>
<td>c.52¢</td>
<td>c.67¢</td>
<td></td>
</tr>
<tr>
<td>Antioch</td>
<td>84.6¢</td>
<td>$1.046</td>
<td></td>
</tr>
<tr>
<td>Ohio Wesleyan</td>
<td>n.a.</td>
<td>n.a.</td>
<td></td>
</tr>
<tr>
<td>Wabash</td>
<td>n.a.</td>
<td>n.a.</td>
<td></td>
</tr>
<tr>
<td>Earlham</td>
<td>58¢</td>
<td>n.a.</td>
<td></td>
</tr>
<tr>
<td>Denison</td>
<td>c.53¢</td>
<td>n.a.</td>
<td></td>
</tr>
</tbody>
</table>
Recatalogization directors came to his job after three years of the same work in a small university library. The experience of the other three catalogers is less extensive. One worked for one year classing government documents as separates in a major university library eight years ago. Another recataloged a departmental library in a major university more than twenty years ago, and the third cataloger worked for one year as a cataloger in a small university library twenty-five years ago. Five of the libraries have catalogers with no previous experience in classifying with LC. When the four catalogers with experience in LC are added to the other members of the professional staff who have previously worked or studied in an LC-classed library, the libraries have only sixteen out of a total of 53 1/4 librarians who have some practical familiarity with the system—30 per cent.

As the following practices indicate, the actual standards for cataloging vary considerably within the group of libraries. The extent of recataloging ranges from “whenever necessary” to “very little,” but only one library admits that it is doing nothing other than changing the call numbers on the books and catalog cards. Five say that they are not revamping their series authority files as they reclassify—indeed, several do not even have them. Only one library maintains a clipped file of the quarterly Additions and Changes to the LC schedules, although one other annotates the literature schedules. Except for one library which does not presently have a subscription, the others examine each issue when it arrives and keep it on hand for consultation when necessary. Acceptance of LC’s classes PZ 3 and PZ 4 (Fiction in English) also varies. Three of the libraries accept it without alteration, and one always assigns numbers from the national literature classes. The remaining five libraries compromise to various degrees, the most common practice being to use PZ 3 and 4 only when the schedules and the LC Printed Catalog do not give an official author number in the national literature classes. All of the libraries except one (Antioch) use permanent, self-adhesive paper labels as the major means of changing the call numbers on their catalog cards, a method which seems to have originated with the library at California State College at Long Beach. Whenever new cards are required they are usually run off on the library’s Xerox 914, as Antioch does for all its reclassed cards.

The specific difficulties that the catalogers have experienced in the use of LC are, according to the frequency of times mentioned: (1) lack of a comprehensive guide to interpret the schedules and tables; (2) use of the schedules and application of the special tables; (3) the rationale of LC’s Cuttering and the arrangement of translations and other editions in relation to the original work; (4) unavailability of literature Cutter numbers for authors classed in PZ 3 and 4; (5) separation of older and newer material caused by LC’s revision of the schedules; (6) frequent necessity to do original classification when LC classes a title within a series; and (7) lack of the K (Law) schedule. Strangely enough, three of the libraries reported no specific difficulties using LC. One of those libraries has the cataloger with some experience with LC, but the catalogers in the other two libraries have no previous experience with the system.

Most of the advice that the nine libraries would give to other libraries considering the change to LC and/or reclassification has to do with reclassification. In the order of frequency, those replies are: (1) investigate and consider all available methods and costs; (2) plan ahead; (3) start slowly; (4) remain flexible; (5) use student help to full advantage; (6) take full advantage
of labor-saving techniques and materials such as the Se-lin labeler, Xerox, and Avery labels; and (7) do as much processing as possible during the summer when extra labor is available and when the books are not in heavy use.

A few observations might well be made on the implications of the survey findings. Apparently it is accepted practice in many libraries for catalogers to run a more or less modest reclassification program with the time that they have saved by the change to LC. Ultimately that time gain becomes eroded by acquisitions increases and more permanent arrangements for reclassification are necessitated—which means that at some point extra funds will have to be found or the work will bog down. However, even large expenditures cannot always buy the sound standards and consistently good work that experienced and well-trained personnel bring—obviously, there are not enough experienced catalogers to go around. Not all smaller academic libraries, of course, have had particularly high cataloging standards, and in many instances the cataloging personnel are not prepared to cope with burgeoning acquisitions, much less with a reclassification program.

What the individual library must do is to keep careful records of its own procedures and costs and check them regularly against those of comparable institutions. With accumulated data it will be possible to project time and cost figures for various aspects of technical services work, not just for reclassification projects. It would be helpful if the profession were to collect and publish instructional material on the use of the LC Classification system and to standardize and publish the best and most economical procedures dealing with all aspects of technical services work. Without those standards to guide them, many libraries will fail to use this opportunity to establish the firm base that is needed to enable them to meet the demands of the future. The libraries surveyed in this study are comparatively good, sound ones in that most of them have a tradition of adequate financial support and staffing. But what is going on in the academic libraries that are patently under-financed and less competently staffed?
Planning the Conversion of a College to a University Library

Many new university libraries are being rapidly developed out of older, small college collections. Methods and standards available for the planning of such libraries include the Clapp-Jordan formula for book collections and standards for buildings and book collections used by the State of California. Professor Robert Hayes of the school of library service, UCLA, is preparing a formula for the development of collections in University of California libraries. Methods used in planning for the development of the University of California library, Davis, are described.

The painfully sudden and explosive development of many small, usually bucolic, undergraduate and specialized colleges into full-scale universities in this country and abroad has been a remarkable phenomenon since World War II. Some institutions have literally doubled their enrollment annually over a period of years with student bodies increasing from a few hundred to ten or twenty thousand persons in a relatively short period. In addition, numerous and completely new colleges and universities with great aspirations and mostly hope for assets have been started in tropical forests, asphalt jungles, raw prairies, and in the mazes of suburbia. In several notable cases new satellite campuses have been seeded by existing older campuses.

It is clear that all over the world, including the United States, there is a great need for thorough planning, based on reasonable standards and guidelines, in connection with the library systems of such new and rapidly growing institutions. Standards for library buildings have been available. Planning for book collections and library services has been difficult as there has not been available in the past well devised, clearly defined, and widely accepted standards and guidelines. Fortunately, the Clapp-Jordan formula for book collections, which has now been widely promulgated, will be useful as will other recent efforts to create meaningful standards.

Before library standards can be used, however, an institution must first make basic decisions about its purpose, academic program, and size. The various factors that have a bearing on library needs listed in order of priority include the following.

1. The academic program. Undergraduate programs require relatively small library collections. Graduate programs, particularly at the doctoral level, require heavy investments in large book collec-

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tions. According to a recent survey at the Joint University Libraries, graduate students and faculty there require library services costing 4.8 times more than undergraduates.

2. Quality. This is a factor that is hard to determine. The fact that a good library is important in relation to the quality of an institution is widely accepted and was clearly noted in an important study recently published by the American Council on Education.

3. Size of enrollment. This factor must be considered, but it should rank below the academic program and quality as a factor, particularly as far as book collections are concerned. Institutions should not plan library facilities based largely on the size of the enrollment.

4. Other library facilities available in the area. Too much weight is often given to this factor. An institution must eventually develop a library to meet its basic needs and other libraries if available should only be depended upon for seldom-used special materials and for the partial support of certain research projects.

Once the above factors have been determined, long range library plans should be prepared which include estimates of needs for book collections, space, staff, and funds.

As a case study, it should be useful to examine the methods by which planning for educational institutions and libraries has been undertaken by the State of California. The urgent need for greatly expanded educational facilities in California became obvious shortly after World War II and resulted in legislation which officially recognized California’s higher education system which is based on junior municipal colleges, state colleges, the university, and independent colleges. Each type of state-supported institution has a specific task although there is much overlapping of function. Entrance requirements vary from the junior colleges, which accept graduates of all accredited high schools, to the university, which accepts about the upper 12 per cent of high school students. Junior colleges prepare students for vocations as well as for transfer to the state colleges and universities. The state colleges provide general academic work through the master’s degree in most basic disciplines and also train many of the teachers for the state. Besides a general curriculum, the university gives particular attention to graduate work, research, and professional training in such fields as law and medicine. Total enrollments in 1958 were 225,615 with 661,350 expected by 1975. There are now nine general campuses of the university as compared to two, Berkeley and UCLA, in 1951. State colleges have grown to about seventeen.

The studies gave little specific attention to libraries. However, in the Restudy of the Needs of California in Higher Education the following guidelines were recommended.

1. Library reading stations for one-

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3 Unpublished report by the Joint University Libraries (Nashville, Tennessee).


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fourth the students should be provided. Thirty net square feet per station should be allowed which would also provide for library work space.

2. .10 net square feet of space per volume for the first 150,000 volumes decreasing to .05 net square feet for the second one million volumes.

3. State colleges: Thirty volumes for each full-time student for the first 5,000 students plus twenty volumes for each full-time student beyond 5,000 students. University: one hundred volumes per student for the first 10,000, seventy-five volumes for the second 10,000, fifty volumes per student beyond 20,000.

These guidelines were admittedly rule of thumb and were devised quickly by an advisor who based them on library facilities and collections as they existed at certain institutions. Although they were partially inadequate, they were used as standards for several years and still have much authority. As far as the university is concerned, they were replaced in part by A Plan for Library Development issued in 1961, prepared at the request of President Kerr, and the Unit Area Allowance for Libraries prepared by a special committee of librarians and architects in 1966.

Within the University of California system the Davis campus represents very well the growth of a specialized campus into a general university. An examination of its library development might be fruitful in coming to conclusions about how library planning in such a situation should be handled and what mistakes should be avoided.

From 1909 to 1951 Davis was a college of agriculture started originally as an offshoot of the Berkeley campus. In 1951 a College of Letters and Science was initiated at a very modest level. At that time, Davis had about eighteen hundred students, all in agriculture except for a handful in the College of Letters and Science. The academic program in agriculture was a strong one with a doctorate provided. Major emphasis was placed on research. The library had eighty thousand well selected volumes, about 80 per cent of which were concerned with the biological sciences and agriculture. No firm, long-range plan had as yet been prepared for the library or the campus in general. It was assumed, however, that the College of Letters and Science would remain small and would emphasize the basic sciences. With these limitations in mind, efforts of the library staff for the next few years were largely focused on building up the scientific collection, although some attention was given to basic material needed for the social sciences and humanities. Much dependence in these years was placed on the large university library at Berkeley.

Library growth was accelerated in 1959 when Davis was designated a general campus. At about that time an acquisitions code was devised for the library which emphasized that the development of the book collection should be based on the academic program. A library long-range building program was prepared. Unfortunately, both of these documents were based on inadequate information about the future academic development of the campus, which was still somewhat uncertain. By 1961 it became clear that Davis would become a general university in fact as well as name, that graduate work in practically all basic disciplines was to be provided, and that professional schools of law, medicine, engineering, and possibly two or three others would be created. It was also at this time that the previously noted A Plan for Library Development was issued which stated that Davis and the other emerging general campuses of the Uni-

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University should have at least five hundred thousand volumes on hand by the year 1970-71. This figure for Davis was later increased by President Kerr to nine hundred thousand volumes. Using this document, plus a published academic plan for the Davis campus, it was now possible for the library staff to do its planning work with some assurance. The planning had four principal aspects:

Collection Development. It was agreed at the beginning that selection of material should be a joint faculty and library staff endeavor. Subject specialists on the library staff worked with faculty members in preparing want lists based on standard bibliographies and the needs of the academic program. Goals for the numbers of volumes to be processed each year up to 1970-71 were estimated. Priority in the expenditure of book funds was given to the needs of new graduate and professional programs particularly in the fields not formerly emphasized on the campus.

No acceptable quantitative factors for estimating the size of book collections were available in 1961. However, Professor Robert Hayes of the University of California’s Institute of Library Research is now developing a set of factors based in part on the Clapp-Jordan formula and experience at the University of California. Librarians at the Davis campus in preparing material for Professor Hayes reached the following conclusions about quantitative factors.

1. A basic core collection should be developed of at least fifty thousand volumes, but preferably consisting of seventy-five thousand or even one hundred and twenty-five thousand volumes. The Clapp-Jordan formula suggests an “undergraduate library” as a starting point with a minimum of fifty thousand seven hundred and fifty volumes. The core collection would include general reference works, bibliographies, volumes supporting basic general reading requirements and a general periodicals collection (assuming that bound periodical backfiles would be counted as monographic volumes). Selections for this basic library could be based in part on lists prepared for the University of Michigan’s undergraduate library and for the new campus program of the University of California. The latter program involved the simultaneous development of basic undergraduate libraries of seventy-five thousand volumes each for the new San Diego, Irvine and Santa Cruz campuses.

2. Additional volumes should be added for each academic program as follows.

   a. Seventy-five thousand volumes for each new college and professional school.

   b. Approximately one thousand to fifteen hundred volumes for each undergraduate major. The Clapp-Jordan study recommends three hundred and thirty-five volumes for each baccalaureate program. However, the Davis librarians believe these requirements should be higher particularly for programs that include fields with high literature requirements such as history, English literature, and political science.

   c. About five thousand volumes for each master’s program and twenty-five thousand volumes for each doctoral program. The Clapp-Jordan formula calls for three thousand and twenty-four thousand five hundred volumes respectively for master’s and doctoral programs.

3. Volumes needed based on student enrollment. It is recommended that approximately ten volumes be added for each undergraduate student and twenty volumes for each graduate student. As stated earlier, book collection requirements must largely be based on the academic program; however, additional

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7 Michigan, University. Library. Undergraduate shelf list to December 30, 1963 (Ann Arbor: University Microfilms on microfilm, cards, and xerox).
copies of basic works are required as the student enrollment grows.

4. Volumes needed based on the number of faculty members and research in the institution. It is recommended that about 200 volumes for each faculty member and 100 volumes for each professional research staff member be added by the library.

Library organization. It was decided early in the planning stage that the library's organization and services should be centralized as much as possible if the funds available were to be used effectively. The chancellor issued a statement that new departmental libraries could not be started or older ones appreciably enlarged without the consent of the university librarian and the chancellor. This unequivocal statement has been of great value. A policy statement was also issued by the president of the university that all campus libraries on each campus were to be under the jurisdiction of the respective university librarians. Each university librarian was made a member of the academic senate and all professional librarians were shifted from non-academic to academic status. Clarification of these matters greatly strengthened the hand of the library staff in developing a strong centralized library system.

Staffing. Planning for staff has usually been the weakest part of library development programs and Davis has been no exception. Administrators may believe that if book money and buildings are provided everything else will follow along automatically. They may not realize that adequate funds for the staffing of processing and public services activities must also be available. Realistic planning should provide some estimates, no matter how rough, of staff requirements. There are absolutely no firm guidelines for staffing as there are so many variables such as productivity of staff members, services demanded, amount of centralization, number of service points, and the quality of cataloging work. Some librarians, however, have rough rules of thumb which help. For instance, in Davis it is said that it takes about one person in the processing departments—acquisitions and cataloging—to handle from eight hundred to nine hundred volumes in a year's time. It is further said that it takes about one person a year to check in at the kardex approximately three thousand to thirty-three hundred periodical issues and that about six thousand volumes can be prepared for binding a year by one person. In the circulation department about one staff member is needed for every two hundred to two hundred and forty students.

No general rule seems to work in connection with staffing for special services such as reference and documents. Much depends on the number of public desks covered, quality of service offered, needs of the academic program and other factors. However, over a period of years a library administrator, using intuitive techniques, can estimate fairly accurately what is needed.

Buildings. Planning for library buildings has been based almost entirely on standards listed in the previously noted Restudy of the Needs of California in Higher Education. In practice, the "re-study" standards have not been adequate for the housing of staff and nonbook materials. The newly devised Unit Area Allowance for Libraries will be a better guide.

One can sum up the Davis experience by saying that although there have been some mistakes, great progress has been made. In reviewing the experience, several admonitions come to mind for the benefit of library planners who find themselves in the same situation.

1. Planning. Library planning must be integrated with general planning for the university. General university planning
must obviously come first and library planning second. Experience at Davis shows that institutions should plan carefully at least ten years ahead of time. An experienced library consultant and planner can often be used by an institution with great advantage.

2. Standards. Some basis for planning must exist. The standards and guidelines noted previously have been very helpful at Davis. Unfortunately, there are many aspects of library work for which widely accepted and tested standards do not exist. In many cases, an institution should prepare its own standards after a careful examination of local needs and after determining its long range goals. Particular care should be taken to see that book collection requirements and standards are firmly based on the academic program. Staffing requirements should not be ignored.

3. Funds. Funding requirements for university libraries are often much underestimated. Inflationary increases in book costs may not be anticipated. Staffing costs are usually higher than expected. Planners should estimate future library costs as well in advance as possible as obtaining adequate funds for a quality library requires much effort. Experienced consultants can be useful in estimating funds required for a library.

4. Organization of the library. Firm decisions about the organization of the library and about the administration of all library units on a campus must be made at an early date. An uncoordinated library system with numerous masters may never be effective no matter how much money is spent on it. Good sense and experience dictates that library services must be centralized as much as possible both administratively and physically.
Out-of-Print Booksearching

This study compares various methods of out-of-print booksearching and discusses problems related to the evaluation of quotations, means of selecting and comparing dealers, library-dealer relations, and the role of advertising in locating desiderata. It sketches a program of booksearching applicable to the needs of a large and complex research library.

One of the most curious features of this era of unprecedented library expansion is the comparatively slight attention that is being given to the problems and procedures of out-of-print booksearching. No matter how much one may subscribe to the argument that research libraries must give primary emphasis to the acquisition of in-print materials,1 out-of-print needs cannot be ignored. Whether the desideratum is required immediately for course reserve or less urgently for research purposes, whether it is a single issue of a periodical needed for binding or a long run to fill in an important back set, its acquisition is of concern to the library.

Nor can these needs be substantially answered, either now or in the foreseeable future, by photocopy or reprints. Publication delays, insufficient coverage, and expense are continuing problems with the latter, while technical difficulties—particularly in the area of library application—inhibit the utility of the former. As Shirley Heppel has noted, "a startling number of titles must still be sought on the o.p. market, and the millennium when every title is available at reasonable cost is still distant."2

Consequently, research libraries must rely primarily on the antiquarian market to meet their out-of-print needs. With the increasing competition of new libraries and burgeoning graduate programs, the "catch-as-catch-can" search procedures which still prevail in most college and research libraries,3 must give way to rational programs.

The present article proposes guidelines for such a program, based on the experience of one large research library. During 1966-67, the search division of the University of California at Berkeley listed almost forty thousand wants with dealers and acquired almost six thousand desiderata. These included many kinds of materials—monographs, serials, documents, maps—published throughout the world. It is not a rare books acquisition program, although many of the items sought are quite obscure. It is designed to meet the day-to-day out-of-print needs of a large and complex library.

Carter and Bonk have noted that the generally accepted means of out-of-print booksearching can be grouped into two categories: those in which the library

1 Perhaps the best exposition of this view is J. Periam Danton, Book Selection and Collections (New York: Columbia University Press, 1963), 122-24, 140.


3 Ibid., 30.
acts as searcher and those in which it entrusts the actual searching to dealers or search services. On the basis of cost per item and rate of return, the UCB search division has found the first category to be more costly and less efficient.

The primary means utilized by a library in conducting its own out-of-print book searching are checking dealers' catalogs against its desiderata file and sending librarians or faculty members on buying trips. The advantage most frequently cited in favor of these methods is cost. It is assumed that the price of a book listed in a dealer's catalog or found in his stock is appreciably lower than the price of that same item if it were supplied by a search service in response to a request. Of course, the argument is quite reasonable: in the first instance, the dealer is trying to dispose of material on hand, without any certain knowledge (in many cases) that it is definitely wanted by anyone; in the second, he is offering something that he has been requested to locate and which has cost him time and effort to secure.

Investigations by the UCB search division have shown that, in terms of purchase price alone, books do cost less when ordered from a catalog rather than a search dealer. A study of all of the division's orders placed from December 1, 1966, through May 31, 1967, revealed a 20 per cent difference in favor of catalog orders.

When total cost was studied, however, it became evident that desiderata found in catalogs were actually much more expensive than those supplied by search dealers. The extensive checking involved in catalog ordering required an investment of approximately six times the labor cost per order that was necessary to acquire an item by quotation—even when the entire search routine of listing wants, evaluating quotations, and writing orders was included. Finally, when the much higher cancellation rate of catalog orders was taken into account, the cost difference rose even further.

Buying trips have proved no more practical than catalog ordering as a means of obtaining specific desiderata. During the past several years, the UCB search division has prepared special lists for librarians and faculty members to take with them on book-buying trips. In no case has such a trip yielded as much as a 5 per cent return. Moreover, during the course of these trips, the division has had to refrain from submitting any of the titles included on these lists to its regular dealers, in order to avoid duplication. This has caused a delay in acquiring needed items.

On the other hand, when the UCB search division has utilized search dealers, total cost has been less and the return has been much greater. During 1966-67, the division acquired 15 per cent of the items that it requested from dealers. When one recognizes that this searching is being done on a worldwide basis, this figure becomes even more impressive. For example, United States, Australian, Greek, and Arabic requests yielded a return well above 20 per cent, and Portuguese, Danish, and Italian exceeded the general average. Consequently, the division depends primarily on search dealers to secure its out-of-print needs.

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A study of the division's cancellations during April and May, 1967, showed that 71 per cent of the catalog orders had been cancelled, as opposed to only 7 per cent of the orders based on quotation.

While dealer-catalog review and buying trips have been largely eliminated from the UCB search division's procedures, they have not been eliminated from the library's total acquisition program. The UCB library continues to acquire a substantial number of out-of-print materials by both these means. However, this is a combined selection-acquisition program; it does not involve the use of a pre-selected desiderata list.
Even after a library has decided to conduct its booksearching through dealers, a number of problems remain to be solved. For example, can a large research library, with an extensive file of wants, follow Lyle’s advice and use one or two dealers only? If not, how many should it use? Should it send the same want list to several dealers at once or attempt to circulate its requests at intervals? How should it evaluate the quotations it receives? Should it reject any? If so, on what basis? How should it select the dealers it uses?

Recently, Frederick Altman and Dominick Coppola, speaking as dealers, stressed the importance of mutual respect and close cooperation between dealers and librarians. It is particularly important that a search librarian who has decided to utilize dealers in securing his wants recognize that he is entering into a cooperative venture which must serve the needs of both parties in order to succeed. Furthermore, he must understand what those needs are. The librarian wants to acquire as many books as possible, as quickly as possible, within the limits of his budget. The dealer wants to make a fair profit, to have most of his quotations accepted, not to be pitted against his fellow dealers, and to secure prompt payment.

One of the complaints most frequently voiced by search dealers about libraries is that they “broadcast” their wants. That is, they send the same want list to a number of dealers at the same time. This places the dealers in direct competition with each other, leads to a rise in prices, and results in the rejection of many legitimate offers (only the first or cheapest is accepted, unless multiple copies are wanted). Most search dealers are unwilling to invest time, money, and effort on behalf of libraries which follow this procedure.

On the other hand, it is quite understandable that a search librarian should be reluctant to send a want to only one dealer and leave it with him indefinitely, whether he finds it or not. No matter how successful a dealer may be, he is going to locate only a percentage of any group of wants, and sooner or later he will turn his attention from the hard-to-get items to concentrate on the newer requests that continue to come to him. Yet many of those books that he has been unable to locate may be needed urgently by the library.

The answer that the UCB search division has found to this problem is to send each desideratum to only one dealer at a time, but send it on to other dealers at specified intervals. These intervals must be long enough to provide adequate search time for each dealer but not so long as to allow extended dormant periods, when the book is not being actively sought.

In an effort to determine the optimal duration of such intervals, the search division analyzed a random sample of 746 titles purchased during 1963-64. The study showed that a majority of these items were quoted by dealers less than two and one-half months after they received the library’s request, and that 90 per cent were quoted within less than six months. On the basis of this study, the division decided to circulate its wants at regular six-month intervals.

Fortunately, the established routines of the UCB search division were such that the new procedures could be instituted with a minimum of reorganization. It had been the division’s practice to

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review its desiderata files completely every two years. The cards listing the bibliographical information for each item, which have a record of its search history (the dealers who have been contacted) on the back, were examined and the next dealer to be contacted was assigned. The bibliographical section of the card was photographed in a frame which gave the library's name and address and information to the dealer on quoting procedures. This was, of course, done in groups, and these groups of photostats were sent to the various assigned dealers. The dealer's name was noted on the back of each bibliographical card, and that card was refilled in the desiderata file, awaiting a quotation or the next review.

When the division decided to circulate its wants on a six-month basis, it recognized that the desiderata file (containing approximately thirty thousand items) could not be reviewed this frequently. The obvious solution was multiple assignment: decide on several dealers at each review. This is the procedure that is presently being followed. Each day, all new wants and a portion of older wants from the desiderata file are examined. Three dealers are assigned for each and three request slips are photographed, but only the first slip is mailed. The others are postdated by six months and one year, and they are filed under those dates in a special file. Since this practice was initiated, a substantial number of postdated slips have accumulated in this file. Each day, the slips filed under that date are removed, added to slips which have just been photographed, and mailed to dealers. The assigned dealers were noted on the postdated slips before they were filed, and all three dealers and their respective mailing dates were noted on the back of each bibliographical card at the time of assignment. When a quotation is received from a dealer, the back of the bibliographical card is checked before the order is placed and any postdated slips requesting a quotation on that book which are still in the files are removed and destroyed. Complicated though this may sound, it has been reduced to a matter of strict routine and functions very quickly and smoothly.

The division decided to assign three dealers at each review—rather than, say, four or five—for several reasons. First, it was hoped that the desiderata file could be completely reviewed every eighteen months, and a triple assignment at six-month intervals would coincide perfectly. Second, it was felt that the file should be reviewed as frequently as possible, since this review also provides an opportunity to consider the utility of further search, the possibility of photocopy, and other alternatives. Finally, the dealer situation is constantly changing, and the division decided that it should not commit itself to specific dealers farther ahead than was necessary to guarantee the continual circulation of its wants. Even under the present practice, some slips have to be reassigned when their mailing date comes up because the dealer who was originally chosen has gone out of business or has proved unsatisfactory.

The success of this procedure can be seen from a recent study of the search division's orders. Of 601 orders currently outstanding on September 13, 1967, 193 were quoted by the first dealer contacted, 182 by the second dealer, 122 by the third dealer, 62 by the fourth dealer, and 42 by fifth through twelfth dealers. This indicates that a frequent turnover of dealers will yield a high return at least through the third dealer contacted.

While the perceptible drop in response after the third dealer seems to suggest that searching should be discontinued at this point, some mitigating factors have to be considered. This procedure was instituted less than three years ago.
Although the preassignment system has worked quite well, assuring that each item reviewed will go out to three dealers within an eighteen-month period, it has not been possible to review the desiderata file every eighteen months. Consequently, many fewer requests have gone to four or more dealers than have been sent to three dealers during this period—most of the items in the study group had been assigned to three dealers only. It is inevitable, therefore, that a preponderance of the replies should have come from the first three dealers.

Most of the search dealers utilized by the UCB search division have been quite satisfied with the six-month semi-exclusive period provided under the present system. However, it has caused a rise in the percentage of rejections to the few who continue searching actively for more than six months. Even in these cases, the division has been able to keep its rejections to 5 per cent or less of the items offered (approximately another 5 per cent are refused due to price, condition, variant edition, the receipt of gifts, the return of lost copies, etc.).

When dealers are troubled by this figure, the division has learned that a frank explanation of its procedures and its own willingness to extend the exclusive period in exceptional cases has usually worked out well for the dealer and library.

Another difficult problem for the search librarian is the evaluation of dealers' quotations. This lies right at the heart of the librarian's difficult position between the dealer's requirements and the library's interests. Should the librarian lean in one direction and accept all quotations, regardless of price, or should he lean the other way and scrutinize all quotations closely?

As a general principle, it is probably best to reject very few quotations. After all, it is difficult to obtain the kind of price information that allows for a fair evaluation of a quotation. The prices that are readily available are largely seller's prices, taken from catalog listings, and are not particularly applicable to out-of-print searching, where a dealer has been requested to invest time and money uncovering a specific title. No search librarian can tell how much this investment is in any given case. Moreover, if a library requests a dealer to obtain a book and then rejects his offer, the dealer is not only out whatever he has invested in searching but also the price of the book if he has already secured it. When a library begins to reject a large percentage of his offers, a dealer is likely to turn to other customers. This, of course, will defeat the library's entire purpose.

Certainly, this does not mean that a library is required to accept all offers. Expensive quotations—say $25.00 and up—demand some evaluation and even substantiation, and dealers should appreciate this. On the whole, however, the search librarian must find other means than the rejection of specific offers to insure that his library gets its money's worth.

The means worked out by the UCB search division is a semi-annual review of dealers' prices. This has been made practical by the fact that the division's regular order procedure involves the use of IBM card records. An extra statistics card is punched at the time of order and filed away. At six-month intervals, these cards are removed from the file and run by dealer. The dealer groups are reviewed and average prices computed. These average prices are then compared—art book dealers with art book dealers, general American dealers with general American dealers, Slavic dealers with Slavic dealers. On the basis

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10 This second figure is an over-all average. With a few dealers, who offer many variants or who deal in very expensive materials, the percentage of refusal sometimes becomes unfortunately high.
of these comparisons, the division is able to channel its requests to the least expensive dealers, and to secure its desiderata at the best available prices.

This evaluation has proved much more reliable than the previous subjective approach, which was based solely on daily impressions of quotations. Under this latter system, one or two expensive offers can unduly overbalance a number of inexpensive ones. Furthermore, it provided no basis for an accurate comparison of competitive dealers.

The IBM statistical file has also been used by the search division to compute dealer response. The division keeps a running tally of requests submitted to each of its dealers. When the statistics cards are reviewed every six months, the amount of response is totaled and compared with the number of requests sent out during the same interval. On the basis of this comparison, a percentage of response is computed for each dealer. As with price averages, response percentages of similar dealers only, are compared. The differences among these dealers is enormous. For example, the response of general American dealers between December 1, 1966, and May 30, 1967, ranged from a high of 33 per cent to a low of 3 per cent. The average response of all such dealers was 24 per cent.

Before this evaluation was instituted, two years ago, response, like cost, was a matter of subjective impression, and was characterized by the same weaknesses. A large batch of offers, received occasionally, from one dealer might overbalance the more frequent return of a few at a time from another—although the latter might send in both a greater volume and a higher percentage. Now the division is better able to channel its requests to those dealers who are most likely to respond.

Of course, the search librarian of a large library, with a sizable desiderata file, needs a good many dealers if he is going to turn over his file regularly. This means that he must continue to develop new dealers, and that he must give them ample opportunity to demonstrate their abilities before ceasing to use them. He should try each one over a period of several months, with as great a variety of desiderata as the dealer's interests and the library's needs allow. Also, each dealer should be given a fair share of new items—material just referred to search and being sent out for the first time—as well as older wants which have been sent out to many dealers. It is not fair to any dealer—except, perhaps, the very expensive ones—to send him only requests for material that has already been searched extensively.

Finally, something should be said about the utilization of specialist as opposed to general dealers. As a rule, specialists seem to charge more for an equivalent book, and a good general search service can cover most of the specialties. On the other hand, the UCB search division has found that specialists should not be overlooked. It has had considerable success with dealers who limit themselves to criminology, economics, international relations, and natural science. Fields such as art, music, and documents seem almost to demand specialization.

The question as to whether or not a library should advertise its wants has been left until the last, as this is a rather unique problem. A library with a very small desiderata file may find this approach best, as it circulates wants to a large group of prospective suppliers at the same time without committing the library to purchase. After all, none of these dealers is being asked to search. He simply reviews his stock and quotes by postcard. If his quotation is refused, he has lost very little. In this way, a library which cannot invest a substantial
portion of labor time searching is able to reach a maximum of potential sources. While it has been suggested that advertising may increase the cost of desiderata, the investigations of the UCB search division have shown that this does not seem to be the case.\textsuperscript{11}

The use that a large library, with an extensive desiderata file, can make of such media as TAAB is quite limited. If thousands of books are being sought, obviously only a small portion can be listed. Therefore, such advertising must be quite selective. The UCB search division has based its selection on two principles. First, it advertises for material that is urgently needed for course reserve. Second, it advertises for items that its regular dealers are not supplying. For example, the division was having difficulty locating anthropology books. It began to list them in TAAB. As a result, it not only obtained material that its normal suppliers were unable to locate, but also heard from dealers who specialize in this field. Some of these dealers have been contacted about searching and have responded. In this way, advertising has proved to be an excellent means of uncovering new dealers.

Out-of-print searching can be an attractive speciality for librarians. It is an important and interesting area of library acquisition activity. It brings the librarian into close and continuing contact with the antiquarian book trade. It enables him to play a unique and significant role in the development of his library's collection. Finally, with the need to discover new procedures and refine old ones, it enables him to contribute to his profession.

\textsuperscript{11} This opinion is mentioned by Robert W. Evans, "The OP Market," Choice, II (July-August 1965), 285. A study by the UCB search division found that the average price of a book secured through a TAAB advertisement was about 2 per cent less than the average price of similar books secured through quotation.
The College Library and the Drop-Out

This study shows a statistically significant correlation between library use and persistence among college freshmen at California State Polytechnic College, Pomona. It confirms an earlier study showing correlation between library use and grades. However, no GPA advantage accrued to science and engineering students. Data suggest correlation between on-campus residence and persistence, but Chi-Square test fails to validate the data. Forty-three per cent of non-users of the library dropped out in one year; only 26 per cent of library users dropped out.

Does a student's use of the college library have anything to do with the likelihood of his persisting to graduation? From a study of entering freshmen at California State Polytechnic College, Pomona, it appears that it might. This study shows, for example, that of those freshmen who failed to use the library, 43 per cent did not return the following year. But of those who did borrow at least one book, only 26 per cent dropped out.

Interest in the subject of student attrition in the University of California and in California state colleges goes back at least to the summer of 1965 when it was discussed critically in a state legislative committee. A special study was made at California State Polytechnic College to learn the extent of the problem and how it might be attacked. The report, prepared by a collegewide committee of faculty and staff, stimulated a great deal of interest, of which this study is one expression.

Barkey's study had already indicated that there is a correlation between grade point average and use of a college library. It seemed likely that the attrition rate might also show some relation to library use.

The study is based on a 50 per cent sample of the entering freshman class of 1963/64. Of the 742 first-time freshmen, most were male (71 per cent), and most lived off campus (68.6 per cent); nearly all were unmarried (95.5 per cent). There were 251 students in engineering, 83 in agriculture, 92 in the sciences, and 316 in the arts.

The library loan records were studied for the winter quarter 1964 (by which time all freshmen had been issued their borrowers cards). From the registrar's office, name, sex, major, marital status, residence, return or non-return to school in fall 1964, and grade point average were obtained. The number of occasions when books were borrowed, and total number of books borrowed, were recorded.

There were a number of interesting findings. Students who borrowed no books during the quarter earned an av-
TABLE 1

<table>
<thead>
<tr>
<th>Sex:</th>
<th>Persisting Per Cent of Men</th>
<th>Non-Persisting Per Cent of Men</th>
<th>Persisting Per Cent of Women</th>
<th>Non-Persisting Per Cent of Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>All freshmen</td>
<td>64.7</td>
<td>35.3</td>
<td>58</td>
<td>42</td>
</tr>
<tr>
<td>On campus</td>
<td>70.7</td>
<td>29.3</td>
<td>74</td>
<td>26</td>
</tr>
<tr>
<td>Off campus</td>
<td>62</td>
<td>38</td>
<td>51</td>
<td>49</td>
</tr>
<tr>
<td>Borrowers</td>
<td>76.4</td>
<td>23.6</td>
<td>69</td>
<td>31</td>
</tr>
<tr>
<td>Non-borrowers</td>
<td>59.5</td>
<td>40.5</td>
<td>49.3</td>
<td>50.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Residence:</th>
<th>Persisting Per Cent On Campus</th>
<th>Non-Persisting Per Cent On Campus</th>
<th>Persisting Per Cent Off Campus</th>
<th>Non-Persisting Per Cent Off Campus</th>
</tr>
</thead>
<tbody>
<tr>
<td>All freshmen</td>
<td>71.6</td>
<td>28.4</td>
<td>59</td>
<td>41</td>
</tr>
<tr>
<td>Men</td>
<td>70.4</td>
<td>29.3</td>
<td>62</td>
<td>38</td>
</tr>
<tr>
<td>Women</td>
<td>74</td>
<td>26</td>
<td>51</td>
<td>49</td>
</tr>
<tr>
<td>Borrowers</td>
<td>81.6</td>
<td>18.4</td>
<td>69</td>
<td>31</td>
</tr>
<tr>
<td>Non-borrowers</td>
<td>64.8</td>
<td>35.2</td>
<td>54</td>
<td>46</td>
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</table>

<table>
<thead>
<tr>
<th>Library Use:</th>
<th>Persisting Per Cent Borrowers</th>
<th>Non-Persisting Per Cent Non-Borrowers</th>
</tr>
</thead>
<tbody>
<tr>
<td>All freshmen</td>
<td>73.7</td>
<td>26.3</td>
</tr>
<tr>
<td>Men</td>
<td>76.4</td>
<td>23.6</td>
</tr>
<tr>
<td>Women</td>
<td>69</td>
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<td>On campus</td>
<td>81.6</td>
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<td>Off campus</td>
<td>69</td>
<td>31</td>
</tr>
</tbody>
</table>

Average GPA of 2.00 (on a 4.0 scale). Library users earned 2.22. This apparent advantage was tested for significance. The data yielded a t-value of 4.26, more than sufficient, in this population, to validate the significance of the data.

These results, however, varied markedly among majors. No significant GPA advantage accrued to engineering or science majors who used the library. Among arts majors the advantage was 2.37 GPA for library users, against 2.10 for non-users. Among agriculture majors the advantage was 2.13 GPA (users), against 1.70 GPA (non-users).

Figure 1, showing the extent of library use among students of different grade-point average is of interest. In this chart only the arts and agriculture majors are considered (the curricular areas where library use was found to be significant for grades). Following Barkey a grade of "A" was defined as 3.5 to 4.0, "B" as 2.5 to 3.0, "C" as 1.5 to 2.0, and "D" as .5 to 1.0. These four grade groups were plotted on the chart to show the percentage of each group making use of the library. The chart shows, for example, that of those freshmen doing "A" work, 80 per cent used the library.

Tabulation of data for persistence, library use, sex, and residence are given in Table 1.

The data revealed a strong indication that on-campus residence might correlate positively with student persistence. Of the on-campus students, 71.6 per cent persisted. Of the off-campus students, only 59 per cent persisted. However, a Chi Square test yielded a figure

![Figure 1—Library use and grades (percentage of each group borrowing at least one book during the quarter)](image-url)
too high to insure the significance of these data.

Only 63 per cent of the class returned the following fall. But of those students who used the library, 73.7 per cent returned. By contrast, the fate of those freshmen who never used the library was that only 57 per cent returned.4

This study seems to show a strong and statistically significant correlation between library use and student persistence. The fact that 65 per cent of the freshman class borrowed no library books during the quarter studied suggests that counseling and orientation in this area might be productive of better academic success and persistence.

*These results proved to be significant. A Chi Square test gave a value of 4.22. In a Chi Square table, with one degree of freedom, this value yielded 4 per cent, or well within the 5 per cent level of acceptability.
S. J. ROUTH and MADELEINE McPHERSON

On the Indexing of Anthropological Journals

Literature searching in anthropology and archaeology illustrates the complexity of relationships and title dispersion characteristic of the social science literatures. There are, however, current indexes which often provide a basic list of references, which appropriate national and other bibliographies may strongly supplement.

Diana Amsden's article, "Information Problems of Anthropologists," indicates very clearly the difficulties experienced by research workers in this discipline; Irene Taeuber's classic essay on the information problems in demography was concerned with just the same sort of difficulty: the complexity of the relationships between the various social sciences, the variety of physical forms in which information appears, the importance of the geographical orientation of so much of the literature, the immense title dispersion which results from these factors, and so on.

However, this brief note is to suggest that the situation is not quite as desperate as the one Miss Amsden describes, though it is certainly quite desperate enough.

If one considers indexing over the whole field of anthropology and archaeology, there can be no doubt that there is a great variety of abstracts and indexes which index some periodicals of interest to workers in the field, but it can be argued that it would be very seldom that those named in Miss Amsden's "Analysis of Indexing" would be used early in a literature search in either anthropology or archaeology. A more natural starting point for references to periodical articles in many searches would be the Index to Current Periodicals Received in the Library of the Royal Anthropological Institute, and (after eliminating duplication) at least 103 of the periodicals in the Anthropology and Archaeology sections of Ulrich 1966 are included among the periodicals analyzed in that index. The International Bibliography of Social and Cultural Anthropology provides an alternative approach (except, of course, in such fields as physical anthropology): its lists of periodicals for 1964 and 1965 include at least 86 of the Ulrich titles. After duplications are eliminated the two indexes cover 123 of the Ulrich periodicals, being decidedly stronger for anthropology than for archaeology (as one might expect). Compare this with the thirty-nine periodicals cited by Miss Amsden (p. 120).


Mr. Routh is Reference Librarian and Mrs. McPherson is Reference Assistant in the University of Queensland, Brisbane.
Further, the many deficiencies of the two aforementioned current bibliographies may be powerfully remedied in some fields of anthropological research by appropriate specialist or regional reference sources, such as Annual Bibliography of Indian Archaeology, Australian Public Affairs Information Service, Dansk Tidsskrift-Index, and so on. Admittedly such sources (especially national periodical indexes) may not be available in a specialist library, but in a large general reference library it is often simple for the research worker whose enquiry has a geographical limitation to use one or two indexes of this kind, with considerable profit.

Finally, however, one has to admit that many anthropologists are working in fields where they can have little confidence that they have found a really substantial percentage of the references that would be useful to them. Until, probably, the development of a really comprehensive bibliographical service allowing a great variety of approaches, the scholar working in the Australian field is unlikely to discover that one working with a South American tribe has made an advance in some field technique that would be of benefit to him: it is the Weinberg Report's problem of "switching" again, and the situation is indeed desperate.

Book Reviews


Since the pioneering publication in 1931 of Lydenberg and Archer's slender The Care and Repair of Books, there has been only one other monograph in English on scientific book conservation. No profession in its infancy has a significant body of literature, but the emerging profession of book conservation is suffering prolonged growing pains. This is partly due to the fact that the profession's principal parent, bookbinding, does not have an adequate technical literature in English, although its other parent, the conservation of museum objects, is producing highly competent writing. Most of the relevant literature is scattered in books and journals of such diverse fields as bookbinding, conservation of art objects, the sciences, papermaking, and archives administration. Thus it is difficult for the curator or bookbinder to find all of the information that he needs, and it is often not in very useful form.

The Conservation of Library Materials then is the most important monograph on the subject published in English thus far. Captain Cunha, a retired naval officer, now Conservator of the Boston Athenaeum, has attempted to synthesize or provide access to most of the knowledge which is necessary for workers in the field. Despite the use of the term "manual" in the subtitle, however, this book is primarily a literature survey. There are no detailed instructions for any operation; the techniques of bookbinding and binding restoration, for example, are treated in four pages. Approximately two-fifths of the book are text; one-fifth is appendices, and two-fifths are bibliography.

The text is a mixed bag of useful information, balanced surveys, and sound evaluations, on the one hand, with unclear and disorganized writing, fuzzy thinking, and misinformation on the other. For example, Captain Cunha usefully mentions a number of processes for deacidification or lamination rather than just the Barrow processes which tend to be known to the exclusion of others. However, he perpetuates through numerous references to "good rag" and "bad wood pulp" papers the myth that rag paper is necessarily good and wood pulp paper is necessarily bad. In fact, he states that "even the better grades of chemically treated wood pulp paper can be expected to last only a decade or two," while discussing in other places in the book the hundreds-of-years life expectancy of the "permanent/durable" wood pulp papers.

Cunha recognizes the need of librarians and bookbinders to know more about the technology and terminology of the materials with which they deal. However, such misleading explanations as those which confuse book and text, or coated and filled papers, or claim that the plastic base of stamping foil assists the adhesion of the gold, or that potassium lactate neutralizes acid in leather, only worsen the situation.

The book contains scattered warnings about toxicity and explosion danger of chemicals, although unfortunately a section of the text dealing with precautions which is listed in the table of contents does not exist. It is a matter of the gravest importance to state that carbon disulfide must be used with caution while, in the same context, giving no precautions for the use of the highly explosive ethylene oxide gas, or to recommend the very toxic carbon tetrachloride-ethylene dichloride mixture without offering any caveats, or to point only to the "objectionable odor" of such hazardous solvents as carbon tetrachloride or benzene.

The appendices are also of mixed value. The list of research centers and professional organizations, for example, is useful both for its specific citations and in giving an impression of the extent of such organizations, but the Technical Association of the Pulp and Paper Industry is in New York City, not Appleton, Wisconsin. In Appendix E the formula for potassium lactate...
solution calls for over ten times the correct amount of paranitrophenol; it is little wonder that Cunha has trouble with staining, as he mentions earlier. On the basis of this the reviewer would hesitate to use any of these formulae without checking them in their source, but the sources are not given. The glossary which comprises Appendix I is reprinted from ALA's 1951 Library Binding Manual and has little to do with conservation.

The organization of the bibliography is almost incomprehensible; it purports to follow the chapter arrangement of the text, but does not exactly do so. For a bibliography with seventy-eight headings and approximately two thousand entries, an index of authors would be useful, and a table of contents is indispensable. Within the classification scheme, catalogs of exhibitions of bindings are listed under "History—General," "History— Bindings" and "Repair and Restoration—Binding—General." An article on a device for testing library bindings is listed under "Material—General" and "Conservation—General," but not under "Binding—General" or "Library Binding."

The principles of selection are difficult to deduce. Haslam's virtually worthless pamphlet on cleaning books and prints is listed twice (once anonymously), but I could not find the TAPPI Standards which includes widely cited procedures for the testing of paper. Storm and Peckham's useful Introduction to Book Collecting is listed, but Glaister's Encyclopedia of the Book is not. One of the most puzzling omissions is Herbst's supplement to Mejer's major bibliography on bookbinding.

The bibliography (as well as references in the text) is a veritable jungle of inconsistencies, misconstructions, and obscurities. Titles in foreign languages are sometimes but not always given in English; accents are used or ignored at random; titles of journals are cited in widely varying form. Some entries are annotated, most are not. Joannis Guigard and Jacques Guignard both emerge as J. Guigard. Warren Jenney becomes Jenney Warren. Keyes D. Metcalf is cited as D. M. Keyes. Or take Mr. Smith. He is cited four times, as Hermann Smith, Herman Smith, L. Herman Smith (correctly!), and as Herman L. Smith. His article is cited once in the bibliography without his name at all.

There are a number of cases of the same items being listed twice under different main entries. For example, the catalogue of the 1957 Baltimore bookbinding exhibition is listed in the same section of the bibliography under both its title and the name of its (unstated) compiler. (The publication date in one entry is given as 1950.)

The Conservation of Library Materials, then, no matter how inaccurately, obscurely, or indirectly, will provide access to virtually all knowledge on book conservation in the Western world. It is unfortunate that so much patience will be required of the reader to find the information that he wants, and that there is so much misinformation in the text and appendices, and cited in the bibliography. That such a key to the field as this has been so desperately needed cannot, however, absolve the publisher from blame for such an incredibly bad job of editing, if indeed the manuscript was edited at all. It is particularly distressing that the "publisher to the library profession" is responsible for so totally careless an example of publishing.—Paul N. Banks—The Newberry Library.


The term "information system" is an elusive one since it encompasses such a broad range of specific kinds of systems. The techniques, methodology, and philosophy of system design are in principle applicable to all of them. However, there are differences in detail which result from the need to focus attention on the problems of particular importance in a specific type of system. Since any author attempting to present methods for system design must use realistic examples to illustrate them, his book will show an emphasis on the problems significant in those examples.

Such is the case with this very useful introduction to techniques for development of information systems. The examples chosen are generally representative of "management" information systems, but par-
ticularly of those from a military environment (SAGE, NORAD, Strategic Air Command, etc.), generally called “command and control” systems. Such an emphasis is a natural one, since it has represented the major concern of the authors in their professional work at System Development Corporation, but it means that readers with different kinds of information systems in mind must be prepared to translate and interpret what is said in the light of their own concerns.

For example, Chapter 1 presents the basic definitions of “information,” “system analysis,” and the “development process.” The concept of an “information system” is defined as “the formal or rationally planned means whereby managers receive and transmit information.” The author goes on to say, “It may include automatic data processing as one aspect of the information-handling apparatus assisting management, but it may also include oral briefings.” The emphasis is clear, proper, and very descriptive of the book. But the reader whose concern is, say, “scientific and technical information systems” will need to translate “managers” into “researchers” and “oral briefings” into “journals, printed reports, and Colleagues.”

Chapter 2, in discussing some of the problems in over-all management of the development process, draws an illuminating contrast between “hardware systems” and “information systems” in order to emphasize the extent to which agencies procuring the latter may be using irrelevant criteria for decision concerning their utility. The reader will want to consider just as carefully the extent of differences between his information system and that represented by military command and control.

Chapter 3, which discusses “The System Requirements Phase,” raises some issues of special importance. It contrasts several approaches to the transition from present operations—including “totally integrated system design” and “planned evolution.” The latter seems to have particular relevance to those, such as libraries, whose “information system” is not simply a management tool but their very reason for existence.

Chapter 4 discusses the steps in the “design process,” again with emphasis on the military command and control system. As a result, “retrieval” is given scant attention and yet, in a library, it is likely to be the most significant technical problem.

Chapter 5 discusses the design and production of computer programs. The experience on which it is based is particularly illuminating and well presented. The estimates of time and manpower should be read with care, since the programming of any kind of computer-based information system is a complex, expensive task.

Chapters 6, 7, 8, and 10 present the issues in development of the operating organization, in design of procedures, in training of personnel, and in system evaluation. These are particularly subject to change from one type of system to another since they affect the organization itself and not simply the computer. The reader will need to examine them closely. On the other hand, Chapter 9 discusses “installation” and raises issues of universal concern.

In summary, this book is a well conceived, well written, and highly readable presentation of the issues in the development of “military command and control systems.” As examples of information systems, they have many features in common with libraries and technical information centers, but there are also some significant differences, and the reader will need to keep his own situation continually in mind.—Robert M. Hayes—UCLA.


The volume under review is a reissue of the January and April 1967 issues of Library Trends. The two well known and highly respected editors were obviously of the opinion, and probably rightly so, that a republication in book form would be a welcome addition to our professional literature. I doubt that reference librarians will prefer this book to their well established tools such as Winchell, Walford, and Totok. I am certain that the subject specialist will hardly profit by it, but teachers and
students of bibliography will find it a useful textbook and a good general introduction.

The editors' statement that Van Hoesen and Walter's *Bibliography* (New York: 1928) was the last previous attempt to provide a comprehensive review of all the approaches to bibliography has to be taken with a grain of salt. A number of excellent handbooks have been published within the last year such as Collison and *Enciclopedia de orientacion bibliografica* (edited by Tomas Zamarriego), and the two giants in the field of bibliography of bibliographies, Besterman and Malcles, will not be easily surpassed in the near future. The new Downs-Jenkins *Bibliography* is, however, organized differently from the two titles just cited and can legitimately claim a distinguished place on our shelves.

The book consists of thirty-seven independent articles which are grouped into four sections. (1) **GENERAL**, two papers. (Section 3 will seem to some the more logical place for the "Paperback book."); (2) **NATIONAL**, two papers. The essay by James B. Childs on "Government Publications," a truly masterly synthesis, going somewhat beyond the title of the section; (3) **TYPES OF MATERIAL**, four papers; (4) **SUBJECT BIBLIOGRAPHY**, twenty-nine papers.

It is regrettable that no author could be found to discuss bibliographical control of microreproduction, dissertations, and publications of learned societies, illustrated books, European history, etc. Most humaniora are pressed together in an omnium gatherum called "Continental European Literature." The essay covers Europe from Mycenae to the *Year's Work in Russian Studies*, taking in *en passant* the Middle Ages, Renaissance, and present-day European literature in most languages. In spite of the skill and the well known knowledge of the author, the reader is slightly bewildered and confused.

All authors represented in the volume, without exception, are competent specialists in their fields, and their contributions make worthwhile reading. However, obviously only a small sample of them can be mentioned. Vincent Duckles, author of the standard bibliography *Music Reference and Research Materials* (2d ed. New York: Free Press, 1967), performs his task with ease and skill. William H. Huff gives to the reader far more than one could surmise from the short title "Periodicals"; his summary of computer and information retrieval is extremely useful. Frederick R. Goff, for a score of years chief of the rare book division of the Library of Congress and editor of the third edition of *Incunabula in American Libraries* (1964), has the bibliography of his field at his fingertips. Nettie Lee Benson is an internationally known authority on Latin American studies, and her all-too-short essay is a good introduction into the complexities of her field. Ernst Wolff is able to give an almost complete survey of Far Eastern bibliography, whereas Cecil Hobbs chooses to write a fascinating general introduction to the history and culture of Southern Asia (India and Southeast Asia). The use the two authors make of footnotes is indicative of their goals; Wolff has seventy bibliographical footnotes, Hobbs has none. Joseph C. Shipman has performed his most difficult task "General Science" with admirable skill.

A few tiny corrections can be submitted. The *British National Bibliography* had stopped listing Irish imprints by 1961 but resumes their inclusion in 1968. There are a few rather incomplete attempts at preparing national union catalogs of medieval manuscripts, for instance the card catalog of manuscripts in German up to 1520 at the German Academy of Sciences in Berlin. The Soho bibliographies published by Rupert Hart-Davis would have been a good example to show what excellent work is being done today in covering modern English authors bibliographically. Almost all authors neglect to mention that the most frequently used subject approach to scholarly literature is being provided by each library's own card catalog. The usefulness of this tool, which we all too often take for granted, was again brought out in a recent conference (Dagmar H. Perman, ed. *Bibliography and the Historian, the Conference at Belmont*. Santa Barbara: Clio, 1968). Historians expressed general dissatisfaction with all available bibliographies. "Only the Library Catalog escaped serious criticism," (page 12).

Most contributors, some in almost iden-
tical terminology, express their grave concern about the quantity of modern publications and look forward to a computerized panacea which will solve all difficulties. The real scholarly problem, however, is not the issue of bibliographical recording but the question of one's ability to read all these books.

A work like the one under review which consists of thirty-seven independent papers shows a great variety of style, approach, working habits, and presentation. Because of this variety of treatment the need for coalescing the content in an all embracing and comprehensive index appears imperative. The last forty pages of this book, however, which are devoted to this task do not meet these requirements. It is most regrettable that the publisher placed the two editors under such a time pressure that they could not compile adequate access to the vast and important material contained in their book. We all know that the exhaustive index is the most important approach to the intellectual content of a book and that neither time nor money should be spared in giving fullest accessibility.

It would be unfair to close this review on such a critical note. The editors and contributors have provided a notable publication; for many years to come all librarians will depend heavily upon the Downs-Jenkins Bibliography.—Felix Reichmann, Cornell University.


Prompt recognition was accorded to Alice Hackett's records and comments on best sellers when her first compilation, Fifty Years of Best Sellers, appeared in 1946. A third edition now brings records of seventy years up to date, covering the years 1895-1965. This is a welcome continuation of the two preceding editions, the second one having been published in 1956.

Miss Hackett attempts to present information about American best sellers; she comments on and interprets, to some extent, statistics and trends but does not evaluate the titles from a literary point of view. The book is divided into sections which deal with best sellers in hard bound and paperback form; best-seller subjects; best sellers by years; early best sellers; and books and articles about best sellers.

The reason for beginning the story about best sellers in the year 1895 is that it was in that year that the first best-seller lists were printed in the United States. Harry Thurston Peck, editor of the literary magazine, The Bookman, began to run each month the lists of best-selling books in a large number of cities. From the Bookman lists, annual best-seller lists were compiled, and in 1912 the Publishers' Weekly began a best-seller listing.

This year in which the first American best-seller lists were published was in the era of bicycles and the Gibson girl. Rural free delivery was begun in that year and this event was to have a notable effect upon merchandising of every kind, including the selling of books.

Best sellers are of interest to publishers for obvious reasons. When books have large sales, people who do not ordinarily buy books become aware of them and even purchase them. Sales stimulate sales. After book sales there are sales of subsidiary rights, especially movie and television rights. Other subsidiary returns to authors and publishers are condensation, magazine serialization, play production, book-club distribution, paperback reprint, and publication in foreign countries.

The over-all list of best sellers in this seventy-year compilation comprises titles which have sold one million copies or more. Highly publicized fiction, topical nonfiction, and children's books have usually had large sales. Best sellers of all times have included the Bible and books on religious themes, cookbooks, crime and suspense stories, novelty and game books, poetry and drama (the smallest group), reference books, and westerns.

The lists in this book are interesting and could well be the subject of many research studies. They provide insight into the thinking and emotions of a people and have more significance than a casual glance indicates. Social, political, economic, and philosophical undertones are implied and intermingled herein. Students of literary history could
trace public taste in these titles and in looking toward the future could use them as a starting point for speculation. The yearly lists in the present volume have more appeal for the student of social history and literary taste than the over-all lists because they reflect events, crises, and changing mores through a period of years.

Generally speaking, the popular book appeals to the reader because it is influenced by the same forces that shape the non-reading hours. A record of best sellers is a record of social history. Alice Payne Hackett has provided a valuable record and guide to source material in several fields in her 70 Years of Best Sellers.—Martha Boaz, University of Southern California.


During 1876 the United States celebrated its centennial in a huge exhibition in Philadelphia. In October a group of this country's leading librarians (ninety men and thirteen women) came together in the City of Brotherly Love for three days, for the purpose of "mutual consultation and practical cooperation." Raking the Historic Coals presents by means of one hundred selected documents the story of the preparations for this conference which witnessed the founding of the American Library Association with Melvil Dewey being the first to sign the membership register.

The volume here under review is based on a scrapbook of letters, postcards, and printed documents called "Librarians' Conference, October, 1876" which the author-editor found at ALA headquarters while working on his award-winning biography, Charles Evans, American Bibliographer (University of Illinois Press, 1963). The scrapbook contains "216 items, mostly autograph letters, beginning with Justin Winsor's response of May 18, 1876, to a [Melvil] Dewey-[Frederick] Leypoldt letter about supporting a conference and concluding with the advance proofs from the first issue of the American Library Journal which described the Conference program for the meeting in Philadelphia, October 4-6, 1876."

From this "chief manuscript of our professional history," Mr. Holley has chosen seventy-four items; and from other contemporary sources (e.g., American Library Journal, The Nation, Publishers' Weekly), he has selected twenty-six items which complement and supplement the scrapbook documents. He has edited this material wisely and with discrimination, and has provided an informative and authoritative, interesting, and gracefully written introduction to the work.

Since many of the letters and postcards merely express approval of an interest in the conference-idea, only a representative sample of such communications is reproduced. Most of the letters "containing concrete suggestions for conference discussion, or relating to the major conference figures" are included.

The letters concerning topics for conference papers and discussion reveal that librarians in 1876 were interested in such matters, among others, as bibliography, cataloging and classification, copyright, distribution of public documents, indexing, library cooperation, qualifications of librarians, statistics. How familiar these topics sound in 1968—ninety-two years later! "There is no new thing under the sun."

Among those planning the conference or exchanging letters about it were Justin Winsor (Boston public library), William Frederick Poole (Chicago public library), Charles Ammi Cutter (Boston Athenaeum), Richard Rogers Bowker and Frederick Leypoldt (Publishers' Weekly), Charles Evans (Indianapolis public library), Lloyd Pear- sall Smith (Library Company of Philadelphia), Ainsworth Rand Spofford (Library of Congress), and, of course, Melvil Dewey (Amherst College Library). Their letters reveal much about these early library leaders—their healthy prejudices, their opinions of colleagues, their views on various library matters, their hopes for the conference.

Reading the letters of the great and the near-great, the well-known and the not-so-well-known, holds a certain fascination for many. Those in the library profession so fascinated will not want to miss reading these letters of librarianship's pioneers as they prepared for the 1876 meeting in Philadelphia. Librarians generally—library
history buffs particularly—will long be in debt to Edward G. Holley for having rekindled the historic coals of the conference out of which came the American Library Association. As for the book itself, it is beautifully printed, admirably illustrated, handsomely bound—a credit to the publisher, the printer, and the designers. **Raking the Historic Coals** is a solid contribution to library history, to the literature of librarianship, and, what is more, it is a real charmer. —John David Marshall, Middle Tennessee State University.


Public library architecture has long been debated, discussed (and cussed), and studied. Too often there has been more wind than logic; too often architectural whims or professional prejudices have dominated the scene, and the convenience of the user or aesthetic qualities have suffered.

As the authors have rightly pointed out in their monumental record of postwar British public library construction, public libraries the world over were freed from the ornate institutionalism found in buildings constructed prior to the 1940's. Undoubtedly two important factors influenced this change: one a breath of fresh air created by architects, working with newer materials and under a different economy thus permitting materials hitherto too expensive for public buildings; and the other, a completely new understanding on the part of librarians, not only for the functional operational needs of the staff, but also greater consideration for the interrelationship of uses of a public library by the public. This in many buildings has produced a happy combination in a joint understanding and relationship between architect and librarian. A study of this volume will indicate the extent to which this has occurred in Britain.

The book, containing an index, is divided into seven sections: Commentary; Municipal Main Libraries; County Library Headquarters; Municipal Branch Libraries; County Branch Libraries; Tabulated Data of other Municipal Library Buildings; and Tabulated Data of other County Library Buildings.

The Commentary contains a good summary of public library architectural trends and recommendations. It is all too short in proportion to the book as a whole. This reviewer would have appreciated more comments and thinking by the authors, for they are in a position to exert great influence on future public library buildings. Indeed it is a pity that the text was not available to architects and librarians before some of the structures illustrated were built. It is exciting to think that a team of architects in the Ministry of Education is producing prototype library plans for varying sizes of communities. These, however, should be subject to continual review for changes required as new services or equipment is required and there should be reasonable acceptance of the prototype plans by all concerned—public, librarian, and architect. There is a danger also, of course, in that the prototype will be duplicated without thought as to local requirements for site and local services. Experimentation and logical evolution must not be squelched.

The volume is well illustrated, giving in many instances a real dimension to the plans. It would have been helpful to have had the plans all drawn to the same scale and to have had tabulations of pertinent statistics. Some floor plans give neither the scale used nor the square footage. This, however, is a most welcome volume which will lead to further thinking on public library building problems.—Emerson Greenaway, Free Library of Philadelphia.


Research forty years ago, according to a colleague, was less than a respectable activity for a young PhD in chemistry. In recent decades research has taken on an entirely different character and is, in fact, in **Formulation of Research Policies** the subject for attention of nineteen ranking officials in government and industry.
Most of this volume (proceedings of a Gordon Research Conference held January 30 to February 4, 1966, in Santa Barbara, California) is an inventory of organized research activity in a number of western bloc countries, several international communities, and selected industrial and governmental situations.

The ecology of research varies widely. The pattern of research sponsorship so well known in the United States where government, industry, and universities all participate extensively, is not necessarily the pattern in other countries. Many countries have created since World War II some kind of a national research committee or council. Functions and responsibilities range from that of a loose advisory nature at one end of the spectrum to well-defined, highly respected policy and research agencies at the other.

In Canada, for example, the National Research Council effectively advises the government on scientific policy and promotes research by others by underwriting some 50 per cent of the cost of new research undertaken by industry. In the United Kingdom centralized planning at the government level gives strong research direction to industry, while in West Germany research is largely university-based with support coming both from the federal and provincial governments as well as from industry. The Netherlands government expends strong influence on research activity, as is true in Belgium where some eighty institutes are serving closely various industrial and agricultural interests.

At the far end of the spectrum is the United States where the National Research Council serves as a coordinating body over a highly complex system including many kinds of private and governmental interests. The government by dollar support, however, obviously exerts strong influence on research policy. In 1966 a total of $15.3 billion was spent on research and development with $10.1 billion going to industry (in 1965 this was 55 per cent of industry's R & D expenditure), $1.4 billion to universities, $750 million to other nonprofit groups, with the remainder spent within government itself.

Attention paid to research by the OECD (Organization for Economic Cooperation and Development) and cooperative RA's (research organizations) in a number of European nations, as well as the increasing research activity in developing countries, and the development of research policy in two industrial complexes—Montecatini (chemistry) in Italy and Philips (electronics) in the Netherlands—are discussed. The situations described in different countries or in different types of agencies are not necessarily comparable nor is the presentation in these proceedings.

One of the most useful items analyzes distribution of inputs and outputs relative to the research industry. A dozen factors are compared, among them population, production of crude steel, consumption of commercial energy, annual expenditures for research and development as a percentage of the gross national product, and several bibliographical items such as output of papers in nuclear structure theory and in chemistry and the paid circulation of Science. Four groups of countries are identified—the U.S. and the USSR at the top, while 130 countries are described as being in the RD—"research desert."

Although the dollars going into research are large, representing 2.5 per cent of the gross national product in the U.S. (3 per cent is advocated), much duplication of effort is readily apparent. Frederick Seitz, U.S. National Academy of Sciences president, poses but does not answer, one particularly penetrating question—are the benefits to be expected from research and development near saturation? He concludes that regardless of progress to date the problem of establishing research policies at the national level will not become routine in our lifetimes. Few of the authors recognize the value of technical information activities as a means of getting more for the research dollar. It is obvious that librarians and others in information transfer must continue their efforts to increase the percentage of the research budget spent on information from the lows of 1.5 to a figure nearer 10 per cent as reported by some research-minded industries.—Bill M. Woods, Engineering Index.
EUGENE P. SHEEHY

Selected Reference Books of 1967-68

INTRODUCTION

THIS ARTICLE continues the semi-annual series originally edited by Constance M. Winchell. Although it appears under a byline the list is actually a project of the reference department of the Columbia University libraries, and notes are signed with the initials of the individual staff members.

Since the purpose of the list is to present a selection of recent scholarly and foreign works of interest to reference workers in university libraries it does not pretend to be either well balanced or comprehensive. Code numbers (such as AA71, 1EA29) have been used to refer to titles in the Guide to Reference Books and its Supplement.

BIBLIOGRAPHY


When complete in fifty volumes, this first decennial supplement will both fill the gap (1956-62) between the “Photolithographic edition” (Guide AA67) and the annual volumes of Additions (1963-65), and cumulate the latter. It thus marks another great stride toward making the published Catalogue available on a fairly current basis in a form conducive to efficient use. Some entries in the supplement are marked with an asterisk to indicate correction of a citation as found in the “Photolithographic edition.”—E.S.


Subtitle: Being a calendar of documents in Edward Arber’s Transcript of the Registers of the Company of Stationers of London 1554-1640, with text and calendar of supplementary documents.

This useful handbook is a chronological calendar of the great number of documents included by Arber as illustrative matter in his extensive, but difficult and unindexed, Transcript (Guide AA497). The new work provides “a more or less connected survey . . . of matters which are scattered in no particular order through Arber’s five volumes.” (Pref.) In addition, Greg has calendared documents not included by Arber, but drawn principally from the sources he used, and relating to the Stationers Company. These, with the editor’s annotations, are cited in full in the second section of the book. Calendar entries include reference to Arber’s Transcript by volume and page and, for additional documents, to page in the Companion. A full index adds usefulness. Physically, the book is a good example of Clarendon publishing.—R.K.


Contents: v.1, A-B. 241p. 38F.

Serving both as a union list and a bibliography for the period, this new reference
work furnishes locations of Italian imprints in more than fifty French libraries, including the Bibliothèque Nationale. Devoted to works of the Seventeenth century, the Répertoire treats only books, with literary (particularly dramatic) and religious works predominating. Not only bibliographically, but historically and orthographically, the work is highly interesting: one can find out about French predilections for Italian writings, and can view the development of the Italian language in the forms used in the titles. Arrangement is by author; anonymous titles will appear after the entire author section has been published. Somewhat similar to Mazzuchelli’s uncompleted Gli scrittori d’Italia . . . (1753-63), but less ambitious in scope, the Michel work gives a brief note on the author, followed by a listing of titles, with collation and additional notes where pertinent. Though not comprehensive, this should prove a valuable bibliographic tool for the period.—M.G.S.

Ogilvy, Jack David Angus. Books Known to the English, 597-1066. Cambridge, Mass.: Mediaeval Academy of America, 1967. 300p. (Mediaeval Academy of America Publication 76) $7.50. A compilation which “even the scholar . . . may occasionally find . . . a useful aid to memory” (Foreword), this book assembles a considerable amount of widely scattered material for the student of Anglo-Saxon England. It lists alphabetically by author the works known or possibly known in England before 1066. Evidence of knowledge and use in England is shown in citations to writings of English authors prior to 1066; in each case the year of use or the century is added. Occasionally annotations refer to discussions in scholarly sources. Excluded from this list of books are texts of the Bible and liturgical works. An essay on the history of Anglo-Saxon libraries precedes the body of the book, and a short “subject-matter index” and a manuscript index follow it.—R.K.

LIBRARY SCIENCE


Subtitle: A guide for organizing, cataloguing, indexing and searching collections of information on current events.

“Thesaurus” in the context of this title is defined as “a device for ordering and controlling the information file, so that new items may be added consistently to related items, and so that all relevant items are made readily and quickly accessible.” (Introd.) Those of us not yet fully computer-oriented may prefer to think of this new work simply as a subject-heading guide designed specifically, as the subtitle indicates, for the newspaper clipping or similar information file related to current events. At any rate the guide emerges as a work generally admirable in the logic of its structure and the precision of its vocabulary. “See” and “See also” references (the latter usually with hierarchical notation as to broader, narrower, or related term), “Refer from” guides, scope notes, and qualifiers all make for clarity and ease of use. While the price is likely to deter purchase by any but those libraries maintaining extensive or specialized clipping and pamphlet files on current events, the Thesaurus will be of great interest to many involved in planning the application of computer technology to library work.—E.S.

PROCEEDINGS OF CONGRESSES


It now appears that this will be a continuing series, the aim of which is to list the Russian language publications of and about scholarly congresses, conferences, and meetings held in the Soviet Union. (An earlier volume of the same title, covering the 1946-53 period, appeared in 1958.) Both the natural and social sciences are represented by entries which are grouped chronologically in a classed arrangement. Alphabetical subject indexes and lists of acronyms and abbreviations for the names of organizations provide keys to the contents of a
series that scholars and librarians will welcome as a reliable source for verification of hitherto hard-to-identify materials.—E.L.


At head of title: InterDok.

Since September, 1965, the InterDok Corporation has issued a Directory of Published Proceedings (Suppl. IEA29; that series now subtitled “Series SEMT: Science/Engineering/Medicine/Technology”) covering conferences, meetings, symposia, and congresses in the whole range of science and technology. This companion series offers a similar listing of published proceedings in the areas of the humanities and social sciences. Entries appear in chronological sequence by conference date, and there are indexes by editor, by place of the conference, and by subject and sponsor. Prices are indicated. An annual cumulated index is promised. Together with Proceedings in Print (Suppl. IEA30), the InterDok series should greatly simplify the identification and acquisition of often elusive conference publications.—E.S.

Dictionaries


Prepared to appear during the Canadian centennial celebrations, this dictionary seeks to “provide a historical record of words and expressions characteristic of the various spheres of Canadian life during the almost four centuries that English has been used in Canada.” (Intro.) The term “Canadianism” is here defined as “a word, expression, or meaning which is native to Canada or which is distinctively characteristic of Canadian usage though not necessarily exclusive to Canada.” With the Oxford English Dictionary, A Dictionary of American English, and A Dictionary of Americanisms (Guide AE21, AE80, AE81) as acknowledged models, the entries give: (1) the entry word spelled according to current usage; (2) pronunciation of unfamiliar words in the symbols of the International Phonetic Alphabet; (3) part of speech; (4) etymology; (5) restrictive labels in the following categories: sphere of interest, locale, connotation, and currency; (6) quotations selected to show earliest and, usually, latest evidence, with bibliographical citation for each quotation. The editors’ objective has been to produce an interesting as well as informative reference book; for this reason various kinds of information relating to shifts in meaning, complicated etymologies, and other questions requiring more space than is customary have been included. The book succeeds in presenting its material in an interesting and effective manner, and extensive and thorough research seem to underlie the entire project.—F.O.


These two works are bibliographies of dictionaries, somewhat different in format and content, of the Polish and German languages, respectively. The Lemmer volume is divided into two parts, the first of which selectively cites the most important etymological, modern, regional, technical, and slang dictionaries, as well as collections of quotations and compilations of the vocabulary used by individual German authors. The second part is a bibliography of secondary sources published mainly within the past thirty years and dealing with the problems of German lexicography. Throughout, titles are arranged in rough chronological order under each of the many subject headings. There are no indexes.

In contrast, the Grzegorczyk work has author, title, and subject indexes to its contents which are arranged in five parts: (1) bibliographies of dictionaries, both in monographic and article form, and citations to materials dealing with Polish lexicography; (2) Polish dictionaries, including etymological and dialect dictionaries, and diction-
aries of synonyms, abbreviations, etc.; (3) bilingual dictionaries; (4) subject dictionaries (monolingual, bilingual, and multilingual); and (5) general encyclopedias. Entries are numbered in one sequence, with citations in chronological order under each heading.—E.L.


The collaboration of a noted linguist and an experienced dictionary staff has resulted in the production of a dictionary of synonyms which should be quite useful and adequate for the general inquiry, but which lacks the scope of *Webster’s Dictionary of Synonyms* (Guide AE79). Perhaps the book’s principal virtue is its “modernity,” for it defines various terms familiar only in the context of the American ’Sixties. As Mr. Hayakawa points out in the introduction, English is richly endowed with resources for distinguishing shades of meaning, and a glance at the pages of this work indicates how fascinating a systematic treatment of these distinctions can be. It is largely a matter of defining the area which the words have in common, and then describing and illustrating the precise connotation of each term. The method of organization used is a series of articles arranged alphabetically by main word. Access to the definitions within the articles is gained by use of an index with a combined total of about five thousand main and secondary words. Within a given set of definitions, individual words are clearly set off in boldface type. In many cases antonyms are given, and often cross references are suggested for words related to, but not synonymous with, the group of words treated in the article. Definitions themselves are supplemented by illustrations of usage in constructed contexts but, unlike Webster’s, no examples of actual usage are cited.—F.O.

**PERIODICALS**


Librarians who ordered this work on the assumption that it would prove a kind of cumulation of New Serial Titles—Classed Subject Arrangement (Guide AF100) are apt to be disappointed. This formidable-looking compilation is an index to the Dewey class numbers assigned in *New Serial Titles* and includes no actual titles. The main section is designated as a “single subject index”; it offers column after column of Dewey class numbers arranged sequentially under brief descriptive subject headings, and gives reference to page and column in the 1950-60 and 1961-65 cumulated editions of *New Serial Titles* where the full citation for the periodical is to be found. In closely defined areas the index makes for a simple and effective search, but in broad areas only the most diligent are likely to persevere in checking the long columns of page references. A “comparative subject index” provides references to items for which two Dewey numbers were assigned in NST, and there is an alphabetical index of the descriptive subject headings used in the main section, together with the corresponding Dewey class numbers.—E.S.

**NEWSPAPER INDEXES**


With the appearance of this new annual and of the first volume of the index to *Le Temps* (noted below) the outlook for research involving French newspapers brightens considerably. The index to *Le Monde* is in the form of a conventional alphabetical subject index, with a number of somewhat unconventional features. Reference is to date of issue only, but the boldface type used for the date makes for easy chronological scanning in long entries. Boldface capitals are used within entries to call attention to names of individual persons, many of whom are not given separate entries within the main body of the index; however, these latter names do appear in an alphabetical sequence of “names cited” at the end of each letter of the alphabet. As in many newspaper and periodical indexes, obituaries, reviews of films, and of stage productions, etc., are brought together under appropriate headings. (Book reviews, with both author and title listing, appear under “Bibliographie.”) A chronology of
This volume indexes the first five years of *Le Temps*, a newspaper which ran from 1861 to 1942. Before the project of indexing this publication began, only one major French daily—*Le Moniteur*—had been indexed, and that only for the revolutionary and Napoleonic periods. In 1958 a scholarly meeting on the history of the French press decided that the lack of a similar tool for the late nineteenth and early twentieth centuries was deplorable. *Le Temps*, because of its long run, large circulation, and intelligent articles, was chosen for indexing to fill the void.

Short news items and daily or weekly articles of a statistical nature have been omitted, as have articles giving accounts of great events appearing contemporaneous to the events. This latter restriction was enforced because the editors felt that one could easily locate such accounts through the date, and that the citations under the event would be so numerous as to negate the value of the indexing. However, all articles which are not purely news accounts of noteworthy happenings are cited.

Each annual index within the volume is arranged by large geographical area subdivided by such topical headings as general information, political life, economic life, social life, regional life, and cultural life. These broad headings are further divided and subdivided, the extent of the subdivision depending upon the importance of the area. Happily, the compilers have provided compensation for this difficult classified arrangement in the form of five-year cumulative proper-name and subject indexes.

The editors, all subject specialists in one or more aspects of the nineteenth century, worked seven years to produce this first volume of what promises to be a very valuable reference tool; we hope that the succeeding volumes will appear more rapidly.

—L.B.

**Government Documents**


In this publication the authors have condensed three chapters from a projected guide to British documents which will be similar to Boyd and Rips' *United States Government Publications* (Guide AH7). They first present a brief outline of the parliamentary process, followed by a history of the recording and indexing of what is said in Parliament. Finally, the organization of the sessional papers is examined. The pamphlet is very useful in defining the various series of parliamentary papers, and one of the most helpful sections for a reference librarian is the annotated list of unofficial catalogs and indexes. If the authors had summarized into a similar list the collections of papers and the official indexes to them, the student and librarian would have here a quick guide to these papers.—E.M.

**Biography**


The eighth edition of the *Guide to Reference Books* does not have a section headed “Biography—Bibliography,” a fact which indicates the gap that Slocum's bibliography is admirably designed to fill. The principal type of work listed herein is the biographical dictionary, although the following types are represented when their contents make it appropriate: bio-bibliographies, collections of epitaphs, genealogical works, dictionaries of anonyms and pseudonyms, historical and specialized subject dictionaries, government and legislative manuals, biographical bibliographies and/or indexes, and selected portrait catalogs. Directories which are merely lists of names and addresses are not included. Basic arrangement is by universal, national (or area), and vocational biography. The work contains about forty-eight
hundred entries. Full bibliographical descriptions are given except for serial publications with open entries; descriptive notes are added where the compiler felt they were needed. Detailed author, title, and subject indexes are provided. An attempt was made to be representative with respect to all languages and cultures. A few omissions and errors have been noted in the preface, but these, once noted, should not affect the great usefulness of the work, especially in the extended biographical search.—F.O.


This first attempt to provide a biographical source for the scientists of Western Europe has produced a very useful work of approximately thirty thousand entries. Biographees include scientists in the natural, physical, and medical sciences, technologists, and "those who have interests in the field of research." Scattered entries can also be found for persons in the areas of archaeology and architecture. Each sketch includes the usual brief biographical data, university affiliations, and most recent appointments. While publications are not listed for each individual, a brief description of scientific interests is provided.—J.K.

PHILOSOPHY


Intended to serve as a guide to Christian ethics in the modern world, this one-volume dictionary guides not in the sense of establishing rigid laws of conduct, but rather in the sense of presenting major ethical problems and the leading viewpoints on them. Eighty scholars and theologians have contributed signed articles on basic ethical concepts; philosophical ethical systems; non-Christian ethics; traditional biblical and theological ethics; and ethical problems of the modern world, these supported by background articles drawn from the behavioral sciences. Thus, many of the topics treated here are dealt with in other dictionaries—of philosophy, psychology, and theology—where they are likely to be more fully discussed. Topics and individuals included in this dictionary are presented from the sole point of view of their ethical content or influence. The articles are arranged alphabetically, and cross references are provided. Very short bibliographies are appended to most articles.—L.B.

LITERATURE


Contents: v.1, The authors. 343p. 63s.

Compiled more than thirty years ago (and now published from proofs set before World War II), this work indexes poetry and prose contributions to about two dozen English literary annuals and gift book series of the 1820-1850 period. Listing is alphabetic by author, with contributions to each series grouped thereunder. Reference is to date of the annual, plus page; for poems, both title and opening line are given. There is a separate section for anonyama, giving attributions where possible; another section identifies authors of contributions published as "By the author of . . ." An index of artists is proposed as a second volume.—E.S.


Contents: v.1, A-Futurism, 425p. $22.50.

Based on the Lexikon der Weltliteratur in 20. Jahrhundert (Guide BD28), this encyclopedia, alphabetically arranged, is designed primarily for English speaking readers. Signed articles treat of twentieth century authors, genres, literary movements, and surveys of national literatures, all selected for "the needs of those interested in the relationship of Anglo-American letters to other bodies of literature." (Introd.) Each article concludes with a bibliography which usually updates that in the German work. Another feature is the inclusion with the biography of brief quotations of critical material concerning a major author, these
critical remarks being translated when in
a language other than English. The bibli-
ographies, as well as the advantage resulting
from bringing together in one place
varied information concerning twentieth
century literary figures of all countries,
make this work very useful for reference.—
E.M.

Lewanski, Richard Casimir. The Slavic Lit-
$18.50. (The literatures of the world in
English translation, v.2).

In this volume the compiler has attempt-
ed to list all translations of Slavic belles
lettres (fiction, poetry, drama, children's
literature, and sermons, as well as scholarly,
philosophical, political, and journalistic
writings of literary merit) which have been
separately published or included in an-
thologies and periodicals up to 1960. Both
the English speaking student and the re-
search worker in any of the Slavic litera-
tures will find this a most useful compila-
tion, since translations, especially of shorter
literary pieces, are often extremely difficult
to locate. The basic arrangement is by lan-
guage, with a first section devoted to gener-
al anthologies. Each language section also
has an initial division for anthologies, fol-
lowed by an alphabetical author listing
with variant editions of a single work ar-
ranged in reverse chronological order.

The only real fault to be found with this
otherwise distinguished bibliography is the
lack of an index of the foreign language
titles. The reader may find it difficult to
locate a translation if he is familiar only
with the vernacular form, for titles appear
only in English. Cross references from al-
ternate English titles to a standard version,
and all likely variants of an author's name
(pseudonyms, nicknames, maiden and mar-
rried names) are given in the extensive
author-title index. Another index of an-
thologies and their compilers completes this
qualitatively excellent and well-organized
work.—E.L.

Social Sciences

International Encyclopedia of the Social
Sciences. David L. Sills, ed. {New York,
Macmillan Co. and the Free Press 1968,
17 v. $495.

A completely new reference work, the
long awaited International Encyclopedia of
the Social Sciences is intended to comple-
ment rather than to supplant its predeces-
sor, the Encyclopaedia of the Social Sci-
ences (Guide CA27). Its purpose, there-
fore, is to reflect thirty years' growth in
fields of the social sciences: anthropology,
economics, geography, history, law, political
science, psychiatry, psychology, sociology,
and statistics. Emphasis is placed upon the
analytical and comparative rather than his-
torical and descriptive aspects of topics
treated. Biography, represented by four
thousand articles in the 1930 encyclopedia,
has been de-emphasized in the present
work; however, over half of the six hundred
biographees here treated were not covered
in the earlier set. The new encyclopedia,
unlike its predecessor, includes living peo-
ples—provided they were born before 1890.

Approximately fifteen hundred scholars
from over thirty countries have contributed
articles. The alphabetical arrangement of
entries is augmented by copious cross-ref-
ences both within the text and appended
to articles; by a detailed index volume; and
by grouping under a single heading of
several specific articles having in common
a general subject matter. In accord with
the practice adopted for the previous edi-
tion, all articles are signed and accompa-
nied by lengthy bibliographies intended
both to document the text and to suggest
material for further reading. The use-
fulness of the 1930 encyclopedia foreshadows
the value of this new reference work for
any research library.—L.B.

Education

Altbach, Philip. A Select Bibliography on
Students, Politics and Higher Education.
Cambridge, Mass.: 1967. 54p. $2.50 pa.
(Harvard Univ. Center for International
Affairs. Occasional papers in international
affairs, 16).

This bibliography is intended to facilitate
research in the area of student politics and
education. In roughly eight hundred list-
ings, the compiler has cited the most im-
important items (books, theses, and periodical articles) from the recent literature on the subject. Material is not confined to English-language publications, but includes works in French, German, and Spanish. Listings are divided into five categories, including students in general, international student politics, foreign students, and student publications. The largest category is devoted to students in particular regions and countries of the world. The bibliography is not annotated, but references considered to be of primary importance have been starred. Although far from exhaustive, the bibliography has already proven invaluable for research in this area of current interest.—J.K.

**Sociology**


“Directory” would better describe this work than the “encyclopedia” of its title. It is a compilation of many lists of information sources—government agencies, museums, libraries, reservations, tribal councils, associations, publications—relating to contemporary American Indian affairs. Title of organization, address, director, and sometimes a short annotation are given. Because lists are often closely related, many entries appear in more than one, with duplication of information. What will probably prove the most useful section for reference use is that devoted to biography (about a third of the whole), which contains short “who’s who” type sketches of contemporary Indians of professional achievement and of other persons presently active in all phases of American Indian affairs.—R.K.


In compiling this reference tool, the editors have attempted to serve the “widest possible audience with an accurate . . . well-documented study of Negro life” (Pref.) in one comprehensive volume. Because it includes such a variety of topics in the social science fields, with a great many attractive illustrations and full page portraits, followed by an up-to-date, twenty-page bibliography, this new work should prove one of the most popular of the several recently published reference volumes on the Negro. Of special note for the reference library are sections on significant documents, the Negro press, and national Negro organizations, as well as more general biographical data. Much statistical information is included, some of it nearly compiled, all with sources cited. While emphasis is on United States conditions, Negro life in other parts of the world is also surveyed. Extensive indexing, in addition to the almanac format, makes this a particularly useful tool.—C.R.

**Law**


Although planned as a book-selection guide for law libraries, the annotated subject arrangement of this work makes it a valuable tool for librarians and scholars in other fields as well. Each of the forty-six topics, ranging from accounting to trade regulations, is published as a separate pamphlet, and may be purchased as such. These individual subject lists of works on foreign and common law generally adhere to a standard format; encyclopedias, periodicals, dictionaries, and law reports are included, with the larger portion of each bibliography devoted to selected treatises on the specific subject. The titles included in the lists are considered by law teachers and librarians to be authoritative in their fields, and do not necessarily represent current material. Each title is identified with a symbol to indicate the size of the law library for which it is recommended. Most of the lists were compiled by Miles O. Price, former Columbia University law librarian, and were revised by law faculty and librarians throughout the country; some of the most specialized bibliographies were submitted by experts in the subjects. Upon completion of the final list by December 1968, this cooperative evaluation of the best in the legal literature will be one of
the most useful tools available for research and for acquisition of law materials. Periodic supplements will be offered.—C.B.V.

**Geography**


Subtitle also in English, French, Spanish and Russian.

This work represents an initial attempt to establish what will be a continuous documentation service "to promote geographical research and study on national and international levels." (Pref.) This first compilation is divided into title and index volumes, and includes literature references for all geographical journals and periodicals in each country around the world: articles, monographs in yearbooks, research reports, bibliographical reviews, and conference résumés. To meet the demand for up-to-date documentation, citations have been adapted to make them retrievable from magnetic tapes for subsequent computer printout. Each citation gives a UDC class number as well as appropriate subject headings, author's name, title, source, place and date of publication. The register volume is divided into indexes by author's name and by subject, and a UDC index. Although the citations are somewhat difficult to interpret initially, the comprehensiveness of the indexing will make this a welcome research tool.—J.K.

**Atlas**


According to the editor, this new one-volume edition of the *Times Atlas* appears in response to continued demand for the five-volume "mid-century edition" (Guide CK224) after a decade in which change has been so rapid as to make reprinting of that work impractical. Thus, inclusion for this more limited edition emphasizes "those features of primary geographical interest where outstanding progress has been made." (Foreword) Exploration of space has brought about significant changes: detailed plates mapping the moon are included, and corrections are made in the dimensions and shape of the earth from new information provided by artificial satellites. The main section of political maps is detailed and up-to-date, and a brief additional section deals with the world's resources and their distribution. Useful reference features include a table of geographical comparisons, an international glossary of geographical terms, and an index-gazetteer of some two hundred thousand place names. Its binding is the work's only serious drawback: plates are sewn through the center rather than guarded as in the previous edition. Thus, double-page maps do not lie flat, and the center sections are somewhat difficult to read.—C.R.

**History**


Detailed, chapter-by-chapter bibliographies were an outstanding reference feature of the first edition of the *Cambridge Modern History* (Guide DAI118); the *New Cambridge Modern History*, however, does not include bibliographies. This volume is intended both as a supplement to the new edition of the *History* and as a reference work in its own right. By comparison with the earlier bibliographies, it is a very selective list, with relatively few citations to periodical articles. Entries are set forth in three chronological sections (1493-1648; 1648-1793; 1793-1945) with appropriate subdivisions keyed to the chapters of the *History*. Most of the lists were prepared by contributors to the *History* volumes and, in general, the cutoff date is 1961. There are some very brief descriptive and evaluative notes, and a subject index.—E.S.


"This Companion is intended to provide a single source in which anyone reading a
Canadian book in English or French can find an explanation of references that would otherwise be obscure.” (Introd.) The majority of entries is biographical, covering both historical and literary figures. Historical entries include articles on political and constitutional issues, important places, and special subjects. There are survey articles on literary genres and other literary topics, tracing Canadian developments in chronological sequence. Numerous cross references are employed to relate entries. A feature of the work is the provision with many entries of bibliographies which contain comments and description of the titles cited. Appendixes list governors, administrators, and prime ministers of New France, British North America, and Canada; and there is a section of historical maps. This latest "Oxford Companion" is the work of an archivist with thirty years' experience in the Public Archives of Canada, and initial examination of the book seems to justify confidence in the comprehensiveness, accuracy, and style normally associated with this established series.—F.O.


Developed as a quick reference tool in the Bureau of Indian Affairs and continued in the Department of the Interior library where it is now located, this is an alphabetically arranged subject listing of names of chiefs and other prominent Indians, Indian agents, Bureau of Indian Affairs personnel, and of events and places of importance in the history, social conditions, and biography of the American Indian over the past hundred years. Articles, books, parts of books, even single pages, are cited. Though the scope is said to be wider than departmental collections, no outside locations are indicated.

Because the catalog has had “many contributors and few editors” over a long period of time, inaccuracies and inconsistencies are to be expected in a virtually unedited photographic reproduction. The reader is warned in the preface that entries are often not in standard bibliographical form, and that alphabetizing is "informal within a single letter." In addition, title pages and spine lettering of four of the volumes are inaccurate regarding contents. However, the student of Indian affairs should find the work useful despite its shortcomings.—R.K.

Writings on British History, 1901-1933; a Bibliography of Books and Articles on the History of Great Britain from around 400 A.D. to 1914, published during the years 1901 to 1933 inclusive. London, J. Cape, 1968- . v.1-. (In progress)

At head of title: Royal Historical Society.

Contents: v.1, Auxiliary sciences and general works; v.2, The Middle Ages, 450-1485; v.3, The Tudor and Stuart periods, 1485-1714.

These new volumes extend the coverage of Writings on British History (Guide DC128) to books and articles published between 1901 and 1945. The new compilation differs in two major aspects from the earlier volumes of the series. First, publications of learned societies, whether separates or articles, are not included; instead, the reader is referred to such works as C. S. Terry's Catalogue of the Publications of Scottish Historical and Kindred Clubs and Societies (Guide DC170) for coverage of these materials. The second point of change is in the indexing: there is an index of personal and place names only, except when there are numerous entries for the same name, in which case they are broken down by subjects. The compilers have worked more than ten years to provide this single bibliographical guide for writings from a period in which students have previously had to consult a great number of indexes. Volumes IV and V, soon to be published, will cover the periods 1714-1815 and 1815-1914, respectively.—E.M.
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