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Editorial

Collection Development: The JANUS Image

In this issue there are several articles on various aspects of collection development. This is a good sign—especially for me, because I am fascinated by the subject. Collection development seems to have an ideal blend of the scholarly and the practical. One can roam from building collections to selecting a title. One can review world publishing trends or talk with a faculty member about research interests. New academic disciplines or subfields, conservation, materials budgets, book use patterns, purchasing power, and form of material are but a few of the issues that the collection development librarians must deal with on a regular basis.

The implicit blend of art and science has a subtle allure. However, I tend to waver between the creative or intuitive aspects and the objective factors. For example, I often pose questions, review what I know, and arrive at tentative conclusions. One day I estimated that the ARL libraries collectively spend between $200,000,000 and $500,000,000 annually on books and other media. Next I asked myself a series of questions: (1) how well do the ARL libraries collectively spend their book funds, (2) how well do individual libraries spend their book funds, and (3) how well do individual selectors spend their book funds?

The difficulty of answering any of these questions is obvious to those who have tried even simple collection assessments. They take a great deal of time to do, and the results are often sketchy.

"Collection Description and Assessment in ARL Libraries," SPEC Kit #87 by ARL/OMS (Sept. 1982), is an excellent compilation of noteworthy activity at both small and large academic libraries. As usual in the SPEC Kit Series, the introduction is succinct and insightful: "The renewed emphasis on assessment has led to a greater understanding of the issues involved in the book fund allocation process and has contributed to the development of a better trained and more knowledgeable corps of bibliographers and selectors."

Given the magnitude of our annual expenditures on books, it is fortunate that our understanding of the book fund allocation process is increasing. What we still need to find is a library wunderkind who can develop a simple, easy-to-apply technique by which the quality of collections and the quality of selection decisions can be regularly assessed.

The unknowns in current practice loom large. The difficulty in coming to reasonable conclusions based on objective studies should not deter us but should prod us on. How many of you remember the perplexed, almost confused response of some collection development librarians in the late 1970s, when inflation, wild foreign currency fluctuations, and a downturn in economic growth caused projections of annual serials costs to run out of control? At one major university library, actual serials costs ran between 30 and 40 percent over budgeted figures. Roger Presley and others (Academic Libraries: Myths & Realities, Proceeding of the Third National Conference of the Association of College and Research Libraries) characterized the 1980-82 period as "devastating" for materials budgets. Forty-four percent of the libraries responding to the Presley survey "had to stop ordering new or added periodical subscriptions." A majority of libraries had to cancel titles. For Jasper Schad, "apportioning materials budgets is a collection development problem and the failure to grasp that
fact has, for over 70 years, misdirected efforts to find a workable solution.'" [Journal of Academic Librarianship 3:6 (Jan. 1978)]

At California State University, Sacramento, a committee chaired by Barbara Charlton is preparing a collection-development policy statement to guide library activity in the years ahead. The committee is called JANUS. JANUS, the Greek guardian of portals and patron of beginnings and endings has two faces, one in front, the other at the back of his head. In Janusian thinking, two or more opposites or antitheses are conceived simultaneously, either as existing side by side, or as equally operative, valid, or true. In an apparent defiance of logic or of physical possibility, the creative person consciously formulates the simultaneous operation of antithetical elements and develops those into integrated entities and creation. It is a leap that transcends ordinary logic. (William R. Scott, Organizations: Rational, Natural, and Open Systems, p. 55)

Collection development librarians require a similar talent. The complexity, contradictions, and internal tensions of collection building offer little hope of easy solutions. The logic of the science is confounded daily by the practical and often political context in which libraries operate. The skill with which collection development librarians resolve these contradictions will affect us all—staff and user. Continuing research in this critical area should be encouraged vigorously. College & Research Libraries joins with others to welcome this concentrated attention. A likely result is that libraries and librarians will be able to use their resources more effectively.

CHARLES MARTELL

IN FORTHCOMING ISSUES OF COLLEGE & RESEARCH LIBRARIES

Measuring Levels of Work in Academic Libraries—A Time Based Approach
by Donald P. Gould
The Decision-Making Process Involved in Applying Computer Technology to Library Operations
by R. Wilburn Clouse and Birdie O. Weir
Theories of Innovation and Applications to Libraries
by Judy Reynolds and Jo Bell Whitlach
Production of Scholarly Articles by Academic Librarians and Library School Faculty
by Paula D. Watson
Publication Requirements and Tenure Approval Rates: An Issue for Academic Librarians
by W. Bede Mitchell and L. Stanislava Swieszkowski
The Yale Survey: A Large-Scale Study of Book Deterioration in the Yale University Library

Gay Walker, Jane Greenfield, John Fox, and Jeffrey S. Simonoff

A large-scale survey of the physical condition of books and the nature of the collections in the Yale University Library system that evaluated more than 36,500 volumes was carried out. Results have been tabulated, compared by computer, and analyzed to provide statistical information on the fifteen distinct collections surveyed in thirty-six separate strata. Environmental conditions were also monitored. These studies, along with the analyses of binding materials and methods, were used to formulate probable reasons for deterioration levels as well as documenting these levels. Several questions of particular interest were compared in two-way intersections, and a brief analysis was made of publication dates in relation to age and condition of a selected group of books. It was found that 37.1 percent of the books sampled overall had brittle paper (i.e., broke after two double folds) and that 82.6 percent of the books overall had acidic paper (i.e., a pH of below 5.4). These and other results should help Yale and libraries elsewhere to identify their preservation needs and develop appropriate programs.

One of the most serious problems facing research libraries today is the preservation of the materials that comprise their collections—materials that are deteriorating because of their chemical composition, the mechanics of their construction, and the effects of uncontrolled environmental conditions. Deterioration is a particularly critical problem in large libraries, where the age and size of the collections make evaluation and corrective action difficult. It has been estimated that more than six million volumes in the collections of the Library of Congress have deteriorated so badly they cannot be given to users without risk of irreparable damage; at the New York Public Library, it is estimated

R. Gay Walker is head of the Preservation Department and curator, Arts of the Book, Yale University Library, New Haven, Connecticut 06520. Jane Greenfield, now retired, was past conservator and head of the Conservation Studio, Yale University Library. John Fox is a graduate student, Statistics Department, Yale University. Jeffrey S. Simonoff was a graduate student in the Statistics Department, Yale University, at the time of this survey. He is presently on the faculty of the Graduate School of Business Administration at New York University, New York 10012. The authors would like to acknowledge financial support for the design and implementation of this survey from the National Endowment for the Humanities (RC-32494-79-1585) and the Mellon Foundation. Those interns involved in the survey were Paul Beck, David Boardway, Charlotte Brown, Candace Brugmann, Diane Burke, Margaret Byrnes, Ellen Chin, Anne Dullinger, Patricia Gladys, Sharlane Grant, Nancy Grussing, Michael Holland, Cheryl Jones, Lynne Keller, Margaret Madison, Jan Merrill-Oldham, Marion Munzer, Carolina Portela, Sharon Pugsley, Mary Schlosser, Pamela Spitzmueller, Gregor Trinkaus-Randall, Karen Walsh, and Virginia Wisniewski-Klett. Special thanks go to Jan Merrill-Oldham for her careful editorial review and suggestions. Thanks also go to Rutherford D. Rogers and the Yale Library's administration for local support, to Louis J. Volpi, and to the staf s of the Preservation and Conservation divisions for their participation and support.
that as much as half of the collection has reached a similarly advanced state of disintegration.2

During the past decade, several attempts have been made to explore this problem, and a variety of responses to it have been initiated. The first major study was conducted by the Association of Research Libraries; it attempted to "identify specific steps that might be taken . . . to work towards resolution of the many problems . . . brought on by the physical deterioration of books and journals." Authors treating this subject included Darling4 and Walker,5 both of whom urged more complete documentation of preservation activities. Several major libraries, including New York Public, Columbia University, Stanford University, University of California at Berkeley, University of Michigan, Newberry, and Yale University libraries, have formed preservation units for the purpose of repairing and replacing damaged books and journals. Outstanding recent developments have been initiated by the Library of Congress, where a pilot project on the storage of information in digital form is under way and where the Preservation Research and Testing Office is conducting extensive research on the permanence of materials, practical methods for mass treatment of deteriorated books, and the effects of buffering agents on papers and inks.

Those institutions that have attempted to address the preservation problem have been hampered by the lack of a detailed study to determine its scope. Although small, limited surveys were conducted at Stanford University6 and at several other academic libraries, a large-scale study had never been attempted. In 1979, the Preservation/Conservation group at Yale applied for and received a three-year grant from the National Endowment for the Humanities (NEH) to survey the Yale collection, evaluate the results, develop educational tools, and provide interns with advanced training in preservation/conservation procedures and theories. Additional support was provided by the Andrew W. Mellon Foundation. The grant was administered by project codirectors, Jane Greenfield and Gay Walker.

The proposed survey was undertaken to determine the extent and nature of the deterioration of books in the Yale University Library system. This was a job of major proportions; Yale Library has the second largest collection of any academic library in the nation. In 1982, 7,725,424 volumes were held in forty separate library units. The records for that year show that more than one million volumes had circulated. This figure does not reflect in-house use of materials. In order to obtain results in which we could be confident, a very large sample—more than 36,500 volumes—was surveyed. Fifteen of the sixteen major libraries were divided into thirty-six subunits, each of which was treated separately in terms of its statistical framework and the generation of results. The surveyed libraries varied greatly in size, age, and nature of buildings and collections; environmental conditions; reader access; and circulation patterns. The following descriptions of some of the surveyed units illustrate this point.

The Sterling Memorial Library (the main library) houses approximately four million volumes, including some that date back to 1600. The collection has grown steadily since 1701, when the university was founded. Opened in 1931, the building has fifteen floors of stacks accessible to the Yale community, a centrally controlled heating system, and no air-conditioning. Among the subunits within the Sterling Library that were sampled separately was the Preservation Division. The 13,000 books held there represent the work flow of materials regularly sent to Preservation for repair, replacement, or reproduction. The 3,359-volume Statistics Library (the smallest library sampled) is located in one room of what was once a private house, built in 1849. The Cross Campus Library, a two-floor, air-conditioned underground structure built in 1971, houses 150,000 volumes. This undergraduate collection receives the heaviest use of any within the library system. The Kline Science Library is comprised largely of twentieth-century periodicals and recent scientific texts (the older science materials are in the Sterling stacks). Because it was felt that rare books should not be tested for pH and brittle-
ness, none were surveyed. The major unit omitted was the Beinecke Rare Book and Manuscript Library. Folios were also omitted because they are awkward to handle and are easily damaged.

**SURVEY GOALS**

The survey was designed to yield a detailed description of the collections in the discrete units of the Yale system; to examine the complex relationships between the nature of materials, their condition, and the environment in which they are housed; and to estimate how many volumes require immediate attention, how many will need attention soon, and what kind of attention will be needed. In order to gather the requisite data, the project co-directors devised a series of questions that could be used to evaluate books. Eight of these questions helped to establish the size of the preservation problem:

1. Is the primary protection (binding, box, or protective cover) intact?
2. Is the leaf attachment (sewing, gluing, or stapling together of pages) intact?
3. Is the paper very brittle (does the corner of a page break off after two double folds—i.e., after being folded in one direction, then in the opposite direction, twice)?
4. Is the paper very acidic (i.e., does a test using an archivist's pen filled with bromocresol green show the paper to be pH 5.4 or below)?
5. Is the printed area of all pages intact?
6. Is the book mutilated (i.e., damaged by humans or animals)?
7. Is the book damaged by environmental factors (i.e., are there signs of fading or water damage)?
8. Does the volume require immediate treatment (replacement, reproduction, repair, or rebinding)?

Other questions were devised to expand the profile of the deteriorated volumes and to suggest reasons for their deterioration:

9. What is the country of publication?
10. What is the date of publication?
11. Is the book circulating or noncirculating?
12. What kind of primary protection (binding, box, wrapper) does the book have?
13. What kind of material covers the joint (the outer hinges)?
14. How are the leaves of the book attached?
15. What is the width of the gutter (inner) margin?

Most questions are of particular interest as they intersect with others. Among those sets analyzed were questions 1 and 12, 2 and 14, 3 and 4, 3 and 8, 3 and 15, 4 and 14, 4 and 15, 8 and 12, 8 and 13, and the three-way intersection of 3, 9, and 10. See appendix A for the sampling methodology and procedures.

**THE PILOT STUDY**

An important step in the construction of the Yale survey was a pilot survey, that is, a preliminary run-through on a small subset of the total number of volumes to be sampled. The pilot helped identify and eliminate problems in the sampling design (for instance, it was discovered that certain questions were worded ambiguously). A pilot study of 1,000 books in one stratum was carried out. This was a number large enough to achieve the desired objectives but small enough so that the study could be done quickly and analyzed inexpensively.

The pilot study emphasized the need for the following: (a) a consistent method of locating books, e.g., by always moving clockwise around a range when counting sections; (b) detailed instructions on how to fill out questionnaires and guidelines for answering the questions; (c) a knowledge of book structure and the ability to recognize different methods of leaf attachment and the various materials used for book covering.

The educational program for the surveyors and the instructions for locating books and evaluating them (see appendix B) were evolved during the trial run. A truck of books containing various binding styles and covering materials was assembled for each group of NEH intern surveyors to study. The surveyors also spent time in the stacks practicing evaluation techniques to standardize findings, and they attended a discussion session at which the
statisticians explained statistical theory. After a surprisingly short period of practice, each group was able to work smoothly and efficiently.

IMPLEMENTATION

Six groups of four interns each carried out the survey over the course of two and one-half years. Each group stayed at Yale for five months and spent close to half of each day surveying. The total time spent evaluating books was about thirty-eight hundred hours.

College Board form IBM-H45352 was used to record findings in a machine-readable format. This procedure eliminated errors that are sometimes introduced when data must be input into a computer manually. An overlay of thin cardboard (figure 1) with windows cut out to expose areas where answers were to be recorded was placed on the survey form. The form and overlay were supported in correct relative position by a jig (figure 2) that also held finished forms, the thin cardboard strip used to measure gutter margin, #2 pencils needed to fill in the form, and an archivist’s pen used to check pH. A short list of abbreviations for names of countries (appendix C) was taped on
the back of the jig. In addition, a full list of abbreviations, translations of Latin and Cyrillic place-names, an atlas, and shelf-lists were available.

RESULTS

Appendix D gives the statistical analysis of the data gathered. The sample results for each of the fifteen libraries surveyed are presented in the tables in figure 3. Findings for thirteen questions are expressed as percentages; answers to the question about tagging are omitted (this figure was always under 10 percent, as mentioned before). Great care was taken to obtain sufficiently large sample sizes to ensure that our estimates were accurate to within a few percentage points. The maximum standard error observed for each of the thirteen questions listed in the tables is given at the top of each column. Although the highest standard error in an entire unit was 2.58 percent (in the Statistics Library, where the smallest sample was taken), most were well under 1 percent. For questions with several possible answers, e.g., "How are the leaves attached?" only those answers comprising at least 2 percent of the total response in any stratum were included in the tables. The percentages, therefore, do not always add up to 100 percent in each category. Libraries having air-conditioning are indicated in the tables.

The following example illustrates how survey results should be interpreted. Refer to the first table in figure 3, Art Library column. In a sample of 1,336 volumes, 17.2 percent were found to be in need of treatment. (Given the calculated standard error of 1.03 percent for the question about repair, a 99 percent confidence interval for the actual percentage of books in the Art Library in need of treatment is 14.53 percent to 19.87 percent.)

The survey findings were very interesting—some because they confirmed previous estimates of the scope of the preservation problem, and others because they provided new data with which to analyze the problem. Salient aspects of these results are discussed below, question by question. (Because the Sterling sample was the largest, statistics from that collection are most often cited. Findings from other strata are mentioned when they are of particular significance.)

Is the Primary Protection Intact?

The data gathered in response to this question can help identify those collections that would be good candidates for rebinding projects. Findings also suggest levels of use and maintenance of a given
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<th>Act</th>
<th>Classics</th>
<th>Drama</th>
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<th>Forestry</th>
<th>Geology*</th>
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<td>Total holdings</td>
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<td>Sample size</td>
<td>1,336</td>
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<td>1.9</td>
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<td>Rigid</td>
<td>55.2</td>
<td>94.1</td>
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<td>75.0</td>
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<td>24.7</td>
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<td>Acidic pamphlet</td>
<td>4.8</td>
<td>0.5</td>
<td>9.4</td>
<td>0</td>
<td>13.7</td>
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<td>Intact</td>
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*Air-conditioned libraries

**FIGURE 3**
Sample Results (%)
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### Primary protection type

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<th>Acidic pamphlet</th>
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### Leaf attachment type

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### Leaf attachment condition

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*Air-conditioned libraries

FIGURE 3 (Continued)

Sample Results (%)

The Yale Survey 117
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<td>96.8</td>
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<td>2.6</td>
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<td>1.2</td>
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<td></td>
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<td>3.0</td>
<td>14.6</td>
<td>7.0</td>
<td>11.2</td>
<td>1.9</td>
<td>14.4</td>
</tr>
</tbody>
</table>

*Air-conditioned libraries

FIGURE 3 (Continued)
Sample Results (%)
More than 7 percent of the sample surveyed in the Sterling stacks had broken bindings (which represents around 235,000 volumes if extrapolated to the entire stack holdings). Surprisingly, the percentages of volumes with broken bindings in the high-use Periodical and Reference collections were lower (5.9 percent and 3.7 percent, respectively), which is perhaps a function of the Reference staff’s prompt processing of materials in need of rebinding. Predictably, nearly 80 percent of volumes in the Preservation Division had bindings that were not intact. More than 10 percent of the volumes in the long-established Forestry, Medicine, and Classics libraries had broken bindings—the Forestry Library having the largest percentage (19.7 percent); while the new collection in the Geology and Engineering libraries had very few broken bindings. However, the low numbers at Music (an old collection), and the high numbers at Kline and Art (relatively new collections), suggest that level of usage and care may also be important factors for predicting binding condition.

Is the Leaf Attachment Intact?

The condition of the leaf attachment suggests the levels of use and maintenance of a collection, as does the condition of the primary protection, but the implications of leaf-attachment problems can be more serious. The text blocks of books with broken leaf attachments must be resewn or reglued, procedures that are not possible when margins are narrow or paper is brittle. The condition of leaf attachments was reasonably good throughout the library system. As might be expected, 44.5 percent of the volumes in the Preservation Division had leaf-attachment problems, but percentages in the remaining units ranged from 0.6 percent to 9.6 percent.

Is the Paper Very Brittle?

The test for paper embrittlement is fairly objective: the corner of a page was folded back and forth four times (two double folds). If the corner broke off after one double fold, the paper was considered extremely brittle; after two double folds, brittle. Of the books surveyed in the main Sterling stacks, 44.7 percent did not survive the four-fold paper test—a percentage that represents between 1,351,600 and 1,420,420 books. As might be expected, more of the paper in the Preservation Division collection was brittle (77.3 percent). Most of the older collections contained a high percentage of brittle books. Of the materials in the Periodical stacks (where back files of the 100 most heavily used titles are shelved), 47.3 percent were embrittled. The two collections that had the lowest percentage of brittle books, Social Science (3.3 percent) and Statistics (3.6 percent), are relatively new. When results for the entire Yale Library system’s holdings were weighted and combined, a total of between 1,796,100 and 1,879,377 volumes were estimated to have brittle paper. These findings signal the need for expanded replacement and reproduction programs.

Is the Paper Very Acidic?

The pH is important because of the established correlation between paper acidity and longevity. In general, the more acidic the paper, the more short-lived it is. Determining the percentage of acidic materials in a collection is useful for predicting long-range preservation needs. We measured acidity using a simple pH indicator. A small mark was made in the gutter margin of each book using a felt-tipped pen filled with bromocresol green. The chemical is green when applied but turns blue within about thirty seconds if the pH of the paper is above 5.4. Since a pH of 5.4 or below is very acidic (i.e., well below neutral), the percentage of acidic books identified in the survey is conservative. We approached these results with some caution because color changes are sometimes hard to read in dim stack areas; however, the results did corroborate similar findings in other studies. In no library unit did more than 48 percent of the paper
tested have a pH higher than 5.4. Those collections with the largest percentages of better paper were generally the newer ones. In the Sterling Library, 87 percent of all papers tested had a pH of under 5.4. We can estimate, then, that about 2.57 million volumes in Sterling have acidic paper and are either brittle or will become brittle. In the Cross Campus and Kline Science libraries, 68 percent and 67 percent, respectively, of the paper tested was highly acidic. We had expected this lower percentage, since the bulk of both collections is late-twentieth-century material. When the estimates for each stratum in the survey are weighted and the results added together, the total number of items having highly acidic paper in the five-million-volume target population is between 4,065,192 and 4,128,542 (82.6 percent).

Is the Printed Area of All Pages Intact?

The identification of pages with tears or breaks extending into the text is significant because of the immediate potential for loss of information. The Periodical stacks showed severe damage; 11.3 percent of the books sampled had broken or torn paper. As might be expected, 47.4 percent of the volumes sampled in the Preservation Division had damaged paper. However, the results from all other units were low, e.g., only 2.2 percent of the books surveyed in Sterling showed damage to printed areas of pages.

Is the Book Mutilated?

Extensive mutilation suggests heavy reader use. The problem was moderate throughout the library system, with the exception of the Cross Campus Library, where 25 percent of the books sampled were mutilated. (The Cross Campus Library contains all class texts including items placed on reserve.) The Periodical stacks, the Preservation Division collection, and the Music Library showed mutilation rates of 14.4 percent, 9.7 percent, and 9.9 percent, respectively, while all other collections showed rates of under 5 percent. These findings identify sites where augmented programs for reader education are necessary.

Is the Book Damaged by Environmental Factors?

Damage to books caused by environmental factors (e.g., water, sunlight, mold, insects) indicates problems with physical housing, including building construction, environmental control, and housekeeping practices. As might be expected, the Preservation Division collection showed the highest rate of environmental damage (18.4 percent). Other collections showing high rates were the Classics Library (16.5 percent) and the Forestry Library (10.2 percent). The median for all strata was 2.9 percent. Some collections have been repeatedly damaged by water from leaking pipes or windows, overflow from sinks, condensation from steam heating units, or rainwater seeping through walls and ceilings. In some undetected cases, mold had grown, exacerbated by high heat and humidity.

Does the Volume Require Immediate Treatment?

The results of this question identified those library units that have the greatest numbers of deteriorated volumes in need of immediate attention—that is, volumes with broken bindings, missing or damaged text, and/or broken leaf attachments. (Intact brittle materials were not included; only those already damaged were identified here.) Surprisingly, the percentage of books needing immediate treatment was much lower than we had believed. (We had estimated that roughly 30 to 40 percent of all items in Sterling would fall into this category.) Although 96.6 percent of the books surveyed in the Preservation Division collection needed immediate treatment, in no other library was this figure higher than 25 percent. In the Sterling stacks, only 13.2 percent of the materials fell into this category. It should be noted, however, that this percentage represents more than 400,000 volumes. More than 10 percent of the collections sampled in Sterling’s Periodical stacks, and the Cross Campus, Art, Classics, Drama, Forestry, Kline Science, Law, Medicine, and Social...
Science libraries, were also identified as needing immediate treatment.

Is the Book Circulating or Noncirculating?

The question regarding circulation was included to determine whether there is a relationship between the condition of the books and circulation outside the library. Surprisingly, no clear correlation was found—need for treatment being more closely related to age and nature of the collection. For example, the Classics Library is a noncirculating collection but showed a high number of volumes needing treatment, while other circulating collections showed a low rate of damage.

What Kind of Primary Protection Does the Book Have?

Identifying and quantifying the types of primary protection (including bindings, boxes, envelopes, and wrappers) are useful for estimating the number of volumes in need of first-time binding and the number of acidic pamphlet binders that must be replaced by alkaline binders. The most common primary protection was the rigid binding (hard covers that provide firm support). The percentage of rigid bindings varied throughout the library system, from 45 percent to 96 percent. Also common were limp supports (paper or other flimsy covers) and acidic pamphlet binders. The percentage of limp bindings varied from 0.1 percent to 38 percent. In those few libraries where the number of limp bindings is high, a review of binding policies may be appropriate. The percentage of acidic pamphlet binders ranged from 0 percent to 36.9 percent throughout the system. The estimated number of these binders in Sterling alone was 396,800 (12.8 percent).

What Kinds of Materials Cover the Joint?

Identification of the materials covering the joints (the outer hinges) of books helps to describe library collections, particularly when it is coupled with information about condition. Because of the degree to which joints must flex, they are extremely vulnerable to failure. The nature of the material covering the joint is therefore critical to the durability of the binding. Thirty-three percent of the books awaiting treatment in the Preservation Division were bound in leather. Since the highest percentage in any other collection was 7.7 percent and the median was 1.7 percent, this finding suggests that leather is more fragile than other binding materials. (It is also difficult to repair.) The large number of books with paper-covered joints may represent a future binding problem, although many of the pre-nineteenth-century paper bindings have held up extremely well.

How are the Leaves of the Book Attached?

The method by which the leaves of a book are held together (e.g., sewing-through-the-fold, oversewing, gluing) is an important factor in determining whether the book can be rebound if necessary. In all but two collections, volumes bound by sewing-through-the-fold (i.e., through the folds of the signatures) outnumber those bound by any other method. Volumes that are sewn through the folds not only open easily, but can usually be rebound provided the paper is still flexible. In the Mathematics Library and the Periodical stacks, oversewing and cleat sewing were more common. Both methods require trimming away the folds and some of the inner margin and can make it impossible to rebind a volume successfully. The percentage of adhesive-bound volumes in collections with large holdings of new books proved the current popularity of this binding method. The Social Science Library had the highest percentage of adhesive-bound volumes (27.6 percent). Stab sewing, a method long used in pamphlet binding at Yale, was also widespread—ranging from 1.5 percent to 21.3 percent in the various collections, with a median of 5.7 percent.

What Is the Width of the Gutter Margin?

The width of the gutter margin was examined in order to estimate the percentage of books that could not be rebound
readily by commercial methods, regardless of paper quality. A small strip of heavy paper was marked with a one-centimeter line and used to measure the narrowest inner margin in the book. (One centimeter was judged to be the minimum width required to rebind a volume easily. When margins are narrower, special care must be taken either to retain the original sewing structure, and thus all of the margin, or to trim and bind the pages with great care so as not to obscure text. Sometimes neither method is possible.) The highest percentage of books with margins less than one centimeter wide was found in the Mathematics Library (37.6 percent). Between 34.2 percent and 37.5 percent of the books sampled in the Social Science and Geology libraries and in the Periodical stack collection had very narrow margins. These statistics suggest that when bindings fail, reproduction and replacement of materials will in many cases be the only available options.

The last column in figure 3 is a statistical description on the entire sample for the target population of five million volumes. The percentages were derived by weighting the results from the various strata based on their proportion of the whole and adding these results together. It should be remembered, however, that these systemwide statistics must be used with caution because they do not describe a coherent collection. Yale's library units are very different from one another, and the statistics gathered in each are probably best understood as separate studies.

INTERSECTIONS

Some of the most useful statistics resulted from determining the percentage of books that exhibited two or more of the characteristics isolated in the survey (e.g., how many books had both broken bindings and paper covers). The results of many of the most important intersections are given in figure 4. Only statistics for the main research collection are given here due to space limitations. These results are shown in a mileage table format where the figures are read from both the horizontal and the vertical axes. For instance in the first column, 66.7 percent of the books did not need treatment and had rigid bindings, 4.9 percent did not need treatment and had limp bindings, and 11.2 percent did not need treatment and had acidic pamphlet bindings; 8.4 percent did need treatment and had rigid bindings, 2.6 percent needed treatment and had limp bindings, and 1.6 percent needed treatment and had acidic pamphlet bindings. The figures for any given intersection may not add up to 100 percent since findings were purposefully omitted when a category (e.g., vellum joint coverings) made up less than 2 percent of the sample and when data were missing because of human error (e.g., the surveyor skipped a question).

All of the intersections that were analyzed proved interesting. Some of the more significant ones are discussed here. Not surprisingly, it was found that acidity and brittleness were directly related; although approximately 80 percent of the nonbrittle books were acidic, more than 99 percent of the brittle books were acidic. Similarly, while only 6 percent of the nonbrittle books needed treatment, more than 20 percent of the brittle books needed treatment. This latter group of books (around 285,000 when extrapolated to the entire Sterling collection) will probably need replacement or reproduction, rather than repair; the books that need treatment but are not brittle can probably be repaired or rebound. An estimated 592,000 volumes, or 18.8 percent of the sample, were brittle and had been oversewn, cleat sewn, or stab sewn. These volumes are particularly vulnerable to damage; even gentle use could easily result in broken pages. At the time of the survey, however, the leaf attachments in oversewn and cleat-sewn volumes were generally intact; only 2 percent of those sampled were broken. This contrasts with the other leaf-attachment types, where more than 5 percent were broken. Limp bindings were more prone to failure than other forms; 33.3 percent of all limp bindings were not intact, while 4.8 percent of rigid and 7.8 percent of acidic pamphlet bindings were not intact (around 49,000 of the total number of acidic pamphlet binders in Sterling
**Library: Sterling Memorial**

<table>
<thead>
<tr>
<th>Treatment Needed</th>
<th>Leaf Attachment</th>
<th>Gutter Margin</th>
<th>Primary Protection</th>
<th>pH</th>
<th>Brittle</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Intact</td>
<td>Not intact</td>
<td>More than 1 cm</td>
<td>Intact</td>
<td>Not intact</td>
</tr>
<tr>
<td>No</td>
<td>6.3</td>
<td>1.9</td>
<td>7.9</td>
<td>0.2</td>
<td>0.2</td>
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<tr>
<td>Yes</td>
<td>68.2</td>
<td>18.7</td>
<td>42.7</td>
<td>8.3</td>
<td>35.6</td>
</tr>
</tbody>
</table>

**pH**

| pH above 5.4 | pH below 5.4 | 66.7 | 8.4 | 4.9 | 2.6 | 11.2 | 1.6 | 71.5 | 3.6 | 5.0 | 2.5 | 11.8 | 1.0 |

**Primary protection type**

<table>
<thead>
<tr>
<th>Rigid</th>
<th>Limp</th>
<th>Acidic pamphlet</th>
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</thead>
<tbody>
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<td>66.7</td>
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<td>11.2</td>
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</tbody>
</table>

**Joint covering**

<table>
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<th>Cloth</th>
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<th>Leather</th>
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</thead>
<tbody>
<tr>
<td>67.5</td>
<td>7.0</td>
<td>4.9</td>
</tr>
</tbody>
</table>

**Leaf attachment type**

<table>
<thead>
<tr>
<th>Sewn-through-fold</th>
<th>Over/cleat sewn</th>
<th>Stab sewn</th>
<th>Adhesive</th>
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<tr>
<td>48.4</td>
<td>21.9</td>
<td>17.0</td>
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</table>

**Brittle**

<table>
<thead>
<tr>
<th>Does not break</th>
<th>Breaks at 4 folds</th>
<th>Breaks at 2 folds</th>
</tr>
</thead>
<tbody>
<tr>
<td>47.7</td>
<td>7.5</td>
<td>27.9</td>
</tr>
</tbody>
</table>

**FIGURE 4**

Significant Intersections for Questions in Sterling Library
needed immediate replacement). There was also a relationship between binding type and need of attention; while 11.2 percent of the rigid bindings and 12.5 percent of the acidic pamphlets needed attention, 37.4 percent of the limp bindings needed attention. It should be noted, however, that the rigid ones needing attention formed the largest group in absolute terms (about 260,000 needing attention). A relationship between joint covering and need of treatment was also evident; only 10.1 percent of the books with cloth-covered joints required treatment, while 28.6 percent of volumes with paper-covered joints and 29 percent of volumes with leather-covered joints were in need of immediate treatment.

Figure 5 shows the percentage of books sampled in the Sterling Library that were brittle (paper broke after two or four folds), broken down by date and by country of publication. Statistics from three geographic areas are plotted: the United States, Great Britain and Ireland, and Germany. The results were surprising in that papers older than expected are now embrittled. Paper from the early 1800s through the 1950s is now brittle, with the peak extending from 1860 to 1930. The sharp decline in brittleness by the end of the 1950s is probably not due to a major improvement in paper quality since high levels of acidity continue to be found, but because flexibility has not yet been lost.

**ENVIRONMENTAL DATA**

During the grant period, five hygrothermographs were placed throughout the library system to document environmental

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**Figure 5**

Percentage of Books Surveyed that were Brittle (paper broke after 2 or 4 folds) by Date and Countries

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**Germany**

**Great Britain & Ireland**

**United States**
conditions. These instruments continuously recorded (onto paper charts) levels of temperature and relative humidity. The hygrothermographs were moved at least once a year so that as many sites as possible could be monitored, but they were left in place at each site long enough to record seasonal extremes. Findings from one site (the top floor of the Sterling stacks) is shown in figure 6. Rapid fluctuations in climate, and a significant deviation from ideal conditions, is apparent. Because of the established link between air pollution and deterioration of paper and other library materials, the U.S. Environmental Protection Agency, Connecticut Air Quality Monitoring Division, was approached regarding pollution in New Haven. It is an urban area and has a bad problem, and though Connecticut is presently (1984) meeting the annual federal standards, for instance, for both sulfur dioxide and nitrous oxide, these pollutants tend to be concentrated in the city streets, including those surrounding the various library units, and there are still many days during the year when levels of pollutants are so high as to be "unhealthful," a category that does not meet federal health standards.

In addition to the monitoring program and communication with the EPA, one group of NEH interns conducted in-depth environmental studies of each of the fifteen library units surveyed. Using information gathered during site visits and discussions with unit heads, they developed detailed descriptions of each unit and proposed solutions to problems. Although the climate in the five air-conditioned units (the Cross Campus, Engineering, Geology, Kline Science, and Social Science libraries) was fairly good, in general the environment both inside and outside the library buildings at Yale was found to be inhospitable to the storage of library materials.

CONCLUSIONS

The results of the Yale survey provide a detailed description of each of the surveyed collections. This profile includes
the physical condition of each unit's holdings (e.g., the number of volumes requiring immediate treatment) and an analysis of the physical composition (e.g., the number of volumes bound in paper) and publishing history (e.g., the number of volumes published in the United States during the 1890s) of each collection. The data are of practical interest to local planners and of more theoretical interest to selection officers, administrators, and students of book publishing and collecting. The amount of statistical information available from such a large survey is tremendous, and other analyses in both areas of physical condition and collection description may be carried out in the future.

A large survey that details the collection's composition and preservation problems is a powerful planning tool. This study documents the preservation needs of the Yale University Library system, and our present efforts must be reviewed in this new light. The survey was large, with a sample of more than 36,500 volumes, quite accurate, and included library collections that varied widely in age, size, use, location, and environment. The overall size of the problem should influence the level of effort and funding devoted to it; budgeting increases over several years can be proposed and justified based on the hard data available from this survey. Specific library units of the fifteen surveyed have been identified as problem areas requiring either onetime projects (e.g., screening for commercial library binding candidates) or greater preservation efforts, for instance, an expanded search-and-replacement program. We can focus on those units as our program expands. We know that large numbers of items are irreparable and threatened with loss of text, and survey results support a more aggressive program—especially in increased control of the storage environment for many of the Yale collections. The most interesting results in terms of program development are the percentages of books in need of immediate treatment (12.8 percent overall), with broken bindings (8.1 percent overall), with brittle paper (37.1 percent overall), and, for future planning, with acidic paper (82.6 percent overall).

Although this survey does not take the place of a local preservation survey that identifies environmental problems or specific candidates for treatment, it may be useful in estimating levels of deterioration at other libraries. The fact that many units of varying natures were surveyed as separate strata should allow libraries elsewhere with similar collections to identify results relevant to their own situations for local planning.

Furthermore, the survey design, the questions, and the implementation procedures described here may be particularly useful as working tools adaptable to different situations and needs at other libraries. The survey methodology was based on random sampling techniques; and the use of mapping, a presampling strategy, tagging, machine-readable forms, consistent surveyor training, and computer analysis increased the accuracy and efficacy of the actual surveying process.

For many years the preservation field has cherished those few statistics that attempt to set the parameters of the preservation problem. Many of these figures are based on educated guesses or small surveys combined with experience and common sense. For instance, the commonly quoted figures for both the Library of Congress and the New York Public Library appear in the introduction here, although both institutions are involved in new survey activities. Our rough estimate prior to the study that 30 to 40 percent of Yale's collection needed preservation attention turned out to be correct if those books needing attention include all books with brittle paper, an overestimate if it means only those books with immediate treatment problems, and conservative if it means all books with acidic paper. This large-scale survey provides one set of hard statistics in a number of different categories that presents a statistical microcosm of the various preservation problems and a sobering picture of book deterioration in a large research library.
REFERENCES


APPENDIX A: SAMPLING METHODOLOGY AND PROCEDURES

Two statisticians from the Yale Statistics Department served as consultants for the project. They helped to plan and implement all aspects of the survey, carried out the pilot survey, analyzed the data, and wrote the statistical narration. Since time and monetary constraints made it impossible to examine every volume in the Yale system, a random sample representative of the entire collection was constructed. (For a simple random sample, every volume in the target population must have an equal chance of being selected for sampling.)

The basic principles of sampling within the library framework have already been treated in the literature.* However, the structure of the sample needed to examine the books in a large academic library is more complicated than those of the surveys previously conducted. Although the Yale survey, like others, used a random sampling technique, the sampling also took into account particular attributes of each library unit being studied. A stratified sampling design† was used whereby the entire library system was divided into strata. Each departmental and area library comprised a different stratum, and reference and reading rooms were often broken away from the main collections because of their peculiar characteristics. The Sterling Memorial Library was subdivided so that each floor, and several of the special units (the Periodical stacks, the Main Reading Room, and the Preservation Division), were studied as separate strata. Thus, the location, environment, reader access, and general level of maintenance within strata were similar, while the characteristics of one stratum could be quite different from those of another.

In order to sample the collections in these strata randomly, a sampling frame was built. A sampling frame is a systematic, usually hierarchical method for giving each member of a target population a unique label, the label usually being a number or a series of numbers.‡ Our sampling frame was based on floor plans of each stratum showing all stack ranges and the number of sections in each range. Random numbers based on these plans were generated by computer. Each nine-digit code identified a particular book by stratum (two digits), range number (two digits), section number (two digits), shelf number (one digit), and book number (2 digits). All random numbers were sorted in hierarchical order.


‡A good primer on sampling concepts and terminology is F. J. Anscombe’s "Some Principles of Sampling," unpublished manuscript, 1975.
so that the surveyor could move in a logical progression through a given stack area.

The numbers identifying ranges, sections, and shelves had identifiable maximums based on stack configurations. For example, stratum fourteen may have had forty ranges with no more than twelve sections per range, each section having no more than seven shelves. The number of books on a shelf, however, tended to vary from 0 to as high as 150 in some cases. For reasons of efficiency, an artificial book-per-shelf maximum of 30 was chosen. This was found to be usually as large as, or larger than, the average number of books per shelf in each stratum. The computer-generated random numbers corresponding to book position, then, went no higher than 30. Mapping (i.e., annotating floor plans so that empty ranges and sections were not included in the sampling frame) was used to make the sampling procedure more efficient. So that books with shelf positions exceeding 30 were allowed to enter the sample, a tagging procedure was devised. The sample that resulted from this design was an approximate simple random sample of the target population.

If the random numbers designating book positions went up to, say, 150, the frame would have encompassed the entire target population and resulted in an exact simple random sample of the target population. However, it also would have enlarged the sampling frame to such a degree that the hit rate would have been drastically lowered. That is, only rarely would one find books in the positions identified by the higher random numbers designating book positions, since most shelves contained thirty or fewer items. The enlarged sampling frame would also increase the surveyors' work load and introduce more opportunity for errors.

Tagging (i.e., systematic subsampling) worked in this way: every time a book was sampled, the thirtieth book on the same shelf beyond the one identified by the random number was also sampled (if it existed). For instance, if the book identified by the computer printout was the seventh from the left-hand edge of the shelf, the thirty-seventh, sixty-seventh, and ninety-seventh books were also sampled if present. This procedure ensured that unusually full shelves were not undersampled. We tried to keep the proportion of tagged books in the sample at 10 percent or less as a safeguard against any possible "long-shelf" effects. In some subunits we could do this by adjusting the book-per-shelf limit to a more appropriate value for that unit. Tagged books were identified as such on survey forms in order to track percentages.

Once the frame was completed, we needed to determine the required sample size and how many random numbers to generate. In this survey, the chosen sample size was a function of the desired accuracy. In a simple dichotomous situation, for example when determining the percentage of books with an intact text, the standard error associated with the sample proportion of books with intact text is no greater than \( \frac{1}{2}\sqrt{n} \), where \( n \) is sample size, and we can ignore the finite population correction (fpc).* Hence, a sample of size 1,600 would give us an estimate of the proportion of books in the library with intact text and a standard error no greater than 1/80 or 1.25 percent. This would mean that we could be fairly confident about placing the proportion of books with intact text in an interval of the form: sample proportion ± 2.5 percent. We also needed to select enough books to analyze the condition of library holdings in terms of several variables, e.g., what proportion had brittle paper and also needed repair? In general, this necessitated taking large samples, usually between 1,000 and 2,000 books in a stratum.

Once sample size (\( n \)) was determined, we could calculate how many random numbers (\( k \)) had to be generated in order to sample the desired number of books by solving \( (k)(r) = n \) (where \( r \) equals the hit rate). For example, if the sample size required was 1,600 and the hit rate was known to be 50 percent, then one would generate 3,200 numbers inside the sampling frame. Unfortunately the hit rate can only be guessed at beforehand, and it tends to vary from stratum to stratum. An underestimate of the hit rate would produce an unnecessarily large sample, while an overestimate would produce too small a sample. This problem was addressed at Yale by developing a presampling strategy. For each stratum the statisticians generated between 200 and 500 random numbers inside the respective frames. By recording whether a book was to be found at each location specified by the number, and by recording any tagged books that would result, they were able to determine the presample hit rate. This served as an estimate of the hit rate (\( r \)) that could be expected in the actual survey sample and was used in the equation \( (k)(r) = n \) to determine \( k \). Because presample hit rate is not an exact predictor of \( r \), and because \( r \) affects the ultimate size of the sample, the actual sample sizes we observed were close but never equal to the desired sample sizes. The actual sample size usually fell within 50 to 100 books above or below the desired sample size.

APPENDIX B: SURVEY INSTRUCTIONS

The following instructions are a synthesis of those given to the Yale surveyors.

Supplies

Gather the following materials:
1. support jig
2. heavy paper overlay
3. supply of forms marked with code letter and date
4. #2 pencil
5. pH indicator pen
6. random number printout
7. heavy paper strip to measure gutter margin width

Finding a Book to Evaluate

A computer printout of random numbers gives the location of a book. If the random number does not locate a book, mark a zero after the number. If a book is located, check off the random number. The random numbers appear on the printout in units, e.g., 249839. Each unit comprises two-digit numbers for the floor, range, section, and book and a one-digit number for the shelf. Enter the number on the form with zeros added where appropriate to look like this:

Floor or Library
\{ 0
\{ 2
Range
\{ 4
\{ 9
Section
\{ 0
\{ 8
Shelf 3
Book \{ 0
\{ 9

Floor: The first two digits can refer to a floor or can be a number arbitrarily assigned to a specific library subunit.
Range: In some libraries, ranges are numbered, in others they are not. The floor plan used to map out the sampling frame showing the range numbers can be used.
Section: A pattern of movement must be designed for counting sections. Always start from a designated point and move around or along the range in the same direction. The pattern will, of course, change to meet specific conditions.
Shelf: Shelves are counted down from the top.
Book: Books are counted from left to right. In counting, any material tied together is counted as a unit as is material with the same call number. Dummies (boards left in place of books) are not counted.

Filling out the Form

1. Enter the random number on the form.
2. Enter the call number of the book and underline the letters s, n, o, and b to distinguish them from 5, h, zero, and 6, respectively.
3. Enter country and date of publication.
4. Answer questions 1 and 2.
5. Evaluate the book. Answer questions 3-14. For boxes and envelopes answer questions 1-3, 5, and 12-14 only.
6. Put the finished form in the pocket underneath the jig.
7. Fill in ovals for date and country at the end of the survey period.
8. All completed forms should be returned to a central location each day.

Guidelines for Answering Questions

Country: Record country of publication or reprint if given. Record any lack of information in the ques-
tions box. If a city is given but the country is unknown, consult an atlas and/or the shelflist.

Date: Record latest date shown or date of reprint. If no information is given, consult the shelflist. Record any lack of information in the questions box.

1. Tagged: Every thirtieth book after the first book located on a shelf is considered tagged.
2. Circulating: Noncirculating books are stamped “noncirculating” on the inside of the book cover or are in a special collection. Also, periodicals published within the last ten years are noncirculating.

3. Primary protection (outer protective covers):
   a. Rigid includes rigid attached covers and limp vellum bindings.
   b. Limp includes paper bindings (oriental or occidental) and attached paper covers.
   c. Acidic pamphlets are all old ones with cloth tape on spine (pre-1977).
   d. Acid-free pamphlets are all new ones known to be acid-free (post-1977).
   e. Acidic boxes and envelopes include all old ones (pre-1977).
   f. Acid-free boxes and envelopes are new and known to be acid-free (post-1977);
   g. None includes unbound materials such as pamphlets without attached covers of any kind. For single units, answer all questions if possible. Although material tied together, with or without boards, is considered a unit, answer questions 1-3, 5, 12-14 only for this material.
   h. Other includes rigid unattached covers such as slipcases and oriental cases.

4. Covering of joint (material covering outer hinge): If question 3 is “none” answer N/A.

5. Primary protection functional: Not functional includes inner hinge torn more than 25 percent, book block loose enough in case to extend beyond book covers, board broken, and limp binding that does not support text.

6. Leaf attachment:
   a. Sewn/stapled through the fold: Look at head of book for rounded gatherings. Look for sewing thread or staples in gutter.
   b. Oversewn/cleat seam:
      Oversewn: Book opens only to sewing thread visible at intervals of about one-fourth of an inch;
      Cleat sewn: Adhesive looks like rubber bands visible at intervals of about three-fourths of an inch in gutter.
   c. Adhesive: Backs of gatherings are cut off or sawn in at intervals. This can look somewhat like sewing but no threads are visible.
   d. Stabbed: These usually show three to six holes. Thread or staples are at a right angle to plane of book.
   e. None: Record unlinked materials here.
   f. Unknown: The binding method cannot be ascertained without damaging the book.
   g. Other: This includes spiral, ring binders, accordion bindings.

7. Leaf attachment intact: This is self-explanatory.

8. Brittle paper: A page is chosen toward the middle of the book, its corner folded four times, and the crease pinched on each fold. Do not test books printed before 1800. Note when the paper breaks after two folds, after four folds, and if it does not break.

9. pH of paper: A short line of indicator fluid is drawn in an inner margin. If it turns blue within thirty seconds, the paper has a pH of 5.4 or above. If the mark is not blue (blue-green, green, yellow), the paper has a pH of less than 5.4.

10. Gutter margin width: Record narrowest margin visible in brief inspection as less than 1 cm. or as 1 cm. or greater. Use the 1 cm. marked tag to measure where necessary.

11. Text intact: Not intact includes tears into text, pages entirely detached, pages missing, and parts of pages missing. Do not include torn blank leaves as not intact.

12. Mutilation: Thumb quickly through the text to find leaves cut out, underlining, Scotch tape, food stains, or obvious evidence of mutilation by people, animals, or machines.

13. Environmental damage: At the same time look for fading, mold, pest damage, water stains, or charring.

14. Immediate treatment needed: Treatment is needed if the primary protection is not functional (#5 = No), the leaf attachment is not intact (#7 = No), or the text is not intact (#11 = No). Do not record cosmetic damage, such as torn headcaps, frayed corners, or loose labels, as needing immediate treatment.
APPENDIX C: ABBREVIATIONS FOR FREQUENTLY USED COUNTRIES OF PUBLICATION

ARGE Argentina
AUSL Australia
AUST Austria
BELG Belgium
BOLV Bolivia
BRZL Brazil
BULG Bulgaria
CANA Canada
CHIL Chile
CHNA China (People’s Republic)
TAIW China (Nationalist)
CLMB Colombia
COST Costa Rica
CUBA Cuba
CZEC Czechoslovakia
DENM Denmark
DOMR Dominican Republic
ECUA Ecuador
ENGL England
FINL Finland
FRAN France
GERM Germany
GREC Greece
GUAT Guatemala
HOND Honduras
HUNG Hungary
IREL Ireland
ISRL Israel
ITAL Italy
JAPN Japan
LUXG Luxembourg
MEXI Mexico
NETH Netherlands
NWZL New Zealand
NICA Nicaragua
NIRE Northern Ireland
NORW Norway
PAKI Pakistan
PANA Panama
PRGY Paraguay
PERU Peru
PHIL Philippines
PORT Portugal
SCOT Scotland
SAFR South Africa
SPAN Spain
SWDN Sweden
SWTZ Switzerland
TAIW Taiwan
USSR Russia
USAM United States
VNZL Venezuela

APPENDIX D: STATISTICAL ANALYSIS

The data recorded on the survey forms were scanned electronically and transferred to magnetic tapes. Prior to analysis, the data were cleaned and reordered onto master volumes. From the total target population of five million volumes, more than 36,500 records were gathered from libraries throughout the university. Each record contained information about a single book, including answers to the fourteen preservation-related questions, and five other pieces of information: the place and date of publication, a code identifying the surveyor who evaluated the book, the random number used to locate the book, and the call number. Call numbers were recorded so that the condition of any item could be checked again at a later date.

Our main software tool was the package Table Producing Language (TPL), version 4.0, developed at the Bureau of Labor Statistics, U.S. Department of Labor. TPL is designed for efficient construction of tables from large data sets.

For each of the thirty-six strata, straight tabulations were run that gave raw counts of the number of books that fell into each category for each of the fourteen main questions. Attaching standard errors to these allowed us to produce confidence intervals for the proportions of books in each stratum with the characteristics of interest, e.g., condition of text, embrittlement, mutilation, etc. In all cases where a large unit was broken into subunits for analysis, the data gathered were weighted and grouped together for presentation in the tables reproduced in this paper. We also produced most of the possible two-way tabulations, e.g., the numbers of books that had both brittle paper and a broken binding.

In addition, frequency tables were produced for the date and place of publication of the books surveyed in each stratum. Information about books published in small geographic units was grouped together within larger geographic areas so that sample sizes would be large enough to give reliable results. Dates were grouped into one period from 1801 to 1850, and thereafter by decades. Such batching made it possible to compare critical variables, e.g., embrittlement, across time and place.

In order to estimate the precision of the data gathered, the standard error was calculated for all sur-
vey results. Standard error is a measure of the accuracy to be expected in making statistical estimates, and is calculated thus:

\[ SE(\bar{X}) = \sqrt{\frac{p(1-p)}{n}} \]

where \( \bar{X} \) is the sample proportion with characteristic \( X \), \( p \) is the population proportion with characteristic \( X \), and \( n \) is the sample size. Hence, the standard error of \( \bar{X} \) decreases as \( \sqrt{n} \) increases. Increasing the sample size by a factor of four will halve the standard error of \( \bar{X} \). For example, a sample size of 900 will give a standard error for \( \bar{X} \) of \( \sqrt{\frac{p(1-p)}{900}} \), which is less than or equal to 1/60 or about 1.67 percent. A more realistic standard error is \( \sqrt{\frac{X(1-X)}{n}} \), where \( \bar{X} \) is used to estimate \( p \).

Another essential factor in interpreting the survey results was establishing the confidence interval, i.e., the range for the estimate. The formula for determining the confidence interval is:

\[ \bar{X} \pm z \cdot \text{(standard error of } \bar{X}) \]

where \( \bar{X} \) is the sample proportion with characteristic \( X \) and can be approximated as a normal variate, and \( z \) is the appropriate critical value for a normal. A 99 percent confidence interval would be interpreted as follows: if this study were repeated under the same conditions many times and if confidence intervals were constructed in this way each time, 99 percent of the intervals should contain the true value of \( p \), the unknown proportion of books in the population with characteristic \( X \). All results given here are based on a 99 percent confidence interval.

In the Sterling Memorial Library, stratification by floor yielded a wealth of information. The results from each floor were weighted according to the size of that floor in relation to the whole. To obtain an overall summary, we aggregated the weighted results from each of the fifteen floors. The resulting overall frequency estimates and associated standard errors were computed as follows:

Denote the fifteen floor weights as \( c_1, \ldots, c_{15} \) where \( c_1 + \ldots + c_{15} = 1 \).

Suppose the sample frequencies of characteristic \( X \) from each floor are \( \bar{X}_1, \ldots, \bar{X}_{15} \).

Then the overall estimate for the frequency of characteristic \( X \) in Sterling is given by:

\[ \bar{X} = c_1(\bar{X}_1) + \ldots + c_{15}(\bar{X}_{15}) \]

and the standard error for \( \bar{X} \) is

\[ SE(\bar{X}) = \sqrt{c_1^2 \text{var}(\bar{X}_1)} + \ldots + c_{15}^2 \text{var}(\bar{X}_{15}) \]

where \( \text{var} \) means variance. A similar approach was used to produce the weighted estimates for the entire library system. These appear in the column labeled "Yale Overall" in the third table of figure 2.


†ibid., p. 92, 107-8.
Scholarly Reprint Publishing in the United States: A New Look

Joseph C. Meredith

Results of a 1969 survey by Carol A. Nemeyer of scholarly reprint activity in the United States are reviewed in the light of subsequent trends. It is concluded that although replication of the survey is not warranted at this time, certain aspects of the genre merit continued study. The important role of academic librarians in scholarly reprint selection is stressed.

Thirteen years ago Carol A. Nemeyer published Scholarly Reprint Publishing in the United States, which was adapted from her doctoral dissertation on the same subject. The work was generally hailed as timely and useful, not only as an overview of the burgeoning reprint industry but also as an aid to librarians involved in materials selection and acquisition. Since then, some of the trends noted by Nemeyer have run their course, while certain technical and financial changes have affected the policies and practices of collection building. Indeed, it has been suggested that the current situation differs sufficiently from the time of the original research (1968-70) to justify mounting an entirely new study.

Before addressing this question, it will be useful to describe the original problem and methodology employed by Nemeyer. As she indicated at the time, "Reprint publishing was found to be plagued by, and partly responsible for, serious information gaps which cloaked the industry with a veil of mystery," making it difficult to find out if a particular title had been reprinted, by whom, in what format, and at what price. The sudden interest of publishers in reissuing important works long out of print was inspired not so much by production breakthroughs as by the prevailing drive of many academic libraries (some in newly founded institutions) to fill gaps and enrich their collections. This drive was fostered to some extent by interinstitutional rivalry in a climate of relative affluence. Publishers were further stimulated by the active interest in reprints shown by the American Library Association before it became apparent that such stimulus was hardly needed.

Although reprints were not a new genre, the sudden growth of the market after World War II tended to make them operate as such. This led entrepreneurs to engage in lively guessing games with no clear idea of what was needed, how to set press runs, how to price the product, and how to meet certain bibliographic obligations. Each publisher kept his own counsel, so the investigator had to extract bits of information that, taken together, could be coherently summed up. To this end Nemeyer conducted personal interviews with 37 publishers involved in the kind of scholarly programs that fell within the scope of her study, plus about 53 other persons in the book trades and the library world. She addressed a twenty-nine-item questionnaire to an additional 250 pub-

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lishers. There were 159 returns. All but 31 were within scope. As a result, she was able to compile a directory of about 300 reprint publishers, listing for each the name, address, director, date of founding, formats issued, forms issued, total number of issuances up through 1970, primary fields of interest, and (if applicable) CIP and ISBN information. The resultant "Directory of Reprint Publishers" filled a definite need, for in the absence of any association of reprint publishers, nothing of the sort had been compiled up to that time.

Other data derived from the interviews and questionnaire returns, and from the secondary and trade literature, were combined and interpreted to develop conclusions set forth under programs, editorial practices, production practices, marketing and distribution, and the mutual concerns of reprinters and librarians.

The scope of the survey was a troublesome issue. Although Nemeyer recognized the growing importance of foreign and international reprinting, "for practical reasons" she focused on reprint publishing in the United States. In the microform area, because of the rapid proliferation of materials, she included only nongovernmental microrepublishing specialists. She also excluded mass-market paperback titles because "the publishing concept, target audience, and distribution methods differ significantly from specialist reprint publishing." Scholarly publishers were identified by Nemeyer as those "who specialize in the republication of books of scholarship and other OP materials intended for sale primarily, but not exclusively, to libraries and other educational institutions" and works "of interest to scholars and other serious readers." All of this bothered the reviewers. Nevertheless, the general consensus on the study was as follows: "of extreme value and by far the most comprehensive on the subject ever compiled," "a valuable addition to the literature," "a welcome contribution on a significant development in modern publishing," and an aid to "both the librarian and the reprint publisher."

The book did not purport to be a librarian's guide to reprint selection. It simply presented a picture of the reprint industry and its practitioners.

During the 1960s a lively interest in reprints and reprinting was reflected in the literature. Nemeyer made good use of this interest. There has been a notable falling off of the number of journal articles on the subject since then, although the reasons are not altogether apparent, considering that reprinting has become a major component of the industry. The few articles that have appeared tend merely to restate issues already discussed by Nemeyer, such as:

- the need for more disciplined choice of titles to reprint, in order to minimize duplication and to forestall unnecessary reprinting of materials readily available in the used-book trade;
- the need for more consistent pricing practices;
- the need for reproduction standards (format, size, identification); and
- the need for more comprehensive review services.

At this point one may ask what, if anything, has changed? Have any of the problems been resolved? Has the industry developed in ways that resist further study of scholarly reprint publishing? What does it all mean to librarians charged with the selection and acquisition of scholarly materials?

In her book, Nemeyer raised questions and suggested lines of inquiry for future investigation. She has kindly responded to a letter from this author asking her to comment anew on some of these points.

Regarding the scope of the original study, Nemeyer notes that a similar study should have been conducted for the international publishing scene. In any new study, she would probably eliminate microforms because the "industry has changed significantly, a reflection of technology and demand."

The 1968-70 survey was never conceived or designed as an economic survey of the industry, although its author believed "an up-to-date 'Cheney' report would be welcomed." Now she sees an increasing number of good studies on the economics of publishing and a heightened interest in the subject. This is reflected in
the Book Industry Study Group and in the large number of publishing courses being offered.

The neglect of adequate bibliographic controls (descriptive and enumerative) by reprints and reference book publishers alike was a serious problem at the time Scholarly Reprint Publishing in the United States was written. In discussing this, Nemeyer hoped that in coming of age the reprint industry would devote more attention to bibliographic and cataloging needs. Today her remarks are particularly germane, coming as they do from the vantage point of her current position in the Library of Congress.

Given the relative success of the cataloging in publication program and the expanded number of publishers who participate, certainly their awareness of bibliographic and cataloging needs is heightened. I also believe that indexing needs are evermore important and that the publishing industry is gaining awareness of that, pushed by the need to retrieve rather specifically from highly compacted information stored electronically, in databases, on video discs, etc. I believe that publishers will continue to need the library world's expertise in this area.

If a new study were to be carried out, it would be interesting to ascertain which publishers make a real effort not only to participate in bibliographic systems but also to ensure that their product is consistent with some kind of standard criteria such as those proposed by the Rare Books Libraries Conference on Facsimiles in 1972. One cannot be sure, but there seems some likelihood that reprinters who have become divisions of the large conglomerates would make a good showing.

To revert to the main question: What is the shape of the reprint industry today? Is it still distinct enough to be studied as a separate entity? Probably not, although to confirm this would entail another survey. Many houses that are generally known for new works and new editions of older works have ventured into the reprint field, either directly or through subsidiaries, while typical reprint publishers can and often do publish new works of promise. In other words, the reprint industry as such seems to have become too amorphous to permit a disciplined approach. One effect of this is that there no longer seems to be a need for a separate organization of reprinters.

This does not mean, however, that reprints themselves cannot be studied as a genre.

Definition of the word reprint remains a problem, as manifested by the assorted versions quoted in appendix A of Nemeyer's study and to the more recent offerings of Yanchisen and Wiseman. For practical purposes, however, we could say that in order to be considered a reprint, an issuance must faithfully reproduce in some printed form the text of a single printed original. Any work reproduced from other than a single printed original would count as an edition rather than a reprint, regardless of the presence or absence of new editorial matter. On the other hand, we would not exclude works enriched by new prefatory materials, such as indexes, as long as the material did not intrude on the pages of reprinted text. Freedman would exclude works issued by the original publisher, but this distinction is not very compelling and runs counter to most trade parlance. Nor is there any point in excluding piracies, which after all were among the forebears of reprinting as we know it and are still with us in some corners of the world.

In defining the word scholarly, we should adhere to its Latin roots—the idea of the school and of acquiring knowledge. A book whose subject matter fits this purpose, as opposed to one designed to entertain or to play on the emotions, is clearly one of scholarship. Publishers themselves seem to have little difficulty distinguishing between the two. One need not be confused by scholarly interest in trash, for example Vina Delmar's Bad Girl (New York: Grosset & Dunlap, 1928), because in such a case it is the work representing itself that is the object of study; it doesn't stand alone as a scholarly production. In borderline cases, subjective judgment will govern, but the criterion seems valid and will serve for practical purposes.

In a study concentrating on scholarly reprints as a genre, rather than as a some-
what casual product of a particular segment of the publishing industry, a shift in emphasis will be inevitable. It will be toward the market, toward the customers, chiefly academic libraries and librarians, whose needs and choices determine what can be successfully reprinted and sold. These same customers have heretofore been accorded a rather passive role in the scholarly reprint system. The shift would help deal with the questions posed in 1973 by one writer: Does the demand create the supply; does the supply create the demand; or are both elements at work? 18 Put another way—What is the nature and extent of the demand in relation to reprint publishing?

In her 1969 questionnaire, Nemeyer asked reprint publishers to indicate the primary basis on which they selected titles for publication: (a) personal knowledge of subject fields, (b) awareness of unmet demands for copies on the used book market, (c) appearance of titles on recommended book lists, (d) advice from paid consultants, (e) advice from faculty, librarians, scholars, and (f) other. 19 The results were inconclusive, as many firms checked more than one category. Many respondents claimed to use more subjective criteria, such as intuition or feel for the market. Some indicated book-list recommendations as a criterion, but none admitted to using them exclusively. 20 However, book lists were probably used more heavily than indicated, especially in view of the way in which the output of reprint publishers had matched many books listed in Books for College Libraries (BCL). 21

The significance of BCL as an influence on book selection can be traced back to Charles Shaw's original List of Books for College Libraries (1932) and its supplement (1940). 22 The 1932 list was basically prescriptive, as a determinant in connection with grants in aid to college libraries by the Carnegie Corporation of New York. It was also expected to serve as a selection guide; 23 the method of compilation, however, left something to be desired. Carnovsky warned, "It would be extremely dangerous for any librarian to follow the list blindly in his purchases, as though it were the final authority instead of a first aid." 25

The introduction to Shaw's Supplement covering the years 1931-38, again published by the American Library Association, was silent as to purpose, but the addition of review citations to most of the entries seemed to endorse its use as a selection tool. The Depression of the 1930s and the exclusion of out-of-print items from the list precluded the kind of response generated by BCL later on, when new library collections were being created, old ones enlarged, and reprint publishing became big business.

Similarly, the BCL list originated in a special requirement: to identify about fifty thousand titles for three identical, basic, self-contained libraries for three new campuses of the University of California—Irvine, Santa Cruz, and San Diego. Again the American Library Association was the publisher, albeit with a note of caution:

This list does not claim to be a list of the best books or basic list for any college library, for selection of books for a college library must be made in terms of the needs of that particular institution. 26 However, the list immediately became regarded as the authoritative selection tool and created an enormous demand for the out-of-print titles that made up 40 percent of all those listed. 27 As asserted in CHOICE, this gladdened "the hearts of reprinters who immediately set about scouring the entries for possible publications, while trade houses made plans to reissue various OP titles in their back lists. Voigt and Treyz have influenced needed publishing, and libraries will prosper that much more." 28 CHOICE even provided a long list of reissued titles in English and American literature to illustrate the importance of BCL in the reprint field.

All this may have been to the good, because of the high quality of the titles selected and because the list went through a final revision before publication to make it generally more useful to libraries other than the three for which it was designed. Yet one is tempted to believe that its very excellence may have diminished respect
for the art and practice of retrospective book selection performed by librarians. The second edition of *BCL* appeared in 1975, midpoint in a decade of increasing financial stringency. It would be interesting to learn what effect the second edition had on retrospective buying and on the programs of reprint publishers. Nemeyer favors such a study. Actually, we need to know much more about how these lists have been used and how they are affected by the march of attrition and decay, as discussed by Gosnell in his review of the Shaw *Supplement.*

Any new study should include an actual sampling of scholarly reprints analyzed according to quantity, quality, price, and such things as:

- whether or not they have been provided with new introductory material, notes, or indexes;
- how they happened to be chosen for reprinting;
- status of the original publication;
- subject orientation; and
- intended audience.

One might even conduct a study similar to the one of Leonard Jolley at the University of Western Australia, who randomly chose twelve current reprints, analyzed each in terms of scholarly needs, demand, and alternate availability, and came up with the following tally for the books:

- highly specialized and not superseded (1)
- already available (2)
- of no value (3)
- once of unquestioned value but current importance is questionable (3)
- value questionable (3)

The bibliographical control of reprints is improving, thanks to *Guide to Reprints* and *International Bibliography of Reprints.* The former includes titles of books and journals submitted by about four hundred republishing firms throughout the world. In order to qualify, the works must be reproduced by photolithography, with no composition involved except for such things as additions to the title page; must not measure less than 75 percent of the size of the original; must be reproduced in an edition of at least two hundred copies; must be listed in a catalog or leaflet distributed to the general public; and must actually have been reprinted and be available for delivery. For some reason, an earlier requirement that a reprint be bound has been removed.

Most entries in the *Guide* consist only of author, title, date of original publication, name of reprint publisher, price, and ISBN. The *International Bibliography of Reprints* has more substantial entries: author, title, complete original imprint, complete reprint imprint, pagination, applicable series information, and price. Criteria for inclusion are similar, except that reprints issued by the original publisher are excluded from the *International Bibliography.*

The *Guide* is revised and reissued annually, while the *International Bibliography* is updated by the quarterly *Bulletin of Reprints.* By the nature of such things, however, the *Guide* should be more consistently current, since 80 percent of the entries in the *International Bibliography* require some research in addition to reprinter-furnished information.

Most librarians with book-selection and collection-building responsibilities have opinions about the flood of reprinters' brochures and catalogs, typically subject-oriented packages that certain publishers seem to think are irresistible. Certainly such a package may simplify crash buying for a new academic program, but this kind of need rarely occurs. Usually close collaboration between librarian and faculty about appropriate titles is sufficient for determining most needs.

Without examining individual titles, one cannot ascertain the number of books on the list that have little scholarly merit. Besides, if the subject is of great current interest, many of the old standbys are apt to be superseded soon or at least brought up to date in new editions. Also some subjects for which demand has increased sharply may just as quickly exhibit a sharp decrease in demand. This happened in the field of Africana:

Many publishers rushed headlong into the field with their vision encompassing little more than
dollar signs. Indicative of this is the widespread misreading of the needs and potential of the market in such reprints. Accordingly, a bubble which rapidly overinflated may now be said to have burst.  

CONCLUSION

A comprehensive survey of scholarly reprinting in the United States similar to that conducted by Carol Nemeyer is not needed and would not be particularly suited to the changes that have taken place over the past fourteen years, such as the gradual emergence of reprinting into the mainstream of publishing, the stabilization of production standards and costs, and improved bibliographical coverage. Production and marketing have become so international in scope that any study limited to domestic practice would lose meaning.

As has been pointed out, certain areas merit continued study, with perhaps a shift in emphasis away from the industry and toward a better understanding of the reprint genre as an entity and of the ways in which the link between users and producers can be strengthened.

The responsibility of library professionals as users and gatekeepers should be stressed. Indeed, the importance of this role should be emphasized because among the dwindling number of functions that automation cannot take over is the "art and practice" of book selection.

The spate of reprints in the 1960s led Nemeyer to ask publishers to react to the statement, "The well is running dry." Answers varied from "yes" to "hell, no." One respondent even lamented: "After the Voigt-Treyz book, there is nothing left to do." But several publishers felt certain they could continue to find a market for an old title intelligently chosen. There can be no better way of concluding this article than by quoting Nemeyer's opinion today:

I believe the well never runs dry when it comes to scholarly materials. What is current today becomes immediately retrospective. Disciplines change but scholars' needs remain various and intriguing.

REFERENCES

4. Ibid., appendix E, p.174-213.
5. Ibid., p.17.
13. Nemeyer now concurs in this; see reference 11.
20. Ibid., p.73-75.
21. Melvin Voigt and Joseph H. Treyz, eds., Books for College Libraries, a Selected List of Approximately 53,400 Titles Based on the Original Selection Made for the University of California's New Campus Program
and Selected with the Assistance of College Teachers, Librarians, and Other Advisers (Chicago: American Library Assn., 1967).


Book Selection Policies in the College Library: A Reappraisal

Charles A. Gardner

Historically, faculty have been largely responsible for book selection in academic libraries. Not until the 1950s and early 1960s did university libraries, because of expanding budgets and publication output, alter this practice by adding staff bibliographers. Meanwhile, colleges still retain the older tradition of faculty control of book selection and book funds. Changing conditions make this practice increasingly suspect. It is time for librarians in colleges to follow the lead of their university colleagues by taking control of book funds and establishing authority over the selection process.

A persistent, largely unchallenged tenet of college library acquisitions policy is that which assumes the dominance of teaching faculty in the book selection process. Historically, academic librarians have accepted not only that teaching faculty would play an important role in library acquisitions but also that they would be chiefly responsible for library book purchases and collection building. Until quite recently, this has been true regardless of library size and whether or not materials were intended for undergraduates or advanced scholars and researchers. In recent years, however, university librarians have assumed the major role in book selection in their institutions. But in college libraries, especially those in small undergraduate institutions, faculty dominance in book selection is still generally considered the wisest way to build strong, relevant, and balanced collections. The time has come to challenge this particular orthodoxy.

Recently, the convergence of a number of factors has placed the acquisitions process under severe stress. These factors include the relentless rise in book prices that yearly outstrips national inflation rates; the persistent trend toward smaller increases in most college book budgets; the virtual disappearance of grant funds for acquisition; the drying up of Title II-A federal support; and the awesome annual leap in journal subscription prices that consumes an ever larger portion of an already hard-pressed materials budget.

In the final analysis, the acquisition of library materials always has been the responsibility of the librarian. It is the librarian who has been held accountable, and rightly so, for the growth, balance, and adequacy of the college library's collection. Today, getting the right books on the shelves—those carefully selected materials that meet undergraduate needs and provide balance and strength throughout the collection—has never been more difficult, particularly in the small college library. Yet college librarians still apportion book funds to faculty and rely heavily on them for book selection. To continue to turn over to faculty a major portion of the book budget in these times of increasing budgetary stress is a practice that must be questioned.

The history of American acquisition pol-
icities and practices was thoroughly researched by Danton in 1963. In *Book Selection and Collections*, he demonstrates how American academic library acquisitions practices developed in the nineteenth century, were modeled closely on those of the German university libraries. Because it was common practice in German academic libraries to turn over available book funds to the various faculties and faculty committees for selection purposes, this became the prevailing pattern in American libraries as well.

The practice of vesting primary authority for academic library collection building in the teaching faculty was so widely accepted by 1926 that the editors of the American Library Association's survey of American libraries could state, "in libraries reporting, practically complete control of departmental allocations is vested in the departments, subject to such centralizing supervision on the part of the library as may be necessary." A few years later the U.S. Office of Education reported that of forty-eight libraries reporting to a Survey of Land Grant Colleges and Universities, thirty-five stated that they divided their book fund among academic departments. Randall, the author of one of the first widely used textbooks on college librarianship, endorsed this practice stating that "the initiating of the purchase usually comes from the faculty, who indicate to the librarian the titles to be acquired on their individual budgets." Although an occasional voice questioned this orthodoxy or warned of the dangers of faculty predominance, the literature of the 1930s centers not on the rightness or wrongness of the practice but on how best to allocate funds.

Through the 1940s and 1950s, conventional wisdom continued to accept the preeminent responsibility of faculty in book selection. Writers of the period wrestled with the problem of equitable allocation while acknowledging that the major role of librarians in the selection process was that of filling gaps, acquiring basic reference materials, and purchasing general and recreational reading. Shortly after World War II, in a "state of the art" pronouncement, leaders in the field of academic librarianship stated that the "policy of book selection by members of the faculty . . . is well established in American colleges and universities . . . . This has been, and is, sound and sensible practice even though faculty members sometimes lack information about the literature of their fields and knowledge of book selection."

Although there were some who were beginning to question the wisdom of this traditional split in acquisitions responsibilities, university as well as college libraries confirmed the accepted orthodoxy. Of thirty-one universities responding to Felix Reichmann's survey, only four reported that their libraries did not participate in the selection process. But the majority acknowledged their professional staffs' chief responsibility to be that of filling gaps in serials and purchasing general reading materials. Only two of the thirty-nine reported that libraries suggested titles and purchased in all fields.

The lean times of the 1930s and the hiatus in collection building caused by World War II were followed by a period of accelerated collection growth. Throughout the 1950s, and particularly in the early 1960s, some were wondering about the necessity of a new role for professional librarians in light of swelling acquisitions budgets. In 1953, Fussier said, "It is my impression that the number of faculty members who are both able and willing to carry this participation in the actual detailed selection is a diminishing one." In a prophetic statement he added, "In many, if not most, of the larger university libraries, the library staff, rather than teaching faculty will increasingly carry the burden of implementing acquisition policy." Speaking for smaller libraries, Thornton suggested that "while the arbitrary and self-perpetuating allocation of the budget to departments has perhaps kept a sort of peace and assured a rough equity, . . . this process may also need careful review."

One of the earliest and strongest dissenters to prevailing patterns of selection was Bach. His 1957 article divided book selection policies into three types: those which relied principally on faculty for selection; those—the majority—which speci-
fied that materials be selected by faculty with the aid and advice of library staff; and those—the minority—which put selection responsibility in the hands of librarians with aid and advice from faculty. Bach applauded the minority in the latter category, calling them the avant-garde of librarianship.

Later, in an essay entitled, "Why Allocate?," Bach flatly recommended an end to departmental budgetary allocations. Here he marshalled evidence summarizing the disadvantages of the current system and sparked a lively debate in the literature. But librarians in the 1960s were slow to abandon major faculty involvement in book selection. What did begin to emerge as a pattern was the appointment of staff bibliographers and subject specialists in the larger libraries. As Edelman and Tatum point out in their excellent survey of academic library acquisitions practice, "By the 1960s the scope and size of the selection process had grown well beyond the capabilities of part-time faculty selectors, and one by one each of the larger libraries appointed an in-house selection staff." Haro, in his survey of university libraries, found that by 1967, 69 percent of large libraries used bibliographers or subject specialists.

Clearly a shift was under way—at least in larger libraries. The sheer volume of publication and the growth of acquisitions budgets was forcing a change in librarians' perceptions of their role in book selection. A new stance, one of shared responsibility for adding to subject collections, began to emerge. Librarians began to be concerned with the role of staff bibliographers, creative and cooperative ways of utilizing both library and teaching faculty in the selection process, and joint decision making on purchases. This concern was typified by Schad and Adams who advocated a shared faculty-library strategy to build collections in specific library identified subject areas as an alternative to simply allocating funds to departments.

Wulfekoetter, in her text on acquisitions work, articulated this new viewpoint as well as any, stating that, "book selection is now increasingly a responsibility of the librarian and his staff in conjunction with the faculty in academic libraries." Lane, in his 1968 survey of the literature, noted a definite shift of opinion from a faculty-dominant to a library-dominant position in large academic libraries.

In most larger libraries, this idea of shared selection and expenditure responsibilities has become a cornerstone of acquisition policy. Recent literature reflects this thinking, particularly as it relates to university libraries, even though the bountiful flow of funds in the 1960s greatly slowed in the 1970s and 1980s.

But what of smaller academic institutions? The results of a survey conducted by Scherer of library-faculty cooperation in 275 small, private, liberal arts colleges documented a "common practice of allocating definite amounts to departments who then made requests for book purchases." While staffs in university libraries were enlarging to accommodate bibliographic specialists, college library staffs remained static. Perhaps this is why college libraries, without an infusion of subject specialists, have continued to parcel out book funds to academic departments despite the shift in the philosophy and practice of their larger sister institutions. An examination of the recent literature reveals that the old selection orthodoxy still prevails in small college libraries.

Articles by Hellinga, Carlson, and Werking and Getchell illustrate current thought on small college selection procedures. Hellinga concludes that "a small college library, which cannot rely on a staff of trained bibliographers, must either depend upon one or two librarians to keep abreast of all fields (an impossible task!) or it must depend upon the faculty.

Carlson states that "a successful library program ... should be centered about the educational program, which means the acquisitions effort must be faculty centered rather than librarian centered." Werking and Getchell assume allocation of funds to faculty and suggest using Choice magazine as a means of determining literature size for allocation purposes.

Recent textbooks on college librarianship and acquisitions, with a single exception, reflect the same thinking. In The
Small College Library, Sister Helen Sheehan states that, "As soon, however, as the book budget and the number of faculty increase beyond the very minimum, it is necessary to have formal division of funds and some formal arrangements with the faculty for book selection in their subjects." In what is perhaps the most commonly used textbook on college librarianship, Lyle states that "in the subjects taught in the college, the job of critical evaluation of specialized books may best be left to scholars in each field." He further notes that "The concern of the librarian and library staff in selection is principally with reference books, recreational reading, and general books." Although Bonk and Magrill, in their work on collection development, advocate shared selection responsibility, they state that "college selection should lean heavily on all faculty members, and full participation should be encouraged by the heads of departments.

The single exception to this prevailing opinion is that expressed by Miller and Rockwood in a recent collection of essays on college librarianship. They hold that librarians "should secure control of their acquisitions budget if they do not already have it. In too many colleges, academic departments control and expend their budgets to no discernable criteria." Challenged on this point by another contributor, Miller responded by stating that while the authors endorsed the idea of allocation of library funds, librarians should stand ready "not only to expend departmental funds, but also to exercise judgment on all departmental orders. We do think," he continued, "that librarians should reserve the right to approve every request."

To judge by recent research, however, Miller’s point of view is a minority one. Small and medium-sized colleges still depend heavily on faculty selection. Futas’ 1976 survey of 175 academic libraries of all sizes revealed that "a simple count shows overwhelmingly that faculty are prime initiators [of book orders]." Her evidence confirms that while in universities book selection is a shared responsibility and in junior colleges librarians tend to do most of the selection, in small and medium-sized colleges, librarians still rely heavily upon faculty selection as a matter of written policy.

Over the years, arguments for giving faculty primary selection responsibility generally boiled down to three: teaching faculty know the literature of their own subject fields best; only faculty can identify those materials most appropriate for their own study and research; and faculty who teach are best prepared to select course-related materials. There is, of course, some truth to each of these arguments. But all are open to challenge when examined from the perspective of the small college library.

First, it must be remembered that the primary mission of smaller academic institutions is undergraduate instruction, not research. College faculty are primarily teachers, not researchers. Furthermore, the longer they teach at the college level and remain away from graduate schools and research facilities, the more likely they are to lose touch with the scholarship of their fields. This is not an indictment. It simply means that their talents and energies are devoted more to undergraduate teaching than to other scholarly pursuits, including staying abreast of the flood of publications in their subject areas.

Because these faculties do not work with graduate students and because they are most often full-time instructors, their personal need for research materials is less than that of their colleagues at schools with graduate programs. Further, the pressure for publication is less intense at the college level and the corresponding need for library research and graduate-level materials is modest.

Another important consideration is that in smaller institutions where two, three, and four person departments are common, it is impossible to expect of even the most knowledgeable and diligent faculty currency in all subfields of their respective disciplines. Yet departmental allocation of book budgets assumes this by making them responsible for broad subject areas.

Concerning student book needs, it is clear that teaching faculty know what their students need as assigned reading.
But librarians are in a far better position to observe what materials students actually use in the library. Most reference librarians would confirm that actual student needs and usage are sharply different from their needs as perceived by their professors. The more intimate and informal student-librarian relationships enhance librarian awareness of student library usage, and circulation records add to their knowledge.

Over the years, a number of librarians have questioned the conventional wisdom that suggests that primary responsibility for book selection ought to reside with teaching faculty. They have cited faculty disinterest, a tendency for faculty to select avidly only in their own narrow fields of study or areas of special interest, the laziness or procrastination of a few, and the inevitable gaps and weaknesses that result from inadequate coordination of acquisitions. Also commonly mentioned are the inflexibility of the allocation process that does not respond quickly to major shifts in curricular need; the touchy problem of having to shrink some allocations and expand others yearly; and the waste that results from the "crash" selection that is required to prevent the loss of funds when some departments fail to expend their allocation by the end of the fiscal year.

No stronger reason for questioning the allocation process has been offered, however, than the one relating to professional responsibility. Many have spoken to this point, but none more cogently than Danton, who asserts, "allocation tends to remove responsibility for book selection from the library where it administratively, philosophically and usually legally belongs, and places it on the faculty, who cannot be responsible or accountable."33

Continuity as well as professional responsibility obliges the library to assume selection leadership. It has become increasingly common for colleges to employ part-time and short-term teaching faculty. Continuity in collection building in such situations is very difficult unless the library provides it. Nor can part-time and transient faculty be expected to involve themselves in the ongoing collection evaluation and preservation efforts so crucial to the maintenance of a strong, up-to-date undergraduate library. Even permanent and full-time faculty who can find the time for consistent attention to evaluation and weeding of the collection are rare.

These reasons for questioning the allocation of book funds remain valid today. In addition, developing circumstances in academic librarianship call ever more urgently for a reexamination of faculty-library relationships and the role each plays in the book selection process. Today, even very small college libraries are involved in some way with computer applications to technical processes. Many are linked to OCLC for cataloging and interlibrary loan. Others use automated processes for acquisitions. It is highly likely that shared databases and computerized handling of all basic in-house chores soon will be commonplace in all small academic libraries.

These technological changes will have an impact in all areas of library activity, including collection development. Already libraries are linked in sharing networks with instant electronic access to each other's holdings. Networking arrangements and formal resource-sharing agreements will continue to grow, accelerated by expanding electronic and telecommunication capabilities and out of financial necessity. Librarians must concern themselves with network holdings strengths and weaknesses, agreed-upon network acquisition policies, and protocols on collection building commonly arrived at in network compacts. This dynamic and active responsibility cannot be realized if librarians are unwilling to change their historic posture on selection. Common databases and networking mean new selection responsibilities that must be largely incumbent upon librarians. One would expect that as new technologies are put into place, time will become available for them to assume this new role.

It has not been the intent of this essay to minimize the assistance of teaching faculty in the selection process. Their participation is as vital now as it has always been. What is urged is a reevaluation of their role. The selection process must be
seen as the responsibility of the library faculty, aided and assisted by the teaching faculty, not the other way around.

Shifting this focus will not be easy. The first step must be an abandonment of the departmental apportionment process. There is no reason why the book budget cannot be allocated internally by the library as a means of balancing acquisitions. But such allocation does not have to mean the actual apportioning of funds to departments. There are other means of involving faculty in the selection process, including selection review committees made up of teaching and library faculty, individual bibliographic conferences with faculty, shared use of book reviewing media, subject bibliographies, and annual literature review sessions with individual academic departments.

While finding new ways to involve the teaching faculty in the acquisition recommendation process, librarians must also find ways to convince college administrators of the importance of centering selection decision-making responsibility within the library. With administrators, fiscal and collection quality accountability are beginning points in any statement of rationale. These should be reinforced with an exposition of the new imperatives of shared resources and the impact of new technology. Finally, a written acquisitions policy, arrived at in concert by librarians, teaching faculty, and administrators, can form the solid basis of a new approach to collection building.

Such an approach accords fully with the "Standards for College Libraries" approved by the Association of College and Research Libraries in 1975. The commentary on Standard 2 states that, "although in the last analysis the library must be responsible for the scope and content of the collections, it can best fulfill this responsibility with the help and consultation of the teaching faculty and from students." Clearly, the Standards imply selection leadership and fiscal responsibility by librarians with teaching faculty in a supporting role.

A fundamental goal of academic libraries is the acquisition of materials to meet all reasonable instructional and research needs of faculty and students as well as resources for their general reading. The increasing number and cost of books, the tightening of acquisition budgets, and the widening scope of academic curricula are making the book acquisition process more difficult every year. The appropriate use of available technology and the full utilization of networks and other sharing arrangements will make this task less so. But college librarians, like their colleagues in university libraries, also need to begin to take control of their own book budgets. When a one-hundred-dollar bill scarcely will purchase four monographic works, and when every book selected also means one not selected, we must exercise increasingly careful stewardship over our precious monetary resources. Surely such stewardship does not include putting a large share of our funds and the accompanying selection authority into other hands.

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Support for Literacy Education in Academic Libraries

Ruth J. Person and Kenneth O. Phifer

Functional illiteracy among adults is a growing national problem, yet a scarcity of research suggests that academic libraries do not play a role in the support of literacy education efforts. To better understand the current status of academic library services to support literacy education, a survey was conducted using twenty matched pairs of community college and four-year college libraries in eight Eastern states. The study revealed that all colleges in the sample have literacy-related programs, and that nearly all of these programs received library support. In some cases this support was extensive.

In the United States, a sophisticated nation of advanced technology, it is estimated that more than twenty-five million adults can neither read, write, nor perform basic mathematical computations. Because the definition of literacy now has expanded to include a more functional emphasis, i.e., possession of the essential knowledge and skills which enable a person to function effectively in his or her environment, this estimate also can be expanded to include thirty to forty million Americans who cannot function well enough to hold entry-level jobs that require such skills. To this pool of functionally illiterate Americans, one should add nearly half a million immigrants and refugees with multiple literacy problems. In its broadest sense, then, adult illiteracy and its concomitant problems could be termed a "U.S. disease."

Some of these literacy problems were addressed in the 1960s and 1970s through a variety of well-publicized and visible programs in higher education, particularly in the community college setting. Most public community colleges developed two literacy-related goals: service to the community and provision of remedial/compensatory/developmental programs. Although four-year colleges perhaps were less likely to move in this direction, some programs for the improvement of literacy-related skills for four-year college students were in evidence.

In Functional Literacy in the College Setting, Richard Richardson discusses three kinds of college literacy-related programs. Remedial programs were designed to remedy students' deficiencies so that they could enter a program for which they were previously ineligible. Compensatory programs were designed to remedy deficiencies seen as the result of deprivation in the students' sociocultural environment. Developmental programs met students "where they were" and took them to "where they wanted to be" by dealing with both academic and human skills.

Academic libraries and learning resource centers also played a role in literacy education in support of these college

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goals. Contributions included provision of materials for teachers, development of curriculum resource centers, actual development of teaching and learning materials, and cooperation with community programs.

In spite of growing, well-documented literacy problems, the emphasis during the 1960s and early 1970s on special literacy-related programs for disadvantaged students in higher education seems to have waned. Instead, the focus of literacy education efforts appears to have shifted to schools, public libraries, and community agencies. Certainly the literature reporting library support for college literacy programs is sparse, suggesting the possibility that academic libraries are not concerned with such services either because they are not deemed important or because they are not necessary, given an institutional lack of concern for literacy efforts.

As part of a general U.S. Department of Education survey of libraries and literacy, Smith examined over two hundred references to libraries in relation to literacy programs; there were almost no references made to the college environment. In fact, Smith's survey represents the sole major study that addresses the role of college libraries in literacy education. Even here, the college library represents only one segment of a larger library sample. On a smaller scale, Phifer and Person, Truett, and Shaughnessy also examined academic library services to support literacy education. Both Truett and Shaughnessy found evidence of only low levels of library support for such college programs. Also, except for the 1981 American Library Association program on "Adult Literacy: Programs and Materials," little library association programming for academic librarians is evident.

Several indicators point to an increase in the need for literacy programs in higher education. Recent studies suggest that a growing number of students will seek to enter college in the decades ahead without certain fundamental literacy skills. In discussing this "new academic revolution," the Carnegie Council predicted in 1980 that "one-half of the students in the class-

rooms of the year 2000 would not have been there if the composition of 1960 had been continued." Accompanying this prediction, Richardson indicates that "special educational programs and services have increased during periods of open admissions and a need for students." Thus, as the pool of potential college students declines, an increasing number of enrollees will not meet traditional admission standards and will need special programs to remedy literacy deficiencies. As colleges compete for students, the literacy-related educational programs that they offer will become more and not less important.

Given these predictions, certain fundamental questions need to be reexamined. Are colleges preparing for this "new academic revolution" by providing literacy-related programs? Has this emphasis spread to four-year colleges? How do academic libraries respond to the increased need to support such college programs? Are four-year college libraries involved in such support, or is the focus still evident largely in community college libraries?

**METHODOLOGY: SURVEY OF ACADEMIC LIBRARY INVOLVEMENT IN LITERACY EDUCATION**

In order to determine academic library involvement in literacy education, to explore the perceptions of academic librarians about this potential problem, and to examine the possible differences in support between junior- and senior-level institutions, a survey of two types of academic libraries in eight Eastern states was conducted. The focus of the study was on the gathering of data for twenty matched pairs of community college and four-year college libraries. These institutions represented a cross-section of both geographic settings and enrollment sizes. Because the mandate for addressing literacy problems is generally stronger in public education, only public institutions were included in the survey.

Because community colleges were expected to have a greater involvement in literacy education efforts, a questionnaire consisting of both closed and open-ended
questions was mailed first to the directors of five community college libraries within eight Eastern states. Of these forty community colleges, thirty-one (77.5 percent) responded.

Based on this initial encouraging response, questionnaires were sent to thirty-one directors of four-year public college libraries in the same geographic area as the responding community colleges (within a fifty-mile radius). Of these, twenty (65 percent) responded. Using these four-year respondents, twenty matching pairs of academic libraries were created in order to determine possible geographic and community influences on programs and to ascertain whether a local commitment to literacy within the public education structure existed. The matching pairs of institutions represented a cross-section of both urban and rural geographic sites within each state, and a range of enrollment sizes from twelve hundred to thirteen thousand students.

The questionnaire used for both types of institutions addressed five aspects of literacy education:

- Perception of functional illiteracy as a community and college problem
- Nature of college programs for literacy education
- Relationship of the library to these college programs
- Nature of community literacy education programs
- Relationship of the library to these community literacy programs.

**FINDINGS**

The results of the survey suggest that higher-education institutions and their libraries are in fact making a concerted effort to solve growing literacy-related problems among students and appropriate community members. In spite of the relative scarcity of literature on the subject, activity to counteract the new wave of students with literacy deficiencies is progressing in both community and four-year colleges and is being supported by academic libraries (see table 1).

<table>
<thead>
<tr>
<th></th>
<th>Community Colleges (Percent)</th>
<th>Four-Year Colleges (Percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Functional literacy is a perceived community/student problem</td>
<td>95</td>
<td>70</td>
</tr>
<tr>
<td>2. College has literacy program(s)</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>3. Library provides support to college literacy program(s)</td>
<td>95</td>
<td>95</td>
</tr>
<tr>
<td>4. Library provides support to community literacy programs</td>
<td>45</td>
<td>5</td>
</tr>
<tr>
<td>5. Library staff belong to literacy coalition</td>
<td>25</td>
<td>0</td>
</tr>
</tbody>
</table>

There was an almost universal perception among community college respondents that functional literacy was a problem among their own students as well as in the larger communities of which their colleges were a part. Although somewhat less common, this view was also prevalent among the four-year college respondents. Supporting the general perception that literacy problems were a reality, every college included in the survey sponsored programs for individuals with reading and other functional literacy problems. Thus, in this sample of forty colleges, the idea that remedial/developmental/compensatory education is no longer a focus in higher education was clearly false.

The concentration of literacy-related college programs was in remedial reading and writing courses for students who had deficiencies in these areas. While both community and four-year colleges had additional programs, English courses for speakers of other languages and preparation courses for a variety of competency exams were focused more heavily in the community college. Overall, the level of involvement in the community colleges was somewhat higher for the four types of programs listed in table 2. The average number of program types was three, while the average for four-year colleges was two.

Because all colleges in the survey provided special literacy-related programs, it might be expected that the library would support such programs. In all but one of each type of college, this was the case, although the level of support varied. The
TABLE 2
COLLEGE LITERACY-RELATED PROGRAMS

<table>
<thead>
<tr>
<th>Type of College Program</th>
<th>Percent Having Program</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Community Colleges</td>
</tr>
<tr>
<td>Remedial reading and writing courses</td>
<td>85</td>
</tr>
<tr>
<td>English courses for speakers of other languages</td>
<td>70</td>
</tr>
<tr>
<td>Preparation classes for competency exams</td>
<td>55</td>
</tr>
<tr>
<td>Other programs</td>
<td>35</td>
</tr>
<tr>
<td>No programs</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 2 shows the distribution of literacy-related programs among community and four-year colleges. The majority of the libraries provided the kinds of services that might typically fall within the "traditional" mission of an academic library—making reading materials available, providing teaching materials, and offering bibliographic instruction. Services requiring a greater extension of the library's resources—program sponsorship, establishment of special collections, development of bibliographies, and the like—were much less likely to be provided. The level of library cooperation at the community colleges was generally higher in terms of the ten kinds of cooperation suggested in Table 3. The average number of kinds of cooperation for community college libraries was four, whereas the average for four-year colleges was three. The percentage of community college libraries that provided each kind of service was higher than that of the four-year colleges with three exceptions. Four-year college libraries provided more bibliographic instruction, more English-as-second-language materials, and an equal number of bibliographies.

For the overall sample, there was no distinctly positive relationship between community or enrollment size and library services, although the matched pairs approach yielded eight schools with decidedly similar characteristics, as shown in Figure 1. For the remaining sites, such relationships were much less apparent. For example, four minimally involved libraries were in small communities, but one was located in a city of two million. Conversely, one of the most actively involved libraries, which sponsored student tutorial programs and reading laboratories, was located in a rural environment, while another which provided a full range of services was located in a major metropolitan area.

In spite of the traditional nature of library services offered, the degree of collaboration between faculty and library staff in collection development related to literacy materials was promising. At the community college level, close to two-thirds of the libraries cooperated with academic departments in this effort. At the four-year colleges, half of the libraries reported cooperative efforts. This collaboration was in marked contrast to the low level of cooperation reported by Shaughnessy in his earlier study of educational opportunity programs. Likewise, some noteworthy programs extended library services—for example, one community college library developed a "mini-course" for classroom instructors, librarians, tutors, administrators, and

TABLE 3
LIBRARY COOPERATION IN COLLEGE LITERACY EFFORTS

<table>
<thead>
<tr>
<th>Cooperation Provided by Library</th>
<th>Percent Providing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make reading materials available</td>
<td>75</td>
</tr>
<tr>
<td>Provide teaching materials</td>
<td>60</td>
</tr>
<tr>
<td>Provide bibliographic instruction</td>
<td>50</td>
</tr>
<tr>
<td>Provide space for classes and labs</td>
<td>45</td>
</tr>
<tr>
<td>Develop reading and writing labs</td>
<td>35</td>
</tr>
<tr>
<td>Maintain bibliographies of instructional materials and adult books in simple language</td>
<td>35</td>
</tr>
<tr>
<td>Set up special shelves of high-interest/low-vocabulary material for adults</td>
<td>25</td>
</tr>
<tr>
<td>Set up shelves for material on English-as-a-second-language</td>
<td>20</td>
</tr>
<tr>
<td>Sponsor the program</td>
<td>15</td>
</tr>
<tr>
<td>Sponsor tutorial programs using student volunteers</td>
<td>10</td>
</tr>
</tbody>
</table>
• Extensive college involvement in literacy education
• Awareness of literacy problem and community literacy programs among library directors
• Faculty/library staff collaboration in collection development
• Metropolitan location
• Large enrollment
• Extensive community involvement in literacy education

FIGURE 1
Characteristics of “High Involvement” Pairs

adult educators on “How to Establish Reading Levels for Library Materials,” while a four-year college offered a program called “Setting the Book Straight.”

While there were many similarities both in the level of college involvement in programs and in library support for such programs, the differences between community and four-year colleges were more readily apparent when examining the relationship of libraries to the community at large. While three-fourths of the community college respondents and half of the four-year college respondents indicated that they knew of other providers of literacy education in their respective communities, only half of these libraries actually worked with such agencies, and almost all of those were community colleges. Paralleling library involvement in college literacy programs, the major services provided were reading materials, teaching materials, and bibliographic instruction. One-fourth of the community college library directors indicated that they or their staff participated in a coalition of agencies concerned with literacy. No four-year directors indicated such participation.

In an effort to understand more about the possible influence of geographic area, enrollment size, and general community “climate” on a library’s willingness to participate in and support literacy education efforts, the matched pairs approach was used. In most cases, in spite of initial expectations that community college libraries would have a much heavier involvement in providing services than their four-year counterparts, there were striking similarities between most of the pairs of schools. Sixteen pairs of libraries had similar levels of involvement, which ranged upward from moderate (one and two types of support efforts) to very high (in the case of four pairs).

Among these four “high involvement” pairs, the colleges themselves were heavily involved in special literacy programs (all four of the kinds of programs represented in table 2 were indicated). Library directors at these colleges all indicated an awareness of literacy problems both in the community and among students, as well as of community literacy education efforts. All of these respondents indicated that faculty and library staff collaborated in library collection development for literacy-related materials.

All eight of the schools in the matched pairs were located in or near metropolitan areas with a population of two hundred thousand or more and were at the upper end of the enrollment-size range for the sample. While it is difficult to generalize from such a small sample, this location and enrollment combination suggests that institutions with these characteristics have not only a heightened awareness of literacy problems but undoubtedly greater resources to undertake programs; they may also have a greater demand for a multiplicity of efforts to support diverse population needs. In all eight schools, community involvement in literacy education efforts was also high, suggesting that in these locations, a concerted effort was being made to remedy literacy problems at all levels.

CONCLUSIONS AND RECOMMENDATIONS

In one way it is discouraging to learn that more than three-fourths of the library directors in this survey viewed literacy as a problem in their environment. At the same time, it is encouraging to note a realistic level of awareness among the respondents and their involvement in solving this growing national problem. In spite of the scarcity of literature on library services to college literacy education programs,
this survey suggests that academic libraries have an important role to play in such programs, and that this mission is being carried forward by the respondents. Further, the study indicates that, at least for this sample, comparable efforts are being undertaken in the two-year and four-year college library settings.

The results of the study also suggest two possible directions for further study and improvement of library services in order to meet the challenges of the "new academic revolution." Literacy education services provided most often by the libraries in this survey represented a generally passive approach, such as making materials available and providing bibliographic instruction when requested. Even within this somewhat traditional framework, several kinds of services could be improved without extensive effort. In particular, bibliographies of available instructional materials and adult books in simple language are an important part of the teaching-learning process and could easily be supplied. Likewise, special shelves of materials for individuals with literacy problems could be provided.

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Selecting Rare Books for Physical Conservation: Guidelines for Decision Making

Lisa B. Williams

When funds are limited, librarians and curators responsible for selecting rare books for conservation treatment must base their decisions not only upon physical condition, but also upon the "value" assigned to each physically deteriorated book. This article discusses the rationale for, and possible uses of, guidelines designed to facilitate conservation decisions by systematically evaluating and weighing such factors as monetary, intellectual, and aesthetic value, projected use, and usability.

Deciding which books in a library collection should receive conservation treatment is rarely simple. Particularly in a special collections department or rare book library, conservation is a complex process of analysis, evaluation, and resolution, as the physical requirements of each volume must be weighed against its intellectual and intrinsic value, the availability of financial resources, and the priorities of the institution. Although any consideration of book conservation by librarians generally focuses on the technical aspects of diagnosis and treatment, another level of decision making is usually required: in a time when severely curtailed budgets are the norm, librarians, curators, and conservators are forced to select for treatment only a few of the many potential candidates in a collection.

The failure to consider this essential administrative aspect of the book conservation process is clearly apparent in the literature. It is not news that library materials are physically deteriorating and that libraries must accept the responsibility for their preservation. The problem of unstable and brittle books has become a major topic in library literature. Book conservation has emerged as an independent and growing subfield of librarianship with a literature of its own. But, while technical problems have received considerable attention, the role of the librarian or administrator in conservation has been all but overlooked.

Roles in Conservation

It is widely acknowledged that the librarian has such a role. Several writers during the last few decades have noted the problem of curatorial involvement; typically, however, discussion has been general or theoretical and offers little practical guidance. This statement is typical: Until such time as effective and economical techniques for mass treatment become available, librarians will need to be highly selective in the materials they preserve and will have to make decisions with respect to the best and most appropriate means of preserving them. Priority should be given to materials that are unique or believed to be not commonly held and to materials of local significance.1

Established institutional conservation programs are dependent upon librarians for the selection of items to be preserved, but the process of selection is rarely spelled out.2 At least two libraries with ac-

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tive programs are explicit in ascribing overall responsibility to the librarian rather than to the conservator. At Yale University consideration has been given to the factors that influence conservation decisions. The conclusion is:

Decisions should be made by persons most familiar with the subject or language of the book being processed, since they can best assess the importance of the title to the collections. The preservation officer's knowledge of paper and binding and the relative costs and benefits of various options is important, but the final decision should rest with the subject specialist or collection development officer.

Similarly, at Southern Illinois University:

Decisions to treat individual items or whole collections are made jointly by the Conservation Librarian and the divisional librarian responsible for the material. Selection of the most suitable treatment is a decision initiated by the divisional librarian (who is in the best position to know the item’s value and intended use) on the advice of the Conservation Librarian, who is responsible for choosing the best combination of methods and materials.

At Yale and Southern Illinois, however, the librarians responsible for such decisions do not have any mechanism for systematically evaluating the "value and intended use" of a large and diverse body of physically "needy" books.

George Cunha has clearly articulated the role of the librarian in conservation decisions. In "The Tripartite Concept of Conservation," he describes conservation as a joint responsibility of the scientist, the conservator, and the custodian, i.e., the librarian/administrator, and defines the latter's role as "decision making based on all the considerations involved in addition to the conservation factors."

Recommending simple and effective ways for libraries to identify and address their conservation problems, Cunha stresses the need for at least one library staff member competent to judge not only the physical requirements of a book but also its value to the collection, and identifies some of the factors upon which such judgments might be based:

- Relation of each damaged book to the entire collection
- Research or historical importance of the volume
- Importance based on frequency of use
- Permanent versus temporary importance of each

These are issues that are addressed regularly by museum professionals who, having traditionally exhibited greater sensitivity to the physical condition of their collections than librarians, have assigned the curator/administrator a formal role in conservation activities. Both regular collection surveys and instruments for systematically reporting condition and treatment have long been standard in museums. The generalized emphasis upon "administrative conservation" in museums includes curatorial responsibilities such as verification of the condition of items and justification of the funds necessary to carry out any required action. Accordingly, museums rely heavily upon formal documentation of condition, treatment, use, and other pertinent information about each object.

In practice, these convictions may translate into elaborate prescriptive systems for evaluating and describing items with regard to both conservational needs and, to a lesser extent, curatorial value. Museum reporting forms allow both systematic assessment according to curatorial standards and extremely detailed physical description and analysis. Both the conservator and curator typically set rankings for each item under consideration. Some institutions use a more complex standardized system, and space for additional curatorial comment generally is provided.

Museum models are suitable for "special" library collections of rare books or other unusual materials. These collections differ from general library collections in a number of ways:

1. Materials are unique and therefore not amenable to normal assumptions about condition or importance.
2. Collections are more likely to be developed and maintained to conform to some abstract concept of excellence or completeness rather than to respond to the immediate needs of any constituency.
3. Frequency of use cannot be assumed to be a reliable indicator of the value of a book to the collection.
4. Relatively small size and relatively
high costs per item may permit an attention to detail not possible in the large collection.

These differences will be reflected in the administration of a conservation program for a special collection, whether in an independent library or as part of a larger institution. An effective decision-making strategy for the physical conservation of special collections is likely to resemble the descriptive, item-by-item survey typical of museum conservation; highly generalized mass approaches that might be ideal for a large general library are not appropriate.

THE STUDY

The study was undertaken with the cooperation of the Department of Special Collections, Regenstein Library, the University of Chicago. Guidelines were designed to enable deteriorating rare books to be more systematically selected for treatment. They were then refined through use, with a group of test volumes drawn from the rare book collection of the John Crerar Library (see Appendix A). Because the guidelines are intended for use in a collection-wide survey and must apply equally to a variety of physical problems likely to occur in a rare book library, forty-three exemplary volumes were selected from the following categories:

I. Contemporary bindings
   A. Sixteenth century
   B. Seventeenth century
   C. Eighteenth century
   D. Nineteenth century

II. Rebindings
   A. Nineteenth century
   B. Buckram

III. Previous repairs
   A. Rebacking
   B. Paper repair

IV. Special problems
   A. Brittle paper
   B. Flat items (e.g., maps, unbound plates)
   C. Pamphlets and paper covers

Each volume was assigned a numerical value scale for each of five criteria—one (least valuable) through ten (most valuable). An overall priority ranking was obtained for each volume by totaling the five scores. Volumes could also be compared on the basis of any single criteria.

Criteria were identified and refined through discussions with working conservators and librarians who regularly make conservation decisions. The five criteria are

1. Monetary value. This should reflect the price a library might expect to pay to acquire the particular title or edition. Because numerical scores are used, no dollar values are necessary. Only relative value is assessed.

2. Intellectual value. Both the usefulness of the work to scholars and the historical significance of the work are considered.

3. Aesthetic value. This should reflect the significance, attractiveness, and integrity of the book as an artifact of bibliographical history.

4. Projected use. Here judgment should focus on the projected use of the volume by students and scholars, the research value of the work, and the availability of reprints or other editions.

5. Usability. This should indicate whether the volume in its present condition could be used without physical damage to the book. Because a book is held in a library chiefly, if not exclusively, for this purpose, usability is an extremely important factor. Therefore, this category is scored simply yes or no: either one (yes, the volume can be used) or ten (no, the volume cannot be used.) This exceptional scoring technique effectively raises the overall priority ranking of any item judged not usable. See table 1 for an example of ranking for a sample volume.

After the guidelines were evaluated and revised, six experts were called upon to test their usefulness. The experts came from a variety of backgrounds and included conservators, librarians, and

<table>
<thead>
<tr>
<th>TABLE 1</th>
<th>RANKING FOR SAMPLE VOLUME: AN EXAMPLE*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criteria</td>
<td>Ranking</td>
</tr>
<tr>
<td>Monetary Value</td>
<td>6</td>
</tr>
<tr>
<td>Intellectual Value</td>
<td>5</td>
</tr>
<tr>
<td>Aesthetic Value</td>
<td>4</td>
</tr>
<tr>
<td>Projected Use</td>
<td>2</td>
</tr>
<tr>
<td>Usability</td>
<td>1</td>
</tr>
</tbody>
</table>

scholars. Their viewpoints and experience were diverse. Each judged the sample volumes in accordance with the experimental model and discussed his or her evaluation of a single preselected volume (the same volume was used for each judge), noting any questions or impressions concerning the experimental model or the criteria by which it was formulated.

In general, the results of the test were encouraging (see Appendix B). The judges used the assessment criteria without difficulty. None of the criteria was viewed as irrelevant or inappropriate. One judge assigned scores of only one or two in the "projected use" category but because all other judges used a broad range of scores for this category, it remained valid for our purposes. Two judges suggested that they were using criteria not specifically included in the guidelines: one, a specialist in the history of the book, judged a volume's significance from that perspective; the other judged a volume's pertinence to current and ongoing research in his particular institution. This variability was not considered sufficiently unusual to warrant adding new criteria. Another judge noted that she resisted the temptation to rank volumes in her own field of research as more useful than those in other fields.

Most of the judges expressed reservations about making quick judgments, particularly about monetary value and projected use. This is a legitimate concern, but the issue must be viewed in perspective. In any real situation, a decision to conserve a book no doubt will require quick judgment, based on apparent or available information. Only in unusual circumstances would a book be thoroughly researched before making a decision—for example, a very rare, significant, or expensive volume, or one requiring extensive, costly treatment. The judges may have been reacting to the experimental environment in which forty-three volumes were evaluated as discrete items, not as part of regular collections. Nonetheless, the resulting judgmental errors are not likely to skew the results of the survey substantially, since only relative judgments were required. It is worth noting that all judges were able to make most of the necessary evaluations in spite of expressed discomfort about quick judgments.

While each judge's scores for the forty-three sample volumes resulted in a usable priority ranking, the rankings varied widely among the judges. Some volumes were ranked similarly by most of the judges: volume number 31, for example, was ranked 19, 13, 13, 13, and 8, and number 19 was ranked 37, 41, 35, 41, 30, and 33. Other rankings, however, were quite dissimilar: for example, number 15 was ranked 17, 4, 30, 22, 41, 25. The magnitude, if not the fact, of this variation was unexpected. It is clear, even from the very small number of judges included in this test, that the individual knowledge, expertise, and perspective of a judge has considerable influence upon his or her judgments.

POSSIBLE USE AND FUTURE STUDY

To be effective as an administrative tool, the decision-making guidelines used in this study will need to be augmented by other nonjudgmental criteria. First, the physical condition of the volume must be recorded. I did not include this information because the true physical condition of a book often is not apparent to the untrained eye and, within limits, diagnosis, unlike priority, is likely to be unaffected by the point of view of the individual judge. Second, certain objective factors, such as date and place of publication and previous treatments, which are useful in isolating individual volumes for treatment, should be recorded.

Thus, a decision-making model designed for actual use might include several kinds of variables: the five subjective criteria used here and the total value score, objective criteria, and physical requirements. Decisions might be made on the basis of any combination of these variables, in order to take advantage of available conservational resources or to plan long-range staffing or work patterns. For example, a library might wish to identify the volumes with the highest total value scores that require recasing and deacidifi-
cation, or the pre-nineteenth century volumes with the highest monetary value that require leather bindings. Clearly, a statistical software package would be useful in recording and manipulating these data.

While this study was designed with a collection-wide survey in mind, it should be useful in other situations as well. Traditionally, conservation decisions are made as volumes come to the attention of library staff. Such volumes could be evaluated routinely according to the guidelines. Books identified and scrutinized for other reasons, such as for exhibits, might be similarly evaluated. Such situational analysis is not, of course, an adequate substitute for a comprehensive survey, and a very strong argument can be made for regular, periodic evaluations of all holdings; nevertheless, consistent, systematic analysis of even a small and visible portion of the collection should make the decision-making process more routine.

As noted above, value judgments varied considerably among the six test judges. The ramifications of this variation for any practical use are obvious. One apparent solution is to limit evaluation on the subjective criteria to a single individual, probably a department head or chief librarian. Another possibility for a library that wishes to use the guidelines but cannot devote a large block of executive time to them is to define, as precisely as possible, the system of values operative in that institution; then, within this system, to accept the evaluations of several judges as equally valid, regardless of variations. On the basis of the work done in this study, it is unclear whether outlining the operative value system would significantly reduce the variation in individual judgments.

A preliminary study such as this may raise more questions than it answers. The demands and constraints of using these or any guidelines in a real situation can only be imagined or inferred from the results. Nevertheless, the approach described here does result in a workable, if not infallible, priority ranking of a diverse group of books with diverse physical problems. It is clear that some systematic means of deciding which books to conserve is necessary, and in a special collection, where every volume is assumed to be valuable as an object and the relative value of various volumes cannot be measured by use or currency, it is clear that mass approaches are unworkable. By isolating the criteria relevant to conservation decisions, analyzing the meaning and relativity of "value," and viewing each volume from a variety of perspectives, the librarian may be able to formalize heretofore ad hoc, intuitive decisions. It is, after all, the responsibility of the librarian not only to decide which books to treat, but to develop consistent, rational reasons for those decisions.

REFERENCES AND NOTES


2. See, for example, the Association of Research Libraries, Office of Management Studies SPEC Kit 66, Planning for Preservation (July-Aug., 1980).


6. Cunha, What an Institution Can Do to Survey its Conservation Needs (New York: Resources and Tech-
9. Numerous forms are collected in *Written Documentation* (Philadelphia: American Institute for Conservation of Historic and Artistic Works, 1981), the report of the ninth annual meeting of the American Institute for Conservation. Some libraries, notably the Newberry, use similar forms, but rarely are these as detailed or as alert to nonphysical factors.
10. Christopher Tomer's "Identification, Evaluation, and Selection of Books for Preservation," *Collection Management* 3:45–54 (1979) is an important step toward systematizing conservation decisions for books in general libraries. Tomer relates the physical condition of books to date of publication (primarily nineteenth and twentieth centuries) and frequency of circulation, and suggests that conservation decisions can be generalized on the basis of these criteria. But this very generality makes Tomer's approach inappropriate for special collections.
11. No attempt was made to make the decision-making process objective. It was recognized from the outset that the evaluation of rare books is a highly subjective process dependent upon the knowledge and interest of the individual judge as well as the values and priorities of any single library or department. Consistent and rational decisions are the goal.
12. The range of scores was as follows: judge 1, 5–28; judge 2, 8–45; judge 3, 7–37; judge 4, 10–25; judge 5, 13–39; judge 6, 9–48. See Appendix B for priority rankings.
13. Interestingly, judges with apparently similar backgrounds and perspectives exhibited no greater uniformity of judgment than those with dissimilar backgrounds.

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**APPENDIX A: SAMPLE VOLUMES**

4. ( Sanders, Edgar, comp. ) (Clippings on horticultural subjects ) (Chicago: ca. 1900.)
7. Schmettering. *Lepidoptera*.
31. Talani, Vincente, pub. (Raccosta di Tutte le Vedute Rappresentanti l’Eruzione del Monte Vesuvio. . . .) Naples: 187?


**APPENDIX B: PRIORITY RANKINGS**

<table>
<thead>
<tr>
<th>Volume</th>
<th>Books</th>
</tr>
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<tbody>
<tr>
<td>1:</td>
<td>26, 8, 10, 9, 36, 33</td>
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<tr>
<td>2:</td>
<td>7, 1, 27, 5, 1, 15</td>
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<tr>
<td>3:</td>
<td>7, 10, 15, 39, 21, 21</td>
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<td>4:</td>
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<td>20:</td>
<td>34, 31, 42, 35, 41, 43</td>
</tr>
<tr>
<td>21:</td>
<td>7, 23, 28, 32, 10, 29</td>
</tr>
<tr>
<td>22:</td>
<td>26, 31, 43, 27, 26, 15</td>
</tr>
</tbody>
</table>

Note: In case of ties, all volumes receiving the same total value score were ranked equally. For example, in case of a three-way tie for 12th place, all three volumes would be ranked 12; the volume with the next highest total value score would be ranked 15.
Cooperative Collection Development for Rare Books Among Neighboring Academic Libraries

Martha M. Smith

Coordination in rare book acquisitions occurs on a unilateral basis when one librarian does not select certain books because a neighboring collection has extensive holdings in the same area. Few attempts, however, have been made to cooperate in rare book collection development on a multilateral basis whereby librarians jointly agree to select books in assigned subject areas. This article studies the characteristics of a multilateral cooperative selection program for small rare book collections and describes the success of such a program at the University of North Carolina—Chapel Hill and the University of North Carolina—Greensboro.

The phenomenal technological innovations developed in recent years have enabled people to access a vast quantity of information more quickly than ever before. Microforms enable a research library to house more books and journals; computers instantaneously compile and print a subject bibliography or display selected abstracts of articles. Thus, in an age when high priority is given to convenient space- and time-saving devices, one might think that microforms and computers would have superseded in popularity the traditional form of recording facts and ideas—books. But despite the efficient control and dissemination of information by these modern tools, they can be only "used," that is, skimmed or consulted partially. Books, however, can be "read," that is, studied and reflected upon, underlined and annotated. The book, therefore, will remain instrumental to scholarship.¹

Especially worth reading are the books that record man's most significant ideas and actions. Rare book collections preserve these titles and others that, for varying reasons, are considered special. One may find a title's several issues or editions, perhaps the author's annotated copies, that reveal steps in the development of a philosophical idea, a poem, or a literary character. Here also are original accounts of events, now a part of history, and contemporary analyses of them. Such books are influential because they spark in us an awareness of our predecessors. It is "the historical sense," wrote T. S. Eliot, that "involves a perception, not only of the pastness of the past, but of its presence."² Intellectual sensitivity is a characteristic of the mature scholar, who, through the study of books, produces new ideas or integrates old ones into fresh interpretations for the benefit of present and future generations. Rare book collections play an important role in research because they preserve these books for study.

Conditions during the 1980s have presented rare book librarians with formidable obstacles to surmount in order to ensure the growth and sometimes the very

Martha M. Smith is assistant librarian for the Eighteenth-Century Short-Title Catalogue/North American Project, College of Arts and Sciences, Louisiana State University, Baton Rouge 70803-5111.
existence of their collections. Static or declining budgets and increased competition for books, due to the limited availability of established rarities, pose major problems for librarians with collections of under 100,000 titles. Librarians may solve some of these problems by the same methods used in building general collections—cooperative collection development and resource sharing. Indeed, little-used library materials, those "resources held in reserve," present themselves most readily for sharing, and cooperation among special subject repositories and archives has been endorsed already. Some rare book curators, content with independence in building their collections, may reject the idea. Yet modification of self-sufficiency into cooperation is essential if research libraries are to meet their responsibilities to higher education. Interdependence seems to be inescapable. Moreover, "functional independence . . . is really inconsistent with the character of knowledge itself." The more important goal is not the acquisition of a greater number of books, but rather improvement in the availability of a greater number of books. One can then operate more effectively with available monies or while coping with a stationary or decreasing acquisitions budget.

A cooperative collection development program divides acquisition responsibilities among libraries. Out of this grows resource sharing or use of materials at one library by the patrons of other participating libraries when such materials are not available at their own institution. For most libraries, resource sharing is accomplished by interlibrary loan; books move from library to library as they are needed by readers. Special collections materials, however, cannot be sent by interlibrary loan. Because of their value or fragility, rare books are kept in one location, eliminating the risk of loss or damage that might occur in sending them between libraries. It is the researcher who moves from library to library to study them. In view of this situation, resource sharing to meet scholars' needs in rare book collections may be best achieved through cooperation among neighboring libraries; proximity of materials greatly reduces the cost and inconvenience of travel for the researcher.

The ACRL Rare Books and Manuscripts preconference (Philadelphia, July 1982) was entitled "Growth in the Face of Adversity: The Business of Special Collections in the 1980s." Attendees heard David Stam address this theme in the keynote address, urging collaboration rather than isolation among special collections in order to preserve their usefulness and value. In this article, guidelines for cooperation in acquisitions for small rare book collections are offered. These guidelines and the success of the cooperative program at the University of North Carolina can serve as an example from which others may profit.

A BRIEF HISTORY

One means of coordinating selection in library collections is on a unilateral basis. This occurs when Librarian A does not acquire a certain book because Librarian B at a neighboring collection has already developed extensive and more complete holdings, which it would complement better. No discussions or written policies are shared by the two curators. Librarian A is coordinating acquisitions by default with those of Librarian B. This practice has existed in the past among regional special collections. In 1948 Lawrence Powell stated that the Clark Library at UCLA seldom purchased a book published before 1640 because of the strong collection of these imprints held by the nearby Huntington Library. In recent years, the University of North Carolina at Chapel Hill (UNC-CH) has deferred to Duke University in the purchase of Aldines, books published by Aldus Manutius and his family in Venice, 1490-1590. While UNC-CH's Rare Book Collection would like to build up its sixteenth-century holdings, such a title might be more valuable if added to Duke's handsome Aldine collection. UNC-CH can then acquire another sixteenth-century rarity and possibly also have the Aldine available six miles away for its researchers. Numerous other rare book librarians today will admit to selecting while being mindful of a neighboring
institution's collections.

A second means of coordinating book selection is multilateral cooperation in which librarians at separate institutions actively coordinate their acquisitions and mutually benefit from their efforts. In the words of one librarian, it "requires more energy, communication and commitment." Under multilateral cooperation, the librarians discuss and divide among themselves responsibilities for book selection in specific areas. The agreement is formalized in writing. Flexibility is built in by permitting necessary duplication and change of collecting fields. Neighboring rare book collections using the multilateral approach may benefit in several ways. Individually, each collection continues to grow in size while competition for titles on the market is reduced; jointly, rare book librarians are able to preserve research materials encompassing an improved breadth and depth in subject collection levels. Use of the collections may increase, and the libraries are able to affirm to their respective institutions their importance in maintaining research and teaching standards and to establish among outside researchers a reputation of being a locale where one may study a subject extensively.

Some suggestions for multilateral cooperation in rare book acquisitions were made during the 1960s and 1970s. In the introduction to his short-title catalog of books printed between 1641-1700 and held in Australian libraries, W. J. Cameron proposed a coordination of acquisitions among Australian libraries in seventeenth-century British literature. He suggested that participating libraries assign responsibilities for gathering the works of individual poets, dramatists, and essayists according to each institution's preexisting strengths. The library with the largest holdings on a famous writer like Milton would be given the sole responsibility for collecting his works. Writers who collaborated might be collected by only one library; for example, Nathaniel Lee's plays would enhance a group of John Dryden's writings because the two worked together. If more than one library had developed collections of a specific author or genre, responsibility would be assigned to the library that could assemble the best collection of supportive materials.

Another suggestion for multilateral cooperation was made in 1970 for the special collections of seven New England institutions comprising the Connecticut Valley Libraries (CONVAL). Investigation revealed that the libraries at Amherst, Bowdoin, Dartmouth, Smith, Trinity, Williams, and Wesleyan had collected incunabula and/or private press books on the history of the printed book and book arts. Consequently, it was suggested that the special collections librarians might meet and exchange information on private presses holdings. Libraries could be selected to obtain complete runs of certain presses' work. The idea, however, was not implemented, and nine years later, the librarians at the institutions explained its failure in several ways. The tradition of independence and competition among the colleges, the long distances between the libraries, and a keen desire to have books immediately available for teaching undergraduates were barriers to a division of collecting fields. Furthermore, certain books most appropriately housed at one collection were considered useful at all the libraries, and librarians were reluctant to refuse gifts solely because they might duplicate private press books held elsewhere. Finally, the librarians relied heavily on gifts and financial contributions designated for certain kinds of purchases, thereby allowing a collection's scope, to a certain extent, to be defined by the interests of the donors.

GUIDELINES

In 1979 a cooperative collection development policy was drawn up for the Rare Book Collection at the University of North Carolina at Chapel Hill and the Department of Special Collections at the University of North Carolina at Greensboro (UNC-G). It will be discussed later in detail, but experience shows that a program may be implemented successfully following the guidelines listed below. Further suggestions may be found in the draft of a guide for coordinated collection development approved by the Resources Section.
There are five guidelines that should be treated as prerequisites to the formal agreement. First, proximity of the cooperating institutions is essential. As mentioned above, distance was an obstacle for the CONVAL libraries. Closeness facilitates personal meetings of the librarians negotiating the policy. More important, it fosters concurrent use of the collections by researchers in the area. On coordinated visits, patrons have a greater number of books at their fingertips while keeping at a minimum the high travel costs, both in time and money, of research.

A positive attitude on the part of the librarians is the second prerequisite to an agreement. Especially important are a willingness to cooperate and to contribute and a mutual respect among the participants for each other. Enthusiasm to experiment and to try new approaches should be demonstrated. Each librarian should suppress desires for selfish independence and replace them with the realization that by working interdependently with another library, the librarian can assemble the rarities into a more valuable collection. A book’s usefulness increases when it is acquired not as a rarity to place beside others on a shelf but as a book that contributes a new dimension to other sources available in the library on a specific author, subject, or theme. Similarly, a small number of books at one collection will increase in worth and in usefulness when related to books on the same or on a complementary theme at a neighboring library.

Support of the plan by library administrators is a third prerequisite. It is preferable to secure the endorsement of the rare book librarian’s immediate superior and/or the library director in the beginning. Then the discussions and writing of the policy will more likely fit into the library’s overall collection development program. If the plan is not endorsed at an early stage, the agreement should be sanctioned after it is written. Should personnel within the administration change, continued support should be obtained. Administrative support will help to ensure the continuance of the policy should different librarians take charge of the special collections. It also might encourage donors to give funds to each library to develop collections concurrently.

Fourthly, each participating librarian should recognize the criteria used in collecting books. These should not be sacrificed during the subsequent discussions outlining the acquisition areas of the agreement. One criterion may be derived from who in the local academic community uses the collection and how they use it. Does the collection serve as a pedagogical or as a research collection? The former supports an undergraduate curriculum or characterizes a small segment of material within a larger collection that is especially useful in teaching. The latter is demanded by well-developed university programs to support the original research expected of graduate students and faculty. Another criterion may be based on how much support is given to immediate and future use. All librarians acquire titles for faculty members’ current needs as influenced by research trends. But at the same time, they should be selecting for tomorrow’s scholars and anticipating future research trends. The ability to identify significant yet little-known works will enable a librarian to provide sources with new research potential.

The fifth prerequisite to the cooperative discussions is for each participant to survey the collection. This study should produce a summary of a library’s development and an analysis of the scope, possibly citing specific titles. With this knowledge, each curator will know what areas to share or to offer as complementary to the other cooperating institutions and what gaps to fill with holdings at the other libraries. The curator will also be able to form ideas on new collecting areas that might be adopted in developing the scope and quality of the cooperative endeavor.

Once the five prerequisites have been met, the next guidelines include a joint discussion among the librarians, outlining the collecting areas, conditions, and procedures to be specified in a written policy. As in all cooperative agreements, reciprocity is important, and each party should have something to contribute.
There should be a recognition of each collection's unique strengths and the collecting areas each librarian wishes to continue to develop exclusively. Specific subjects at each library that complement each other should be noted and marked for continued development. Subjects of mutual interest should be singled out and the responsibility for them divided to avoid unnecessary duplication. Selection responsibilities in new areas should be assigned in order to enhance further the total plan.

The conditions of the agreement should also be discussed. Flexibility should be one goal of the working policy. The division of collecting areas should not impose a set of confining regulations but should offer guidelines in order to develop the subjects effectively. It should be understood that collecting areas can and should be modified to match shifts in research and teaching interests. Equally important is to set the level of duplication which is desirable and not to be eliminated. Duplication is justified by use of a title or by its appropriateness to each collection's emphasis. Also, potential gifts should not be subject to the policy's guidelines. Therefore, duplication of titles due to donations is permissible.

Various procedures should be specified for maintenance of the agreement. An exchange of holdings information between the libraries is one characteristic of successful resource sharing programs. Knowing what another collection contains would help the librarian to eliminate unnecessary duplication, to decide the best location for a title, or to help a patron. Lists of books acquired in certain areas prior to the cooperative efforts or lists, compiled periodically, of titles acquired under the policy's guidelines would also be useful. Annual reports should be exchanged. Procedures for publicizing the joint holdings should be outlined. Each curator and staff should be responsible for talking to students, faculties, and visiting scholars to make them aware of the variety and depth of material offered. Written publicity is equally important.

Finally, it should be specified that the librarians meet periodically to review the viability of the cooperative program. Weaknesses can be identified and adjustments made to correct them. These review sessions may include reassignments of selection responsibilities due to shifts in teaching and research interests. Open discussions will allow each librarian to hear the others' desires and may reinforce the adaptability of the agreement, thereby strengthening its bonds.

**A WORKING POLICY**

In the fall of 1979, discussions were held between the curator of the Rare Book Collection at UNC-CH and the curator of Special Collections at UNC-G to initiate cooperation in the collecting of materials on the history of the printed book. Both libraries had been building their own resources in the subject prior to this time, and the proximity of the institutions—they are only fifty miles apart—supported development of a policy for a cooperative program.

In 1929, UNC-CH began collecting materials on the origin and development of the book. Clay tablets, papyri, medieval manuscripts, incunabula, sixteenth-century imprints, nineteenth- and twentieth-century private press books, and books about books were acquired to strengthen sources for research on the book. Eventually, the collection was able to boast ownership of some of the earliest examples of color printing, typography, and bibliography as well as a significant collection of Victorian bookbindings.

Surveys in 1972 and 1973 of Special Collections at UNC-G revealed superior examples of private press books, books illustrated by artists, and works on illustrative techniques such as wood engraving and lithography. These holdings, in addition to statistics indicating heavy use of the collection by art students, encouraged further development in the books arts. Consequently, the library began to acquire more artists' books, books about books, a large group of English and American private press books, and American turn-of-the-century small publishing firms' materials.

A cooperative collection development policy covering the history of the printed book was drawn up for the two libraries.
The policy's objectives were (1) to gather books that would instill in students an appreciation of man's greatest intellectual ideas and how they have been preserved and passed down through the ages, (2) to show the development of the book as an art form, and (3) to encourage research and scholarship in the history of the printed book. The agreement specified that books would be selected to meet both present and future needs and that they would support the orientation of the institution of which each collection was a part. UNC-CH, with a well-developed graduate program, was to select primarily materials for advanced research; UNC-G was to concentrate on acquiring materials for use by the students and faculty of its primarily undergraduate curriculum. The policy recognized well-developed collecting areas as they existed at the time and established for each library new areas complementary to current holdings as well as to those of the neighboring institution.

The agreement outlined in detail the areas for which each library was responsible. A summary is offered here. UNC-CH elected to gather books in the following areas: the development of the book during the fifteenth and sixteenth centuries in Europe and Great Britain, including the work of prominent printers and publishers; the book as a vehicle for scholarship and transmission of knowledge; technological developments in bookmaking; book forgeries and facsimiles illustrating printing techniques; Victorian bookbindings; private press books published by proto-private presses of the fifteenth through the eighteenth centuries; outstanding examples from private presses of the eighteenth through the early twentieth centuries; and private press books written about books or by authors already collected. UNC-G chose to concentrate on the book arts in the mid-nineteenth and twentieth centuries, encompassing the following areas: private press books, primarily those printed by English and American presses but including select French ones and those exhibiting fine printing, decoration, and illustration; books illustrated by artists; aesthetic aspects of bookmaking; and small, turn-of-the-century American publishing firms. American trade bindings produced between 1840 and 1900 and children's illustrated books of the nineteenth and twentieth centuries were also included in UNC-G fields.

A comparison of the complementary areas shared between the two libraries illustrates how this combination was designed to provide a wealth of material. In the area of private press books, UNC-CH's acquisitions of fifteenth to eighteenth century publications and UNC-G's imprints from the mid-nineteenth century to the present day would offer stunning coverage. In the field of printing and bookmaking, UNC-CH's concentration on technological developments would balance UNC-G's resources on aesthetic qualities in books. In the field of bindings, UNC-CH would gather Victorian examples produced in England between 1830 and 1900, and UNC-G would collect trade bindings made in the United States during the same period.

During the five years since the policy's implementation, the librarians have sought to follow policy guidelines in expanding their collections. Both librarians have received positive feedback on the program from their administrations. Book dealers were informed of the agreement. There has been profitable contact between the two curators; consultation before the acquisition of titles, for example, concerning the purchase of Dard Hunter's study of his father entitled The Life Work of Dard Hunter (1981); the referral from UNC-CH to UNC-G of a book dealer offering a splendid nineteenth-century American binding for sale; the reporting of UNC-G's private presses to UNC-CH; and an exchange of information on bindings and of annual reports. Both collections' holdings have been reported to the editors of reference books and online bibliographies. One will find reports from the collections side by side in Rare Books 1983-84. A search of the Eighteenth-Century Short-Title Catalogue database will retrieve different titles at each library that were printed by Horace Walpole at his Strawberry Hill Press. Each librarian has referred researchers, including library science stu-
dents, art students, bookbinders, and papermakers, to the other institution. A mutual review of the collecting areas produced some shifting of responsibilities due to new research trends and brought on a further refinement of the division of fields. UNC-CH is seeking now to limit its acquisitions of private press books but to expand its collection of Victorian bindings to include the production and materials of nineteenth-century books. UNC-G redefined its European private press acquisitions to encompass books from German private presses and to concentrate on books illustrated specifically by French artists. Other changes for UNC-G include a greater emphasis on nineteenth-century children’s books and on twentieth-century English private presses. Previous standing orders with private presses have been maintained although the selected acquisitions of other presses have been reduced. Finally, cooperation is being extended to detective fiction acquisitions with Wake Forest University in Winston-Salem, North Carolina, also participating.

Both librarians feel that the value and usefulness of their special collections have been enhanced by the agreement. Together, the libraries offer a gold mine of sources for research in the history of the printed book. Perhaps with this example of thriving cooperation, other small collections will combine forces to present to the public larger selections of materials for study, books to give rise to new pleasures in the pursuit of knowledge.

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15. Robert L. Volz to the author, November 20, 1979; Ralph S. Emerick to the author, November 27,
1979; and John Lancaster to the author, November 21, 1979.


21. Ibid., p.145.


24. Ibid.

25. A copy of the policy may be found in Martha Marshall Smith, "Cooperative Collection Development in Rare Books among Neighboring Academic Libraries" (M.S.L.S. paper, University of North Carolina at Chapel Hill, 1979), p.22-26.

26. The following summary is based upon a written survey completed by Paul S. Koda, the rare book librarian at UNC-CH, and Emilie W. Mills, the special collections librarian at UNC-G, August 1982, and upon Emilie W. Mills to the author, July 13, 1984.

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Comprehensive inventories are seldom undertaken in large academic research libraries because it is believed that the benefits derived do not justify the costs incurred. Procedures and statistics for a manual inventory and an inventory coordinated with the conversion to an online circulation system at the University of Kansas main library are presented. Results of this two-phase inventory suggest that such a project can be cost-effective in a large library.

One of the most intimidating projects for a large library to consider undertaking is an inventory of its holdings. A review of the literature on inventories and responses to a questionnaire on inventory practices in academic research libraries indicate that the controversy over whether the benefits derived from an inventory justify the costs has changed little in the past twenty years. In principle, most librarians agree that an inventory is worthwhile; in practice, few actually commit their resources to one. Although an inventory project is not necessarily logical for every library, a comprehensive inventory recently completed at Watson Library, University of Kansas, suggests that commonly held estimates of the costs involved are extravagant and that the benefits are often understated.

The main collection at the University of Kansas includes materials cataloged under both the Dewey Decimal and the Library of Congress classification systems. The Dewey materials for the most part are those cataloged prior to 1970 and not subsequently reclassed into the currently employed Library of Congress system. For reasons that will become clear, the procedures used to inventory the two groups were significantly different.

The procedure used to inventory the Dewey portion of the main collection (approximately 417,690 volumes) involved taking a drawer from the shelflist to the stacks and reading the shelflist cards against the actual holdings. Holdings of periodicals were not inventoried, though the presence of the title was checked. Multiple copies of monographs were inventoried, however. In addition to the shelflist drawer, book flags and a book truck were taken to the stacks. The reading was efficiently and accurately performed by two nonprofessional staff members who alternated reading call numbers.

Two major discrepancies arose from this reading. The first was failure to find the book corresponding to the shelflist' card. In that case, the shelflist card was turned up in the drawer and the reading continued. When the drawer was completed, call numbers of upturned cards were checked against the circulation record. If the book was checked out, the card was turned down. Upon completion of the circulation check, the cards still on edge were...
photocopied and the shelflist drawer returned to the catalog. The remainder of the inventory, which continued for six months, was done with the photocopies of the shelflist cards. To minimize inconvenience for other shelflist users, the shelflist drawer was usually removed from the catalog for only four or five hours.

Three searches were made for each missing book. If a book was located during the inventory period, the photocopy of the shelflist card was discarded. At the end of six months, if a book was still missing, both the shelflist and public catalog cards were pulled, and the photocopied cards were sent to the Acquisitions Department as lost-book notifications.

The second major discrepancy found in the inventory was a book on the shelf with no corresponding shelflist card. Books with no shelflist card were pulled and placed on the book truck. If the nature of the discrepancy could be identified immediately (mismarked, belonged in branch library, etc.), a colored flag was inserted in the book. Upon completion of the drawer, the public catalog was searched for cards for the unflagged books that had been placed on the truck. If cards were located in the public catalog, a shelflist card was prepared. If no cards were located, the book was sent to the Cataloging Department for possible reinstatement.

The inventory of the Dewey-classified materials produced the following results:

1. Items inventoried: 417,600
2. Items declared lost: 8,195 (1.96 percent)
3. Items requiring remarking: 3,540 (0.85 percent)
4. Items in the wrong library location: 402 (0.10 percent)
5. No shelflist or public catalog cards (sent for possible reinstatement): 1,595 (0.38 percent)
6. Wrong location on shelflist: 570 (0.14 percent)
7. No shelflist card: 456 (0.11 percent)

Items 6 and 7 represent noncritical errors; that is, library users should still have been able to go from the public catalog to the book on the shelf. Items 2 through 5 represent critical errors, for the library user would not have been aware that the library owned the book or would have been unable to locate the book on the shelf. Critical errors totaled 13,732 items, or 3.29 percent of the collection (figures for misshelved books are not included). Since regular shelf reading can correct misshelving, the authors are primarily concerned with reporting results obtained by the inventory process.

The time required to process a shelflist drawer was recorded for several drawers selected at random. The average time per drawer was ten hours, broken down as shown in table 1. This yields a "straight salary only" cost of $44.10 per shelflist drawer:

- 4.0 hours x $6.00/hour = $24.00
- 6.0 hours x $3.35/hour = $20.10
- $44.10

The average shelflist drawer contained thirteen hundred cards, forty-three of which involved critical errors. The average cost per critical error corrected was $1.03.*

This figure is presented as an estimate of the basic cost incurred by the project at the University of Kansas; costs would undoubtedly vary in another setting.

The materials classified under the Library of Congress system are those re-

---

*1,300 cards/drawer x 0.0329 critical errors/card = 43 critical errors/drawer ($44.10/43 = $1.03)
ceived after 1970 or reclassified from the Dewey collection since that time. With the introduction of a new online circulation system in the late 1970s, the LC-classified materials were retrospectively entered into the circulation database. It was approximately two years later that an inventory of the LC materials was undertaken. Instead of comparing the LC shelflist cards with the physical items on the shelf, the shelflist was read against the circulation database. The assumption was that if the item was in the database, it had been on the shelf within the last two years, and this was considered sufficient.

If a shelflist card existed for a book not in the circulation system database, a search was made for the book. If found, it was added to the database. If not found, it was eventually declared lost. If a book was in the database but there was no corresponding shelflist card, the book was retrieved from the stacks and the circulation database information verified. At that time either the database was corrected (if the book belonged in another location, etc.) or the public catalog was searched. If cards were located in the public catalog, a shelflist card was prepared. If no cards were located, the book was sent to the Cataloging Department for reinstatement.

The results of the Library of Congress inventory are as follows:
1. Items inventoried: 497,060
2. Items declared lost: 3,024
3. Items requiring remarking: 594
4. Items in the wrong library location: 3
5. No shelflist or public catalog cards (sent for possible reinstatement): 375
6. Wrong location on shelflist: 7
7. No shelflist card: 253

A summation of the critical errors for this part of the inventory yields a critical error rate of 0.8 percent. The time to process a thirteen-hundred-card shelflist drawer averaged two hours. All work was performed by nonlibrarian staff, thereby yielding a cost of $12 per drawer, or $1.15 per critical error.

One significant difference between the two inventories is that the Library of Congress procedure did nothing to put the books in correct call number order, although this can be done rather inexpen-

sively with student-assistant shelf reading. Also, it was impossible to add tasks to the LC procedures as was done with the Dewey procedure. For example, Dewey books found in poor condition were sent for repair and multiple copies were weeded according to rules provided by bibliographers. In all other important aspects, the two procedures worked similarly.

From this experience we conclude, first, that if a library is interested in reducing user frustration by eliminating the types of “critical errors” discussed above, it may be done at a price far lower than expected. Furthermore, if the shelflist is read against the stacks, they will correct “non-critical errors” along the way in addition to improving shelf order. Second, libraries involved in automating their circulation systems may profit from coordinating an inventory procedure with retrospective conversion projects that accompany the new circulation system.

In conclusion, the inventory conducted at the University of Kansas suggests that
inventories are neither unaffordable nor unmanageable and they produce a more than reasonable return for the effort expended. It might, therefore, be prudent for library managers to resist the urge to reject such a project out-of-hand simply because the holdings are large. In closing, a "catch-22" admonition may be in order: if a sample inventory at a library is confusing and expensive (slow), it probably indicates that a complete inventory is badly needed.

Purposes and Uses of Residence Hall Libraries

Gail Oltmanns and John H. Schuh

This paper describes a study of student use and perceptions of their residence hall libraries at Indiana University. A telephone survey of students in residence centers and a user survey conducted in the libraries were the two methods used to collect the data. The responses indicate that students do, in fact, use their residence hall libraries. Most frequently, they use the magazine and newspaper collections. Records and audiocassettes, class-related materials, and study space are also frequently cited as popular uses. Because there are other libraries on campus that serve the academic needs of students, it seems reasonable to develop residence hall library collections to fulfill the supplemental, leisure-reading needs of student residents.

Libraries have been developed in residence halls for a variety of reasons. Residence hall libraries enrich the educational experience of resident students, provide easy access for students who have reference questions, and serve the general library needs of students by making books, magazines, newspapers, records, and tapes available to students in the place where they live. Furthermore, residence center libraries may ease the demand for study space and materials in the main library.

The first residence hall libraries were started at Harvard in 1928 where a library was developed within each of seven houses. This system became the model for future residence hall library systems. Soon after Harvard established its house libraries, B. Lamar Johnson established six dormitory libraries at Stephens College in Missouri. Yale created nine college libraries and a number of other colleges and universities developed residence hall library systems, although their scope and level of sophistication varied considerably. Some of these programs disappeared, however, due to lack of interest or financial support. Others grew stronger. Specific reasons that contributed to colleges and universities sustaining the viability of residence hall libraries included adequate funding for the purchase of current materials, adequate staff, and the security of materials in the libraries. The University of Michigan and Indiana University-Bloomington (IUB) currently operate the largest residence hall library systems with eleven in each system.

Although residence hall libraries have existed for more than fifty-five years, little has been published about them. Several articles appeared in the 1930s that discussed the Harvard system, the Stephens College dormitory libraries, and a dormitory library established at the University of Chicago. Harvie Branscomb (1940) devoted a chapter of *Teaching with Books* to the discussion of residence halls libraries. He argued that books should be available to students in their residence centers because, "on a college campus, which exists for teaching purposes, books should be in

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the atmosphere." Between 1940 and the late 1960s a few articles were published that primarily discussed individual library systems. A detailed description of the University of Michigan system appeared in 1968. Onva Boshears and Gary Strong described a use survey which had been conducted in one of the dormitories. They distributed questionnaires to 1170 residents of a dormitory. More than one thousand questionnaires were completed and returned. The data showed that "only eighteen percent indicated that they never used the library, while eleven percent indicated active use on either a daily or weekly basis, and seventy-one percent reported occasional use of the library." This report represents one of the few times that data were collected that described how frequently and for what purposes the residential unit library was used.

In 1969 Edward Stanford conducted a survey of institutions with residence hall libraries. He discussed why some libraries had failed and outlined the characteristics of successful programs. Following Stanford's article almost nothing appeared in the literature until 1978 when Susan Ariew published her study of "open access" residence hall libraries. Her conclusions regarding the failure of "open access" policies resulted from a literature review and responses to a questionnaire mailed to institutions that had residence hall libraries.

At Indiana University, libraries are located in each of the eleven single student residence centers. The first of these libraries was opened in 1941 and the collection was financed by profits from vending machines located in the residence halls. As profits increased libraries were added to other residence halls. By 1969 all halls had libraries.

The libraries are open fifty-eight hours per week and are managed by graduate assistants who are students in the School of Library and Information Science. In addition to the graduate assistants, four to seven part-time student employees are assigned to each library. The libraries contain a variety of materials and equipment: hardcover books including reference materials, paperback books, newspapers, magazines, records, audiocassettes, videocassettes, art prints, and equipment such as typewriters, calculators, and player/recorders. The average number of books per library is 7,000 and each library holds approximately 1,200 records and tapes. Stated succinctly, the purpose of the Halls of Residence Libraries (HRL) system is to assist in meeting the cultural, recreational, and academic needs of students who live in the residence centers.

The study conducted at Indiana University was designed to measure the perceptions of students about selected aspects of the residence hall libraries. Several questions guided the study:

1. For what general purposes do students use the residence hall libraries?
2. How frequently do students use the residence hall libraries?
3. What specific library services are utilized by patrons of the residence hall libraries?
4. Why do infrequent users of the residence hall libraries not use the libraries more frequently?

**METHOD**

The study was conducted in two parts. The first part sought the perceptions of a randomly selected group of students who participated in a telephone survey. The second part of the study involved collecting the perceptions of students who participated in a survey of users of the residence hall libraries during a two-week period of time.

**Sampling**

The telephone survey was conducted with a sample of 1,050 students (approximately 10 percent of the residence hall population). The telephone numbers of students living in the residence halls were drawn randomly from a room-by-room roster of students living in the residence halls in March 1983. One hundred telephone numbers were drawn for residence halls housing 1,000 or more students (N = 10) and 50 were drawn for the one residence hall that housed 550 students. A total of 735 students participated in the telephone interviews for a response rate of 70 percent.
The users’ survey was conducted in late March and early April 1983. Any student who used a residence hall library during this time could complete the survey questionnaire. Ultimately, 535 users completed the survey.

**Instrumentation**

All the items for the telephone survey were highly structured and elicited a yes or no answer or a very short response. A brief pilot study was conducted to make sure that the items were easily understood by the respondents.

Items for the users’ survey were prepared in consultation with professional librarians. The questionnaire was reviewed by several students for clarity and understandability before it was distributed.

**Data Collection**

Data were collected in the telephone survey by making calls to the numbers that had been drawn. In most cases four students shared the same telephone, so any one of the four could have responded to the call. Student workers administered the questionnaire to the respondents.

The questionnaires for the participants in the users’ survey were provided to potential respondents through each residence hall library. Users were asked by the center librarians or other library workers to complete the instrument in the library and return it to the library employee.

**Data Analysis**

All data were transferred from the questionnaire to computer coding sheets from which computer cards were made. The data were analyzed by computer using SPSS programs. Data analysis included developing measures of central tendency and frequency distributions on an item-by-item basis.

**RESULTS**

Most participants in each survey indicated that they used the library as a place to study. Other purposes were for recreational reading, to listen to records and tapes, for class-related materials and to check out art prints. These data are listed in Table 1.

The second question examined the frequency with which residence hall libraries were used. Predictably, the respondents used the libraries more frequently than did the participants in the telephone survey. Most often, the respondents to the users’ survey indicated that they used the libraries “several times a week,” while “a few times a month” was the most frequent response of the participants in the telephone survey. Responses to this item ranged from “never” to “daily” usage of the residence hall libraries and are included in Table 2.

The services provided by residence hall libraries was the next area of inquiry for this study. Most often, students used the libraries to read magazines, to study, and to read newspapers. Least often, the respondents to the users’ survey used a tool rental service and checked out art prints from the library. These data are summarized in Table 3.

The telephone survey examined why infrequent users (less than once a month or never) of the libraries did not use the residence hall libraries more often. Most often, they reported that they preferred to use another library on campus or that the residence hall library did not have the ma-

### Table 1

**USES OF HALLS OF RESIDENCE LIBRARIES**

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Respondents to Telephone Survey</th>
<th>Respondents to Users’ Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>To study</td>
<td>271</td>
<td>458</td>
</tr>
<tr>
<td>For recreational reading</td>
<td>224</td>
<td>397</td>
</tr>
<tr>
<td>For records and tapes</td>
<td>188</td>
<td>390</td>
</tr>
<tr>
<td>For class-related materials</td>
<td>187</td>
<td>375</td>
</tr>
<tr>
<td>For art prints</td>
<td>42</td>
<td>233</td>
</tr>
<tr>
<td>For other reasons</td>
<td>115</td>
<td>144</td>
</tr>
</tbody>
</table>

March 1985
TABLE 2
FREQUENCY OF USE OF HALLS OF RESIDENCE LIBRARIES

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Respondents to Telephone Survey* No.</th>
<th>Respondents to Users’ Survey* No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily</td>
<td>18</td>
<td>64</td>
</tr>
<tr>
<td>Several times a week</td>
<td>102</td>
<td>223</td>
</tr>
<tr>
<td>A few times a month</td>
<td>259</td>
<td>189</td>
</tr>
<tr>
<td>Less than once a month</td>
<td>183</td>
<td>42</td>
</tr>
<tr>
<td>Never</td>
<td>156</td>
<td>0</td>
</tr>
<tr>
<td>No response</td>
<td>17</td>
<td>17</td>
</tr>
</tbody>
</table>

*Does not equal 100% due to rounding.

TABLE 3
USES OF HALLS OF RESIDENCE LIBRARIES BY RESPONDENTS TO USERS’ SURVEY

<table>
<thead>
<tr>
<th>Service</th>
<th>Yes</th>
<th>%</th>
<th>No</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Read magazines</td>
<td>382</td>
<td>75.2</td>
<td>126</td>
<td>24.8</td>
</tr>
<tr>
<td>Study</td>
<td>307</td>
<td>60.9</td>
<td>197</td>
<td>39.1</td>
</tr>
<tr>
<td>Read newspapers</td>
<td>281</td>
<td>54.0</td>
<td>239</td>
<td>46.0</td>
</tr>
<tr>
<td>Check out records</td>
<td>208</td>
<td>40.5</td>
<td>305</td>
<td>59.5</td>
</tr>
<tr>
<td>Check out books for leisure reading</td>
<td>191</td>
<td>37.2</td>
<td>322</td>
<td>62.8</td>
</tr>
<tr>
<td>Check out books related to class work</td>
<td>187</td>
<td>35.4</td>
<td>341</td>
<td>64.6</td>
</tr>
<tr>
<td>Check out tapes</td>
<td>127</td>
<td>24.2</td>
<td>398</td>
<td>75.8</td>
</tr>
<tr>
<td>Listen to tapes</td>
<td>67</td>
<td>12.8</td>
<td>456</td>
<td>87.2</td>
</tr>
<tr>
<td>Check out reserve materials</td>
<td>55</td>
<td>10.5</td>
<td>470</td>
<td>89.5</td>
</tr>
<tr>
<td>Check out equipment like typewriters and calculators</td>
<td>54</td>
<td>10.3</td>
<td>469</td>
<td>89.7</td>
</tr>
<tr>
<td>Check out art prints</td>
<td>53</td>
<td>10.1</td>
<td>471</td>
<td>89.9</td>
</tr>
<tr>
<td>RHA tool service rental</td>
<td>27</td>
<td>6.1</td>
<td>498</td>
<td>93.9</td>
</tr>
</tbody>
</table>

*Nonrespondents to specific items are not included in this table.

CONCLUSIONS

Telephone Survey

Of the random sample of 735 students in the telephone survey, over half the sample reported using the libraries frequently (a few times a month or more often). Just 22 percent of those surveyed indicated that they never use HRL.

Over half the frequent users use HRL for recreational reading. Of the frequent users, 92.5 percent use HRL as a place to study. If providing a place to study seems inconsistent with the objectives of HRL, it should be pointed out that while users do study in the libraries, they might at the same time use reference or reserve materials they needed. The library being too crowded or too noisy and not knowing about or not being able to find the library were reasons that were not listed frequently. These data are summarized in Table 4.

Infrequent users do not use HRL more frequently because they prefer to use another library on campus. Just over half of the infrequent users reported that HRL did not have the materials they needed. Many of these students might be users of the main library or one of the fourteen more specialized branch libraries on campus. About 25 percent of the infrequent users find the facilities uncomfortable.

Students in the random sample are generally aware of services provided by HRL whether they use the libraries frequently or infrequently. It cannot be construed, then, that some students are infrequent or nonusers due to a lack of knowledge of the libraries. Most of them simply prefer to use another library.

The low percentage of use of art prints is...
TABLE 4
WHY INFREQUENT USERS DO NOT USE THE HALLS OF RESIDENCE LIBRARIES

<table>
<thead>
<tr>
<th>Reason</th>
<th>Yes</th>
<th>%</th>
<th>No</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Don’t know about it</td>
<td>19</td>
<td>5.5</td>
<td>326</td>
<td>94.5</td>
</tr>
<tr>
<td>Can’t find it</td>
<td>9</td>
<td>2.6</td>
<td>335</td>
<td>97.4</td>
</tr>
<tr>
<td>Library is too crowded</td>
<td>29</td>
<td>8.5</td>
<td>313</td>
<td>91.5</td>
</tr>
<tr>
<td>Library is too noisy</td>
<td>40</td>
<td>11.7</td>
<td>303</td>
<td>88.3</td>
</tr>
<tr>
<td>Facilities are uncomfortable</td>
<td>85</td>
<td>24.9</td>
<td>257</td>
<td>75.1</td>
</tr>
<tr>
<td>Library does not have the materials I need</td>
<td>171</td>
<td>50.6</td>
<td>167</td>
<td>49.4</td>
</tr>
<tr>
<td>Library is not open when I want to use it</td>
<td>75</td>
<td>21.9</td>
<td>267</td>
<td>78.1</td>
</tr>
<tr>
<td>Prefer to use another library on campus</td>
<td>281</td>
<td>83.1</td>
<td>57</td>
<td>16.9</td>
</tr>
<tr>
<td>Just don’t like it</td>
<td>98</td>
<td>28.6</td>
<td>245</td>
<td>71.4</td>
</tr>
<tr>
<td>Other reasons</td>
<td>128</td>
<td>37.4</td>
<td>214</td>
<td>62.6</td>
</tr>
</tbody>
</table>

*Nonrespondents to specific items are not included in this table.

explained by the small number of prints available (approximately one hundred prints per library) and the circulation period (one semester).

**User Survey**

The 535 students who filled out questionnaires in their center libraries were asked to report their perceptions of HRL purposes and services. These students indicated that more than half of them use their libraries a few times a week or daily. Most often, users of HRL reported that they perceived the purpose of the libraries is to provide places to study. A substantial majority also reported that the libraries should satisfy their needs for recreational reading, records and tapes, and class-related materials.

Their reasons for using the libraries were not inconsistent with their perceptions of the purposes. Respondents reported that they used the library most often to read magazines and newspapers, and to study. They used the library very infrequently to check out reserve materials, equipment, art prints, or tool kits. In addition, a majority of users found HRL employees helpful and operating hours convenient.

**SUMMARY**

The data collected in this study indicated that students who live in the residence centers have a wide range of library needs that extended from very general, recreational, leisure-reading, and listening needs to basic reference and academic, curriculum-supporting needs. These needs can be determined by looking at the ways in which frequent users actually use the Halls of Residence Libraries. They can also be determined by examining the purposes the respondents think the libraries should serve.

Responses to questions asked in the two phases of the study (telephone survey and users’ survey) strongly suggested that a variety of needs are being met by HRL. The data also indicated that some of these needs are being met better than others. For example, while some students used HRL for class-related materials, many more students used the libraries for current periodicals and leisure reading. Records and tapes also were very popular and heavily used.

In planning residence hall libraries, the data suggest that residence hall libraries can best be developed to meet the leisure reading needs of residential students. As a result, collections probably should be developed along the lines of including magazines and newspapers, followed in importance by class-related materials and records and tapes. Art prints, reserve materials, and equipment are not used frequently by students and should have a lower priority than magazines and newspapers, records and tapes, and class-related materials. It seems reasonable to conclude that residence hall libraries should meet the general public library needs of students who live in residence, and that academic needs can be met by other libraries within the campus library system.
REFERENCES

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To the Editor:

It was both discouraging and encouraging to read David Kaser’s article on academic library planning (C&RL July 1984). Discouraging, because so many libraries have been—and continue to be—built with little, if any, consideration for their function, including the people who have to work in them every day. Encouraging, because he has again confirmed what many have known for many, many years, that the square or rectangle is still the most economical and functional shape for libraries.

I would suggest that library administrators are their own worst enemies for allowing themselves to be bullied into agreeing to architectural and design concepts which they, of all people, should know will not work. From long experience, I know you can have an aesthetically pleasing, but still functionally efficient building.

The library administrator faced with planning a new building has a responsibility to educate academic administrators, fund-raisers, and architects. To put it bluntly, it is the library administrator who should tell the architect what kind of a building is needed, not vice versa. Kaser’s article should be required reading for all library planners and architects.

T. D. PHILLIPS
University Librarian
Mount Allison University, Sackville, New Brunswick, Canada

To the Editor:

I read with great interest the article by Courtois and Goetsch “Use of Nonprofessionals at Reference Desks” (September 1984). The use of nonprofessionals in reference work is largely taboo in British academic libraries. When we introduced the practice into our library some five years ago, we were unaware of any other academic libraries here who were permitting their nonprofessionals to move into what was (and is) considered to be the territory of the professional.

Our experience has been wholly encouraging. Although one of our main reasons for having an information desk manned by nonprofessionals was a desire to ease pressure on the professional readers’ advisers by siphoning off the more routine inquiries, the ensuing advantages lie elsewhere.

The study by Courtois and Goetsch did not seek to investigate the views of nonprofessionals on their reference work. If they had sought to do so I have no doubt that they would have discovered that the benefits to the individual are considerable. The addition of reference work to duties at the Issue Desk or in some back-room activity provides welcome variety. The training essential before undertaking reference work gives the nonprofessional a new perspective on the work which forms the major part of his or her duties. The acknowledgement that the nonprofessional is capable of more than the most routine duties is a great boost to morale and self-confidence.

N. J. RUSSELL
Pro-Librarian
University of Ulster at Jordanstown, Northern Ireland
To the Editor:

I would like to thank you very much for the article by Martin P. Courtois and Lori A. Goetsch entitled “Use of Nonprofessionals at Reference Desks” in your September 1984 issue. My Director of Libraries, ever-concerned that I remain aware of currents in the library field, has your fine journal routed to me on a regular basis.

As a result of what I learned from that article, these changes have occurred at the University:

1. Since the use of nonprofessionals at the Reference Desk seems to be acceptable to many library directors, we have shifted responsibility for that function completely to nonprofessionals. We are not worried about a lack of preparedness on the part of these nonprofessionals since according to the study "few institutions reported having a systematic training program to prepare nonprofessionals for answering and referring questions." Moreover, since we treat our evening and weekend students the same as our day students, we see no reason for addressing such a distinction in our library service patterns.

2. Our public service librarians have now all been made part-time personnel since they have been relieved of their reference duties and there is no need for them to oversee the work of their nonprofessional colleagues. (From the study: "Nonprofessional staff and students at the reference/information desks frequently work alone, without a professional at the desk or on call.") The time of these librarians is now devoted entirely to collection development and library instruction.

3. We are hiring persons with a MLS and placing them in nonprofessional positions, thereby taking advantage of their knowledge but without having to pay them professional salaries. Courtois and Goetsch gave us that idea by indicating that "for purposes of this study nonprofessionals are defined as library workers who do not work in a librarian, professional or academic position. They may or may not hold a master's degree in library science."

4. We are excited about our new college graduates who are working at the Reference Desk (unsupervised, of course) while deciding whether or not to go on to library school. They are here as part of the University's new "Career Awareness Development" (C.A.D.) program.

5. Given these changes in our utilization of professionals, we have established a task force to examine long-term salary requirements in the library. It is possible that our librarians are overpaid for what they do, since replacing them with nonprofessionals seems to be no big deal. Parenthetically, I was reading the "Emperor's New Clothes" to my child when the MLS and its importance came to mind.

There may be additional opportunities for us suggested by your article; we are looking into that. In the meantime, thank you again and keep up the good work!

Sincerely,

President, Day of Reckoning University

JOHN M. COHN
County College of Morris, Randolph, New Jersey

To the Editor:

Because the underlying tone of [Mr Cohn’s] letter to the editor expresses concern about the results of a survey described in our article on the use of nonprofessionals at reference desks [C&RL Sept, 1984], we feel that it is important to respond to you.

The goal of the survey was to describe current staffing practices at the reference desk involving the use of nonprofessionals. In reporting the results, we, too, noticed several problem areas: lack of adequate training for nonprofessionals, poorly defined job roles for both professionals and nonprofessionals, and inadequate referral arrangements between professionals and nonprofessionals. These areas of concern need development, discussion, and experimentation to ensure both the effective integration of nonprofessionals into reference service and the professionalization of librarianship.

Despite these problems, our survey is only one of many in the literature demonstrating
that nonprofessionals are being used at reference desks and that the limited number of in-depth questions warrants this use. (Please see the sources listed in our "References" as well as Nancy J. Emmick and Luella B. Davis, "A Survey of Academic Library Reference Service Practices," RQ 24:67-81 [Fall 1984])

Satirizing these findings is not going to make this practice disappear. Rather, we hope that librarians will take a closer look at such problems as training and referral in order to develop more creative and effective roles for themselves and for nonprofessionals as well.

MARTIN P. COURTOIS and LORI A. GOETSCH
Assistant Reference Librarians, University of Illinois at Chicago

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BIOSIS is a not-for-profit organization serving the biological community since 1926.

The American scholarly community lost a distinguished member with the death of Fritz Machlup in January 1983. By discipline an economist, he became better known to librarians through his seminal 1962 work, published by Princeton University Press, The Production and Distribution of Knowledge in the United States. In the following decade Praeger published an even more imposing related work by Machlup, the four-volume Information Through the Printed Word: The Dissemination of Scholarly, Scientific, and Intellectual Knowledge. While preparing this work, Machlup surveyed academic librarians. He was so concerned at their seeming lack of knowledge about their own libraries' acquisitions that he chided them in an October 1976 AAUP Bulletin article. With that annoyance put aside, Machlup proved a gracious and perceptive speaker at the first ACRL national conference in Boston in 1978.

By that time Machlup had formally retired from his Princeton teaching position but was continuing his academic career at New York University. He also had a major plan under way to update his 1962 work with a series of ten volumes to be published by Princeton and to bear the overall title Knowledge, Its Creation, Distribution, and Economic Significance. Shortly before his death, he had completed work on volume 3. The first three volumes are Knowledge and Knowledge Production, The Branches of Learning, and The Economics of Information and Human Capital.

In this new work, volume 4 was to consider the information sciences and was originally intended as part of volume 2. To prepare the way for this volume, Machlup invited thirty-nine scholars in various branches of the information sciences to write essays on their fields of endeavor. These essays comprise the present volume, a work edited by Machlup and his research associate, Una Mansfield, and published following his death.

The essays here present a group of "interdisciplinary messages" in which the scholars describe their views of the relationships between their fields and other disciplines in the information sciences. Machlup, aware of the "forbidding array of disciplines, metadisciplines, interdisciplines, and specialties" included under the general heading of information sciences, selected only a few for consideration. They are covered in the nine major sections of the work: cognitive science, computer and information science, artificial intelligence, linguistics, library and information sciences, cybernetics, information theory, mathematical system theory, and general system theory.

The plan for each section is to present a lead article prepared by one scholar, followed by commentaries by other scholars in that field, and concluding with a statement by the lead author. For example, in the section on library and information sciences, W. Boyd Rayward is the lead author of a piece entitled "Library and Information Sciences: Disciplinary Differentiation, Competition, and Convergence." There are four responses: the first by David Batty and Toni Carbo Bearman and the other three by Manfred Kochen, Jesse H. Shera, and Patrick Wilson. In his
rejoinder, "Librarianship and Information Research: Together or Apart?" Ray-ward comments on each response. Unlike a standard symposium or anthology that includes a series of unrelated papers on a given subject, this plan works well for providing a form of dialogue among scholars in a given discipline. Altogether there are fifty-six articles in these principal sections.

A length introduction to the volume, "Cultural Diversity in Studies of Information," provides a setting and context for the following principal sections. In an epilogue, "Semantic Quirks in Studies of Information," Machlup gives his own rejoinder to the previous papers, presenting his views on what the authors mean by information, by science, and by computing. Machlup died before he had completed writing this section, and Mansfield prepared the final text for publication, noting the missing parts and what they would have included.

A list of approximately one thousand references and a name index conclude the volume. The list of references, arranged alphabetically by author, does not, however, serve as a subject bibliography for the individual disciplines covered.

This is not a volume one will read from cover to cover. Instead, one will consult its individual sections to discover how present-day scholars view their subject disciplines and relationships with other fields. But as readers study one section, they may be led to others and may also benefit from Machlup and Mansfield’s introductory and concluding essays.

This volume is but one part of the mammoth legacy Fritz Machlup has left to the world of scholarship. We hope that his colleagues and students will be able to continue and conclude the research that he began.—Richard D. Johnson, State University of New York, College at Oneonta.


The New-York Historical Society, founded in 1804, is the second oldest historical society in the United States. A cultural institution of national significance, the society maintains a library and a museum, the latter devoted to the fine arts and the decorative arts. The resources of the society include more than five hundred thousand volumes, several million transcripts, and an extensive collection of prints, photographs, drawings, and paintings with a particular emphasis on the history of New York City and New York state and the early colonial period.

In Scholars and Gentlemen: The Library of the New-York Historical Society, 1804–1982, Pamela Spence Richards traces the fortunes and misfortunes of the institution during its 178-year history. As the subtitle indicates, she places her emphasis on the library that played a dominant role in the development of the historical society: the collecting of historical materials was seen as the primary task of the society from its inception. Richards does, however, show how the museum collections grew, how they occasionally seemed to overwhelm the scholarly functions of the library, and how the museum eventually became a separate department that took on the general educational functions of the society.

Evident throughout Richards’ narrative are the difficulties that the society faced as a result of its limited financial resources. Although it received an occasional grant from the state of New York early in its history, and some funds from private foundations and federal funding agencies in the twentieth century, the institution has survived primarily on an endowment built up by philanthropic New Yorkers. Financial constraints over the years nearly led to the sale of the library in 1825; caused delays and ultimately the suspension of the publishing activities of the society; affected its public services because of cramped quarters, insufficient staff, and inadequate cataloging; and resulted in a strike by some two dozen of the society’s clerical, technical, and professional workers in 1979.

A problem of equal significance, as Richards presents it, was the conflict, particularly in the second half of the nineteenth century, over the focus of the institution. Related to this issue were the challenges the society faced at that time as a result of the social changes in the city and the professionalization of scholarship and librari-
anship. Frederic de Peyster, president of the society from 1864-1866 and 1873-1882, emphasized the broad educational role of the institution, while George Henry Moore, librarian from 1849-1866, viewed it as a professional library serving specialized scholars. Under Moore’s successors, William and Robert Kelby, the society became one of the city’s chief centers of genealogical research and hereditary patriotic organizations. A solution to this issue was eventually facilitated by the departmentalization of the functions and purposes of the society by librarian (and later director) Alexander J. Wall in 1939. The library continued to function as a scholarly resource while the new museum allowed the society to meet the popular educational demands.

Despite these difficulties, the New-York Historical Society managed to attract collections of major importance. Richards’ account is peppered with descriptions of the manuscript and printed riches that came into the institution. Unrelated materials were accepted as well. This “vacuum cleaner” approach to acquisitions was eventually refined by director R.W.G. Vail, who established a policy of building to the strengths of the collection in 1959. Like his predecessor, Alexander J. Wall, Vail worked to achieve closer cooperation with other New York institutions.

Richards brings her story up to the present with a discussion of the recataloging and conservation projects of the society under director James D. Heslin and librarian James Gregory. The problems of escalating costs and a stagnating endowment fill the final pages of her study. *Scholars and Gentlemen* is a fine contribution to the history of the cultural institutions of New York City and of the United States.—Marie Elena Korey, *Free Library of Philadelphia.*


The editor of *Library Technical Services: Operations and Management* says that the text is intended to provide an overview of current technical services operations. It is also intimated that this work is for the professional reader. The operations described are mainly those found in academic and research libraries—but applicability in other types of libraries is assumed. The book attempts, therefore, to provide a comprehensive overview of current technical services operations, including administration, automation, acquisitions, bibliographic control, preservation, and circulation.

By *current* is meant not only recent, but developments since the publication of Maurice Tauber’s classic text *Technical Services in Libraries* (New York: Columbia Univ. Pr., 1954)—a period of thirty years. The emphasis, however, is not on a historical overview but primarily on the current situation. Tauber’s work originated with his teaching duties in Columbia’s School of Library Service and came within a decade or two of the time in the library world when technical services as such were first conceived. As much as any other single event, the publication of Tauber’s text heralded the arrival of an organizational identity for the library technical services unit or division. Ironically, this new work edited by Irene Godden appears at a time when that identity is undergoing serious rethinking and when some are even predicting its demise.

*Library Technical Services* contains only seven chapters, and one of those is the introduction. Other chapters are devoted to administration, automation, acquisitions, bibliographic control, preservation, and circulation. These are considered to be the functional areas of technical services, and the editor explains that discussions of specific materials and operations are covered in each functional chapter. Hence, for descriptions and discussions of specific topics (e.g., serials, government publications, binding), it is essential that the reader refer to the index where treatment in the respective chapter is referenced. Each of the chapters is organized along similar lines. That is, the specialist author for the particular chapter provides an introduction, deals with the terminology, discusses major topics, issues, and special
problems, and then documents the chapter with suggestions for keeping up to date and with references and a bibliography.

In reading the chapters one must keep in mind that an overview is intended. The treatments are not in-depth; new information and new concepts are lacking. Nevertheless, it is helpful to have leading practitioners document present operations in technical services. Two authors cover a broad range of topics in their respective chapters. In chapter 3, "Automation," Karen Horny covers topics such as integrated systems, standards, networks and cooperation, and downtime. Betty Bengtson in chapter 5, "Bibliographic Control," covers cataloging and classification, original and copy cataloging, serials, authority control, retrospective conversion, etc. The chapter on administration provides a very shallow discussion of organizational practices for technical services—currently a hot topic for the profession. The chapter on preservation includes such diverse topics as deacidification, weeding, shelving, and storage. In these and the other chapters the reader will find well-written descriptions of current technical service practice.

The physical qualities of the book are acceptable. The construction, type, page format, and headings all contribute to making it very usable. And, one sees evidence of heavy editorial control—probably by both the editor of this particular volume and the series editor. A certain consistent editorial quality is maintained, but the result is, at times, a rather sterile and rigid narrative. The preface and introductory chapter offer the only unifying factor for the work. It may be that the increasingly complex and changing nature of technical services and current editorial practice for such series books have precluded the possibility of a unified work (like Tauber’s for example). In any case, some readers may prefer separate texts by specific functional areas that offer such unity. Acquisitions Management and Collection Development in Libraries by Rose Mary Magrill and Dora-

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Lyn Hickey (Chicago: American Library Assn., 1984) is a very good example of one such work. The enduring contribution of *Library Technical Services: Operations and Management* will most likely be realized as users refer to its guidance on "keeping up" and to the references and bibliographies that document operations in the functional areas of library technical services.—Don Lainer, Northern Illinois University, Dekalb.


This book will be of value to all those interested in ascertaining the paths to influence and renown in the American academic world followed by academic librarians in the period surveyed. This volume might, however, more accurately be entitled *Leaders in American Libraries* since the fifteen people included have all been library directors. The avowed goals of the editor are to: (1) increase academic librarians' awareness of their profession by reviewing crucial events and the leaders who shaped or reacted to them, (2) recall a generation of leaders now being forgotten, and (3) generate more interest in academic library history. While the collection of essays should do these things, as well as occasion speculation on how the approaches discussed would apply to contemporary situations in academic libraries, the unfortunately high price of the book will effectively keep it out of the hands of many potential readers and some libraries.

The academic librarians included have been rather arbitrarily chosen: a committee of six well-known librarians narrowed down an original list of twenty-five academic librarians to fifteen on whose importance consensus could be reached. Secondary sources were not consulted in these deliberations, and the final group selected is not claimed as a definitive list of the greatest academic librarians of the period. Many readers will feel that omitted librarians rate inclusion as much or more so than some of those selected, but this dissatisfaction is inherent in any brief selection, no matter how it is arrived at, and the editor is honest in his subjectivity.

Some readers will feel that too heavy an emphasis has been placed on library directors to the exclusion of other types of academic librarians. Once again, in an avowedly subjective survey that does not claim representativeness, such an emphasis is harder to fault. This lack of any explicit editorial focus does, however, result in a variety of unmediated viewpoints from which the reader must isolate and synthesize those traits that contributed to effective performance and leadership in the academic library context.

Those librarians included are Charles H. Brown, W. S. Dix, Robert Downs, Ralph Ellsworth, Lillian B. Griggs, Guy Lyle, Stephen McCarthy, Blanche P. McCrum, Keyes DeWitt Metcalf, Jerrold Orne, Lawrence Powell, Ralph Shaw, Maurice Tauber, Robert Vosper, and Louis Round Wilson. All are known primarily as library directors except for Tauber and Wilson, best known for their activities in cataloging and library education, respectively. They, too, however, had directed libraries. No member of the Library of Congress is included except for McCrum, who ended her career there as a specialist in documents and a bibliographer after decades as the director of two academic libraries.

The editor allowed considerable freedom to his contributors as to style and organization. While most articles summarize all facets of the subject's library activities, the one on Wilson is conceived as a supplement to his authorized biography. While most of the writers endorse the editorial committee's choice of subjects, the biographers of Dix and Lyle claim that their high reputations among contemporaneous librarians were more the result of luck and personal charisma than of vital contributions to, or innovations in, the field. The biographers of Griggs and McCrum, on the other hand, present the case that these librarians' careers have been unjustly ignored because of the bias against female leadership in the
period. My own feeling, based on these essays, is that Dix, Lyle, and McCrum were sufficiently active in a variety of organizations and influential pursuits to justify their inclusion in this group, whereas the case for Griggs is much less persuasive. While her contributions seem worthy and valuable within the libraries in which she worked, they did not gain her national or international prominence or prove lastingly influential. Much is made of her influence on the ideas of Harvie Branscomb, but he does not figure among these librarians.

Examining the goals that many of these people shared as well as the individual excellences or accomplishments that stand out, it seems that the committee was more concerned with librarians who were nationally or internationally recognized in library associations, and on the wider non-library front, than with those whose activities were more narrowly focused within the libraries in which they worked. The superior management of an academic library in itself does not lead to selection, though all of these librarians had such merits among their more public achievements. Bringing honor and recognition to one’s library through action on the national or international levels is clearly a vital criterion here. The librarian as scholar and/or faculty member was, then as now, a vexed topic. Several of the biographees favored faculty status for academic librarians; others stressed that the academic librarian must be a scholar-librarian in order to work most effectively with faculty and to win their trust and esteem.

While such activities will continue to assure visibility and influence for academic librarians, modern developments such as restrictive budgets and participatory management styles are apt to make the library director’s operations within his or her library more problematical than it was for many of these earlier librarians. Indeed, some of these directors, whose careers ended recently, retired with a sense of pessimism about the future of academic libraries for these very reasons and because of dismay at the increasingly technological bent of the modern research library, to the detriment of humanistic scholar-librarianship as they perceived it. On the other hand, two of them, Metcalf and Wilson remained active in professional life up to their deaths at extremely advanced ages. The earliest generation of librarians in this survey had to face the deprivations of Depression and war, so contemporary readers can find precedent for dealing with distinctly unpromising situations with resourcefulness, dedication, and energy.

Thus, despite the casual nature of the selection process and the exorbitant price, this book can be recommended to those concerned with the development of American academic libraries and the strengths and limitations of those library directors who built and dominated them for fifty years.—John Cullars, University of Illinois at Chicago.

**Recent Publications**

**Library Instruction and Reference Services.** Ed. by Bill Katz and Ruth A. Fraley. New York: Haworth, 1984. 254p. $24.95. LC 84-505. ISBN 0-86656-288-5. (This work has also been published as The Reference Librarian, no. 10, Spring/Summer 1984.)


These three books are additions to the vast, and growing, body of literature on bibliographic instruction. The first two works are collections of essays and the last a collection of the papers presented at a conference. As such they are, in varying degrees, prone to the faults of collections of papers; they are uneven, occasionally repetitious, and cacophonous. However, sitting down to read them seriatim, while occasionally tiring, was never a trial. Individually, the essays are well written and make their point or points in a clear and forthright manner—a tribute, no doubt, to the skills of the editors.
Katz and Fraley's *Library Instruction* is loosely organized around the notion that there are two schools of thought about library instruction, one being that library instruction is the *ne plus ultra* of library services and the other that it is "not needed as a separate library function" and should be integrated into the existing services of the library. While Fraley advances this dichotomy on page 3 of her "Overview" to the collection, she quickly admits, on page 4, that there are "shadings of perceptions and beliefs all along the continuum." Thus, while ostensibly organized about the two schools of thought outlined, the work is conventionally divided into an introductory section, two articles opposing bibliographic instruction, a section on "Techniques and Questions," and two concluding sections, one each on "Instruction in Public Libraries" and "Instruction in Academic Libraries."

In fairness it must be pointed out that five of the eight articles in the "Techniques and Questions" section, one of the three articles in "Instruction in Public Libraries," and two of the nine articles in "Instruction in Academic Libraries" deal in varying degrees with the tension between instructing patrons versus providing them with information, the question of one-to-one versus group instruction, and the wisdom of devoting resources to a bibliographic instruction program versus using them to support and sustain existing (reference) services. But the organizing thread does tend to get lost among the twenty-five essays in the collection.

Kirk's *Teaching Role* is intended to "provide a compact overview" of library instruction (p.1). Each of the ten short chapters was written by a different person, or group of persons, and while these chapters are interesting in themselves, they fail to provide an overview of library instruction. Rather, they provide a series of snapshots of interesting sights along the way. The chapters range from a doxological essay on the "teaching library" to a pathfinder on bibliographic instruction. In between are essays on library instruction to develop critical thinking skills and the teaching of search strategy, an interesting essay on "Alternatives to the Term Paper," a survey of bibliographic instruction programs, and a description of the LOEX program. Notable by its absence is mention of organizational or managerial considerations for bibliographic instruction.

Fox and Malley's *Third International Conference* is a collection of the seventeen papers presented at a two-day conference at the University of Edinburgh in July 1983. Apparently the papers are printed in the order they were presented at the conference, which leads to some curious juxtapositions, e.g., a report on introducing children to the public library in Northern Ireland and a description of a project, called the "Microelectronics Education Programme," designed to enhance computer-related information-handling and seeking skills in teachers, and through them, in students. Both of these papers are interesting but would have more impact had they been grouped differently.

Of the papers presented, seven merit serious attention by anyone interested in "user education." Maurice B. Line's "Thoughts of a Non-User, Non-educator" is highly critical of the "user education" movement and argues that "A gram of help is worth a tonne of instruction, and one accessible, informed and helpful information officer is worth a dozen user education programmes." (p.9). The paper by Beryl Morris, "User Education: Time for a Rethink?" attacks the assumptions underlying user education and "demonstrate(s) that formal user education can never be truly effective" as currently practiced (p.24). Cherry Harrop's paper, reporting on "The 'Information Needs of Undergraduates' Project," suggests several important preconditions to a successful user-education program and supplements some of Morris's conclusions. The paper by Ann Irving on the "Microelectronics Education Project" (mentioned above) too briefly outlines an exciting project to investigate cognitive strategies for obtaining and using information. Three other papers by Beverly Labbett, Elaine Martin, and Ralph Tabberer report on three different projects designed to investigate information and its use among students; their conclusions—
even allowing for differences in the British and American educational systems—merit serious scrutiny by anyone involved in designing library instruction programs for undergraduates. The other papers range from a report on library-use instruction in Latin America and the Caribbean to a paper on the uses of videotex for library instruction.

While each of these works has something to offer, it was the collection of papers from the Third International Conference that prompted this reviewer to reach for his interlibrary loan forms to find out more.—Lawrence L. Reed, Moorhead State University.


This handbook is a collection of short articles written by members of the ACRL Bibliographic Instruction Section’s Research Committee. It intends to serve as an introduction to evaluation methods and to provide direction and encouragement to librarians planning to evaluate instruction programs. The chapters titled “Research Designs Appropriate for Bibliographic Instruction,” “Data-gathering Instruments,” and “Data Management and Statistical Analysis” are useful as checklists in the early planning stages of a study. Other chapters, “Evaluation and Its Uses” and “Evaluating in Terms of Established Goals and Objectives,” describe the value of formal evaluation procedures and the need to base evaluation on clearly stated and appropriate goals and objectives.

The book works well as an overview of the formal evaluation process and brings to light questions worth considering—What is the purpose for evaluating? Is there adequate clerical support for the project? What type of computer facilities are needed? Are statistics experts available to help analyze the data in meaningful ways? Major research designs and methods of statistical analysis are surveyed briefly. Fortunately, the bibliographies provide numerous references, not only from library literature, but also from

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This work calls for a more formal, rigorous evaluation of instruction programs. Certainly, the field of bibliographic instruction would benefit from research based on scientific methodology, especially if the research leads to establishing more effective output measures. On a day-to-day basis, however, instruction librarians also need to be adept at "informal" evaluation techniques—talking to faculty members to understand their impressions of student needs, judging student reactions and making adjustments in lecture style or content "on the spot," analyzing questions received at the reference desk as representative of student needs and experimenting with new activities to meet those needs, and many others. These techniques allow librarians to tailor programs to the individual needs of their institutions and are also valuable as testing grounds from which more formal research projects can emerge. To battle-worn instruction librarians, informal evaluation methods are likely to be second nature. The formal techniques this handbook introduces may encourage these librarians to conduct evaluation based on scientific methodology. Librarians new to the field, however, would benefit from an examination of the full range of evaluation techniques. Informal evaluation may not lead directly to research and publication, but it does make an essential contribution to effective instruction.—Martin Courtois, University of Illinois at Chicago.


Each of these two 1983 offerings from Knowledge Industry Publications addresses a timely topic of interest to academic librarians as well as to information specialists in other branches of the profession. Lawrence Woods and Nolan Pope in The Librarian's Guide to Microcomputer Technology and Applications have compiled a comprehensive overview and resource guide to microcomputers and their use in library situations. Data Conversion by Ruth Carter and Scott Bruntjen attacks the multisided question of retrospective conversion.

The Librarian's Guide discusses the general fundamentals of microcomputers while focusing on library applications. The authors point to a felt need in the profession for such a discussion and state in the preface that most of the information in the text was taken from a survey of ASIS and LITA individual members and of ARL member libraries. The survey, conducted in 1982 and 1983, revealed that 67 percent of the respondents used microcomputers in their facilities.

The first chapter gives us the dime tour of computer history, which is all that is needed for the purposes of this volume. Technical buzzwords are nowhere to be found in this and succeeding chapters, and all legitimate technical terms are defined in a glossary. A basic understanding of the concept of computers and electronically stored data is expected of the reader. However, as Woods and Pope conclude in chapter 1, "As information specialists, librarians cannot afford the luxury of computer illiteracy if they are to maintain their place in the information marketplace."

Chapters 2 and 3 delve fairly deep into hardware and software descriptions covering processors, storage medium, input/output devices, networks, operating and database management systems, compilers, and programming languages. As fast as the micro industry is changing, these 1983 models, specifications, and prices provide a sound springboard from which to begin a survey of this year's offerings.

Chapter 4 outlines some designs of library-specific software, taking off on the general discussions of chapter 3. How to assess your library's needs and potential uses for micros is the topic of chapter 5. Given the multitude of options available
from even a single vendor, the individual requirements covered in this chapter are vital to selection of a proper system.

The real meat of things, actual department-specific applications, are discussed in chapters 6–9. Here we see that, from administration to public service, efficiency and access to information can potentially be improved by the use of micros. Online searching is dealt with at length in chapter 6. The authors use examples of actual library situations to demonstrate the broad scope of online searching on micros. Many commercial online systems are also discussed. Other aspects of public service that can be enhanced by micros are detailed in chapter 7. This includes circulation control, interlibrary loan, and educational instruction.

Unfortunately for chapter 8 and the coverage of technical services, OCLC’s M300 micro was not introduced in time to be included in any of the survey results. This system, though, has been well-documented in the past year throughout the professional literature. As in chapter 6, examples of local success stories help to highlight potential applications.

Chapter 9 on management applications serves as an added appendix, listing examples of local use with brief explanatory text. Management functions are as broad as the entire field of institutional administration. Future trends in hardware and software and their effect on library applications are covered in the final chapter.

If the results of the survey reported in this text are not enough, appendix A consists of twenty pages of libraries with micros for the reader to contact. Appendix B contains lists of hardware vendors and appendix C, software and system vendors. These listings could prove to be an invaluable resource for micro networking. A glossary follows the appendixes, and an extensive bibliography complements the chapter footnotes. With all the literature listed here, it is a wonder this text was not written sooner.

Data Conversion by Carter and Bruntjen

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is an introductory text on the purposes and procedures of retrospective conversion. The authors do not claim to have concentrated on all the details, but rather have compiled a "philosophical and theoretical" text on conversion. Many librarians may be thankful for having delayed their conversions to take advantage of this comprehensive guide.

The first chapter discusses the products and purposes of data conversion, touching briefly on most of the main points to be covered in later chapters. The "total systems approach" is recommended "to help prevent the 1990s from being filled with reconversion." It is in this chapter that the MARC record is introduced in its many varieties and uses.

Planning for the conversion and awareness of standard practices are emphasized in chapter 2. This planning is outlined to include the establishment of goals and objectives, description of the present situation, identification and analysis of alternatives, evaluation of available resources, and decisions on formats and standards. The evaluation of available resources for machine-readable records, staff, equipment, space, time, and money are examined. Chapter 3 discusses proper design of the entire conversion project from how the machine-readable bibliographic information will be identified to who will document the bar code specifications. This chapter addresses the most detailed aspects of conversion and includes discussions of some local systems and their interface with vendors. The authors conclude this chapter with the emphatic directive, "If you are not willing to adequately plan for a data conversion project, don't attempt one." Hear, hear.

After the many aspects covered in chapter 3, chapter 4 launches into "Special Considerations." These include conversion of serial records, reclassification, treatment of pre-AACR2 records (authority control), and item control. These considerations bring to light additional standards, for which planning must again be done prior to beginning a conversion. Chapter 5 compares some conversion methods in terms of time, cost, and performance. Since each library's situation is unique, no be-all and end-all method is given, only a method for comparing options.

Possible pitfalls are discussed in chapter 6. A project as large as a conversion is very open to error in planning and/or implementation. Libraries attempting conversions after the first brave few have fallen or succeeded have the advantage of learning from the mistakes of others. Things can go wrong in financial planning, organization, contracting, standardizing, and purpose.

A final summary is given before the comprehensive appendixes. Librarians who are conversion veterans are listed in appendix A. Appendix B lists consultants: here are people who have been through it or who are in the midst of it. Appendix C covers vendors of conversion services.

Both of these current volumes, enhanced by their extensive bibliographic entries and appendixes, are valuable additions for library planners. The texts are easy to read and understand, and conform to the high Knowledge Industry standards.—Jill Sanders, Blackwell North America, Inc.


The first edition of Library and Information Services for Handicapped Individuals by Kieth Wright (1979) was the first standard text aimed at assisting librarians in planning library services for people with various disabilities. This second edition, coauthored by Judith F. Davie, has the same objectives as the previous edition with udpated and ex-
panded information. Subjects discussed in this text include identification of major handicapped groups; outlines of problems facing handicapped individuals and of resources and programs provided by the library community for solving these problems; sources of information about handicapped individuals; reviews of legal decisions affecting the handicapped; and an enumeration of programs and services that librarians can modify to meet the special needs of the handicapped in different settings. Since this book is intended to assist in planning library programs for handicapped individuals, librarians will find two new chapters particularly useful. The new chapter 5, "Speech Handicapped Individuals," discusses services for speech-impaired individuals. Chapter 9, "Library Staff Development: Self-Assessment and Attitude Change," addresses the need for librarians to examine their attitudes and confront their prejudices in order to serve these specialized library users effectively.

The updated edition is concise and more oriented to librarians and professional staff providing services to specialized library users. The information, references, and sources in the second edition have been updated and expanded. The "Glossary and Acronyms" in the first edition has been eliminated, and the original list of sources of information on organizations, programs and resources has been completely annotated but condensed.

This book is theoretical and lacks practical information regarding the evaluation of users, facilities, services, staffing and funding. It therefore would be more beneficial when used in conjunction with a library handbook written by librarians with practical experience in the field, such as Serving Physically Disabled People by Ruth A. Vellemann (Bowker, 1979) and Improving Library Service to Physically Disabled Persons: A Self-Evaluation Checklist by William L. Needham and Gerald Jahoda (Libraries Unlimited, 1983).

Wright’s book is a valuable basic source book and should be of particular interest to librarians in all types of libraries providing services to people with various physical disabilities.

Revised Standards and Guidelines of Service contains information useful not only for network libraries, but also for those providing services for the blind and other physically disabled persons. The content is similar to the earlier 1979 edition, with standards that mandate or recommend space, staffing, and service practices for network libraries.

Areas discussed include a brief history of the development of standards for network and member library requirements regarding space, collection size, and duplication facilities. The revised standards place greater emphasis on the planning and evaluation of services and on the application of new technology. The appendixes provide relevant laws, policies on patron eligibility for service, selection policies for reading materials, and lending-agency

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This book is the fruit of the labor of an ad hoc committee of the Reference and Adult Services Division of the American Library Association. First published under the title Reference Books for Small and Medium-sized Libraries in 1973, this new, updated version now includes "sources" in non-print formats, such as microforms and databases, in addition to traditional reference books. The coeditor notes in the preface that there has been an 80 percent increase in the number of entries in this edition, compared to the most recent 1979 edition (from 1,048 to 1,788). Not only have nonprint sources been added, but the scope of the work has also been expanded to include reference materials for children and young adults as well as out-of-print reference books considered to be essential to a basic reference collection. Public libraries, college libraries, and large secondary school libraries are expected to find this a useful source for collection development purposes. The cutoff date for publications included in this book was 1982, but some 1983 imprints are included. For each title, the standard bibliographic elements are there: author, title, publisher, date of publication, number of pages, price, ISBN, or ISSN. If the particular source is available online, that fact is also noted. Finally there is an author/title index.

The twenty-two chapters are organized by Dewey Decimal Classification subject divisions, with both format and subject subdivisions. Each chapter has been compiled separately by one of the six editors, and each chapter begins with a brief introduction describing the nature and scope of the listings. One of the appealing aspects of this work is that both the annotations and introductions go beyond description into the realm of helpful evaluation and judgment. For example, the annotation of The New Encyclopedia Britannica states that "Articles are accurate and objective with the exception of those written by Eastern bloc contributors, who offer slanted versions of culture, social conditions and intellectual accomplishment in Eastern Europe and the U.S.S.R." Whether or not one agrees with this characterization of the Britannica, it is refreshing to read an annotation that has a critical bite to it. Or again, the chapter on education sources begins with this useful advice: "Librarians should be wary of investing large amounts in sources that will become quickly dated, and care should be taken to update sources regularly, especially directories and catalogs. Since many sources have some overlap in coverage, perhaps a policy of selective purchase with a priority on updating the purchased titles would be the wisest course."

The editors of this work have substantially updated this edition with both new sources and new topics of current interest. For example, chapter 12 includes a completely revised list of sources relating to computer science. At the same time, the limited utility of this book for academic libraries must be kept in mind. Of the twenty-seven bibliographies listed under the heading "Collection Development Sources," the vast majority relates to use by either public or school libraries to develop collections for children and young adult readers. Thus, for college libraries, this book may best be seen as a useful supplement to Sheehy's Guide to Reference Books.—Bart Harloe, University of the Pacific.
ABSTRACTS

The following abstracts are based on those prepared by the ERIC Clearinghouse of Information Resources, School of Education, Syracuse University.

Documents with an ED number here may be ordered in either microfiche (MF) or paper copy (PC) from the ERIC Document Reproduction Service, P.O. Box 190, Arlington, VA 22210. Orders should include ED number, specify format desired, and include payment for document and postage.

Further information on ordering documents and on current postage charges may be obtained from a recent issue of Resources in Education.


Responses to a one-page questionnaire on library security were received from 89 of 117 Association of Research Libraries (ARL) institutions (76 percent). The questions, which covered administrative security control, security policies and procedures, permanent identification of library materials, and swift responses to possible theft were derived from a longer questionnaire prepared by the Security Committee of the Rare Books and Manuscripts Section of the Association of College and Research Libraries (ACRL). It was found that 31 percent of the responding libraries had a security officer, 87 percent and 33 percent were marking their general and special collections respectively, 15 percent had a collection security policy, and most of the policies prescribed what to do about thefts after the fact. This publication contains (1) the two questionnaire forms; (2) security policy and procedure documents from Brown University, New York State Library, Colorado State University, Columbia University, Cornell University, Florida State University, University of Michigan, University of Toronto, McMaster University, and University of California, Riverside; and (3) task force reports on library security from Brigham Young University and University of Illinois at Urbana-Champaign. A six-item bibliography, a concise summary of survey results, and an evaluation sheet for this ARL Systems and Procedures Exchange Center (SPEC) kit are also provided.


This paper describes the provision of end-user search services in the libraries of the University of Ottawa using BRS/After Dark. It is noted that the service—Online After Six—is available during the evening hours to university faculty, students, and staff and to the general public. Program planning stages, service regulations, fees charged, and publicity methods are described. Based on initial usage of the system by education students, it is reported that difficulties encountered by clients and library staff included problems in using Boolean logic and the online print commands, low awareness of the range of databases relevant to any particular question, and the need for more extensive user assistance than was originally anticipated. Positive outcomes of the program are also outlined, e.g., 40 percent of the end users had fully satisfactory search results, even as first-time users. The necessary prerequisites for an after-hours end-user search service in an academic library are concluded to be a positive perception of the possibilities such a service may offer clients; groundwork to convince the library administration that the project is feasible; careful planning, coordination, and training of staff prior to service start-up; provision of quality documentation to end users; and arresting publicity. A seven-item bibliography is provided.


This report presents data compiled from the 117 libraries that were members of the Association of Research Libraries (ARL) during the 1982-83 academic year, as well as an examination of data for trends in expenditures for the previous fifteen years from the seventy-five ac-
academic libraries that were members throughout those years. Information includes data from four libraries that joined ARL in 1982–83: Delaware, Georgia Institute of Technology, and North Carolina State, and the nonuniversity Canada Institute for Scientific and Technical Information. A guide to library code numbers provides a complete list of ARL members. Research library resources, staffing, expenditures, and interlibrary loan activity are covered in the report’s data tables. Further report sections include an analysis of selected variables; Ph.D. and enrollment statistics; the ARL Library Index, a summary of rank order tables for ARL university libraries; and the rank order tables for volumes in library, volumes added (gross), microform holdings, current serials, professional staff, nonprofessional staff, total staff, materials expenditures, materials and binding expenditures, salaries and wages expenditures, total operating expenditures, total items loaned, total items borrowed, and current serials expenditures. A copy of the ARL Statistics Questionnaire is included.

Competency Requirements for Library and Information Science Professionals. By Jose-Marie Griffiths. Paper presented at the Anniversary Conference of the Special Libraries Association (76th, University Park, Penn., October 20–21, 1983). 13p. ED 241 037. MF—$0.83; PC—$1.82.

Ways in which the education and training of information professionals can adapt to the rapidly changing information environment are addressed in this paper, which describes a project undertaken by King Research (“New Directions in Library and Information Science Education”) to identify current and future competency requirements of libraries and other information professionals. It is hypothesized that a lack of communication between the employers of information professionals and the institutions that educate and train them is one reason that educational institutions are not meeting needs and demands of the changing environment and new technologies. Following a list of preliminary questions that need to be addressed in determining information professionals’ training needs, the project approach and framework are described. Each aspect of this framework is then detailed, including trends that affect library and information science organizations, work settings, and the functions and activities performed. Also considered are the types of users served, the tools and techniques used or applied, and the types of materials handled. Finally, each step in the overall process of planning, design, implementation, and evaluation is examined.

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