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"Buying Good Pennyworths?" A Review of the Literature of Acquisitions in the Eighties

Karen A. Schmidt

This literature review covers research in acquisitions from 1981 through 1985. Acquisitions is defined here as the ordering, claiming, and receipt of library material, as distinguished from collection development and selection. Major issues in acquisitions are viewed through critiques of some of the important publications of the last five years. The author points out the relative lack of research on the topic and the need for more education about and attention to the many facets of acquisitions.

ACQUISITIONS IS A STEPCCHILD OF LIBRARIANSHIP. Although the processes of acquisitions are of vital importance to librarianship, they are underestimated at times by librarians. Other aspects of librarianship, such as collection development and cataloging and classification, possess a greater degree of glamour and are also more firmly rooted in research leading to conceptual agreement. Perhaps it is because of the latter that acquisitions is not taught in any detail in most library schools. In-depth courses on acquisitions should be a mandatory part of library education, however, and librarians should make it their business to know how materials are acquired.

The literature of librarianship has, in the past, reflected the low level of interest in acquisitions. The topic has been scattered throughout the literature and, in most cases, has been treated without a sense of underlying theory or consistent practice. There are signs now that the nature of the literature of acquisitions is improving. This can be seen in the journals that now cover the field, of which *Library Acquisitions: Practice and Theory*¹ and *Serials Librarian*² are the best known.

For the purpose of this article, *acquisitions* comprises the ordering, claiming, and receipt of library material and all the techniques involved in these procedures. It does not comprise selection of materials or the management or arrangement of those materials. Acquisitions, to put it

This paper has been selected as one of the best of the evaluative literature reviews submitted in response to our recent call for papers. The author, Karen A. Schmidt, is Acquisitions Librarian at the University of Illinois at Urbana-Champaign. Benjamin Franklin's *Poor Richard's Almanack* (Sept. 1747) provided the inspiration for the title.

simply, consists of the processes that lie between selection and bibliographic control—the obtaining of library materials. There is an important reason why the literature of acquisitions is so sparse: acquisitions is a facet of librarianship still learned largely by apprenticeship, and a review of literature in the past five years shows that much of the interest lies in sharing techniques and practices in specific institutions, but little in creating a cohesive sense of the place of acquisitions within the profession.

In fact, acquisitions does have substance, and this literature review seeks to identify some of the substantial articles as well as to mention a few pieces of the more descriptive kind. In doing so, it is hoped that acquisitions as a subunit of librarianship will be better understood and defined.

In a series of three articles published in 1984, John Reidelbach and Gary Shirk tackled the issue of approval plan vendors in “Selecting an Approval Plan Vendor.”³ Intended for librarians who are thinking of switching approval plan vendors or for those who simply need to understand and remain current with vendor services, the series of articles serves to reduce the time, cost, and risk of choosing approval plans in academic libraries. Reidelbach and Shirk compared eight major domestic vendors of approval plans, looking at such factors as company background and history, customer service, the maintenance of approval plan profiles, and production of statistical reports. The history of the concept of approval plans is reviewed and analyzed, and a highly detailed comparison of vendors and their services is offered.

These three articles are important to the literature of librarianship for several reasons. First is the example set by the research, which is meticulous, thorough, and fully documented. There are no statistical components which are incomprehensible to the average reader, nor are there any which are useless. Of equal importance is the acknowledgment of the importance of a rational vendor study, which takes research on approval plans past mechanical questions and generalized concerns. The many years of work of groups such as the ALA RTSD Collection Management and Development Committee’s Subcommittee on Vendor Performance Guidelines for In-print Monographs seems very worthwhile when the result is of this sort. The study also goes further than any other in defining the parameters of approval plans. If a library knows it wants an approval plan, but know little else about it, the Reidelbach-Shirk study will point the way. If a library has an approval plan and wishes to compare its services with those potentially available from other vendors, this study is the place to go. Until this work, the best comprehensive work was the Association of Research Libraries’ SPEC Kit *Approval Plans in ARL Libraries*,⁴ which produced internal approval plan procedural documents and profiles. While not without its uses, the SPEC Kit could serve very few of the purposes of the Reidelbach-Shirk study. Finally, the more than 140 pages which record the Reidelbach-Shirk research establish, once and for all, the importance of approval plans to collection development, fund management, and organizational concerns.

A very interesting professional controversy was aired in an article and later in letters about the place of serials acquisitions in the library organization. The debate began after *Serials Librarian* published the article “Form or Function: An Analysis of the Serials Department in the Modern Academic Library,” by William Potter.⁵ In this article, Potter described the history of the development of serials departments as separate entities within technical processing departments. In tracing their establishment and development as discrete units, he noted that a specialized concern over the increase in serial publications led to the creation of serials units and to a serial mystique. The heart of the article asked whether organizations should be constructed around forms of material or the functions of technical processes. His thesis was that, in the case of serials at least, function is to be preferred to form as a basic criterion for organization.

Such a posture on the organization of serials work was anathema to Huibert Paul, who, in earlier articles such as the two-part “Automation of Serials Check-In: Like Growing Bananas in Greenland?”⁶, noted that “the complexity of serials has been sorely underestimated by high-level administrators.” Paul blasted Potter for not understanding the difficulty of serials, stating that librarians in general know little about serials. “Large academic libraries *can* do without separate serials departments,” Paul noted, “but then . . . the USSR *can* do without private ownership of farms.”⁸

The Potter article and the responses to it,⁹ form an excellent example of the depths of disagreements librarians can reach over organizational questions. The argument about the “serials mystique” is a continuing one, not unlike arguments between the proponents of bibliographic instruction and more conservative reference librarians who believe that “an ounce of help is worth a pound of instruction.” It is not usual to see the argument take place in print, among knowledgeable and equally literate professionals. This barrage also raised questions about organizational responses to procedures, although few answers were given. The place of serials within an organization has been discussed and disputed and has fluctuated enormously throughout the past fifty years. This dialogue, though unusually intense, emphasizes the way the literature of librarianship can promote ideas within the profession and identify areas of interest and concern. Within the study of acquisitions there have been few, if any, similar discussions about any other aspect of acquisitions work. Such other issues do exist, e.g., the many questions about the type and level of professional work in acquisitions. Published analyses and published responses, as shown in the Potter/Paul disagreement, are important in the development of professional interests and thoughts, especially in areas of emerging interest, such as acquisitions.

Two books of substantial size appeared during 1981 and 1985, both of which were second editions of works appearing in the previous decade. One deals with acquisitions in name only and the other treats material which goes beyond the normal definition of *acquisitions*. Elizabeth Futas edited the collection *Library Acquisition Policies and Procedures*, published by Oryx Press in 1984.¹⁰ The book contains many good things, but con-

tains neither acquisition procedures nor policies. Rather, it is a compendium of collection development and selection policies. There must have been not a few acquisitions librarians who were excited at the thought of acquisitions policies and procedures put into a standardized format for general review. One must warn the acquisitions librarian to look beyond the book's title. The desideratum to the publisher is to create a book which really deals with acquisitions and which uses the comparative and analytical approaches of the Futas book.

Rose Mary Magrill and Doralyn Hickey updated the only existing monograph which deals with library acquisitions in any depth—Stephen Ford's *The Acquisition of Library Materials*.¹¹ The second edition, entitled *Acquisitions Management and Collection Development in Libraries*, does a reasonable job of updating the Ford book, but does not extend the scope of that work.¹² Much of the text concerning acquisitions is identical in both editions, and the collection development chapters at the beginning of the book are the only significantly new part of the second edition. Acquisitions is more than the sum of the procedures and forms found in the Magrill-Hickey work, although, to date, no one has been able to produce a text which has an underlying theoretical basis. Perhaps no such basis exists, but it would be remiss for the profession not to try to identify it.

The "Proposed Standard Purchase Order, Variable Format for the Computerized Ordering of Books," published in 1984, marks the development, albeit late, of computerized standards for the acquisitions process.¹³ The standards are the result of the work of Subcommittee U of the National Information Standards Organization (NISO). The format was developed from the Z39 and Z39.2 MARC record structure to provide vendors with a standard with which to support the acquisitions process.¹⁴ The format works in conjunction with the Book Industry Systems Advisory Committee (BISAC) fixed format and allows vendors to transmit and accept order record information in a uniform way.¹⁵ The creation of this format is not a luxury but a necessity, and one which has been a long time coming. It not only enables vendors to work in a standardized format with bibliographic and publishing information but also permits libraries to enter into the use of new technology in the ordering process.

The article itself is quite simply an iteration of the working minutes of the subcommittee's work. There is little beyond the specification of the format. Still, its appearance is important to the future efficiency of acquisitions work. It has been an oddity to many that, in large part, acquisitions has been the last substantial part of the library to automate. Certainly the processes involved in acquisitions lend themselves nicely to automation. There are several models from the business community which could address the needs of acquisitions well. Perhaps the reason acquisitions has not developed standard computer formats and appropriate technology until now is that acquisitions is the unit of a library which bridges the gap (in many cases, the gulf) between the for-profit and not-for-profit worlds. As such, computerized methods of handling acquisitions information had to answer the needs of business as well as the library. NISO's Subcommittee U has provided an important document which allows for that interface, and it is to the benefit of the library

community that it has been developed. These types of reports and computerized formats frequently are overlooked until the necessity to use them is imposed upon a library. It is encouraging to see the working papers of a committee reported in the professional literature before a standard is enacted.

The Library and Information Technology Association hosted a meeting in Milwaukee, Wisconsin, on serials automation in 1980. The proceedings of this institute, which appeared in 1981, serve as a wonderful example of how the flavor of a meeting can be captured on paper. *Serials Automation for Acquisition and Inventory Control* collects the papers of an institute planned to cover the many events which occurred since the introduction of the OCLC check-in system, the development by vendors and utilities of check-in systems, and the installation within major libraries of in-house automated methods for serials inventory control.¹⁶ The papers themselves are of great interest. Dan Tonkery, who was then director of technical services at the University of California-Los Angeles and later a senior official of the Faxon Company, presented the keynote address, a synopsis of all the important events in library and automation history which have affected the development of adequate automated serial check-in systems.¹⁷ Other papers include discussions on the vendor's role in serial automation and descriptions of specific institutional experiences in inventory automation. The most interesting and perhaps the most difficult section to produce is the transcription of the various panel discussions and question-answer sessions at the institute. It is in these sections where new ideas are found and where reactions are spontaneous and insightful. Many of the papers are followed by the transcription of these questions and answers, which serve the reader not only by sharing the information of these discussion periods but also by capturing the spirit of the participants.

Of the many institutes available for professional development, this LITA institute was an example of the best. The topic was timely and gave a sense of historical perspective. The mixture of participants was most interesting in that the participation of vendors was equal to that of librarians. When it comes to acquisitions, this should always be the case. The proceedings permitted those who did not attend to use the many good ideas which were presented in their home institutions. Certainly the institute in some form should be repeated again. Much has happened in serial automation in these seven intervening years. Serials automation supports a major portion of acquisitions work and deserves continued thoughtful review and analysis.

In a like vein, the Business of Acquisitions Preconference, reported in *Library Acquisitions: Practice and Theory*, represents one of the major contributions to the continuing education of acquisitions librarians.¹⁸ While this report is not long or particularly detailed, it gives a good overview of the preconference. Sponsored by the RTSD Resources Section's newly formed Acquisitions Committee, the conference was a successful presentation of the many facets of acquisitions work by librarians, vendors, and publishers. One regrets that the preconference reports were published in *Library Acquisitions: Practice & Theory* only and not in a fuller form

by RTSD, either as conference proceedings or as complete reports in *RTSD Newsletter* or the RTSD journal. The conference contained the sort of material that would benefit most librarians, regardless of their work assignments. It would be helpful to many librarians to know about such matters as why proceedings print runs are small, why some books are poorly edited, and how pricing is achieved.* More of the same in-conference topics and conference reporting would be of great benefit to professionals in acquisitions work.

The best information about acquisitions often comes from vendors, who frequently are asked to discuss the selling side of acquisitions and to review the field of publishing. There are many acquisitions librarians in the United States whose hard-core training in acquisitions work has come from the careful, albeit sporadic and unorganized, teachings of one or more vendors. Vendors have had to learn to bridge the gap between the for-profit and not-for-profit worlds, as have acquisitions librarians. In many instances, vendors seem better equipped to comprehend the vagaries of both worlds and are prepared, if their interest is in good business relationships, to spend their time in informal instruction. It is always valuable to have a good vendor's thoughts in writing, as happened in "Truth in Vending," a presentation of the annual College of Charleston conference entitled *Issues in Book and Serial Acquisitions*.¹⁹ There are few places in the literature where an acquisitions librarian can find information on how to assess a vendor's performance from a business perspective or where a description of the problems with set discount rates for material purchase is fully discussed. The report of this conference lists all this information and more, and it is most welcome, if for nothing else than the quality of its information. It is fortunate that so many vendors realize that an educated acquisitions librarian will ultimately be the best customer. Discount percentage point haggling and unrealistic expectations about vendors do not a successful acquisitions librarian make. Rather, the entire purchase process works well when the librarian as well as the vendor is knowledgeable about the publishing industry and the business aspects of the library. "Truth in Vending" is a good example of the kind of article that should be more readily available throughout library literature, filled as it is with information for every type of library and librarian.

The issue of education (and the lack of it) for acquisitions leads to another article which is pertinent to this review, "Education for Acquisitions in Australian Library Schools," by R. J. L. Cotsell.²⁰ The article is interesting from two perspectives. First, leaving the differences between our two countries aside, it examines education for librarianship in a very pragmatic way. As Cotsell points out, there need to be different levels of learning for librarians and for support staff in acquisitions. Beyond the demarcation of levels of learning is the actual content: support staff do not need to know about the management of funds to the extent that is

*The paper presented by Gary Facente at this conference, which covers many of these topics, was published in *LRTS* in the January/March 1986 issue, a date outside the scope of Karen Schmidt's evaluative review. See "An Overview of American Publishing for Librarians," 30:57-67 (Jan./Mar. 1986).

necessary for a librarian, but they do need to know about the practicalities of invoices and accounting. It may seem an absurdly revolutionary idea to train support staff in acquisitions work when there are scarcely programs in acquisitions in the professional schools. Still, this is done for cataloging and reference assistants at the bachelor's level, and the merit of and need for such a program in the United States is obvious. Second, the article is interesting because of its international perspective. It never harms us to be reminded that library schools in other parts of the world can teach library schools in the United States a few things about training. Despite these positive features, in looking at education for acquisition in a specific country so far away from our own, we discover from the Cotsell article that all is not entirely rosy Down Under. Lessons on acquiring material are given generally as subsidiary parts of courses on selection or collection development. Nevertheless, the content appears to be there and to a greater extent than is evident in most library schools in the United States. Cotsell does a good job of reviewing the specific issues of acquisitions education. One is led to hope that the approach described in this article might be tried in library schools in this country.

A literature review in acquisitions is less a timely assessment of how far the profession has come in addressing certain issues than it is a litany of what is known and what is missing. There sometimes seem to be so few lodestars in acquisitions. This is in stark contrast to cataloging, with its well-established rules and computer formats, and to reference work, with its well-developed guides to the literature of almost all fields. The past five years have been more promising, in that research in the field of acquisitions is beginning to accumulate and become more meaningful. There appears at last to be an emerging agreement upon the definition of acquisitions and upon the types of things that need to be taught and digested. These are hopeful signs, which, if realized, will make the next five years productive.

REFERENCES

1. *Library Acquisitions: Practice & Theory*. Quarterly. (New York: Pergamon, Jan. 1977-).
2. *The Serials Librarian*. Quarterly. (New York: Haworth, Fall 1976-).
3. John H. Reidelbach and Gary M. Shirk, "Selecting an Approval Plan Vendor: A Step-by-Step Process," *Library Acquisitions: Practice & Theory* 7:115-25 (1983); Part 2, 8:157-202 (1984); Part 3, 9:177-260 (1985).
4. Association of Research Libraries, Systems and Procedures Exchange Center, *Approval Plans in ARL Libraries*, (Kit 87. Washington, D.C.: The Center, 1982).
5. William Gray Potter, "Form or Function: An Analysis of the Serials Department in the Modern Academic Library," *Serials Librarian* 6:85-94 (Fall 1981).
6. Huibert Paul, "Automation of Serials Check-In: Like Growing Bananas in Greenland? Part 1" *Serials Librarian* 6:3-16 (Winter 1981/Spring 1982); and Part 2, 6:39-62 (Summer 1982).
7. *Ibid.*, p.40.
8. Huibert Paul, "Letters to the Editor," *Serials Librarian* 7:4 (Summer 1983).
9. For other responses see Margaret McKinley and Nancy Jean Melin, "Letters to the Editor," *Serials Librarian* 7:4-6 (Summer 1983); and Michael Gorman, "Letters to the Editor," *Serials Librarian* 8:1 (Spring 1984).
10. Elizabeth Futas, ed., *Library Acquisition Policies and Procedures*, 2d ed. (Phoenix, Ariz.: Oryx Pr., 1984).

11. Stephen Ford, *The Acquisition of Library Materials* (Chicago: American Library Assn., 1973).
12. Rose Mary Magrill and Doralyn J. Hickey, *Acquisitions Management and Collection Development in Libraries* (Chicago: American Library Assn., 1984).
13. National Information Standards Organization, Subcommittee U, "Proposed Standard Purchase Order, Variable Format for the Computerized Ordering of Books," *Information Technology and Libraries* 3:184-207 (June 1984).
14. Task Force of American National Standards Committee. *American National Standards Committee Z39* (Washington, D.C.: National Commission on Library and Information Science; dist. by U.S. Govt. Print. Off., 1978); and *American National Standards Committee Z39.2* (Washington, D.C., 1978).
15. Book Industry System Advisory Committee. *BISAC Highlights* (New York: BISAC, 1981-).
16. William Gray Potter and Arlene Farber Sirkin, eds., *Serials Automation for Acquisition and Inventory Control* (Chicago: American Library Assn., 1981).
17. Dan Tonkery, "Evolution of Automated Serials Control: Technical, Philosophical, and Political Issues," in *Serials Automation*, p.1-19 (see ref. 16).
18. Marion T. Reid and Scott R. Bullard, "Report on the Business of Acquisitions Pre-conference," *Library Acquisitions: Practice & Theory* 9:283-95 (1985).
19. Michael Markwith and others, "Panel Presentation: Truth in Vending," *Library Acquisitions: Practice & Theory* 9:65-78 (1985).
20. R. J. L. Cotsell, "Education for Acquisitions in Australian Library Schools," *Library Acquisitions: Practice & Theory* 9:331-50 (1985).

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Selection for Preservation: A Materialistic Approach

Ross W. Atkinson

Ein wirklich historisches Denken muss die eigene
Geschichtlichkeit mitdenken.
—Hans-Georg Gadamer¹

Because decisions to preserve library materials affect the quality and composition of library collections, such decisions clearly must be made in consultation with collection development staff. To date, however, very little effort has been made to describe the processes and criteria of preservation selection from the perspective of collection development. This is partially because preservation has in most libraries only recently acquired the status of a fully legitimate library operation deserving coordination with other library functions, but also because some of the values that underlie selection for preservation are alien to those that inform current collection development, as I will try to show in this paper.

The fundamental preservation problem facing collection development is, as Gordon Williams put it ten years ago, that, while "everyone . . . will agree that not everything needs to be preserved forever," there is "far less agreement . . . on exactly which books [and other materials] need not be preserved."² Dan Hazen, therefore, whose 1982 article remains far and away the best treatment of preservation selection, sees it as the primary responsibility of collection development in the preservation process to make item-by-item preservation selection decisions on the basis of criteria similar (but not identical) to the criteria used for the selection of current materials.³

The extent to which the function posited by Hazen is valid will be considered in the course of this paper. One must, in any event, agree with Hazen that the most productive approach to the topic of the interface between collection development and preservation is from the standpoint of selection decision making. Therefore, I will first define the location of collection development in the preservation decision process. While many detailed descriptions of preservation programs are now available, it will be useful for any future study of these programs, or for the creation of a program where none has previously existed, to attempt to reduce the

Ross W. Atkinson, Assistant University Librarian for Collection Development, University of Iowa, presented this paper on March 6, 1986, at the RTSD/RLMS institute, "Preservation Microfilming: Administrative Issues," at the Library of Congress.

activity of decision making for preservation to a minimal model, which might then be adapted to different organizational situations. Second, once the location of collection development in the decision-making process has been determined, I can then turn around, so to speak, and examine the activity of preservation from this perspective. In order to clarify from the standpoint of collection development the basic functions of preservation and their relationship to each other and to determine where the particular mode of microfilming fits into the whole scheme, I will make some suggestions for a rudimentary typology of preservation. Finally, using the characteristics of preservation that emerge from this typology, I can begin to speculate on the obstructions to large-scale cooperative preservation efforts and offer some suggestions for the qualities that a cooperative plan must contain to overcome such impediments.

Throughout this paper, the term *microfilming* will be used to refer to the best method of inexpensive and efficient reformatting generally available. If another method of reformatting becomes broadly available that is more inexpensive or efficient or will result in a more durable or accessible product, that new method should certainly be adopted, and what I have to say in this paper with respect to microfilming will be valid for such a new method as well.

THE DECISION CYCLE

It is a basic purpose of all human communication to make a text available in some material form long enough for that text to have some meaning assigned to it by someone other than the author. If that meaning is judged for whatever reason to be of some special significance, the length of time the text is available can be extended to afford the opportunity for further evaluation. The decision to reproduce a spoken text in written form, the decision to publish a written text, the decision to include a publication in a library collection—all of these extend the text's availability. By the time a document reaches a point at which a library must decide to preserve it through microfilming or any other means, the text of that document has been subject to a series of decisions, beginning with the expression of the text in phonic or graphic form, all of which have resulted in the material extension of the text's accessibility. The extreme discomfort of preservation selection derives in no small part from the realization that a negative decision (i.e., a decision not to preserve) represents a reversal—and in many cases a permanent reversal—of a series of positive "preservation" decisions made throughout the history of the text. Not to preserve is therefore always to silence a voice, which, in the opinion of a number of people in the past (authors, editors, publishers, librarians), has had something to say significant enough to warrant extended consideration.

The decisions made at any stage in the history of a text to extend its availability are clearly of two general types: (a) should the text be made further available, and, if so, (b) by what material means? These decisions are, needless to say, distinguishable but not separable. The minimal decision cycle in the library's preservation operation continues to conform to this pattern, as depicted in figure 1.

	pre-i.d.	identification	mode
technical	a	1 what needs preservation?	3 which modes are possible?
critical	b	2 what should be preserved?	4 which mode should be used?

Figure 1
The Decision Cycle

The two fundamental decisions that must be made in all cases of preservation—identification for preservation and determination of the mode of preservation—are, moreover, invariably two-dimensional, involving both technical and critical considerations. In each instance, the critical decisions can be made only subsequent to and on the basis of the technical decisions; it is, in fact, the essential purpose of the technical decisions in this process to define the options available for the critical decisions.

The first decision that must be made in this cycle of decision making is this: Which items in the collection are physically in need of preservation? Which will not last the decade? or the year? or another circulation? Which will fall apart in marking before they can even be put on the shelf? This is a technical decision based on a knowledge and experience of such matters as printing, binding, and paper chemistry. Only after that set of materials in need of preservation has been identified on the basis of technical criteria (step 1) can the subset of materials that should in fact be preserved be isolated (step 2).

It should be noted that, especially in larger collections, the first technical decision may need to be preceded by a preidentification phase, which would consist of a critical decision (step b) as to which segments of the collection should be surveyed in order to identify items in need of preservation. This preidentification critical decision may, moreover, also be preceded by a preidentification technical decision (step a) concerning, for example, which segments of the collection are most likely to contain the highest proportion of disintegrating materials.

Once decisions concerning identification have been made, the proper mode of preservation must be considered. The technical questions to be answered at this point (step 3) are these. Of the modes of preservation available, which are possible for the materials identified and what are the projected costs for each mode? The standard options have been outlined in a number of publications, perhaps most clearly in Gay Walker's chapter of Carolyn Morrow's *Preservation Challenge*.⁴ With respect to microfilm, there are also a number of other formal considerations, which have been delineated by Pamela Darling, concerning the suitability of microfilm for certain types of materials.⁵ Once the technical experts have determined the options, it is the responsibility of the critical decision

makers to determine from among the modes available the one that will as nearly as possible balance cost with projected use.

It should also be noted that technical decisions in the cycle not only provide the options for the following critical decisions but also can affect earlier critical decisions. If, for example, the technical determination is made in step 3 that the only practical method of preservation is restoration, then the decision made in step 2 to preserve that item may be cancelled if the value of the item does not justify the cost of such treatment.

This very simplified decision cycle for preservation applies, I would expect, in virtually all cases for printed materials. In smaller libraries the critical and technical decisions may be made by the same person, while in larger libraries preservation experts will be entrusted with the technical decisions, and different collection development staff will usually be assigned responsibility for many of the critical decisions.

It is also possible, and in some cases highly desirable, for the critical decisions to be macrodecisions.⁶ It may be that in a given project aimed at a discrete collection segment, a single decision can be made in step 2 that all items identified to be in need of preservation within that segment should in fact be preserved. Or in step 4, the single decision could be made, for example, that all materials determined in the previous (technical) step to be conducive to microfilming should indeed be microfilmed.

TOWARD A TYPOLOGY OF PRESERVATION

The fundamental question, from the standpoint of collection development, remains why certain items should survive while others should not, i.e., how to respond to the need for a system of "planned deterioration" for printed materials.⁷ Until we can answer that question in a consistent and generally acceptable fashion, we have very little chance of establishing standards for preservation selection in individual libraries, let alone of handing over to the twenty-first century a true research collection, i.e., one that consists, to use Mosher's word, of a "community" of documentation⁸ rather than a random assortment.

Let me suggest, therefore, a rudimentary typology of preservation based upon three different and, to my mind, equally legitimate answers to the question of why certain categories of library materials deserve preservation (see figure 2). This typology can be summarized as follows.

CLASS 1 PRESERVATION

We must begin by admitting that certain library materials need to be preserved in order to protect their capital value. Special or unique items, e.g., rare books (and manuscripts), must be preserved if the library is not to forfeit a considerable investment tied up in a relatively small number of documents. The purpose of what I will call class 1 preservation, therefore, is to preserve materials or groups of materials that have a high economic value. Emphasis on the economic value is not to deny, of course, that such materials have research value. Certainly they do, but the decision to preserve these materials must be made on the basis of their economic rather than their research value; for there are, after all,

	Class 1	Class 2	Class 3
object	high capital value	high use value	low use/future research
primary mode	restoration	replace/repair	microform
decision locus	local	local	regional/national
decision type	macro	micro	macro

Figure 2
Typology of Preservation

many other materials with potential research value moldering throughout the library, and to define special collections as having greater research value, and therefore as being more worthy of preservation, than main stacks collections would be highly problematic—especially, as I will explain shortly, at this particular time in the history of valuation.

Because the artifactual worth forms much of the basis of the capital value of many of the objects of class 1 preservation, its primary mode is clearly restoration. I am assuming that the microfilming of special collection materials is probably exceptional and would usually be done only to produce working copies of the originals or to save materials so totally decrepit that their content is jeopardized.

Class 1 preservation cannot, however, be limited to the type of documentation found in special collections. There is another type of material that does fit (albeit with some squeezing) into class 1 and which is often conducive to microfilming—especially if mass deacidification⁹ is not an option. Level-five collections (as defined by the *Conspectus*)⁹ can also be of significant capital value, if for no other reason than for the amount of labor that has been invested in their development. In such collections the special value or uniqueness often lies in the combination or comprehensiveness of the materials rather than in any single item by itself. The capital (and research) value of such a collection, in other words, exceeds the combined value of its individual parts. Individual pieces of such collections must be preserved, therefore, if the capital value of the whole is to be protected.

Critical decision making in class 1 preservation is usually of the macro variety and, at least in the case of special collections, should require very little input from collection development staff. All materials of significant capital value in special collections must be preserved, and the order of their preservation will normally be determined by the technical estimate of the degree of deterioration in combination with the amount of the capital value. In the case of level-five collections, however, collection development will have an important role in what we defined above as the pre-identification stage of critical decision making. Once the parameters of the level-five collection have been defined by a bibliographer, however, the macrodecision will usually be made to preserve all of the items within the collection segment in need of preservation. It should also be the re-

sponsibility of the bibliographer to identify for preservation any stray materials, such as any classified outside of the relevant collection segment, which the bibliographer would define as being part of or intimately related to the collection.

Finally, class 1 preservation is always a local decision-making operation; it is mandated by local constituencies and is intended to serve (for the most part) local needs. Since the materials are to a great extent unique (either individually or in combination with each other), and since the primary criterion for class 1 preservation is economic rather than bibliographical, cooperation among institutions is not usually an option.

CLASS 2 PRESERVATION

At the opposite end of the bibliographic spectrum from the materials targeted in class 1 preservation are those to be identified for class 2 preservation. Class 2 preservation consists of higher use items that are currently in demonstrable demand for curriculum and research purposes. A major source of information about such material is circulation, and the need for preservation of such materials often derives from overuse. It is in class 2 decisions that the classical studies of use patterns, such as those by Trueswell or Fussler and Simon, are most applicable.¹⁰ Christinger Tomer has devised a statistical method for identifying candidates for this kind of preservation, based on date of publication (as an indicator of physical condition) and date of last circulation (as a measure of frequency of use).¹¹ From a less quantitative perspective, the criteria developed by Hazen, which include the note that "some priority should be attached to the materials people actually use," would appear to be aimed, in my opinion, largely at this type of preservation.¹²

The objective of class 2 preservation, then, is to preserve materials currently being used, or very likely to be used as projected on the basis of what is currently being used. It is in class 2 preservation, moreover, that bibliographers have the most important role to play in the preservation process, for the knowledge amassed by bibliographers as to the current needs and activities of users and the current trends in the subject are precisely the criteria that must be applied to class 2 preservation selection decisions. Class 2 preservation is, in fact, really only an extension of or supplement to the core building and maintenance done by most selectors in most libraries. It is, in a manner of speaking, simply current selection by other means. Because it also clearly involves item-by-item selection (microdecisions), it would seem to correspond to Hazen's view of preservation selection.

Because of the high use of Class 2 materials, the primary mode of preservation tends to be replacement. If copies or reprints are not available, then bound photocopies within the limits permitted by copyright are probably the most preferable mode. Microfilm can, of course, be used for class 2 preservation, and I expect it is used occasionally for some core serials. For the most part, however, use of microfilm for class 2 preservation occurs, in my opinion, only when the appropriateness of the item for class 2 is in some doubt—when, in other words, the utility of the item has been projected more on the basis of probability than observation. The

parameters of a core (or even of a canon) are always fuzzy, so that there is a tendency for class 2, which aims at high-use items, to blend into what we will shortly define as class 3, the class directed at low-use items and which does indeed take microfilm as its primary mode of preservation.

Like class 1, true class 2 preservation is activated exclusively by local values. Decisions to preserve are based directly on the demonstrated needs of current local clientele. Unlike class 1 items, however, most class 2 materials are being preserved simultaneously at many different institutions. Such duplication of preservation is, moreover, thoroughly justified by high use. Cooperation is once again, therefore, usually not an option, because such material must be available in-house.

CLASS 3 PRESERVATION

The most problematic category of preservation is the third class, which has as its function to maintain for posterity lower-use research materials. Because it consists of less frequently used materials, class 3 preservation has microfilm (or its equivalent) as its main mode of preservation.

Although there is clearly a great deal of class 3 preservation being done at local institutions throughout the country, local needs are not the main motivation for class 3. Indeed, the clientele for whom this material is being preserved has not yet, for the most part, arrived on the scene. Because of the absence of direct local motivations—which are to a great extent satisfied by class 2 and to a lesser degree by class 1 preservation—and because of the magnitude of the problem, class 3 preservation is the exclusive source of cooperative preservation projects. To complete this equation, therefore, if the three classes defined here provide something approaching a sufficient typology of preservation, then a primary use of microfilm as a mode of preservation is for projects that usually require and deserve coordination among libraries. For a library to engage in a large-scale preservation microfilming effort without such coordination would be, in my opinion, a very questionable undertaking.

While selection criteria for classes 1 and 2 are, as we have seen, relatively easy to define, the criteria for class 3 present significant difficulties. Why preserve this material, anyway? Just what is it that posterity is not going to be able to do if it lacks access to this documentation? Will whatever posterity could do with access to this material tomorrow be of sufficient value to justify the considerable expenditure of resources today necessary to prepare that access?

The purpose of large-scale, coordinated preservation is not merely to help the future understand the past, but also to provide the future with the ability to understand itself—to supply a ground of knowledge upon which the future can build and against which the future can contrast and thus identify and define itself. Orwell was quite right: who controls the past controls the future. In this sense, it is certainly we who control the future, because the future will only be able to understand and define itself in relation to what we give it. This responsibility requires that we devise effective and reliable methods to supply the future with the best possible collection—as defined, of course, by our own values at this time.

The most appropriate publications for preservation must always be selected on the basis of the values in place—or, if you prefer, the “dominant ideology”—at the time of the decision. There is absolutely no escaping this requirement—not in the past and not now. We have no alternative but to make our selection decisions for class 3 preservation on the basis of the late twentieth-century values, which inform all of our decisions. The only problem is that late twentieth-century values are thoroughly permeated by a highly developed and all-encompassing network of ethical and epistemological relativism.

We are all products of an age, a nation, and a profession that has become increasingly unwilling to accept or to apply absolutes. The vital role of libraries in the opposition to political censorship is indicative of this position. The Library Bill of Rights is a noble document, and it expresses eloquently the ethical relativism and humanistic tolerance that characterize our era and profession—but as a determinant of values for any discriminating activity such as preservation selection, it leaves us completely helpless.

Closely related to this ethical position is the epistemological relativism that so clearly pervades contemporary thought. Kuhn's analysis of scientific revolutions,¹³ Patrick Wilson's theory of research quality as consensus,¹⁴ the historicity of phenomenology and the textuality of post-structuralism, the rejection of positivism even by Western Marxism, the increasing acceptance of the centrality of interpretation in the social sciences¹⁵—all of these (and many other) current and extremely influential concepts and trends render highly unlikely the possibility of developing a broadly acceptable and stable scale of values, which would be restrictive enough to permit the final rejection of certain library materials.

American research libraries in the late twentieth century have embraced and promoted such relativistic trends. There is no doubt in my mind that this is a major reason research collections have been increasingly driven by an ideal of inclusiveness. The Library of Congress is considered the greatest library in the country: it is not just a coincidence that it is also the largest. Quantity is quality in the research library, and this perspective has evolved, I would maintain, primarily because of our inability to define or measure bibliographical quality in any other terms.

Another obvious manifestation of this syndrome is our attitude toward weeding—which, from a critical point of view, is simply preservation done in reverse. While much has been written on the methods and values of weeding, research libraries, as Curley and Broderick realistically note, “will rarely weed, aware that what seems superfluous today may contain the essence of our times for the researcher of tomorrow.”¹⁶ The reason for such a reluctance to weed is that we lack at this time the epistemological apparatus to distinguish a level of quality or veracity that would clearly permit a decision to reject or retain. In the absence of an absolute measure, any statement has potential value, and any statement is thus worthy of retention. One wonders whether there has ever been an age so monumentally ill equipped to devise a system of planned deterioration. This, from the standpoint of collection development, is the ultimate problem of class 3 preservation.

TOWARD A COORDINATED PROGRAM FOR CLASS 3 PRESERVATION

There are many and varied preservation programs in operation throughout the country today. Some of these are cooperative and as such are aimed at class 3 materials. But there remains, partially for reasons I have just described, a clear lack of a general strategy linking these programs. Indeed, it is becoming increasingly likely that the major threat to the systematic preservation of library materials will turn out to be not an excess of acidity in paper but rather a shortage of coordination among libraries. How is such coordination to be achieved?

A successful coordinated program for class 3 preservation must satisfy certain general requirements:

First, it must provide scholars of the future with access to some kind of representative collection of documentation.

Second, it must be economically feasible and practicable; a library must be able to afford to take on a regionally or nationally coordinated class 3 responsibility in addition to accommodating its local responsibilities for class 1 and 2 preservation.

Third, it must be politically acceptable, i.e., it must not strain faculty-library relations at the institutional level, nor must it place undue pressure on relations among research libraries.

Fourth, it must be structured in such a way that it will permit, but not depend for its success on, indefinite expansion, so that more and more materials can be preserved as time and resources become available.

Fifth, it must be in operation relatively soon.

To these requirements we might add the excellent summary recommendation of Margaret Child that we "should not agonize too much over the fine points of definition of scope, but should begin to deal with the most easily grasped portion of the problem in an organized way as soon as possible."¹⁷

One view of the problem of valuation in preservation selection is represented in figure 3.

Let the vertical axis represent the scale of values in effect and the horizontal axis some division of the collection, such as by subject. Because we are operating under severe time constraints, it is clear that we should want to proceed in the diagram horizontally, i.e., we want to preserve all of the most valuable materials on all subjects first, then the second most valuable, and so on. In the cases of class 1 and class 2 preservation, these values (capital value and current use value respectively) are relatively definable, so that a horizontal process is feasible in local institutions. When we attempt to implement a program at a regional or national level for class 3 preservation, however, we find it impossible, because, as I have tried to explain above, we have not succeeded in defining a uniform scale of values. It has therefore frequently been the practice in cooperative preservation projects to proceed vertically, i.e., to select a subject (perhaps with formal limitations such as format or imprint) and to try to preserve everything (within those limitations) on that subject found in the collections of the participating institutions down to some vague point

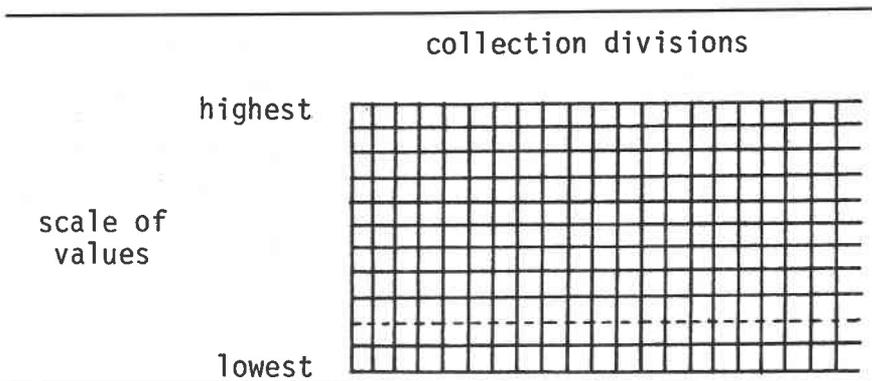


Figure 3
Cooperative Preservation Planning

(the dotted line) below which items are no longer of sufficient value to be preserved. Clearly, the risk of such a procedure is that, whatever scale of values is being used, materials of less value (according to that scale) in one subject are being preserved, while materials of greater value (according to the same scale) in another subject are being permitted to disintegrate.

There is, in my opinion, only one practical method for a large-scale cooperative preservation program that has any chance of success and that is to begin to build the program not around subjects but rather exclusively around subject collections in place. We must agree, in other words, to define the qualification of a document for class 3 preservation solely by virtue of its current inclusion in a designated collection of record. Systematic class 3 preservation of this type would thus result in a stringing together of different subject collections in different libraries into a single cooperative collection. Although each subject collection at each institution is obviously built in response to local needs, each collection will also, if it is a research collection (Conspectus level-4) built by competent bibliographers, represent the scholarship on the subject in a relatively balanced and unbiased manner. Each bibliographer is, after all, subject to and struggling with the same ethical and epistemological relativism described above. Any research level subject collection is by necessity representative of a variety of trends and biases, and therefore should be acceptable as the minimally adequate subject segment of a cooperatively preserved collection. Material in such a designated subject collection would be preserved by the holding institution, and material on the subject not in that collection would be left (for the time being) at risk. This would provide us with an initial, practicable, and (procedurally and critically) achievable method of "planned deterioration" for printed materials.

The first step in such a plan should be to identify in a general fashion the strengths of collections by subject throughout the region or country. This is, of course, precisely the purpose of the Conspectus, so this should present few difficulties. We need to identify strong research collections

through this method, but not special collections aimed at inclusiveness. (These special level-five collections will, in any case, probably survive through class 1 preservation.)

The second step would be for preservation specialists to determine a ratio of deterioration among subjects and then to annotate the *Conspicuum* accordingly. It does not matter that collections at different institutions are deteriorating at different rates. Such a ratio of deterioration by subject would presumably hold for all institutions, even though the rates of deterioration may vary. (Use a code like *a* = probable large percentage of materials on this subject are deteriorating; *b* = moderate percentage; *c* = small percentage.) Using also the latest shelflist data, it should then be possible to gain some idea of the extent of the problem in each general subject area.

Finally, this information should be used to assign as equitably and systematically as possible responsibility for preservation of particular subject collections among cooperating institutions. For each subject area, a strong (level-4) collection should be identified, which will serve as the collection of record. It would then be the responsibility of that institution to monitor this collection and to microfilm all deteriorating materials before they are lost. All cooperating institutions should accept the past work of the different bibliographers who have built the particular subject collections of record as informed and the resulting collections as sufficiently representative to satisfy many of the needs of future scholarship.

A shared bibliographic database with the capacity to identify items that have been preserved, such as RLIN and, in the near future, OCLC, is clearly essential for such a cooperative class 3 program, since it will permit the library of record to avoid preserving items it holds that are already preserved elsewhere. In many cases such preservation elsewhere will have been the result of class 2 decisions, especially those, mentioned above, involving items microfilmed because they fall on the fuzzy border between classes 2 and 3.

Let me emphasize that such a method would require the preservation of all materials in the designated subject collection of record identified as being in need of preservation. Never mind the current bibliographer's current evaluation of those materials. Such an evaluation, in fact, should not be solicited. Never mind the opinion of faculty or other experts as to which items are eternally significant and which are worthless. A certain amount of the collection may be trash, but it is our duty to pass that on in a representative collection, because a certain quantity of the reality the collection is to represent consists of what currently looks like trash. Let posterity decide it is trash. The only way to recognize quality material is, in any case, to have some trash with which to contrast it.¹⁰

Such a method of dividing responsibility among a large number of institutions could be implemented fairly quickly and would not place significant financial strain on any single institution—especially if the information on collection sizes, strengths, and the ratios of deterioration by subject are figured into the planning and if a shared database is available. Serious political problems with current users should not arise, because the identification of especially relevant documents (in the judg-

ment of users) should always be accommodated as part of class 2 preservation. Clearly what would stand most in the way of such a plan and what has impaired our ability to establish such programs in the past is our reluctance to abandon in such circumstances the principles of current collection building. We must recognize that we cannot preserve cooperatively using the same values and procedures that we use to build a current local collection. We cannot approach a coordinated class 3 preservation project as if it were simply an expanded version of class 2 local preservation. Even if there were time for bibliographers to evaluate every item on every subject in a variety of libraries in the same way that bibliographers make current selection decisions—which there obviously isn't—we nevertheless demonstrably lack the criteria to make those judgments in a coordinated fashion at this time.

Coordinated class 3 preservation decisions must therefore be administrative decisions relating to material and which, in the absence of known users and trends, are best regulated by a material system of values. Let us return to figure 3. To initiate a cooperative class 3 preservation project, let the horizontal axis represent not subjects, but rather subject collections in place (i.e., a different subject collection in each library). Let the value system in the vertical column then be the rate of material decomposition, so that the most rapidly disintegrating items will then receive the highest value. In this way we can achieve a kind of horizontal parity by having all institutions (each responsible for a different subject) proceed vertically in a coordinated fashion according to a relatively measurable set of values. The dotted line in this case will separate materials disintegrating (above the line) from those not disintegrating (below it).

Once such a designated collection has been brought to a condition of stability, i.e., once all items in the collection in need of preservation have been preserved and a mechanism is in place to ensure that all items in future need of preservation will be preserved, a second phase of the program, which can be expanded indefinitely, can be undertaken to identify and preserve subject materials not contained in the designated collections of record. If we never attain such an advanced phase, however, (and I am somewhat doubtful that we ever would) we can still be certain that such a program would safeguard a minimally adequate representative research collection for the future.

In conclusion, let us return to the original question: why undertake class 3 preservation? Perhaps in the effort to answer how to go about it, we have also managed to formulate a rationale. For the past four thousand years, civilization has found classes 1 and 2, for the most part, adequate. Now it is necessary to introduce a new kind of preservation, what I have been calling class 3. It is necessary not because we have more library materials than ever before, nor because their rate of disintegration is faster than ever before, nor even because there now are better and more accurate methods of preservation. The reason for undertaking large-scale coordinated class 3 preservation is that the values by which we live and work demand it. That very system of values that makes it so difficult to decide what to preserve provides us at the same time with the moral and epistemological imperative to secure for the future a balanced

and representative collection, one that will provide posterity—in the same way that we provide current users—the opportunity for evaluation and for the acceptance and rejection of ideas embodied in library materials. We are, in a sense, obligated to confront and solve the complexities of cooperative class 3 preservation as much for ourselves as for the readers of the future who will rely on our judgment. The sooner we get on with it, therefore, the better for them—and the better for us.

REFERENCES AND NOTES

1. Hans-Georg Gadamer, *Wahrheit und Methode: Grundzüge einer philosophischen Hermeneutik*, 2d ed. (Tübingen: Mohr, 1965), p.283.
2. Gordon R. Williams, "Objectives of a National Preservation Program" in *A National Preservation Program: Proceedings of the Planning Conference* (Washington, D.C.: Library of Congress, 1980), p.29.
3. Dan C. Hazen, "Collection Development, Collection Management, and Preservation," *Library Resources & Technical Services* 26:6-10 (Jan./Mar. 1982).
4. Gay Walker, "Preserving the Intellectual Content of Deteriorated Library Materials" in *The Preservation Challenge: A Guide to Conserving Library Materials* by Carolyn Clark Morrow (White Plains, N.Y.: Knowledge Industry, 1983), p.101-6.
5. Pamela W. Darling, "Microforms in Libraries: Preservation and Storage," *Microform Review* 5:94-95 (Apr. 1976).
6. Hazen, "Collection," p.6-7. See also Hendrik Edelman, "Selection Methodology in Academic Libraries," *Library Resources & Technical Services* 23:37 (Winter 1979).
7. Margaret Child, "Deciding What to Save," *The Abbey Newsletter* 6, no.4: suppl.2 (Aug. 1982).
8. Paul Mosher, keynote address delivered at the Collection Management and Development Institute, Trinity University, San Antonio, Texas, 15 May 1985.
9. The Conspectus, as most collection development librarians are aware, is a tool, developed originally by the Research Libraries Group and now in use in many North American research libraries, to rate subject collections on a scale of 0 (out of scope) to 5 (comprehensive). See Nancy E. Gwinn and Paul H. Mosher, "Coordinating Collection Development: The RLG Conspectus," *College & Research Libraries* 44:128-40 (Mar. 1983).
10. See, for example, Richard L. Trueswell, "Some Behavioral Patterns of Library Users: The 80/20 Rule," *Wilson Library Bulletin* 43:458-61 (Jan. 1969); Herman H. Fussler and Julian L. Simon, *Patterns in the Use of Books in Large Research Libraries* (Chicago: Univ. of Chicago Pr., 1969).
11. Christinger Tomer, "Identification, Evaluation, and Selection of Books for Preservation," *Collection Management* 3:34-54 (Spring 1979).
12. Hazen, "Collection," p.8.
13. Thomas S. Kuhn, *The Structure of Scientific Revolutions*, 2d ed. rev. (Chicago: Univ. of Chicago Pr., 1970). See also Gerald Doppelt, "Kuhn's Epistemological Relativism: An Interpretation and Defense" in *Relativism: Cognitive and Moral*, ed. Jack W. Meiland and Michael Krausz (Notre Dame, Ind.: Univ. of Notre Dame Pr., 1982), p.113-46.
14. Patrick Wilson, *Second-Hand Knowledge: An Inquiry into Cognitive Authority*. Contributions in Librarianship and Information Science, 44. (Westport, Conn.: Greenwood, 1983), p.81-121.
15. Daniel Bell, "The Turn to Interpretation: An Introduction," *Partisan Review* 51:217 (1984).
16. Arthur Curley and Dorothy Broderick, *Building Library Collections*, 6th ed. (Metuchen, N.J.: Scarecrow, 1985), p.308-9.
17. Child, "Deciding" p.2.
18. See Daniel Boorstin's remark in *A National Preservation Program*, p.72. "But a larger epistemological concern—and one reason why I think this subject [i.e., preservation selection] is of cosmic importance—is that we are always tending to second guess the future, to think we know what's trash and what isn't."

Further Thoughts on "Selection for Preservation: A Materialistic Approach"

Margaret S. Child

ONE OF THE LIVELIEST ISSUES currently confronting the library and archival professions is selection: for acquisition, for processing, for weeding, or for preservation. Indeed, there have been occasions during the past decade when the intensity of discussion of this topic has approached the polemical levels reached by that of the nineteenth century over natural selection in the animal kingdom. The debate has been hottest over the issue of appraisal and/or weeding of archival collections; witness, for example, the acrimonious debate on the topic between archivists and historians at the misnamed New Harmony conference in October 1976 or the legal action brought in 1980/81 by a number of historians against the National Archives over the disposition of the regional files of the FBI. Stimulated at least in part by these and similar confrontations as well as by the ever-present problem of how to reduce the geometric growth of their holdings to manageable proportions, during the past several years archivists have focused a substantial amount of research on appraisal and particularly on the development of documentation strategies that offer some hope of providing a systematic theoretical basis for selection to replace current ad hoc practices.¹ In the library world the development of the Research Libraries Group (RLG) Conspectus, the North American Collections Inventory Project, and a variety of resource sharing agreements among libraries at the local or regional level can be seen as efforts to provide individual institutions and collection managers with practical mechanisms for making selection decisions more manageable. Nonetheless, as any collection manager can attest, there is virtually no occasion when emotions run so high in libraries as when faculty or other users perceive a refocusing of acquisitions or an intention to weed their special subject field.

It is thus not surprising that librarians and archivists have approached the issue of selection for preservation very gingerly indeed. What *is* sur-

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prising is that there has been so little attempt on the library side to develop theoretical approaches to selection for preservation, which would do for librarians what documentation strategies are attempting to do for archivists. Luckily for me, this vacuum was filled a few weeks ago. Quite serendipitously, after I agreed to write this paper, Ross Atkinson of the University of Iowa made a very thoughtful presentation at the Preservation Microfilming institute held at the Library of Congress on March 6, 1986. In it he outlined a theoretical framework within which preservation selection decisions could reasonably be made. Although I disagree with some of the specific distinctions he has drawn, I think his basic methodological approach offers great promise and indeed had been developing a similar categorical breakdown in my first draft of this paper. The first section of this essay will discuss the very useful conceptual structure he has laid out. The second part of my paper will deal with possible mechanisms for actually identifying those collections to be given top priority for filming. Throughout, when I refer to collections, I am using the term generically to include both monographs and serials.

Atkinson's basic strategy of dividing the holdings of research libraries into distinct categories, each of which would be treated differently in the selection for preservation process, is so obvious as to seem simplistic, but I believe that it is the only useful way to break the problem into manageable segments. His first category is described as those materials that "need to be preserved in order to protect their capital value."² I would prefer to describe this class as those materials which are endowed with what the archivists term *intrinsic value*. This term encompasses several nonmonetary but important research values deriving from artifactual characteristics which compel preservation in the original format. Appendix 1 gives the definition of the "qualities and characteristics of records with intrinsic value" issued in Staff Information Paper 21 by the National Archives in 1982. Many of these are applicable to library materials as well.

Thus, Atkinson is on the right track when he separates out a group of materials which need to be preserved in their original format because they are inherently valuable as artifacts. I also believe that he is correct in laying the responsibility for such preservation (or conservation) firmly at the door of the individual institution. I agree on this point not because of the monetary value of such collections to the institution, although it is often significant. I do so for purely pragmatic reasons, namely, because such collections are usually shaped primarily by very local interests and programs, and as a result there is a highly personalized emotional and historical commitment to them which enables an institution to find the money to maintain and preserve them. This is what might be called the jewel-in-the-crown syndrome.

I am not so sure, however, that either his or my definition can be safely extended to the second type of documentation, which he somewhat hesitantly includes in this category, i.e., "level-five collections" as defined by the RLG Conspectus.³ Indeed, I believe that they do not belong in category 1, because for the most part their value derives from their aggregation in a comprehensive collection rather than from each

component item's individual intrinsic value. In addition, such collections frequently consist in large part of materials held by one institution alone and concern specialized fields of study offered by few other institutions.

Institutions often point with great pride to such collections and use them as the basis for developing distinctive academic programs and attracting renowned scholars. They are also magnets which attract users from all over the country and all over the world. However, the experience of the Research Resources Program of the National Endowment for the Humanities would suggest that although most universities view such collections as an important contribution to the overall strength of American research libraries, they are unwilling to bear the economic burden of cataloging or preserving them single-handedly. Indeed, one of the primary rationales for the establishment and continuation of the Research Resources Program was to provide an infusion of national funding to the effort to make such collections accessible for research and to preserve them as national resources. Some were created originally, at least in part, by national funding. In respect to such collections, I would therefore disagree with Atkinson's contention that class 1 preservation "is always a local decision-making operation; it is mandated by local constituencies and is intended to serve (for the most part) local needs."⁴ I would argue quite the contrary: such level-five collections must be included within the overall priorities of a cooperative national preservation program and be ranked right along with everything else. It is interesting to note in this connection that the first cooperative RLG filming project included five "mainstream" or general or "class 3" collections and two such level-five collections: the American poetry collection at Brown and the dime novel collection at the University of Minnesota.

Atkinson defines his class 2 as "items that are currently in demonstrable demand for curriculum and research purposes. A major source of information about such material is circulation, and the need for preservation of such materials often derives from overuse."⁵ I found Atkinson's definition and discussion of class 2 materials thoroughly convincing and, rather than try to paraphrase them here, will simply refer the reader to his paper and suggest that his ideas be incorporated into any eventual ARL plan.

Atkinson's class 3 "has as its function to maintain for posterity lower-use research materials."⁶ I found his discussion of the reasons for the paralysis which afflicts us when faced with making selection decisions from this class extremely interesting but would suggest that the dilemma is even more complex than he portrays it because of two additional factors, both of which I have pointed out in previous papers.⁷

The first is the extraordinary expansion of American research since World War II. Take, for example, the field of history, where the range of subject matter and consequently of sources considered appropriate for scholarly examination has increased to such an extent that teaching or writing political history is now a minor segment of the discipline. Hand in hand with the rise of the new social history are new methodological techniques, aided in large part by the advent of the computer, which

have made a much broader range of documentation useful for historical research.

The second factor derives from the fact that it is now technologically possible to save everything. Thus, for the first time in history we really do have a choice, and most people don't like making choices, especially those perceived to be irrevocable. Indeed, I have come to believe, as does Atkinson, that the only psychologically practical method of enticing librarians and scholars into making the necessary choices is to focus on the up side of the scale, on identifying the most important materials in order to film them first, and blurring or ignoring the corollary to such decisions, i.e., that other materials may be allowed to deteriorate and ultimately disappear.

How then to put together a practical program for selection of materials in class 3 as defined by Atkinson, but also include those level-five collections discussed above, for inclusion in a national cooperative filming program? Here again, Atkinson has provided a very helpful list of criteria which such a program must meet.⁸

Equally useful as a basis for action is his assertion that there is "only one practical method for a large-scale cooperative preservation program that has any chance of success and that is to begin to build the program not around subjects but rather exclusively around subject collections in place."⁹ Here again, the RLG cooperative microfilming project offers a model approach, based as it is on strong research collections in several of its member libraries. Similarly, the actual filming in both the American Philological Association (APA) project and the American Theological Library Association project are based on specific strong research collections at the Columbia University and Union Theological Libraries, respectively.

However, consideration must also be given to the fact that the APA project has produced statistical results, which suggest that simply filming a single strong collection is insufficient to provide the "representative collection" which Atkinson holds up as our goal. The APA project method is to have an editorial board of distinguished scholars select the works to be filmed from sources such as the Widener shelflists and shelf-reading in their own libraries or in specialized libraries, such as the American Academy in Rome. The project has found that almost 30 percent of the works selected were not in the Columbia collection. Moreover, "a preliminary check of a sample of 100 titles not found in the Columbia libraries against their NUC records showed that no library had reported more than 53 of them."¹⁰ Thus, it will not be possible to fill out the desiderata list simply by going to one or two other libraries.

If other subject fields in addition to Classics are found to have similar distribution patterns across institutions, a national filming program will have to be truly cooperative, not just in the sense that library A will do one subject and library B will do another but that libraries B, C, D, and perhaps even E and F will fill in by filming behind library A. This necessity of course undermines Atkinson's effort to cut through the dilemma of selection by relying solely on single strong collections. It is nonetheless the right first step, although I would modify it in yet another way by sug-

gesting that even in strong collections there are materials which could be allowed to deteriorate. I am not suggesting item-by-item selection at this stage but rather the identification of categories of publications which could be given a lower priority.

There are a number of kinds of library materials which have been excluded from the RLG project: offprints of journal articles when the journal is owned by the repository or has been filmed, single issues or very short runs of serials unless they are unique, facsimiles, photocopies, duplicate copies, documents which appear both as monographs and as parts of serials sets, and so forth. Any future projects would certainly want to give serious consideration to following the RLG lead here, too. In addition, there are other kinds of materials that should probably be excluded except under special conditions. These are what might roughly be described as ephemeral materials which have little value when found in isolation or scattered in small numbers throughout a general collection. When, however, they have been brought together to form substantial collections of their own kind, the very fact of their constituting a comprehensive collection gives them an intellectual value they do not possess alone. These are materials which bear a greater resemblance to archival collections than they do to books and which should probably be handled archivally in all respects. I am referring here to such things as broadsides, leaflets, pamphlets, trade catalogs, and even newspaper clippings. Although this may be heresy to suggest, when they turn up infrequently and erratically in a general collection, they should probably be deaccessioned and shipped off to a repository which has built the kind of comprehensive collection which will enhance their intellectual value.

The strategy which would result from the above policies would be to film at library A holding a strong collection in subject X all materials except those kinds of publications easily identified as of lesser utility for research. This core collection of films would then be supplemented by filming at other strong collections. The process of selection would be eased for library B because its staff will be able to tell that a substantial part of the collection in subject X had been filmed by library A. Library B will thus be able, if it wishes, to isolate, at least intellectually, that now relatively manageable segment of its collection which is not already available on film and make a decision on whether it should be. Library B can also decide at this point whether to send that part of its collection which is available on film to remote storage. Moreover, every research library will benefit from such a cooperative filming project because it will offer the possibility of relatively inexpensive enhancement of existing collections. It will also facilitate interlibrary loan of service copies. In certain defined fields such as subcategories of Classics it will even allow individual scholars to purchase for home use films or fiches of the definitive texts in their special subjects. Needless to say, universal access to a reliable, comprehensive database of all titles available in microform is essential to such a process.

In regard to priorities for action, I should like to suggest a variation on the scenario outlined by Atkinson. The results of the Wye Plantation Preservation Conference, March 19-21, 1986, sponsored by the Coun-

cil on Library Resources, provide some specific mechanisms for moving that process along which were not available when Atkinson wrote his paper. The conference approved the establishment of a national Commission on Preservation and Access, which could serve as the locus for making or helping to make the necessary decisions. A timetable was laid out which called for the appointment of an executive director by July of this year, the preparation of a detailed operating plan by October, and the development of short-term projects by the end of the year. The commission and its advisory board of fifteen or more national organizations are sufficiently representative of the several constituencies concerned about the deterioration of our documentary resources to warrant the commission's taking a leading role in establishing the priorities for action. The commission itself could set certain broad parameters within which the efforts it is to stimulate would be focused. For example, it could suggest that priority be given to materials published within a certain time span or bearing an American imprint, as the RLG project has done. The data produced by collection surveys of book deterioration in individual research libraries, especially the Yale survey, need to be utilized to set priorities. Correlations should be made between the Conspectus profile and the extent of deterioration to be anticipated in particular subject groups on the basis of the profile of dates and places of publication outlined by such surveys in order to identify "most endangered species." Accurate information on the preservation plans of other countries, especially in Western Europe, where so many nineteenth- and early twentieth-century publications in our research libraries originated, must also be part of the decision-making equation. We need to know in particular about major filming programs such as that now under way at the British Library and to arrange for access to bibliographic information about its products as well as to the films themselves. Using all available information as a guide, the commission should review the RLG Conspectus subject categories and target a certain number of level-four *and* level-five collections for projects to be organized within the next two to three years. Its choices should then be approved or modified by the advisory board or its individual member organizations where appropriate. For example, the committee on research of the American Historical Association might be asked to review the priorities established for that field. Here again, the emphasis should be upon what is most important for American research libraries to save first without worrying about the ultimate fate of every subject represented in the Conspectus.

Once the initial cut of subjects has been made, it will be necessary to identify the location of the strongest collections in each subject. Again, the Conspectus will be useful, but many research libraries have not gone through that process. The commission may well need to call upon panels of collection managers, bibliographers, and scholars to identify the most promising locations. I suspect that any lists compiled through such a process will show that perhaps two dozen libraries are potential hosts for filming in the top priority subject groups. Here a certain amount of local initiative and preference should come into play, with individual institutions choosing to participate on the basis of their own priorities. Obvi-

ously, there will need to be a fair amount of negotiating at this stage. Some institutions with solid level-four collections may be the sites for the first filming rather than the holders of level-five collections, simply because they really want to participate. Some potentially strong locations may opt out because they have such active teaching programs based on the collection in question that they cannot have the materials off the shelves long enough to be filmed.

Whatever the target collections ultimately identified, I strongly urge that no further selection for filming be done at this point except for excluding certain very obvious kinds of materials such as those already mentioned. In many libraries there will, however, be another kind of selection which will proceed simultaneously with the decision to film. That is the decision to retain the item in hard copy. This must be a local decision, and the cost of making it and of its consequences should be borne by the local institution.

Finally, I would like to suggest that, in developing the overall strategy for identifying categories of materials to be filmed, nonbook materials be introduced into the process fairly early on. To put it another way, I believe that a strong case can be made that it is important to the overall future intellectual life of this country to preserve archival materials, photographs and films, sound recordings, machine-readable files, and other kinds of documentary resources in certain defined subject areas before setting up projects to film brittle books, either monographs or serials, in other subject areas. On the face of it, this looks like a hard decision to make, but I think it will become much easier once a major effort is under way to film in the top priority subjects, because it will become obvious that the printed record is not enough. I therefore foresee a great many collateral projects not only to fill in the gaps in the films of the printed record but also to enhance the value of that record by preserving other kinds of material as well.

The ARL Committee on Preservation of Research Library Materials discussed the paper on April 30, 1986, and although its overall response was positive, it decided to delay recommending any specific initiatives until the executive director of the Commission on Preservation and Access is appointed and the commission's agenda announced, because the efforts of the two organizations need to be closely coordinated if either is to be successful.

REFERENCES

1. Helen W. Samuels, "Who Controls the Past," *The American Archivist* 49:109-24 (Spring 1986).
2. Ross W. Atkinson, "Selection for Preservation: A Materialistic Approach," *Library Resources & Technical Services* 30:344 (Oct./Dec. 1986).
3. *Ibid.* p.345.
4. *Ibid.* p.346.
5. *Ibid.*
6. *Ibid.* p.347.
7. Margaret S. Child, "Deciding What to Save," *The Abbey Newsletter* 6:4 Supplement (Aug. 1983), p.1-2; _____, "Reflections on Cooperation among Professions," *The American Archivist* 46:3 (Summer 1983), p.289-90.
8. Atkinson, "Selection," p.349.

9. Ibid. p.350.
10. Roger S. Bagnall, "A Model Microfilming Project for Classical Studies, RV-20030-84," First Annual Performance Report (1 June 1984-31 May 1985), p.3. Unpublished report to the National Endowment for the Humanities.

APPENDIX 1*

Qualities and Characteristics of Records with Intrinsic Value

All record materials having intrinsic value possess one or more of the following specific qualities or characteristics. These qualities or characteristics relate to the physical nature of the records, their prospective uses, and the information they contain.

1. *Physical form that may be the subject for study if the records provide meaningful documentation or significant examples of the form.*
Documents may be preserved in their original form as evidence of technological development. For example, a series of early press copies, glass-plate negatives, or wax-cylinder sound recordings may be retained. All records having a particular physical form would not be considered to have intrinsic value because of this characteristic; however, a selection broad enough to provide evidence of technological development would be considered to have some value.
2. *Aesthetic or artistic quality*
Records having aesthetic or artistic quality may include photographs; pencil, ink, or watercolor sketches; maps; architectural drawings; frakturs; and engraved and/or printed forms, such as bounty-land warrants.
3. *Unique or curious physical features*
Physical features that are unique or curious might include quality and texture of paper, color, wax seals, imprints and watermarks, inks, and unusual bindings. All records having a particular physical feature would not be considered to have intrinsic value because of this feature; however, an exemplary selection of each type would be considered to have such value.
4. *Age that provides a quality of uniqueness*
Age is a relative rather than an absolute quality. Generally, records of earlier date are of more significance than records of later date. This can be because of a historical change in the functions and activities of the creator of the records, the scarcity of earlier records, a change in record keeping practices, or a combination of these. Age can be a factor even with comparatively recent records. The earliest records concerning, for example, the development of the radio industry or of nuclear power could have intrinsic value because of age.
5. *Value for use in exhibits*
Records used frequently for exhibits normally have several qualities and characteristics that give them intrinsic value. Records with exhibit value impressively convey the immediacy of an event, depict a significant issue, or impart a sense of the person who is the subject or originator of the record. In these cases, the impact of the original document cannot be equaled by a copy.
6. *Questionable authenticity, date, author, or other characteristics that are significant and ascertainable by physical examination.*
Some records are of doubtful authenticity or have informational content that is open to question. Although it is impossible to foresee which documents will be questioned in the future, certain types of documents are well known to have the potential for controversy and, if the original records are extant, handwriting and signatures can be examined, paper age can be ascertained, and other physical tests can be performed. In some cases the controversy can be resolved by recourse to the original item (such as by an examination of the handwriting, the age of the paper, or the original negative of the photostatic print), while in other cases the item will not be conclusive but will

*Reprinted from *Intrinsic Value in Archival Material*. National Archives and Records Service Staff Information Paper, 21. (Washington, D.C.: National Archives and Records Service, General Services Administration, 1982), p.2-3.

provide the researcher with the best evidence from which to draw conclusions (original photographs of UFO's, for example).

7. *General and substantial public interest because of direct association with famous or historically significant people, places, things, issues, or events*

This criterion is not only the most difficult to apply, but also the most important in terms of the volume of records to which it could be applied. It could be used to justify preserving in original form almost all permanently valuable records because of their historical importance. On the other hand, if limited to records of unusual significance, it would be used to justify disposal of almost all original records. Archival judgment is the crucial factor in determining whether there is general and substantial public interest, whether the association is direct, and whether the subject is famous or historically significant. Generally, those series with a high concentration of such information should be preserved.

8. *Significance as documentation of the establishment or continuing legal basis of an agency or institution*

Agencies or institutions are founded and acquire or lose functions and responsibilities through the actions of the executive, legislative, and judicial branches of the government. Records documenting these actions may be found concentrated in series or scattered in various series. They have in common the characteristic of documenting the shifts in function of the agency or institution at the highest level.

9. *Significance as documentation of the formulation of policy at the highest executive levels when the policy has significance and broad effect throughout or beyond the agency or institution*

Numerous records reflect policy decisions; however, most policy decisions have a relatively limited impact and reflect a relatively small area of authority. The characteristics that give policy records intrinsic value are the origin of the records at the highest executive levels, breadth of effect, and importance of subject matter.

Application of the Concept of Intrinsic Value

Records that possess any characteristic or quality of intrinsic value should be retained in their original form if possible. The *concept* of intrinsic value, therefore, is not relative. However, *application* of the concept of intrinsic value is relative; opinions concerning whether records have intrinsic value may vary from archivist to archivist and from one generation of archivists to another. Professional archival judgment, therefore, must be exercised in all decisions concerning intrinsic value. Coordination between units holding records within an archival institution also may be necessary. For example, members of units holding similar records whose form may be the subject for study (quality 1) should consult one another to ensure that an adequate but not duplicative selection of records in that form is preserved. Although the concept of intrinsic value may be easier to apply to older records, decisions concerning intrinsic value can be made for all records determined to have sufficient value to warrant archival retention.

Editor's Note

It has been called to the editor's attention that the sixteenth citation on page 232 of the July/September 1986 issue of *LRTS* should read as follows: Hirshon, Arnold. 1985. "The Business of Acquisitions: Preconference Report." *RTSD Newsletter* 10:67-70.

Costs Associated with Preservation Microfilming: Results of the Research Libraries Group Study

Patricia A. McClung

In 1984 seven RLG institutions conducted a study of the times and costs involved in the Cooperative Preservation Microfilming Project. The study covered twelve steps, including the identification and physical preparation of materials, filming and inspection, recording on the Research Libraries Information Network, cataloging, and storage. The results, which varied significantly among the seven participants, constitute valuable data for other institutions planning preservation microfilming projects.

IN 1983 THE RESEARCH LIBRARIES GROUP (RLG) was awarded \$1,300,000 in equal amounts from the National Endowment for the Humanities and the Andrew W. Mellon Foundation for a Cooperative Preservation Microfilming Project (CPMP). This project grew out of the efforts of the RLG Preservation Program Committee to address in a cooperative way the problems of deteriorating brittle materials in research libraries.

From its inception the CPMP had several goals. The first was to capture the intellectual content of a significant portion of endangered American imprints or Americana on archival quality microfilm before it had deteriorated completely. The second was to make the information about these materials widely available to the scholarly community by using recently adapted capabilities of the Research Libraries Information Network (RLIN) online database to emphasize preservation information. And third, RLG hoped to develop a management model for cooperative preservation microfilming by evaluating and documenting procedures, developing guidelines, and studying costs. *The RLG Preservation Manual* includes the guidelines and procedures developed for the project, as well as information on the RLIN system enhancements designed to facilitate bibliographic searching for microforms.¹ This paper reports on the cost study conducted during this project.

Patricia A. McClung, Associate Director for Program Coordination, Research Libraries Group, gratefully acknowledges the assistance of the project managers who conducted this cost study and commented on the article: John Baker, Sherry Byrne, Margaret Byrnes, Rosemary Cullen, Carolyn Harris, Don Kelsey, Barclay Ogden, and Gay Walker. She acknowledges also the assistance of Jim Coleman and Maureen Thayer in tabulating and analyzing the data.

THE COOPERATIVE PRESERVATION MICROFILMING PROJECT

Based on a survey of potential interest sent to all RLG members, seven institutions were selected to participate in the project, which was carried out over a three-year period. (An eighth institution, Stanford University, joined the project during its final year, after the cost study had been completed.) Early in the planning stages the RLG Preservation Committee decided to focus on American imprints and Americana published between 1876 and 1900, the rationale being that the project could have the most immediate impact by beginning with our nation's own literature. Approximately thirty thousand titles have been filmed as part of this project in the following subject areas:

Selected American poetry volumes from the Harris Collection at Brown University

Selected American literature, philology, and language from the collections at Columbia University

Selected Americana in philosophy and religion, cultural anthropology, law, and medicine from the collections of the New York Public Library

Selected American imprints on the history of the physical sciences from the collections of Stanford University

Selected imprints in American history of the Trans Mississippi West from the Bancroft Library and the general collections of the University of California-Berkeley

Selected Americana in economics, sociology, political science, and technology from the collections of the University of Michigan

Selected titles from the Hess Collection of Dime Novels at the University of Minnesota

Selected titles in American history (except Trans Mississippi West) from the collections of Yale University

The CPMP represented a unique opportunity to measure similar procedures, performed according to agreed-upon guidelines, in a wide variety of institutional settings and geographic regions. From the beginning, the project participants assumed certain responsibilities for record keeping and quality control because of the project's emphasis on designing a national model for cooperation. Besides the production of replacement copies for deteriorating items in these institutions, the project was intended to create a national resource of archival quality master negatives accessible through excellent bibliographic records and stored under optimal conditions. The hope was that any additional costs incurred in pursuit of these goals would be offset over time by the fact that other institutions would not need to duplicate these efforts and could devote their resources to preserving additional materials in the same spirit of cooperation.

In 1984 the project managers for the CPMP conducted a study of the costs involved in carrying out this project in their institutions. The study focused on twelve steps in the process from selection through preparation, filming, and cataloging to the point at which the master negatives

were shipped to storage. Each of the seven institutions conducted the study twice, once in April 1984 and again that November. The institutions gathered data on the costs and the time necessary to complete each of the twelve steps for a different fifty titles each time the study was conducted. However, the hundred titles for which data were gathered differed for each step because of the difficulties of tracking the same sample through the entire process.

Labor costs were calculated based on the salaries (including benefits) for the individuals performing the tasks according to the following formula: the number of productive hours per year per full-time equivalent divided by the salary equals the hourly rate. Production hours were figured assuming that a 35-hour work week equaled 1,540 hours per year, a 37½-hour work week equaled 1,650, and a 40-hour week equaled 1,760.

Until this study, most available preservation microfilming cost information focused only on the filming step, specifically the per-frame charges for producing a preservation master negative. There was very little information available on the costs for the selection and preparation stages or the cataloging of microforms. The twelve steps analyzed in this cost study were (1) identification of titles within the scope of the project; (2) retrieval of the materials; (3) preparation of circulation records; (4) searching for extant microforms; (5) curatorial review to select titles to be microfilmed; (6) recording intent to microfilm in RLIN; (7) physical preparation of the items for filming; (8) preparation of targets; (9) filming; (10) inspection of film; (11) cataloging of microform edition; and (12) storage of master negative. Labor costs alone were calculated, except for steps 9 and 12, which also included the costs for supplies.

RESULTS OF THE STUDY

An explanation of the steps in the process and the results of the study is offered here to provide a frame of reference for comparisons to other projects and cost studies. The steps have been grouped according to the following categories: identification and physical preparation of materials, filming and inspection, queuing and cataloging, and storage. The average cost at each institution to complete all twelve steps for a title ranged from \$25.81 to \$71.80, with \$48.20 representing the median cost. (Variations will be explained in a later section.) These figures do not include overhead or administrative costs; they also do not account for charges incurred for online time on the RLIN system, either for searching or for cataloging, which would add \$0.70 for an original record and \$2.13 for one that was derived from a record already in the database.

IDENTIFICATION AND PHYSICAL PREPARATION

The seven steps involved in choosing, assembling, and preparing materials for the filming process consumed approximately 16% of the resources devoted to this project. Because the project was committed to making a sizable impact on preserving strong collections of American imprints and Americana—rather than just filming the most critically deteriorated materials as they crossed the circulation desk—a method was

devised to systematically identify embrittled materials in the categories targeted by each institution. Although the order varied somewhat, at each of the institutions, clerical assistants searched the library's shelflist for materials within the criteria in given call number ranges, made photocopies of cards and prepared work sheets for potential candidates, pulled the materials from the stacks, and tested them for brittleness (using the double-fold test).² Once titles passed these initial steps, they were charged at the circulation office to the preservation unit. These procedures comprise steps 1 through 3 in the cost study, that is, title identification, retrieval, and preparation of circulation records. Because these steps could be performed by less expensive clerical or student staff in a short period of time, the median cost per title was less than \$1 for all three steps.

The searching part of the project was more complex. While all participating institutions agreed to search the same basic tools (*The National Register of Microform Masters*, University Microfilm's *Books on Demand*, *Guide to Microforms in Print*, *The New York Public Library Register of Microform Masters*, and the RLIN system) some institutions elected to search additional sources because of their particular subject areas. In addition, the "hit rates"—that is, the incidence of finding a reprint or another film—varied dramatically depending on the subject area. Sixty percent of the American literature titles searched at Columbia had been filmed already, while less than 1% of Minnesota's dime novels and 8% of Brown's poetry collection had been filmed previously. The hit rate for American history materials was approximately 25% at both Yale and Berkeley. Michigan's average hit rate for its social science and technology materials was also 25%. The subject areas searched at the New York Public Library, including law, philosophy, religion, medicine, and cultural anthropology, ranged between 9% and 15%, with an average of 12%. The hit rate, as well as the number of sources checked, had a significant impact on the searching costs incurred.

In most institutions the curatorial review step occurred after the searching was completed. Curators or bibliographers reviewed the materials to determine whether they were appropriate to film or to retain in hard copy after filming. The criteria varied depending on the collections. For example, while it was deemed important to preserve all variant editions of American fiction, that was rarely necessary for social science or history books. The Harris poetry collection at Brown University, the Hess dime novel collection at the University of Minnesota, and the Bancroft history materials at the University of California-Berkeley required little curatorial time because the decision was made at the outset to film the entire collection (falling within the appropriate imprint dates) unless condition or format dictated otherwise. The median cost per title for curatorial review in all participating institutions amounted to \$0.41.

The physical preparation part of the process, as well as the preparation of targets to be filmed with the items, included a number of important—and often time-consuming—operations. Although the con-

dition of the materials and local policies contributed to variations in the routines from one institution to another, in general the libraries measured the following activities for the cost study:

- page by page collation and flagging of volumes with any special instructions
- minor repairs; ordering of missing or damaged pages when necessary
- computation of length of reel based on number of pages or volumes
- brittleness testing (unless it was done at the retrieval step 2)
- disbinding of volumes, removal of bindings (optional)
- preparation of bibliographic and eye-legible targets as needed; insertion in appropriate places in the volume
- insertion of standard targets or markers to indicate where the filmer should put them, e.g., "Start," "End of title," "End of reel"
- insertion of copy catalog cards for filming
- delivery of materials to filmer
- completion of paperwork to prepare materials for cataloging; sorting of forms and filing of cards after cataloging

At an institution where the materials did not require several of these steps (the books were in relatively good condition, they were not being disbound, and the filmer calculated the reel breaks), identification and physical preparation took approximately 7 minutes per title of a student employee's time. At an institution where the materials required extensive preparation, these steps took slightly more than 50 minutes per title of a paraprofessional's time. The median time for these procedures was 36.6 minutes, and the median cost amounted to \$5.28.

FILMING AND INSPECTION

The project managers developed film specifications and guidelines for quality control based on the National Information Standards Organization (NISO) standards and Library of Congress practice to ensure the production of archival quality microfilm and compatible procedures.³ In addition, they all used the same forms for project work sheets and quality control sheets to assist in the compilation of comparable management data. Five institutions performed their filming within the library, and two used commercial service bureaus. Most libraries contracted with commercial operations for at least one of the processing and duplication services as well as the chemical testing. The filming figures include the following procedures:

- camera work to film the title and appropriate targets
- processing and printing of three generations of film (including a master negative, a printing master, and a positive service copy)
- set up, clean up, record keeping, and technical inspection (density readings and averaging, microscope examinations for resolution, frame-by-frame inspection)
- completion of corrections and splicing, if necessary
- box labeling; reel wind up; routine equipment adjustments; returning books, targets, and film to preservation office.

The filming costs ranged from a low of \$0.18 per frame to a high of \$0.34 for the production of three generations of film. In most cases it was possible to film two pages per frame.

In addition to the technical inspection performed by the filming agent, the preservation unit conducted another inspection for both technical and bibliographic quality. If the initial inspections of 100% of the film revealed no problems, then inspections were performed on (at least) a 10% sample from each shipment. This inspection averaged one to seven minutes per title, with a median cost of \$1.44.

QUEUING AND CATALOGING

To understand the costs related to cataloging, some background on the Research Libraries Information Network (RLIN) system and RLG policies is necessary. Because the RLG Preservation Program places a strong emphasis on the accessibility of preservation information online, with Andrew W. Mellon funds made available to the New York Public Library, the RLIN system was enhanced in 1981 to highlight information about microforms contained in the 007 field on the MARC record. A special feature called the queuing date (QD) field, enabling libraries to indicate their intention to film a particular title as soon as that decision is made, was also added to the system. These features make it very easy to search for either queued or filmed materials recorded on RLIN and also serve to conserve resources by minimizing unnecessary duplicate preservation filming.

Furthermore, in an attempt to reduce cataloging costs and increase the number of retrospective bibliographic records in the RLIN system, RLG adopted a cataloging standard for retrospective conversion of catalog records, which libraries may use rather than full AACR2 cataloging. Essentially, this *recon standard*, as it is called, allows cataloging to be based on existing catalog card records and does not require the cataloger to work from the book (or any other format) itself.

The figures in the cost study reflect the fact that at the time the decision to film was made, all participating institutions were required to enter a brief record in RLIN along with a date in the queuing date field to notify other libraries. The use of the recon standard for cataloging was optional; however, it was used by five of the seven participants. Cataloging and queuing times combined ranged as low as 23 minutes and as high as 66 minutes per title. The median cost for these activities was \$5.60.

STORAGE

To ensure that the 30,000 master negatives produced as part of this project are stored under optimal conditions, they are kept in a private vault, which RLG leases from the National Underground Storage (NUS) in Boyers, Pennsylvania. Located in a renovated limestone mine, the vault has been specially equipped and is continually monitored to maintain the temperature at 60°F and the relative humidity at 35%. Prices for this type of storage vary depending on the number of reels to be stored, the exact specifications, and the company. In 1986 the

annual rental fee per drawer in the common storage space at NUS (with a minimum of 20 drawers, each of which holds 40 to 42 reels) was approximately \$30. The smallest vault (600 cubic feet) rents for \$3,300 per year plus the one-time purchase price for drawers of approximately \$25 apiece. The RLG vault is 863 cubic feet and rents for \$4,746 per year. It has capacity for approximately 17,440 rolls of 35mm microfilm.

The cost study does not account for these storage costs since they are ongoing fees treated as overhead expenses. However, the costs for labels, mailing cartons, and shipping to the facility were calculated as were those for the related labor expenses. The median time spent on this activity was 1.75 minutes per title (with an average of 3 titles per reel), and the median cost per title for labor and supplies was \$0.15.

VARIATIONS IN COSTS AMONG THE SEVEN PARTICIPANTS

The costs and times involved for each of these twelve steps at the participating institutions varied widely. Table 1 summarizes the ranges in time spent for each step and also gives the median time for that activity across all project participants; table 2 reports on the average high, low, and median costs. A number of factors contributed to the variations, including the nature of the materials themselves, labor costs in a given geographical area, and institutional practices for such activities as the level of cataloging, local requirements for card catalog representation, and whether filming was done in-house or by a commercial service bureau.

The category of materials to be filmed represented the most significant variable among the seven projects. Because filming costs accounted for between 45% and 78% of the total costs, the number of frames per title made a dramatic difference in the costs. Certain collections such as the Harris collection at Brown and the Hess collection at the University of Minnesota consisted of books with far fewer pages per title than, for example, the social science monographs at Michigan or the American

TABLE 1
AVERAGE TIME SPENT ON STEPS IN THE RLG
COOPERATIVE PRESERVATION MICROFILMING PROJECT

For 100 Titles	Time (in minutes)		
	low	high	median
1. Title identification	.4	5.2	1.4
2. Retrieval	.5	4	1.8
3. Circulation records	.9	5.4	1.9
4. Searching	1	19.4	5.5
5. Curatorial review	.3	3.2	1.1
6. Queuing	4.3	16.5	14.4
7. Physical preparation	4.9	44.5	21.6
8. Target preparation	2.3	26.9	8.3
9. Filming	50	186.5	117.1
10. Film inspection	1.2	13.9	6.7
11. Cataloging	8.3	60	17.3
12. Labeling/packing	.3	7.7	1.8

TABLE 2
 AVERAGE COSTS FOR STEPS IN THE RLG
 COOPERATIVE PRESERVATION MICROFILMING PROJECT

Institutional per Title Averages:	Costs (in dollars and cents)		
	low	high	median
1. Title identification	.09	1.09	.29
2. Retrieval	.03	.76	.19
3. Circulation records	.07	.78	.32
4. Searching	.06	1.69	.65
5. Curatorial review	.07	1.12	.41
6. Queuing	.45	3.32	2.59
7. Physical preparation	.50	7.74	3.76
8. Target preparation	.23	3.85	1.52
9. Filming	16.75	47.14	31.91
Filming costs figured on a per frame basis:	.18	.34	.26
10. Film inspection	.19	2.94	1.44
11. Cataloging	1.96	19.70	3.01
12. Labeling/packing	.11	1.68	.15

history materials at Yale. The average number of frames per title at participating institutions ranged from 49.5 to 197.6.

Other variables inherent in the nature of the materials were their conditions (which influenced the amount of preparation and filming time required), their subject area (which affected the amount of searching time necessary to verify that films were not available), and the relative ease with which they could be identified, retrieved, and approved for filming. It is usually much less expensive to film a special collection of monographs already preselected and housed in one location than to work through a shelflist or other screening process, retrieve materials from all over a library (or campus), and subject them to item-by-item review by curatorial staff.

The available labor and the cost of that labor also contributed to the cost differential from one institution to another. For example, student labor at the University of Michigan was readily available and relatively inexpensive compared to unionized full-time employees at the New York Public Library. Throughout ten of the twelve steps in the preservation microfilming process, labor makes up virtually 100% of the costs calculated in this study. (The steps with a significant supplies component included filming and packing/shipping.) Consequently, the market rate salaries in a given area or institution for positions such as curators, project managers, catalogers, camera operators, and clerical assistants had a significant impact on the average costs, as did the speed with which each of them was able to complete required tasks.

Finally, institutional practices also contributed to the cost differential. At the two institutions which elected to do full AACR2 cataloging of the preservation microfilm, it took approximately one hour per title (using a combination of paraprofessional and professional time) and constituted almost 30% of the total dollars spent at those institutions on the project.

In contrast, at the other five locations all of which used paraprofessional or student staff to catalog at the RLG recon level, the percent of the total costs attributable to cataloging was in the 8% to 15% range and took a median time of 29 minutes per title. (These cataloging calculations include the queuing step of the process as well as the final cataloging of the completed film.)

As to the variation in costs between filming done within an institution and filming done by a commercial service bureau, this particular study does not demonstrate a wide cost differential. The two institutions which used commercial service bureaus (one for profit, one not-for-profit) paid \$0.33 and \$0.34 per frame, respectively, for all filming expenses to produce three generations of microfilm (a master negative, printing master, and service copy). The institutions with in-house facilities calculated per frame costs between \$0.18 and \$0.28 per frame. It is significant, however, that none of these figures are perfectly analogous to the others. There are discrepancies in the degree to which institutions factored overhead costs into these numbers and whether or not the individual photo-services unit reported a flat rate charged for all filming or was able to calculate exactly what was expended on the particular project. Other factors influencing the filming costs included volume (the number of titles processed at each institution for the project), the ability to streamline procedures, the condition of the materials, whether the bindings had been removed for filming (adding to the preparation time but speeding up the filming time), and the skill of the staff.

Although not a significant factor in the overall costs, the amount of time and money expended on the preparation of targets for filming with the items nevertheless represents one of the most dramatic illustrations of the way in which local practices can affect the costs. At least one institution prepared bibliographic targets using student labor to hand letter them. This procedure cost \$0.23 per title. The majority of the institutions preferred printed targets (prepared by several different methods) and included more targets to assist the reader in using the film and to account for anything unusual about the film (such as missing or mutilated pages or illustrations filmed at the end). Consequently the costs among the seven institutions ranged from an average of \$1 to almost \$4 per title.

However, there is more at issue here than costs, and the implications extend beyond target preparation to all aspects of the process. The real question is, how does one strike a balance between the quality of the final product and the costs associated with adhering to high standards and facilitating the patron's use of the film? While this study could not produce clear-cut answers to this somewhat rhetorical question, it, at least, provided more information for managers to use in making decisions about specific local procedures.

BENEFITS OF THE STUDY

This project provided a unique opportunity to survey costs for producing archival quality microfilm at seven different institutions using mutually agreed-upon procedures and standards. By offering more in-

formation on the subject of costs, the study enabled the project managers to consider possibilities for reducing costs based on their individual experiences and that of their colleagues.

These insights led to a revision of the project guidelines (as reflected in the second edition of the *RLG Preservation Manual*) as well as to adjustments in some local procedures. Once it was established that any of the bibliographic sources consulted during the search process yielded a hit rate of 10% or less, checking was discontinued. Savings realized from less searching should more than offset the occasional duplicate film which results from the relaxed standard. The installation of RLIN terminals in several of the preservation units involved in the project made it more convenient, and therefore cheaper to search, queue, and catalog the materials.

To streamline the preparation step the requirement for page-by-page collation was eliminated for most volumes that appeared, after a quick inspection, to be intact. In addition, the practice of erasing stray marks on pages and mending tears was discontinued except when the legibility of the text was severely affected. And multiple targets indicating specific collation problems throughout a volume were replaced by one target at the beginning to indicate "Best Copy Available" or "Filmed as Bound." In the future several institutions plan to produce targets using microcomputers, which should reduce the costs even further.

The results of the study do not constitute a basis for direct correlations in estimating costs for other projects. They can, however, provide a general framework for cost predictions. For example, in similar projects, one could assume that the filming costs (which can be easily calculated by using a filmer's per frame estimate in combination with a projection as to the total number of pages to be filmed) constitute between 45% and 78% of the total costs.

Estimates for the other steps in the process can usually be derived by analyzing the collections to be filmed. How much searching will be needed to determine whether an item has been filmed? To what extent will curatorial review be necessary? What level of cataloging is required? What are the staffing needs and requisite salaries? In most instances, it is worthwhile to conduct time studies of a small sample of the materials for steps with potentially significant variables, such as searching, preparation, and cataloging. Local labor costs can then be calculated according to the time figures. The appendix includes a formula along these lines that has proved useful in making estimates for other RLG preservation projects.

CONCLUSION

This study represents one systematic attempt to document the costs associated with all steps involved in the production of archival quality preservation microfilm. Aspects of this project, as well as local complexities at each participating institution, may not apply in other projects. More than anything else, the diversity of results and special circumstances that existed among the seven institutions participating in the same project argue against the existence of a typical project on which

others can base their own estimates. Nevertheless, as other studies are undertaken and made available, they can, in combination with this one, begin to establish a reservoir of data so that more informed costs estimates will be possible.

REFERENCES AND NOTES

1. Research Libraries Group, *RLG Preservation Manual*. 2d ed. (Stanford, Calif.: Research Libraries Group, 1986). References in this article are to the second edition, although the first edition was used in the project.
2. For an explanation of the test for embrittlement see Gay Walker and others, "The Yale Survey: A Large-Scale Study of Book Deterioration in the Yale University Library," *College & Research Libraries* 46:119 (Mar. 1985).
3. See Library of Congress, Preservation Microfilming Office, *Processing Manual* rev. 1981 by Tamara Swora and Bohdan Yasinsky. (Washington, D.C.: Library of Congress, 1981). The ANSI (later NISO) standards consulted in the preparation of the guidelines and specifications are cited in *RLG Preservation Manual* (see ref. 1), p.21.

APPENDIX A WORK SHEET FOR ESTIMATING PROJECT COSTS

It often is necessary to prepare a projected budget, either for a grant proposal or for internal budget planning, before embarking on a preservation microfilming project. This work sheet provides a framework that can be adapted depending upon the particular circumstances. It is meant to be suggestive rather than prescriptive. Many of the steps apply only to typical book format library materials and will not apply to archival or manuscript materials.

- A. Define and figure the size of the entire target population *before* the searching and curatorial review steps occur (this step will probably require a sample study).
 - 1—Total number of volumes in the proposed collection = _____ (1)
 - 2—Total number of titles in the proposed collection = _____ (2)
- B. Estimate the percentage of materials expected to be eliminated by curatorial review (this step may require a sample study).
 - 3—Estimated percentage expected to be eliminated by review process = _____ (3)
- C. Anticipate the searching hit rate, that is, the percentage of titles expected to be available on film, fiche, or other format. It probably will be necessary to conduct a pilot search project to document this percentage. In the RLG project alone the hit rate ranged as low as 1% and as high as 60%, depending on the target and search strategy.
 - 4—Estimated searching hit rate percentage = _____ (4)
(Depending on the project, it may be advisable to switch the order of steps 3 and 4. Some curators will prefer to review materials after they have been searched while others will be able to screen materials before the searching step.)
- D. Reduce the numbers in steps 1 and 2 first by the percentage in 3, then by the percentage in 4.
 - 5—Number of volumes to be filmed = _____ (5)
 - 6—Number of titles to be filmed = _____ (6)
 - 6a—Calculate average number of volumes per title = _____ (6a)
<Divide number of volumes by number of titles.>
- E. Estimate the local costs per title for prefilming activities (identification, searching, preparation, and curatorial review). Estimate times for each step and then costs, based on the level of staff performing each step.
 - 7—Estimated prefilming costs per title = _____ (7)
 - 7a—Prefilming cost per title converted to per volume = _____ (7a)*

- F. Estimate the amount of time it will take to catalog each title. Consider whether the item already has been cataloged, whether the record is already online (where applicable), whether the original needs to be withdrawn from the collection, the standard of cataloging to be applied, level of staff to be assigned to the task, etc.
 <The average time for this step ranged from 23 to 66 minutes in the RLG project, which also included queuing the title on the RLIN system at the time the decision was made, and then later updating that record.>
 8—Cataloging cost per title = _____ (8)
 8a—Cataloging cost per volume = _____ (8a)*
- G. Calculate the average number of pages per volume among those in the to-be-filmed category (a sample study is usually necessary)
 9—Average number pages per volume = _____ (9)
- H. Get an estimate from the filmer, whether internal or external, for the per frame cost of producing master negative and service copy (and duplicate negative, if applicable). This should include all charges from filmer, e.g., inspection, supplies, labor, etc.
 10—Per frame filming charge = _____ (10)
- I. Unless filming newspapers or other oversized materials, allow two pages per frame. When calculating per volume costs for filming and producing all required generations.
 11— $\langle 9 \rangle \div 2 \times \langle 10 \rangle$ = per volume filming costs = _____ (11)*
- J. Calculate local inspection costs (filmer's inspection costs should be included under H). <Based on RLG project, local inspection may take between 5 and 15 minutes per title depending on number of frames.>
 12—Local inspection costs per volume = _____ (12)*

Add * items to arrive at an approximate cost per volume.

Accuracy of LC Copy: A Comparison between Copy That Began as CIP and Other LC Cataloging

Arlene G. Taylor and Charles W. Simpson

To analyze the accuracy of two types of Library of Congress cataloging 900 items with catalog records created first as Cataloging in Publication and 908 items not in that program were examined and compared. Types and frequencies of errors were observed with a separate analysis of significant errors. Few errors per record were found, regardless of group. A higher proportion of records that began as Cataloging in Publication were found to have errors; but of the errors made, a lower proportion of significant errors were found in the Cataloging in Publication group. Recommendations are made for copy cataloging based on the somewhat different types of errors found in the two groups.

THE CATALOGING IN PUBLICATION (CIP) PROGRAM, which began in 1971, currently provides more than 35,000 prepublication cataloging records annually for new monographs published in the United States. The program is administered by the Cataloging in Publication Division of the Library of Congress (LC) and functions with the cooperation of more than 2,500 U.S. publishers. Since the program's inception, the degree of accuracy of the CIP data produced in relation to the published items has been questioned, particularly in relation to other cataloging emanating from LC. In discussions with both authors, paraprofessional copy catalogers and heads of copy cataloging units have expressed a strong belief that LC copy that originated as CIP is less accurate than LC copy produced outside the CIP process. If the belief is true, there are implications both for the updating process at LC and for the management of copy cataloging units. If the belief is found to have no basis in fact, managers need to know that all LC finished copy can be treated equally. This study addresses the issue by examining the accuracy of CIP data that has been updated to conform to the published item and issued on LC/MARC tapes and compares it with the accuracy of cata-

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logging produced by LC that is not part of the CIP process.

CIP CATALOGING

The CIP process starts in the Cataloging in Publication Division with the receipt of prepublication galleys or front matter from publishers cooperating in the CIP program. A catalog entry is prepared based on this information and is forwarded to the publisher for printing on the verso of the title page when the item is published. Cataloging data for this purpose includes title proper, series, notes (but only the first few elements of contents notes), ISBN, tracings, LC classification number, Dewey Decimal Classification number, and LC card number. The same preliminary information, with the addition of other title information, statement of responsibility, edition area, publication area, and full contents notes, is issued on LC/MARC tapes. When the item is published and received by the Cataloging in Publication Division, it is reviewed and additions and changes are made. This results in LC cataloging records in printed form and the issuing of an updated LC/MARC record. Only the preliminary record, of course, exists on the title page verso of the published item.

Errors can occur at the first stage of the CIP process, particularly with regard to subject analysis and classification, due to incomplete data supplied by the publisher. In addition, subsequent changes made by the publisher prior to publication may adversely affect the original CIP data. For example coauthors' names may be reversed or changes may occur to title elements, series, contents, and/or imprints.

Errors made at the first stage can be perpetuated at the second stage if the cataloger at LC fails to notice that the item received bears information different from that found in the CIP data or that the subject of the actual item is not what the front matter implied it would be. In addition, new information added to the record is subject to the same human error that can affect original cataloging. However, many errors that were made at the first stage because of incomplete or incorrect information from the publisher are caught and changed at the second stage by LC catalogers. Such changes mean that the finished copy may sometimes vary greatly from the CIP version that may have already been used by numerous libraries.

Two studies have reported on the numbers of changes that are made by LC between the appearance of CIP copy and the updated version produced after publication of the book. Arlene Taylor Dowell compared the CIP on the verso of the title page with the finished printed full cataloging.¹ She found that 68.4 percent of the sample titles had at least one item that was different on the final copy from the way it was printed in the CIP in the book. Of all the differences, 28 percent occurred in an access point. These "significant" changes appeared on 24 percent of the records. Shirley W. Leung compared MARC CIP records with the finished full MARC records for those items.² She compared fourteen bibliographic elements in those records, of which six were considered to be "primary" because they would require attention by trained catalogers in order to correct them in a CIP record. She found that 58 percent of the

records had no variation in the fourteen elements studied, and 78 percent had no variation in the six primary elements (i.e., 22 percent of the records had "significant" changes). She pointed out that

For the purpose of this study full LC MARC cataloging records were considered as the completed end product. There was no effort to assess the quality or accuracy of the full LC MARC records.³

In the study reported in this paper the number and types of errors that remained on the final updated version of the cataloging were analyzed and compared with those found on the LC copy for a control group of items whose cataloging did not begin as CIP—a study not previously undertaken. The changes made between the CIP version and the final record were also noted, but are not a part of this report.

METHODOLOGY

The samples consisted of 900 books for which CIP records were available and 908 books in the non-CIP control group. These sample sizes allow the study to state with 95 percent confidence that the findings are accurate within plus or minus 2 percent. The data were collected from March 1982 to June 1983 in an academic research library that is an OCLC participant. The samples were chosen by taking every book that fitted the criteria for the study that arrived in the cataloging department during the time period. Books arrived randomly from the acquisitions department, and there was no reason to believe that the samples would not be self-randomized. The CIP group was chosen by selecting every book for which CIP copy was available in the OCLC database. Printouts were made for each. Books whose copy had begun as CIP that had subsequently been updated were not selected because it would be impossible to obtain the original CIP copy. Throughout the study period the CIP sample was searched again for updated MARC copy, and printouts were made when found. It was necessary to collect a sample of 1,497 books in the CIP sample in order to complete the study with a sample of 900. Finished copy for 597 had not been found by the time analysis began. The non-CIP control group was chosen by taking the first 919 books that had not been cataloged originally in the CIP program. In order to facilitate equal analysis, this group consisted only of English-language items in recognition of the fact that CIP materials are mostly in English. Printouts were also made for the non-CIP control group items. A few items in this group had to be rejected, because, for example, the copy was for multiple volumes of a set, but the study library had not acquired all the volumes by the time of analysis. A sample of 908 remained.

For both groups, the authors performed "copy cataloging" for each item, comparing the copy with the book itself. Codes for 125 types of errors were assigned. These codes represented various aspects of MARC coding, Dewey and LC classifications, selection and form of access points, and descriptive elements. Separate codes were used for "errors" due to changes in cataloging policy occurring since the records were prepared and for variations in local copies. "Errors" were deter-

mined by comparing the bibliographic record with the item in hand and then using the cataloging rules, rule interpretations from the *Cataloging Service Bulletin*, and the OCLC/MARC format for books to determine the correctness of the final record.

Analysis of most categories of error was straightforward. For example, a title word misspelled, an incorrect number of pages, or an incorrect filing indicator required only categorization of the error. Some, however, required more subjective judgment. An occasional subtitle or publisher statement required consultation, but subjectivity was primarily evident in subject analysis and classification decisions. Where "errors" were in question, both authors had to agree in order for an error to be counted. This may have caused us to err on the side of counting too few errors. The lack of outside funding prevented a subsequent review of these findings by an independent jury.

Given the variety of subject matter represented in the two samples, the authors were able to question and verify only those subject headings that seemed obvious candidates for extra scrutiny. All LC classifications were verified in the LC classification summary used with the LC Alert Service, and all Dewey numbers were verified in the "Third Summary" of the nineteenth or eighteenth edition of Dewey (whichever was appropriate). When necessary, the complete LC or Dewey classification schedules were consulted. Forms of name entries were verified only when questionable, for example, when they were in conflict with AACR2 or when the form in the statement of responsibility had been changed without a corresponding change in an access point.

Information pertaining to the items in the two samples was also compiled. This included the month and year of input into OCLC, the imprint date, broad LC and Dewey Decimal Classification categories, and the type of publisher (trade scholarly, university press, etc.). In addition, it was noted whether the cataloging was done according to AACR2, pre-AACR2 but according to ISBD, partial ISBD, or pre-ISBD. The data were input into SAS (Statistical Analysis System) for computer analysis.

DESCRIPTION OF THE SAMPLES

To determine whether the two samples were really comparable, certain of their physical characteristics were compared. Table 1 shows frequency of the two samples by imprint date. Imprint dates differed by group because the CIP group was chosen by selecting only items whose MARC records were still CIP records. (*CIP group* is used in this report to refer to the group whose records were first created as CIP records even though their finished MARC records are not, in fact, still CIP records.) Thus, there were none in that group with imprints before 1978. This table illustrates one of the limitations of this study: one important group that was not sampled consists of items whose cataloging began as CIP and were already updated to full MARC by the time of the study.

Table 2 shows distribution of the two samples by date of input into OCLC. This feature is important because it is more indicative of date of

original cataloging than is imprint date, although the date of final updating of the CIP copy is usually one or more years after the input date. It can be seen by comparison with table 1 that, as expected, CIP titles are first cataloged before their imprint dates while non-CIP titles are cataloged after their imprint dates. One can also see that the samples cross the time periods of implementation of ISBD (September 1974), AACR2 (January 1981), and the elimination of shared cataloging (May 1982).⁴ The majority of both samples—750 (83.3 percent) of the CIP sample and 520 (57.3 percent) of the non-CIP sample—were cataloged according to AACR2. All of the pre-AACR2 CIP records and 290 (31.9 percent) of the non-CIP records were prepared according to pre-AACR2 ISBD format. Eight of the non-CIP records were partial ISBD while 90 records were pre-ISBD. These factors had to be taken into consideration in the analysis of errors.

TABLE 1
DISTRIBUTION OF SAMPLES BY IMPRINT DATE

Date	CIP Sample		Non-CIP Sample	
	Number	Percent	Number	Percent
1957-70	0	0.0	57	6.3
1971-75	0	0.0	80	8.8
1976	0	0.0	28	3.1
1977	0	0.0	37	4.1
1978	1	0.1	57	6.3
1979	10	1.1	54	5.9
1980	28	3.1	181	19.9
1981	368	40.9	371	40.9
1982	477	53.0	43	4.7
1983	16	1.8	0	0.0
Total	900	100.0	908	100.0

TABLE 2
DISTRIBUTION OF SAMPLES BY DATE OF INPUT INTO OCLC

Date	CIP Sample		Non-CIP Sample	
	Number	Percent	Number	Percent
1957-70	0	0.0	10	1.1
1971-75	0	0.0	110	12.1
1976	1	0.1	23	2.5
1977	1	0.1	26	2.9
1978	1	0.1	53	5.8
1979	23	2.6	43	4.7
1980	126	14.0	73	8.0
1981	585	65.0	272	30.0
1982	162	18.0	298	32.8
1983	1	0.1	0	0.0
Total	900	100.0	908	99.9

Table 3 gives frequency by type of publisher. It can be seen that the materials in the samples represent an academic library orientation. There is a smaller proportion of books published by the popular trade publishers than is true in the publishing universe and a *much* smaller proportion than would be represented in most public libraries. The fact that the number of titles from professional organizations and societies is the second largest category in the non-CIP sample but the fourth largest of the CIP sample demonstrates that few such groups participate in the CIP program. The "other" category contains such groups as government bodies, foundations, businesses, vanity presses, private presses, etc., and constitutes another group that is not likely to participate in the CIP program.

TABLE 3
DISTRIBUTION OF SAMPLES BY TYPE OF PUBLISHER

	CIP Sample		Non-CIP Sample	
	Number	Percent	Number	Percent
Trade scholarly	516	57.3	438	48.2
University press	206	22.9	112	12.3
Trade popular	127	14.1	111	12.2
Professional organizations/ Societies	29	3.2	155	17.1
Trade reprint	15	1.7	44	4.8
Other	6	0.7	45	5.0
University press Reprint	1	0.1	3	0.3
Total	900	100.0	908	99.9

Similar proportions of broad subject areas are represented in the two samples whether the breakdown is by Dewey Decimal Classification or LC classification, as shown in table 4. In all cases the social sciences represent more than one third of the samples. This is a reflection of the collection emphasis of the library where the samples were taken.

RESULTS OF THE STUDY

It was found that 429 or 47.7 percent of the CIP records and 430 or 47.4 percent of the non-CIP records were error free. Because of the pre-1978 imprints that existed in the non-CIP sample, we felt that an analysis of the 1978-82 imprints from that sample would provide a better comparison. Of the 706 items in this group, 359 or 50.8 percent were error free. However, "errors" in our study included differences in the local library copy from that owned by LC and changes in cataloging policy occurring after the LC record was prepared. Although these are not true "errors," they require the attention of copy catalogers; thus, we chose to include them, but to tabulate them separately. When the records that had no errors other than local copy differences or policy changes are added to the other error-free records, the number of error-free CIP records is 447 or 49.7 percent, while the numbers for the two

TABLE 4
DISTRIBUTION OF SAMPLES BY BROAD SUBJECT AREAS

Dewey	CIP Sample		Non-CIP Sample	
	Number	Percent	Number	Percent
Social sciences	281	31.2	301	33.2
Humanities	171	19.0	167	18.4
Sciences	166	18.4	177	19.5
Literature	143	15.9	128	14.1
History	77	8.6	94	10.4
General	62	6.9	41	4.5
Total	900	100.0	908	100.1

LC	CIP Sample		Non-CIP Sample	
	Number	Percent	Number	Percent
Social sciences	316	35.1	340	37.4
Literature	179	19.9	161	17.7
Sciences	176	19.6	183	20.2
History	95	10.6	107	11.8
Humanities	90	10.0	94	10.4
General	44	4.9	23	2.5
Total	900	100.1	908	100.0

non-CIP groups are somewhat higher: 525 or 57.8 percent and 402 or 56.9 percent. While there is no statistically significant difference between the samples when all "errors" are counted, use of a t-test shows that the difference between the CIP group and the non-CIP groups not counting local copy differences and policy changes is significant at the .01 level.⁵

The effect of the change in procedures of the Shared Cataloging Program (in May 1982) on the overall quality of subsequent LC cataloging is unknown. A substantial portion of the non-CIP sample of this study (349 records, or 38.4 percent) represented shared cataloging reflecting the former practice of creating records based on bibliographic descriptions appearing in national bibliographies. By comparing the shared cataloging records in the non-CIP sample with those not prepared by shared cataloging, we found that fewer shared cataloging records (50.4 percent) than nonshared cataloging records (62.4 percent) were error free. On the other hand there were more errors per record on the records with errors in the nonshared cataloging group (1.89) than in the shared cataloging group (1.80).

In tabulating the samples by year of cataloging, it appears that the implementation of AACR2 had an effect on error rate. Year of cataloging was taken to be the year of input for the non-CIP group, but for the CIP group, the year of input represented creation of the CIP copy. Finished cataloging was not completed until after publication; so the imprint date was used for this group. It can be seen in table 5 that the error-free rate was considerably lower for both groups in 1980, the year of preparation for AACR2. The rate improved in 1981 when there was presumably more attention to individual cataloging records by supervisors.

TABLE 5
ERROR-FREE RECORDS BY YEAR OF CATALOGING

Year*	Total Number	CIP Sample			Total Number	Non-CIP Sample		
		Percent†	Modified Number††	Percent†		Percent†	Modified Number††	Percent†
1977	0	0.0	0	0.0	14	53.8	16	61.5
1978	0	0.0	0	0.0	26	49.1	36	67.9
1979	5	50.0	5	50.0	22	51.2	28	65.1
1980	10	35.7	11	39.3	31	42.5	38	52.1
1981	174	47.3	184	50.0	146	53.7	159	58.5
1982	229	48.0	235	49.3	151	50.7	162	54.4

*CIP sample has been categorized by imprint date and the non-CIP sample by the date the record was input into OCLC.

†Percent of each year's sample

††Records with only local copy differences or differences occasioned by policy changes are included here as error-free.

The total numbers of errors for the three groups were 860, 885, and 601, as shown in table 6. When divided by the numbers of records with errors it can be seen that when errors are made, there is a fairly consistent number of errors per record, regardless of the origin of the copy. When the local copy differences and policy changes are excluded, the errors per record remain consistent. Of course this represents only an average number of errors per record. Although not shown in the table, about half of the records that have errors have one error each, while the remaining half have from two to seven errors each.

Errors were analyzed according to 125 types representing 22 major categories such as main entry, title, imprint, subjects, and MARC format. The two most frequent errors in the CIP group, occurring 53 times each, were erroneous coding of the OCLC/MARC "ILLUS" fixed field, and the punctuation of what was clearly other title information as if it were part of the title proper and not preceded by a MARC subfield b

TABLE 6
FREQUENCIES OF ERRORS

	CIP Sample	Non-CIP Sample	
		Entire Sample	1978-82 Imprints
Complete sample			
Records in sample	900	908	706
Records with errors	471	478	347
Total number of errors	860	885	601
Errors per record	1.83	1.85	1.73
Sample excluding records with required changes*			
Records with errors	453	383	304
Total number of errors	821	725	544
Errors per record	1.81	1.89	1.79

*Required changes are those that involve local copy differences and local policy changes.

code. This was considered an error only if the other title information was clearly set off from the title proper on the title page by typographical or other means. The third most frequent error in the CIP group was found in the illustration statement of the physical description area. These three errors were also the most frequent types in the 1978-82 non-CIP group and were the most frequent in the entire non-CIP group when errors occasioned by policy changes and local copy differences were excluded. Of the three, the errors in identification of other title information are by far the most serious. Treating other title information as if it were part of the title proper can have a major impact on the manner in which such a title is retrieved. For example, one severe consequence for OCLC users is the unwanted and unnecessary addition of duplicates to the database when existing records are not found due to incorrect title search keys, even though, from the book in hand, such a search key appears to be clearly correct with regard to title proper information.

It should be noted that subsequent to the time of this study, LC issued a rule interpretation for AACR2 rule 1.1B that changed the manner in which title proper information is to be interpreted.⁶ This new interpretation should solve the problem.

Table 7 gives the frequency of each error that amounted to more than 2.5 percent of the total errors in the samples. The four errors qualifying only for the CIP group all represent situations that would be easy to overlook when comparing already prepared copy (CIP) with a book in hand. There is less likelihood that such errors would be made when creating a record directly from an item in hand. (The problem with wording of bibliography notes may have been corrected recently. Since the completion of data collection for this study, LC has redefined *bibliography* and *bibliographical references* to be more in line with the way these terms are used in real life.) Errors that amounted to more than 2.5 percent only in the non-CIP groups were rare errors in the CIP sample.

When the errors were grouped into larger categories, it was found that errors in fixed fields topped the list in all three groups. These consisted of such errors as a "0" in the OCLC/MARC "INDX" fixed field when there was an index note in the record, a blank OCLC/MARC "CONT" value when there was a bibliography, or an "a" in the OCLC/MARC "ILLUS" fixed field when there were no illustrations in the item. In all three groups, slightly more than half the errors fall into five categories. Three categories are found in the top five in all three groups: MARC coding for fixed fields, collation, and title proper. Collation errors included cases where the pagination or the statement of illustrations did not match the book. Size was not checked in this study. Errors in title proper included incorrect spelling or wording (including "&" versus "and"), punctuation errors (e.g., ". . . measurement of highpurity water quality" instead of ". . . measurement of high-purity water quality"), incorrect other title recognition (discussed above), and incorrect filing indicators. These three categories account for 36.5 percent, 34.4 percent, and 35.9 percent of the CIP, non-CIP and 1978-82 non-CIP errors, respectively.

The second largest CIP error group is imprint errors, which ac-

TABLE 7
 ERRORS THAT ACCOUNT FOR AT LEAST
 2.5 PERCENT OF THE ERRORS

	CIP Sample (Percent)	Non-CIP Sample (Percent)	Non-CIP 1978-82 Imprints (Percent)
In both samples:			
“ILLUS” in fixed field in error	6.2	6.1	7.5
Error in other title punctuation	5.9	6.1	6.2
Illustration statement in error	5.9	6.0	7.3
Punctuation error not in a point of entry or not affecting filing	4.0	4.3	4.7
Pagination in error	4.0	2.9	3.5
“Error” due to policy change of LC or OCLC	3.7	10.8	4.7
043 field (indication of geographical subject) missing	2.7	4.1	3.8
“CONT” in fixed field in error	2.7	2.7	3.0
“INDX” in fixed field in error	2.6	3.6	3.7
In CIP sample only:			
Copyright symbol in error	3.7	1.5	1.7
Wording of bibliography note in error	3.6	1.1	1.3
Form of publisher name in error	2.8	0.9	0.5
Bibliography note omitted	2.6	1.8	2.2
In non-CIP sample only:			
Local copy differences	0.8	4.8	7.2
Dewey number in error	1.3	3.5	2.7
Subfield codes incorrect or missing	0.9	3.0	2.7
ISBN lacking on copy	0.9	2.7	2.6
Added entry missing	0.9	2.7	2.6

counted for 10.9 percent of the CIP group errors, but represented only 3.7 percent of the errors in the non-CIP groups. While a third of these were the result of the erroneous presence or absence of the copyright symbol before the date, the remaining two-thirds resulted from the place, publisher, date, or the form of the place or publisher being in error.

The second largest category in the complete non-CIP sample, that of policy changes, was discussed above. While LC cannot do anything about this group, these "errors" must be dealt with by any library that uses LC copy that is more than a year or two old.

SIGNIFICANT ERRORS

It is apparent from the above discussion that a number of the errors are inconsequential. Some errors, such as spelling *bibliography* as *bibliobraphy*, probably only provide patrons with a source of amusement. Therefore, we pulled out for analysis what we considered to be significant errors. We defined *significant errors* as those affecting main entries, uniform titles, titles proper, series statements (excluding numbering and/or punctuation), choice and form of name, title, series, and LC subject added entries, LC and Dewey Decimal Classifications, LC card number, OCLC/MARC fixed field for "DATES," ISBN, and MARC tagging for 1xx (main entry), 2xx (title), 4xx (series statement), 5xx (notes), 6xx (subject tracings), 7xx (author and/or title added entries), and 8xx (series traced differently) fields. In other words, any error that would affect any kind of access point was considered to be significant. The numbers of records that contained significant errors were 164 for the CIP group, 190 for the entire non-CIP sample, and 132 for the 1978-82 non-CIP group. These represented 18.2 percent, 20.9 percent, and 18.7 percent of the records in the samples, meaning that about one-fifth of all records contained one or more significant errors. In the CIP sample, of the 860 errors, 188, or 21.9 percent, were significant. In the total non-CIP sample, 236 of the 885 errors (26.7 percent) were significant, while in the 1978-82 non-CIP group, 166 of the 601 errors (27.6 percent) were significant. When "errors" attributed to local copy differences and policy changes were subtracted, the percentages of significant errors became 22.9 percent, 32.6 percent, and 30.5 percent for the three groups. Using again the t-test for statistical significance, it was found that the difference here between the CIP and non-CIP groups is statistically significant at the .01 level.⁸ These figures are in contrast with the percentages of records with errors in the samples (CIP sample, 52.3 percent; entire non-CIP sample excluding local copy and policy changes, 42.2 percent; 1978-82 non-CIP sample excluding local copy and policy changes, 43.1 percent). While lower proportions of the non-CIP records had errors, when errors were made in the non-CIP group, higher proportions of them were significant.

Shared cataloging records also had smaller proportions of significant errors, even though they had higher proportions of errors overall. Only 21.1 percent of the shared cataloging errors were significant compared with 30.4 percent of the remaining non-CIP errors, and 16.9 percent of the shared records contained significant errors compared with 23.4 percent of the remaining non-CIP records.

Tables 8 and 9 give the kinds and numbers of significant errors that occurred in the three groups. Table 8 shows the figures in descending order by CIP sample, while table 9 shows the same data in descending order by complete non-CIP sample. Identifying other title information was the most common problem in all three groups. The second most common error in the complete non-CIP group, however, that of incor-

TABLE 8

FREQUENCIES OF DIFFERENT
TYPES OF SIGNIFICANT ERRORS
IN DESCENDING ORDER BY CIP
SAMPLE

Type	CIP Sample	
	Number	Percent
Other title		
punctuation	53	28.2
Added entries	22	11.7
Subject		
headings	22	11.7
“DATES”		
(fixed field)	15	8.0
Series	14	7.4
Title proper	13	6.9
Dewey		
Decimal		
Classification	12	6.4
ISBN	10	5.3
LC		
classification	8	4.3
MARC tags	7	3.7
Main entry	5	2.7
Filing		
indicator	5	2.7
LCCN	2	1.1
Total	188	100.1

TABLE 9

FREQUENCIES OF DIFFERENT TYPES
OF SIGNIFICANT ERRORS
IN DESCENDING ORDER BY NON-CIP SAMPLE

Type	Non-CIP Sample		Non-CIP 1978-82 Imprints	
	Number	Percent	Number	Percent
Other title				
punctuation	40	16.9	37	22.3
Filing				
indicator	32	13.6	0	0.0
Subject				
headings	29	12.3	23	13.9
Added entries	28	11.9	20	12.0
ISBN	28	11.9	21	12.7
Dewey				
Decimal				
Classification	25	10.6	22	13.3
LC				
classification	13	5.5	12	7.2
MARC tags	12	5.1	11	6.6
Series	10	4.2	7	4.2
“DATES”				
(fixed field)	8	3.4	4	2.4
LCCN	4	1.7	4	2.4
Title proper	4	1.7	2	1.2
Main entry	3	1.3	3	1.8
Total	236	100.1	166	100.0

rect filing indicators in the 245 field, represented only 2.7 percent of the CIP significant errors and did not occur in the 1978-82 non-CIP group. Apparently, filing indicators are a problem only on older copy. Added entry and subject heading errors occurred with about the same frequency in all three groups. The “DATES” area of the fixed field was in error in the CIP group twice as often as in the non-CIP group. One can see how this could happen in the CIP group. Because the “DATES” area is already filled in at the time of receipt of the completed book, the coder at LC has to remember to change it to agree with a changed imprint date rather than simply filling it in to match the imprint date. Series were also a problem in the CIP group almost twice as often as in the non-CIP groups, and the title proper had errors four times as often. On the other hand, Dewey numbers and ISBNs had errors in the non-CIP groups twice as often as in the CIP group.

CONCLUSIONS AND RECOMMENDATIONS

It might be possible for a reader, having examined all the data presented here, to conclude that LC cataloging is fraught with errors. Such a conclusion is not supported by our findings. Forty-seven percent of all the cataloging records were error free. Twenty-six percent of the records had only 1 error or discrepancy from current practice each. Most of the remaining records had only 2, 3, or 4 errors or discrepancies from current practice out of well over 100 such possibilities on each record. Also, as noted, some categories of “errors” represented local copy differences and thus are not true errors.

The ideal, of course, would be to be able to predict which of the many pieces of a record will be the ones to have errors. This cannot be done, but we can, as a result of our study, suggest some areas that could bear closer scrutiny. We recommend that for all copy the fixed fields, physical description area, and the title proper be given more attention. For copy that began as CIP, extra attention should also be given to the imprint area and to bibliography notes. For copy that did not begin as CIP, more care should be given to looking for local copy differences. For older copy, areas of policy change should be given more scrutiny, as well as MARC tagging, subfields codes, and filing indicators.

While as many as one-fifth of the records may carry an error defined as "significant," there seems to be little way to predict the locations of such errors beyond following the recommendations above. It appears that users of newer LC copy need *not* worry about LC card numbers, MARC coding, or main entries.

Although LC copy is not perfect, it appears to be fairly consistent in its quality from group to group. A higher proportion of records that began as CIP bears errors, but of the errors made on that copy, a lower proportion is in the "significant" category than is true of records that did not begin as CIP. The same is true for records from the shared cataloging program. There are very few errors per record, regardless of group. Less than 5 percent have 4 or more errors. There will likely always be a perception among those who use LC copy that there are serious problems, because people have a tendency to remember worst cases. However, an objective appraisal demonstrates that LC copy is of reasonably high quality regardless of its beginnings.

NOTES AND REFERENCES

1. Arlene Taylor Dowell, "Discrepancies in CIP: How Serious is the Problem?" *Library Journal* 104:2281-87 (Nov. 1, 1979).
2. Shirley W. Leung, "MARC CIP Records and MARC LC Records: An Evaluative Study of Their Discrepancies," *Cataloging & Classification Quarterly*, 4:27-39 (Winter 1983).
3. *Ibid.*, p.29.
4. *Cataloging Service Bulletin*, no.17:32 (Summer 1982).
5. A two-tailed t-test was used to compare each pair of proportions from the independent samples. The formula used was

$$t = \frac{\hat{p}_1 - \hat{p}_2}{\sqrt{\hat{p}\hat{q}\left(\frac{1}{N_1} + \frac{1}{N_2}\right)}}$$

where \hat{p}_1 and \hat{p}_2 represent the proportions being tested,
 \hat{p} represents the "pooled" estimate of the common proportion,
 \hat{q} is the value obtained when \hat{p} is subtracted from 1, and
 N_1 and N_2 represent the sample sizes.

The t-value when comparing the proportions of .477 for the CIP sample and .474 for the more recent non-CIP sample is 1.234, which is not statistically significant. The t-value when comparing .497 and .569, the proportions when local copy differences and policy changes are excluded, is 2.869, which is statistically significant at the .01 level.

6. *Cataloging Service Bulletin*, no.22:12 (Fall 1983).
7. *Cataloging Service Bulletin*, no.25:43 (Summer 1984).
8. Using the formula in note 5, the t-value when comparing the proportions .229 and .305 is 3.138, which is statistically significant at the .01 level.

Resistance to Online Catalogs: A Comparative Study at Bryn Mawr and Swarthmore Colleges

Carol Walton, Susan Williamson, and Howard D. White

Surveys of student and faculty attitudes toward proposed online public access catalogs were conducted in 1984 with largely identical questionnaires at two colleges. Support for the traditional card catalog was strong among both students and faculty at both colleges; only Swarthmore faculty gave majority support to the online catalog. A minority of perhaps one in six may never use the new technology. Resistance to change was proportionately highest in the humanities and lowest in the sciences, with the social sciences in between. Respondents were unused to waiting for access to the card catalog and seemed unlikely to tolerate more than brief waits for the online catalog. While unconcerned about keeping online searches private, they did not like the idea of searching as others waited. Perceptions of the online catalog were sometimes positive; many welcomed the idea of terminals in faculty offices and student dormitories. Differences between the two colleges, while not great, may result from Swarthmore's greater experience with campuswide computing.

THE LIBRARIANS OF THREE WELL-KNOWN LIBERAL ARTS COLLEGES in the Philadelphia suburbs, Bryn Mawr, Haverford, and Swarthmore, are jointly investigating the possibility of converting from traditional card catalogs to one online public access catalog (OPAC). Academic librarians now recognize the potential for improved access to collections provided by online catalogs—for example, the ability to search simultaneously on multiple fields, such as subject, date, and language of publication. However, despite the obvious benefits, the prospect of an online catalog can be daunting, in that questions persist about system reliability, number of terminals needed for adequate levels of service, and user reactions.

Given that an online catalog is viewed by library planners as a solution to a variety of problems, what remains is to reduce some of the unknowns about OPACs. While system reliability and demand for terminals are important considerations, the survey reported here is concerned with user attitudes. No system, however sophisticated, will be adequate if its intended users reject it out of hand or if they cannot use it to get desired information.

Although many of the studies of online catalog users report a high degree of satisfaction,¹⁻¹¹ only a few studies have surveyed the nonuser

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group to identify sources of resistance to using an OPAC. Reasons for nonuse are usually a lack of instruction or a lack of time to learn the new system.^{12,13} In a study at California State University at Chico, some "16 percent of the nonusers considered the computer catalog harder to use than the card catalog."¹⁴ The identical statistic was found for nonusers in the Council of Library Resources (CLR) study.¹⁵ At Ohio State University, Pease and Gouke identified a group of patrons who tried the online catalog and then returned to the card catalog because they felt a lack of confidence in their searching ability on the online system.¹⁶

None of these studies attempted, as this one does, to survey the market *prior to installation of an online catalog*, so as to identify both potential "resistants" and potential "receptives" to the new technology. Yet the results of interviews with library staff reported in the CLR study suggest that no library can afford to make such a major transition without first seeking to understand its clientele, particularly their misgivings. In one study, staff claimed that "users have more apprehensions about public online catalogs and request more assistance than the survey data may suggest."¹⁷

These apprehensions are a main concern in this paper. Legitimate or not, they must be taken into account in the planning and design phases if a new OPAC system is to be successful. However, we also report *positive* visions of change—views favorable to OPACs—from patrons who as yet know little about the new technology. Both negative and positive opinions, we think, are worth perusing by all library planners on whom the burden of implementing OPAC technology rests.

HYPOTHESES

With the above considerations in mind, a survey was designed by Walton and Williamson to gather information on user reactions to proposed OPACs at Bryn Mawr and Swarthmore Colleges. Swarthmore College has an enrollment of 1,350 students and its library contains some 600,000 volumes. Bryn Mawr College has an undergraduate enrollment of approximately 1,000 and a graduate enrollment of some 800 students. The library holds approximately 750,000 volumes. Library management at Bryn Mawr and Swarthmore colleges recommended this study, which was conducted and coordinated as independent study projects at the College of Information Studies at Drexel.

Questionnaires bearing largely identical questions were administered at Bryn Mawr and at Swarthmore in late spring of 1984, under the auspices of the Tri-College Library Automation Committee at Bryn Mawr, Swarthmore, and Haverford (see appendix A). The questions were intended to bear on the following hypotheses:

1. Users are basically satisfied with the existing card catalog system.
2. Most people would be receptive to using a computerized catalog, particularly if it provided more information. Greatest resistance is expected from the faculty.
3. Users are not accustomed to waiting to access the library's collection through the card catalog and would not react well to having to wait to use a computerized catalog.
4. Important concerns for users of an online catalog are that searching be (a) private and (b) unpressured.

5. Users would welcome remote access to the library's collections from additional locations on campus and would be willing to wait longer for such access just for the added convenience.

METHODOLOGY

An attempt was made to obtain representative samples of the campus communities, including faculty, students, and staff. Staff data were later omitted because of the small number of respondents. At Bryn Mawr, samples were taken at the main library (Canaday) and at the five branch libraries. In addition, approximately 100 questionnaires were distributed to faculty, graduate, and undergraduate mailboxes. A total of 236 were completed—189 by students and 47 by faculty. These returns represent 11 percent of the student body and 25 percent of the faculty.

The method of data collection at Swarthmore differed somewhat. Student responses were gathered by handing out questionnaires in classes, with the prearranged permission of individual faculty members. Large classes across a range of disciplines were chosen to reach a broad cross section of the student body. Faculty members received and sent back their questionnaires by college mail. Some 273 student questionnaires and 97 faculty questionnaires were completed—a total of 370. These figures represent 21 percent of the student body and 41 percent of the faculty.

The data gathering instrument was a self-administered questionnaire. In February 1984 a trial questionnaire was administered to 25 people at Bryn Mawr. Some flaws in the instrument became apparent, and it was subsequently revised. The questions were designed to avoid technical jargon and personal bias. All but one of the questions were forced choice and closed ended. The final draft was pretested on several students and after a few minor adjustments was administered during April and May 1984 at both colleges.*

Limiting respondents to only one answer sometimes caused discomfort. Fortunately, the questions people found hard to answer with only one choice were evenly distributed throughout the questionnaire, and no single question had to be discarded because of too few responses.

After being keypunched, the data were analyzed using the Statistical Package for the Social Sciences in version SPSS^x. Missing values were not figured into the percentages for each question, so that the total N in some of our tables varies slightly.

RESULTS

BACKGROUND INFORMATION

Respondents were asked to classify themselves in terms of their status at Bryn Mawr and Swarthmore. The breakdown of responses appears in table 1. Table 2 shows the breakdown of respondents by their general

*For those who have discovered that people are not sufficiently motivated to fill out library questionnaires, we offer this suggestion: *use an incentive*. The incentive for participating in this study at Swarthmore was a drawing for prizes—two \$10 gift certificates, one from a local cheese shop and the other from a local ice cream parlor. Both faculty members and students seemed pleased by this opportunity and gladly filled out both the questionnaire and a slip for the drawing.

fields of study. There is an overall similarity in the samples from both colleges, both in terms of status and fields of study. More faculty members are represented in the Swarthmore sample, but this is the only major difference between the two.

DATA ANALYSIS

Hypothesis 1. *Users are basically satisfied with the existing card catalog system.*

Respondents were asked to generalize about their rate of success in locating information with the card catalog. Table 3 shows the results, with 84 percent at Bryn Mawr and 88 percent at Swarthmore indicating successful catalog use more than half the time. Queried further about catalog effectiveness, 80 percent at Bryn Mawr and 63 percent at Swarthmore said that when they were unable to locate materials, the

TABLE 1

RESPONDENTS BY STATUS

Category	Bryn Mawr	Swarthmore
	N = 236	N = 370
Student	80%	74%
Faculty	20%	26%

TABLE 2

RESPONDENTS BY FIELD OF STUDY

Field	Bryn Mawr	Swarthmore
	N = 236	N = 370
Humanities	45%	39%
Social sciences	24%	27%
Natural sciences	29%	28%
Other	2%	6%

fault did not lie with the catalog itself. Rather, they believed, as table 4 shows, that the catalog merely reflected lack of materials in the collection. A sizable proportion at both schools attributed their lack of success to their own uncertainty about alternative ways to search. (Patrons at Swarthmore appear to be either less confident or more honest in this regard.)

These results generally support the hypothesis of satisfaction with the card catalog as a means of locating information. It is an established technology that users understand reasonably well. The strongest pressure for change to OPACs is coming not from users, but from library management.

Hypothesis 2. *Most people would be receptive to using a computerized catalog, particularly if it provided more information. Greatest resistance is expected from the faculty.*

The assumption here is that people do not have an aversion to computers per se. However, when asked to choose between a card catalog and a computerized catalog, both containing identical information, 56 percent from Bryn Mawr and 49 percent from Swarthmore expressed a preference for the card catalog (see table 5).

When the results in table 5 are broken down by respondent status (table 6), we see the expected "traditionalism" of faculty. Fully two-thirds of the Bryn Mawr faculty chose the card catalog over its online counterpart. The comparable figure for Swarthmore faculty is 44 percent—a minority, but a large one. Swarthmore faculty may be relatively more

open to computerization than Bryn Mawr's because of more experience using a campuswide mainframe computer system.

Note, however, that the students at both schools have large "traditional" elements; it is not the case that youth is solidly in favor of technological change. Half of the students at Swarthmore and 53 percent of those at Bryn Mawr choose the traditional card catalog over the OPAC. In fact, the only majority the computer catalog gets is from the Swarthmore faculty, and the result there is not overwhelming.

TABLE 3
SUCCESS WITH CARD CATALOG

Success Rate	Bryn Mawr Swarthmore	
	N = 233	N = 358
Seldom find information	2%	2%
Less than half the time	14%	10%
More than half the time	59%	62%
Almost always find information	25%	26%

TABLE 4
PERCEIVED REASON FOR LACK OF CATALOG SUCCESS

Reason for Failure	Bryn Mawr Swarthmore	
	N = 220	N = 344
Library lacks materials	80%	63%
Uncertain how to search	13%	31%
Confused filing arrangement	3%	3%
Other	4%	3%

TABLE 5
CHOICE OF CATALOG

System Preferred	Bryn Mawr Swarthmore	
	N = 223	N = 333
Card catalog	56%	49%
Computer catalog	44%	51%

Student feelings can be gauged from such remarks as the following. At Bryn Mawr an undergraduate wrote, "The serendipity of a card catalog is lost with computerization. I would be at a tremendous loss if the card catalog were removed." Another student preferred the card catalog "because I'd probably take forever unless I knew exactly what I was doing." Even those who opted for the computerized catalog expressed concern, such as one who warned, "We'd have to wait for terminals much longer than for drawers. It's not worth it." Or another who said, "I don't want *just* a computer catalog—as an auxiliary it would be nice, though." Yet another suggested an alternative: "What would be nice would be a [card] catalog on each floor."

TABLE 6
CHOICE OF CATALOG BY STATUS OF RESPONDENT

	Bryn Mawr		Swarthmore	
	Students	Faculty	Students	Faculty
System Preferred	N = 180	N = 43	N = 256	N = 77
Card catalog	53%	67%	50%	44%
Computer catalog	47%	33%	50%	56%

At Swarthmore feelings about the two options also ran high. Several students wrote in "very strong preference" when checking an option. Several noted that the card catalog was always available, while computer terminals would not be. A student who had done research with an online catalog said, "Overall, the flexibility of the computer is limited and frustrating at times, not to mention frustration at lack of terminals. Yeck!" Ambivalence was common: "This idea of computerization is a good one," a student wrote, "but making it the *sole* source of sources is the height of stupidity."

One interesting question was asked only in the Bryn Mawr version of the questionnaire. Respondents were asked to choose between a traditional card catalog and an online catalog that would provide information in greater depth. Some objected to this question as "too leading." Even so, 17 percent of the respondents overall still chose the card catalog. Note that this figure is similar to the 16 percent of nonusers in two precedent studies¹⁸ and may represent the irreducible core of computerphobes. In the breakdown by status, 12 percent of the students and 30 percent of the faculty would be reluctant to give up the card catalog for the online intruder.

These results do not offer strong support to the main hypothesis—that people are generally receptive to an online catalog when first proposed. They confirm, moreover, our expectations of substantial faculty resistance. Some respondents, of course, refused to answer the questions, pleading too little knowledge to make an informed choice. But we were surprised by the amount of resistance from the students, who by now have been exposed to other computer systems and appear to have accepted them.

In our hypotheses we did not conjecture whether respondents would differ by field of study in their acceptance of OPACs. However, as noted in table 2, we could place all respondents broadly in the humanities, social sciences, or natural sciences, and the cross tabulations are suggestive. As one would expect, allegiance to the traditional card catalog is highest in the humanities and next highest in the social sciences (with proportionately more "traditionalists" in both at Bryn Mawr). In fact, table 7 shows clear majorities for the computer catalog only in the natural sciences at both schools. (It will be recalled that, at Bryn Mawr, 17 percent of *all* respondents preferred the card catalog to an OPAC even when the latter was presented as richer in information. Within fields,

TABLE 7
CHOICE OF CATALOG BY FIELD OF RESPONDENT

System	Bryn Mawr			Swarthmore		
	Humanities	Social Sciences	Sciences	Humanities	Social Sciences	Sciences
Preferred	N = 103	N = 52	N = 65	N = 129	N = 91	N = 95
Card catalog	62%	61%	42%	54%	50%	41%
Computer catalog	38%	39%	57%	46%	50%	59%

those with this preference were sciences, 6 percent; social sciences, 18 percent; and humanities, 23 percent).

Hypothesis 3. *Users (a) are not accustomed to waiting to access the collection through the card catalog, and (b) would not react well to having to wait to use a computerized catalog.*

The first part of the hypothesis was tested by asking respondents about their experiences waiting to use a drawer of the card catalog. At Bryn Mawr 73 percent and at Swarthmore 77 percent stated that they had never had to wait to use the card catalog. That so many people expect "instant access" must be taken into account in orienting the community to an online system, so as to avoid false expectations of what the system can provide.

To test the second part of the hypothesis, users were asked how long they would wait to use a drawer of the card catalog, as opposed to a computer terminal. Tables 8 and 9 provide their respective answers. The percentage of users "unwilling to wait at all" or "to wait more than a minute" is considerable—about half the sample at both schools. (Student or faculty status does not matter.) Moreover, respondents at various levels of impatience are roughly the same for both the card and the online catalogs. We would infer from this that patience is not going to be more in evidence if online catalogs are installed. Serious efforts must be made to provide enough terminals to satisfy the demand for quick access.

Related to the issue of waiting is whether patrons are willing to interrupt someone else's extended search at a terminal if they need to do a quick search. At Bryn Mawr only 27 percent said they would be willing to interrupt. The reluctance of the rest—a large majority—could lead to frustration as they wait for access.

TABLE 8
RESPONDENTS' WILLINGNESS TO WAIT FOR CARD CATALOG DRAWER

	Bryn Mawr N = 228	Swarthmore N = 362
Length of Time		
Wouldn't wait at all or would return later	36%	24%
Wait about one minute	19%	26%
Wait 2-5 minutes	29%	35%
Wait 5-10 minutes	12%	9%
Wait as long as necessary	4%	5%

TABLE 9
RESPONDENTS' WILLINGNESS TO WAIT FOR ONLINE CATALOG

	Bryn Mawr N = 230	Swarthmore N = 355
Length of Time		
Wouldn't wait at all or would return later	27%	28%
Wait about one minute	22%	24%
Wait 2-5 minutes	33%	29%
Wait 5-10 minutes	14%	15%
Wait as long as necessary	4%	4%

At Swarthmore, interestingly enough, 51 percent said they would be willing to interrupt a terminal user. The presence of a large Prime computer network at Swarthmore has introduced students and faculty to competition for terminals as limited resources. This in turn may have induced a greater willingness to interrupt someone's ongoing work, rather as happens now at copying machines in many places.

Our data clearly support the hypothesis that users are not accustomed to waiting to access their library's collection. While willingness to wait varies, it also seems clear that large (sometimes majority) groups of users will not use an online catalog if they have to wait for it very long.

Hypothesis 4. *An important concern for users of an online catalog is that searching be (a) private and (b) unpressured.*

People were asked to state whether they would feel uncomfortable if someone could see what they were searching on the computer terminal. Apparently refuting the hypothesis, 83 percent at Bryn Mawr and 81 percent at Swarthmore said they would not feel uncomfortable. (Cross tabulating by status and by field of study provided no additional insights.) Some of this unconcern may be due to inexperience with online catalogs and may change when innocence is lost. Other studies indicate that privacy is an important concern to OPAC users.¹⁹

Less surprising is that 86 percent at Bryn Mawr said they would feel pressured to hurry their searches if someone were standing behind them to use the terminal. (This question was not asked at Swarthmore). Clearly, library planners should take such concerns into account when planning the number and location of terminals. A system that prevents people from completing their searches because of excessive queuing will generate annoyance and ill will. (In this, OPAC terminals are like automatic teller machines at banks.)

Hypothesis 5. *Users would welcome remote access to the library's collection from additional locations on campus and would be willing to wait longer for the added convenience of such access.*

Users were asked, "If the library's catalog were accessible through terminals all over campus, where would you prefer to look up information?" Table 10 indicates how students and faculty responded. Modally, at both Bryn Mawr and Swarthmore, students want terminals to be located in the library. However, at least a third in both schools welcome the idea of terminals in their dorms: "This I like a lot," or "That would be marvelous," or "A great idea." Faculty overwhelmingly opt for terminals in their offices. Many of the faculty at Swarthmore now have office terminals connected to a Prime computer; this experience has been positive, and probably explains why 81 percent are keen for remote access to the library holdings.

Table 11 shows willingness to wait, by status, for remote access through an OPAC. At both schools, the modal group among students and faculty would wait two to five minutes. Again, however, an interesting difference in *impatience* appears. Combining categories of those who would not wait at all or would wait only up to a minute, one sees a greater proportion of impatient students at Swarthmore than Bryn Mawr (28 percent versus 22 percent). The same holds for Swarthmore faculty, but more so (46 percent versus 33 percent). We again attribute this to the

TABLE 10
CHOICE OF LOCATION FOR OPAC TERMINALS BY STATUS

Location	Bryn Mawr		Swarthmore	
	Students N = 181	Faculty N = 46	Students N = 268	Faculty N = 96
Library	57%	37%	60%	18%
Computer center	1%	0	3%	1%
Dormitories	33%	0	37%	0%
Faculty offices	1%	63%	0	81%
Branch libraries*	8%	0	0	0

*Bryn Mawr option only.

TABLE 11
WILLINGNESS TO WAIT FOR REMOTE ACCESS BY STATUS OF RESPONDENT

Length of Time	Bryn Mawr		Swarthmore	
	Students N = 182	Faculty N = 45	Students N = 265	Faculty N = 93
Wouldn't wait or would return	13%	13%	15%	26%
Wait one minute	9%	20%	13%	20%
Wait 2-5 minutes	45%	29%	38%	33%
Wait 5-10 minutes	18%	16%	24%	11%
Wait as long as necessary	15%	22%	11%	10%

greater experience with campuswide computing at Swarthmore.

It appears that if OPACs are to be installed among persons already acquainted with widespread terminal use and with typical waiting times, the percentage of those unwilling to wait long will be higher.

CONCLUSIONS

The findings of this survey, while not startling, underscore the problems of winning acceptance for an online catalog. Bryn Mawr and Swarthmore patrons seem fairly content with the status quo and are therefore hesitant to try something new. Many are concerned that a change to an online catalog will disrupt their ability to find the information they require. Existing online catalogs have in some cases received negative publicity because of excessive downtime, queuing, or perceived difficulty. As one faculty member wrote, "A card catalog never breaks down. The . . . university library computer catalog was broken so often during my daughter's four years there that the library simply closed it down." Such concerns must be taken into account by planning committees as they make their choices.

Our respondents are not accustomed to waiting to access the collection, and few expressed willingness to wait any considerable length of time, regardless of whether the catalog is in card form or online. There must be sufficient terminals to ensure that users have access to holdings within five minutes or the majority will be dissatisfied.

The card catalog apparently is popular because of its constant availability and the immediacy of access it provides. An unpublished

Swarthmore study reveals that people use the card catalog when they have to—for an assignment, exam, or lecture. Much of this use is unpredictable as to period of day, and there is no reason to assume that online catalog use will fit into more predictable patterns. Users are understandably concerned about having any types of limitations placed on their catalog search behavior. As one student put it, “Specifying hours of use would be very limiting.”

The survey also clearly pointed out many people’s resistance to learning something new. The greatest vote of confidence the OPAC received was only 56 percent (Swarthmore faculty). Students at neither school gave it a majority, and fully two out of three Bryn Mawr faculty were skeptical. People in the humanities appear to be most likely to prefer the traditional card catalog, at least when the OPAC is still merely an idea. Perhaps one person in six will *always* prefer the card catalog to an OPAC. If libraries are going to switch, the staff must be prepared to launch a vigorous educational campaign—one that goes beyond sticking directions on the terminal—or else be resigned to a system that will lose many of the more timid or computer-hostile users.

Instruction will be necessary, furthermore, because of the nuances of the new system. Pease and Gouke found that, although most patrons came to prefer the online catalog, they were often unable to make full use of its retrieval power, compared to a skilled searcher.²⁰ Problem searches will require additional instruction or direct help.

Library planners must also anticipate users’ feelings. While our respondents did not appear concerned with someone’s being able to see what they were working on, the great majority were sensitive to the implicit pressures of others waiting to use the same equipment.

The library must be prepared to offer users some substantial improvement over a manual catalog. Given a choice between two databases, one manual and one computerized, close to half of our respondents chose the former, as we have seen. Yet if the online catalog contained additional information or if users could access it from the convenience of their offices or dorms, many would welcome the change.

The experience of libraries that have switched is that users’ expectations are raised considerably; they are no longer content with the same information that was accessible with a card catalog. They routinely want access to circulation data, to in-process files, and to areas of the collection poorly covered in card catalogs, such as periodicals and government documents.²¹ Once users’ expectations are raised, they may not only want more, but with less delay in processing time. While an online catalog may seem a panacea to harried librarians, they will probably find that it creates an entirely new set of pressures. We would hope, however, that this paper identifies some of the problem areas, so that planners can begin efforts, through publicity and education, to forestall complaints and cultivate allies.

REFERENCES

1. Betsy Baker and Brian Nielsen, “Educating the Online Catalog User: Experiences and Plans at Northwestern University Library,” *Research Strategies* 1:155-66 (Fall 1983).

2. Hugo Chapa-Guzman and Marcella Stark. "Online Public Access Catalogs: Two Studies." *Reference Services Review* 11:19-49 (Winter 1983).
3. Charles R. Hildreth, *Online Public Access Catalogs: The User Interface*. (Dublin, Ohio: OCLC, 1982).
4. Neal K. Kaske and Nancy P. Sanders. *A Comprehensive Study of Online Public Access Catalogs: An Overview and Application of Findings*. Final Report to the Council on Library Resources, V.3. (Dublin, Ohio: OCLC Online Computer Library Center, 1983).
5. Karen Markey, *Online Catalog Use: Results of Surveys and Focus Group Interviews in Several Libraries*. Final Report to the Council on Library Resources, V.2. (Dublin, Ohio: OCLC Online Computer Library Center, 1983).
6. Joseph R. Matthews, *Public Access to Online Catalogs: A Planning Guide for Managers*. (Weston, Conn.: Online, Inc., 1982).
7. Joseph R. Matthews, Gary S. Lawrence, and Douglas K. Ferguson, *Using Online Catalogs: A Nationwide Survey*. (New York: Neal-Schuman, 1983).
8. Carole Weiss Moore, "User Reactions to Online Catalogs: An Exploratory Study." *College & Research Libraries* 42:295-302 (July 1981).
9. Sue Pease and Mary Noel Gouke, "Patterns of Use in an Online Catalog and a Card Catalog." *College & Research Libraries* 43:279-91 (July 1982).
10. Sarah M. Pritchard, *Scorpio: A Study of Public Users of the Library of Congress Information System*. (Washington, D.C.: Library of Congress, 1981).
11. William E. Post and Peter G. Watson, *Online Catalog: The Inside Story*. (Chico, Calif.: Ryan Research International, 1983).
12. Matthews, Lawrence, and Ferguson, *Using*, p.95.
13. Post and Watson, *Online*, p.137.
14. Ibid.
15. Matthews, Lawrence, and Ferguson, *Using*, p.98.
16. Pease and Gouke, "Patterns," p.285-86.
17. Davis B. McCarn, ed. *Online Catalogs: Requirements, Characteristics and Costs*. (Washington, D.C.: Council on Library Resources, 1983), p.74.
18. Matthews, Lawrence, and Ferguson, *Using*, p.95-99; Post and Watson, *Online*, p.137.
19. Kaske and Sanders, *A Comprehensive*, p.52; Matthews, *Public*, p.97.
20. Pease and Gouke, "Patterns," p.280.
21. Kaske and Sanders, *A Comprehensive*, p.51-52.

**APPENDIX A
BRYN MAWR COLLEGE LIBRARY SURVEY***

1. Category of respondent (please check one)
 - undergraduate student
 - graduate student
 - faculty
 - other, please specify _____
2. How many courses are you taking this semester? specify number _____
 - not applicable
3. What is your general field of study? (please check one)
 - arts and humanities
 - social sciences
 - natural sciences and mathematics
 - other, please specify _____
4. Which of the Bryn Mawr College Libraries do you use *most* often? (please check one)
 - Canaday
 - Psychology
 - Math/Physics

*Editor's note: The questionnaire used for the Swarthmore College Library survey requested essentially the same information but was particularized for that institution. It has not been reproduced here because of space constraints.

- Chemistry/Geology
 Biology
 Art and Archaeology
5. If you checked Canaday or the Art and Archaeology Library for the above question, have you ever used any of the science libraries?
 yes no
6. If you checked Canaday or one of the science libraries for question number 4, have you ever used the Art and Archaeology Library?
 yes no
7. On the average for *this semester*, how often have you visited any of the Bryn Mawr College Libraries for any reason? (please check one)
 never been to any BMC library this semester
 less than once a month
 once a month
 a few times a month
 once a week
 about every other day
 once a day or more
8. Do you *generally* visit the BMC Libraries: (please check one)
 to have a quiet place to study,
 to consult the library staff,
 to use the card catalog,
 to use the reference materials,
 to use the reserve materials,
 to use the Xerox machines, or
 to socialize?
 other, please specify _____
9. Approximately how often *this semester* have you used the card catalog in any of the BMC Libraries? (please check one)
 have never used
 hardly ever
 about every other week
 once, maybe twice a week
 more than twice a week
10. During the week, when do you prefer to use the card catalogs in the BMC Libraries? (please check one)
 opening to 11 a.m.
 11 a.m. to 2 p.m.
 2 p.m. to 5 p.m.
 5 p.m. to 8 p.m.
 8 p.m. to closing
 seldom use during the week
11. On the weekends, when do you prefer to use the card catalogs in the BMC Libraries? (please check one)
 opening to noon on Saturday
 Saturday noon to 5 p.m.
 Saturday 5 p.m. to closing
 opening to 5 p.m. on Sunday
 Sunday 5 p.m. to closing
 seldom use on the weekends
12. Do you use the card catalogs *more*: (please check one)
 before the semester begins,
 in the first month of the semester,
 just before an exam or paper,
 consistently throughout the semester, or
 in the last month of the semester?
13. Do you think that you find what you're looking for in the card catalogs: (please check one)
 seldom,
 less than half the time,

- more often than not, or
 almost always?
14. When you can't find what you want in the card catalogs, is it generally because:
- the library doesn't seem to have the materials you need,
 you're not sure if there's another way to look up what you wanted, or
 the arrangement of the cards in the catalog is confusing?
 other, please specify _____
15. When you're in the libraries, do you generally consult a library staff member:
- before you start to use the card catalog,
 only if you haven't been able to find what you needed in the card catalog, or
 to help clarify what you found in the catalog?
 you never find it necessary to ask for assistance with the card catalog
16. Have you *ever* had to wait to use a specific drawer of the card catalog?
 yes no
17. Do you *often* have to wait to use a specific drawer of the card catalog?
 yes no
18. When you use the card catalog in any of the libraries, do you more often look for: (please check one)
- a specific title of a book or journal,
 a particular person's name, or
 a subject or topic, such as United States history?
 no preference
 other, please specify _____
19. On the average for *this semester* how much *total* time have you spent each time that you consulted the card catalog in any of the BMC Libraries? (please check one)
- less than five minutes each time
 5 to 10 minutes
 10 to 20 minutes
 over 20 minutes.
20. *Excluding* times when you must use a specific drawer of the card catalog as soon as possible, how long would you be willing to wait for a drawer before you felt inconvenienced? (please check one)
- wouldn't wait around at all
 about a minute
 2 to 5 minutes
 5 to 10 minutes
 as long as it took
 would come back later
21. Have you ever used the OCLC terminal that sits in the area by the phone directories in Canaday Library?
 yes no*
- *If you answered "No" to the above question, please proceed to question 25*
22. When you used the OCLC terminal, did you:
- teach yourself from the instructions next to the terminal,
 read the instructions and then ask someone to help you begin,
 ask someone to show you how to use it without having read the instructions, or
 ask for help only if the terminal didn't respond as you expected?
23. Have you ever asked someone to explain something that you found on the terminal?
 yes no
24. Have you ever had to wait to use the OCLC terminal?
 yes no
25. As far as you're aware, the OCLC system contains: (please check one)
- information about all the books that Bryn Mawr owns
 information about some of the books that Bryn Mawr owns
 information about some books that Bryn Mawr owns and some books that other libraries own
 listings of books by subject
 no idea what it contains

26. If you've never used the OCLC terminal in Canaday, is it because: (please check one)
- you haven't felt it was necessary for what you wanted,
 - you aren't sure what information is available from it,
 - you would rather not use a computer terminal,
 - you didn't know it was available for general use,
 - you weren't sure how to begin,
 - you never heard of it before, or
 - you seldom visit Canaday Library for any reason?
 - not applicable
27. If you were able to get the information you can currently get from the card catalogs *only* from a computer terminal, how long would you be willing to wait to use it before you felt inconvenienced? (please check one)
- wouldn't wait around at all
 - about a minute
 - 2 to 5 minutes
 - 5 to 10 minutes
 - as long as it took
 - would come back later
28. If you were given a choice between two systems that contained *identical* information, would you rather use:
- a card catalog, or
 - a computerized catalog?
29. If someone were using a drawer of the card catalog for an extended period of time and you needed to check one item in that drawer very quickly, would you feel comfortable asking to interrupt that person's search for one brief moment?
- yes no
30. If someone were conducting an extended search with a computerized catalog and you needed to check one citation very quickly, would you feel comfortable asking to interrupt that person's search for one brief moment?
- yes no
31. If you were given a choice between a card catalog and a computerized catalog that provided broader access to the same information (ability to limit searches by language, year, etc., of publication) and provided more types of information (whether book was on order, checked out, etc.), would you rather use:
- a card catalog, or
 - a computerized catalog?
32. Would you feel you had to hurry if someone were standing behind you waiting to use a computer terminal?
- yes no
33. Would you feel uncomfortable if someone could see what you were searching on a computer terminal?
- yes no
34. If the library's catalog were accessible through terminals all over campus, where would you prefer to look up information? (please check one)
- in the library
 - in the computer center
 - in the dormitories
 - in faculty offices
 - other, please specify _____
35. If it were possible to dial up the catalog from outside the library but it took more time to get a response than it would in the library building itself, how long would you be willing to wait for a response?
- wouldn't wait around at all
 - about a minute
 - 2 to 5 minutes
 - 5 to 10 minutes
 - as long as it took
 - would come back later

Tables of Contents and Book Indexes: How Well Do They Match Readers' Descriptions of Books?

Virgil Diodato

The author collected information about tables of contents and index terms in 125 books borrowed by patrons in a medium-sized academic library. To learn how useful the terms would be as subject terms in a library catalog, he determined which of these terms were the same as the words used by the patrons to describe the books. For 72.4% of the books assigned Library of Congress subject headings, the patron's term matched the LC heading. The patron's term matched the table of contents term for 81.3% of the books with tables of contents. If the catalog had included terms from the tables of contents and the indexes in addition to the LC subject headings, the success rate would have been 97.3%. One problem in using terms from books in a library catalog is that many books lack indexes and/or tables of contents.

RESPONSES TO A COUNCIL ON LIBRARY RESOURCES ONLINE CATALOG EVALUATION PROJECT questionnaire reveal that the "ability to search a book's table of contents, summary, or index" is among the special features desired by users of online public access catalogs.¹ This response is not too surprising, if we consider that library patrons have had many years of experience using these devices that describe the content of books. Subject heading terms in library catalogs have described books for years, too. But the many entries found in a table of contents or index compared to the several subject headings assigned to the book have made it tempting to consider both as additional sources of subject access for the library catalog user. Nevertheless, little research has been done on how effectively tables of contents and book indexes match readers' perceptions of books. This paper describes an experiment that examined tables of contents and book indexes as devices for enriching subject access.

Tables of contents and indexes are important because they are sources of descriptive terms that could be added to the *Library of Congress Subject Headings* (LCSH)² terms or to terms of any other authority list assigned

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to books for a library's subject catalog. Although both have been around for centuries, using them to enhance the catalog record for a book has become especially feasible recently, thanks to the availability of computers. Today, there is room in the online library catalog for more than the two or three subject headings per book found in the card catalog. And we can expect that there will be many books for which publishers will create computerized or online versions as an offshoot of the printing process. The online version of a book becomes a way to get table of contents and index terms into a library catalog, if there is a telecommunications link between the publisher's and the library's computers. There are other methods of automated input, such as optical character reading. In any case, the technology to input table of contents and index data is available. A question remains on how useful these data are to readers. For readers who hold a book in hand and for readers who view a book on a video display, tables of contents and indexes are devices that help them decide if the book contains relevant information, and if so, where in the book that information is. We are learning that new technologies need not do away with these devices. For example, there now exist databases that allow services like "Current Book Contents" to disseminate collections of contents tables of newly published books.³ And there is SUPERINDEX, a database that provides online access to the indexes from about two thousand medical, scientific, and technical monographs.⁴

THE SUBJECT ACCESS PROJECT

The Subject Access Project has provided the major investigation of tables of contents and book indexes as sources of subject data for online library catalogs. Although the final report of the study appeared in 1978,⁵ Settel and Cochrane described the work again in 1982, being prompted by "renewed interest and the frantic pace at which online public access catalogs are being developed. . . ."⁶ The investigators developed rules for selecting library catalog entries from tables of contents and indexes and for maintaining a quota of entries taken from each monograph. An experimental database, BOOKS, included these entries in the records of 1,979 books.⁷ A comparison between BOOKS records and MARC records took place when the investigators solicited research questions and applied them to the two databases.

BOOKS records retrieved at least twice as many of the relevant items for . . . social science . . . and three times as many as MARC for the humanities queries. . . .

In summary, our results lead us to conclude that we can recommend the BOOKS record as a better record for online subject searching than the MARC record.⁸

Mandel reviewed proposals for enhancing the library subject catalog and noted that "suggestions for adding keywords or uncontrolled terms to the record have included adding words from the table of contents or index."⁹ She warned that the usefulness of enhancing the MARC record with such data ought to be tried and "weighed against cost-effectiveness and need."¹⁰

THE EXPERIMENT

In this experiment library patrons were asked to describe the books they used, on the assumption that a patron's description would involve a term that the patron would use in a search for the book in the library subject catalog. Patrons borrowing books from the circulation desk at a medium-sized academic library received questionnaires; the most important item on these forms asked the patron to write down a word or phrase describing a book that he or she just had checked out. (The two versions of the questionnaire are in the appendix.) Weeks or months later, when the book had returned to the library, the author, with the help of student assistants, compared the patron's word or phrase with the terms in the table of contents and index of the book as well as with the LCSH term(s) under which the book was filed in the library's subject card catalog. The two versions of the questionnaire differed only in the wording of item four, the request for a reader's description of a book. We alternated administration of the two versions so that every two successive respondents received different versions. There were two versions because we could not decide which was more appropriate, despite a pilot study involving sixty library and information science students and twenty library patrons. The goal was for the respondent to write down a word or phrase that would retrieve a record from a hypothetical catalog that would have subject access points enhanced by tables of contents and index terms. The two versions of item four were brief attempts at fulfilling this goal. After talking to participants in the pilot study and examining their responses, there was no clear choice as to which version was more understandable to respondents and the better communicator of our goal. So, we used both versions.

If a subject catalog had included not only LCSH terms assigned to a given book but also all the table of contents and index terms found in the book, we wanted to know which of those terms would match a term suggested by the book's reader. The artificiality of the experiment is most evident in the treatment of the term written on the questionnaire as if it were a search term. Perhaps patrons actually searching for books would use search terms very different from the terms they write on questionnaires asking them to describe those books. This limitation is a reasonable one because the study involves subject access devices that could be incorporated into an online catalog that would accept many kinds of patron terms, including terms that describe in patrons' own words books they have encountered before as well as terms that patrons express in the form of controlled subject vocabularies such as LCSH. Another limitation of the study is that we did not control patrons' access to the card catalog or to the books themselves. So, some respondents probably were more familiar than others with LCSH terms, tables of contents, and index entries for their books. We accepted this, as we accepted the possibility that some respondents had read their books many times while others had only glanced at their books before filling out our questionnaires. In either case, the patron ought to have been able to describe the book, and that was what we wanted our respondents to do. The study also could

have controlled the patron search process, perhaps by administering questions before and after each patron searched for a book. But our questionnaire was only for those patrons who already had retrieved a book from the collection, because we felt that the book in hand was good evidence that the respondent would be able to describe the book. Because we did not wish to test patron searches that might not result in retrieval, we did not question patrons before they did their searching. As in the University of Chicago's book-memory experiment, the current study examined "information library users may possess about materials they have had previous contact with."¹¹

The most important and time-consuming part of the investigation was matching the readers' terms with table of contents, index, and LCSH terms. A successful match between a reader's term and any of the three types of terms being tested occurred when at least one word (other than articles, conjunctions, and prepositions) in the reader's term was identical to or very much like at least one word in the term being tested. An example of an exact match took place when a patron suggested "U.S. involvement in Norway" for a book that had "Norway: The First Decade" as a table of contents entry. *Norway* was in both terms. An example of a truncated match occurred when a reader used "architecture," while the index for that book had the entry "Architectural conventions"; both terms included the root of the same word. Truncation matches required that this root be at least 50 percent as long as the number of letters in the longer of the two words being compared. So, *book* and *bookkeeper* would not provide a truncation match, because their common root—*book*—contains only four of the ten letters in the longer of the two words being compared. Truncation matches were permitted because of the use of truncation in many online searching systems and because users of even manual subject access tools surely truncate the search terms they are using. Although we examined every word of a book's table of contents and every word of its LCSH terms, time allowed us to examine only part of a book's index. For example, if a patron described a book as being about "information science," we looked at every word in every entry only in the "info-" and "sci-" sections of the index.

The matching process did not examine cross-references in LCSH or in the book indexes. Therefore, the results understate the matching capabilities of a catalog that could link a user's term with cross-references. In this study, it was not feasible to examine the cross-reference structure of book indexes, and to be consistent we also avoided LCSH cross-references. A good examination of cross-references in an index would require looking through the entire index during each search. For example, we would not only have to look for the patron's *information science* words under *info-* and under *sci-*, but we would also need to search for *see* references under those two stems. More importantly, it would also be necessary to search under a broader term.

Selection of patrons was not random. The student assistants approached patrons from July through December 1984 at hours that were convenient to the assistants. They spent an hour or two at a time standing in the public area adjacent to the circulation desk. An assistant would

ask a patron to fill out a questionnaire. If the patron agreed, a table and chair were provided. When that patron was done, the assistant would approach the next patron walking away from the circulation desk. There was no restriction against a library user's participating more than once in this investigation.

We collected questionnaire data for 138 books, although data for three of the books were of little use because patrons did not provide descriptive terms. The responses to our questions told us something about the books and their readers. The books represented seventeen major Library of Congress classes, especially B (19 books), P (19), R (18), and H (17). Most patrons—eighty-eight—had “used the *subject* section of this Library's card catalog to look for this book,” as the questionnaire phrased it, and about half the patrons—seventy—said they had spent at least five minutes “using the book” before coming to the circulation desk. Forty-one of those had spent an hour or more with the book. The questionnaire asked for a “word or phrase” describing the book, and most patrons wrote down either one word (sixty-two patrons) or two words (forty-nine), not counting articles, conjunctions, and prepositions. The longest phrase contained six words. Most of the respondents were either undergraduate (seventy-three) or graduate (forty-one) students at the university served by the library. There also were ten faculty, two staff, and twelve other respondents.

We actually retrieved only 120 of the 138 books mentioned by the respondents. We could not find eighteen of the books. Time limitations forced us to curtail our searching of the library subject card catalog, and so we examined the catalog for only 116 of the 138 books. However, 5 of the 18 books that were not retrieved were among the 116 titles examined in the catalog so that in total, we gathered some data—table of contents and/or index and/or LCSH data—for 125 of the 138 books mentioned by our readers.

RESULTS

MATCHES

Two Subject Devices. Increasing the number of access points for a book can increase the chances of retrieving the book from a collection. And so it is not surprising that in this investigation there was a higher percentage of matches with reader terms via any two subject devices than with any one device. Most dramatically, only 72.4 percent of reader terms matched the respective LCSH terms in books assigned LCSH terms, while 90.2 percent of reader terms matched table of contents and/or index terms in books having these devices (see table 1).

A Single Subject Device. If we consider one subject device at a time, then table of contents and indexes both performed better than LCSH terms. Reader terms matched contents terms in 81.3 percent of the books with tables of contents, and they matched index terms in 81.6 percent of the books with indexes, but reader terms matched only 72.4 percent of the books assigned LCSH terms.

Matches in tables of contents continued and even overshadowed index as well as LCSH terms when we take into account that a book pub-

TABLE 1
 MATCHES OF READER TERMS WITH TABLE OF CONTENTS (TOC), INDEX,
 AND LIBRARY OF CONGRESS SUBJECT HEADINGS (LCSH) TERMS

	TOC	Index	LCSH	Subject Devices				
				TOC and/or LCSH	Index and/or LCSH	TOC and/or Index	TOC and/or Index and/or LCSH	TOC and Index and LCSH
a. Books or catalog records examined*	120	120	116	125	125	120	125	116
b. Books having the device(s)	107	87	105	118	113	112	119	74
c. Exact matches*	71	56	66	92	86	86	99	68
d. Truncated matches*	16	15	10	7	10	15	8	4
e. Total matches*	87	71	76	99	96	101	107	72
f. Total nonmatches	33	49	40	26	29	19	18	44
g. Percent matches: line e/line b	81.3	81.6	72.4	83.9	85.0	90.2	90.0	97.3
h. Percent matches: line e/line a	72.5	59.2	65.5	79.2	76.8	84.2	85.6	62.1

*Line *a* represents 120 books examined for tables of contents and indexes and 116 catalog records examined for LCSH terms. Five of the latter were for books not among the 120 books examined. Thus, some figures in this line total 125 items.

A match in line *c*, *d*, or *e* is a match between a reader's term for a book and a term in at least one of the subject device(s) for that book.

Line *d* tallies a truncated match only if there was a truncated match but no exact match for the book and device(s) being tested.

lished without a table of contents or without an index and a book cataloged without being assigned Library of Congress subject headings are less accessible to users than is a book that does possess these subject devices. The index matching rate dropped to 59.2 percent of reader terms and the LCSH matching rate to 65.5 percent of reader terms when we included all the books examined, whether the books had indexes or were assigned subject headings. However, the table of contents matching rate was still the best under these conditions. In 72.5 percent of the books examined there was a table of contents term that matched a reader term.

Three Subject Devices. Of 74 books having all three of the subject devices, 72 (97.3 percent) had in at least one of the devices a term that matched the corresponding reader term. This result is a good example of how an increase in subject access points to a book can increase the chances that a search term will retrieve the book. Another piece of information can be misleading, however (see line *h* of the last column of table 1). The information given there to complete the table gives a low matching rate of 62.1 percent for three subject devices. This figure actually means that of 116 books, 62.1 percent either had no matches in any subject device (this being true for only 2 books) or failed to have all three subject devices (forty-two 42 books).

NONMATCHES

Tables of Contents. Nonmatches to tables of contents terms can be attributed in several cases to the fact that the book was a humanities book that simply did not have a contents table. The device also did not match as well as LCSH terms in situations in which the user described a book in a very broad way. Out of 120 books examined for tables of contents 33 failed to match a reader term with a contents term for the respective book. Thirteen of the nonmatches were due to the lack of tables of contents, 10 of the 13 being books of art, literature, or music. One does not always expect a novel or a portfolio of art reproductions to have a table of contents, but it was surprising that there were two natural sciences books and one business text that also failed to have tables of contents.

Most of the other twenty cases in which table of contents terms did not match reader terms, surprisingly enough, can be attributed to specificity of terminology. Most interesting were the eight instances in which the contents term did not agree with the reader's term even though the LCSH term did. Typical of this situation was a user term *political analysis*. The LCSH agreed that the book dealt with **United States—Politics and government**, but the table of contents did not mention politics or analysis. Why should it? From chapter titles such as "The Stewardship of Jimmy Carter" and "The Primaries of 1980," the reader can easily infer that this is political analysis. The table of contents is doing what it should be doing: clearly listing the various aspects of political analysis covered by the book. The LCSH plays its role well, too. The cataloger has selected **Politics and government** as the best LCSH subheading that describes the overall content of the book. That is an appropriate role for an LCSH.

Indexes. This device usually did not match reader terms either because the given book did not have an index or because the indexer had elected not to use broad entries as antiscattering tools. A major problem for indexes was that they were missing from so many of the 120 books that we examined. In thirty-three of the forty-nine instances in which readers' terms did not match index terms, the books did not have indexes. As expected, many—one-third—of these books were in the humanities, but the missing index was a problem in various classes, including education, medicine, the natural and social sciences, and technology. In seven of the sixteen cases where indexes did exist but yet did not have matches, an LCSH term succeeded. In each of the seven cases, the user described the book very broadly, suggesting a term very much like an LCSH term assigned to the book. Thus, readers selected *aging* and *architecture* for two of the books, while the catalogers assigned the LCSH terms **Aging** and **Architecture—England**, respectively. The indexes did not match such terms, and understandably so, because it could take a lot of index space to list all the pages that mention one of the major concepts of a book. Yet the indexes did fail, for such broad terms could have appeared as index entries. Indexers do use them on occasion as tools to bring together under one entry many subconcepts that otherwise would be scattered throughout the index. For example, an entry for *aging* could list refer-

ences to attitudes toward aging, the effects of drugs on aging, government programs for the aging, learning changes during aging, and so on. A problem for the indexer is to decide when a topic is broad enough to include many subtopics but not so broad that the entry takes up many columns of the index. Depending on an indexer's decision, it might or might not be the role of the index to provide terms broad enough to match some readers' descriptions of a book's overall contents.

LCSH Terms. We gathered LCSH data for 116 of the books, and we found that LCSH terms usually did not match readers' descriptions of books because a reader's term was more specific than the LCSH term or because the reader selected a term synonymous but not identical to the LCSH term. LCSH terms also did not match readers' terms if no subject heading was assigned to a book. However, a missing subject heading was less common than a missing table of contents or index, there being no LCSH terms in only eleven of the forty cases of LCSH nonmatches. Of the other twenty-nine cases of LCSH nonmatches, the table of contents and/or index provided a match in fifteen instances. Sometimes LCSH terms did not match while contents and index terms did because the one or two LCSH terms were not as specific as some of the many table of contents and/or index terms nor as specific as the reader term. For example, for a book about Egyptian art, the LCSH term was **Egypt—Antiquities**. But the reader described the book as being about "two-dimensional" art; the author included "two-dimensional methods" among the contents terms; and the indexer used "two-dimensional art" as an entry. Other LCSH terms did not match but were synonymous with a reader's term. For example, a subject heading for one book described it as a work on ethics. But the reader's description and the author's contents term and the indexer's term all differed from the assigned LCSH term; for them, the work was about morals.

COMPARISON WITH THE SUBJECT ACCESS PROJECT

Results of the present study and of Atherton's Subject Access Project both suggest that table of contents and book index terms could enhance access to a library catalog. Beyond that, it is difficult to compare results because the present study used patrons' descriptions of known books while Atherton's study used requests for information on topics, as the items to be matched against LCSH, index, and table of contents terms. The ninety queries analyzed by Atherton resulted in the retrieval of 1,143 items (BOOKS and/or MARC records). There were only 52 items that were retrieved simultaneously by a BOOKS search and a MARC search for the same request. (BOOKS contained table of contents and index terms, and MARC contained LCSH terms, title words, and other elements typically found in a MARC record.) It is no wonder, then, that this "would lead one to think that *both* types of searches are needed. . . ."¹² Although in the present study an increase in subject access points led to increased matching of reader terms with subject terms, the differences among the types of subject devices were not as great as in Atherton's study. Subject searches, like those done by Atherton, are successful only if the information retrieval system contains relevant records, no matter how well the subject devices work. Searches for known items,

as in the present study, have only to perform the match between the user's search term and the term that represents the item. This is not always an easy task, but our respondents' awareness of the books they were describing makes it understandable that there were greater matching rates and less variance in this study than in Atherton's.

OTHER RESULTS

Results were about the same for the two versions of questionnaire item four. One version asked the patron "what the book is about." The other asked for a descriptive term likely to be found in the "*subject* section of this Library's card catalog." The matching rate for each subject device in books having the respective devices was slightly better for the second (or card catalog) version than for the first. But the relative standing of the three subject devices did not differ. For tables of contents, indexes, and LCSH terms, the matching rates were 79.6, 80.0, and 70.6 for the first version and 83.0, 83.3, and 74.1 for the second version. Compare this with the first three entries on line *g* of table 1. In each case, the index term matching rate is a bit higher than the table of contents rate and much higher than the LCSH rate. The most interesting difference between the two versions of the item was the format of patrons' terms. The only respondents who created subheadings, as in "Camera—history," were four who used the second, or card catalog, version. And three-quarters of the twenty-four patrons whose terms were longer than two words used the first version. It is not surprising that patrons who are told to use library catalog terms think about adding subheadings and limiting their search terms to one or two words. Those not tied to the catalog seemed to use language, such as "the search for unity, democracy, and progression in India," often more natural than those used by the others, such as "Germany—history."

The questionnaire also asked patrons to indicate how much time they had "spent (in any way) using the book" before encountering us. We wondered if exposure to a book would affect how someone described it. However, because we became concerned that patrons might not accurately gauge how much time they had spent with the books, we have reported the results above without referring to this factor. There is not much of a relationship between matching rates and exposure times. For table of contents terms, patrons claiming the shortest exposure time (five minutes or less) had the lowest matching rate (79.6). For LCSH terms, patrons with medium exposure (between five and sixty minutes) had the lowest matching rate (65.7). And for index terms, patrons with a long exposure (an hour or more) had the lowest matching rate (75.0). The most important finding here was that short exposure time was not an automatic impediment nor was long exposure time an immediate advantage to selecting a term that matched a subject device.

Finally, the questionnaire provided the university status of the respondents and the Library of Congress classes of the books they examined. These data are reported above without analysis. We collected them only so that we could briefly describe our respondents and their books. It did not seem useful to analyze so few items—138—by rather large num-

bers of categories, five types of respondents, and seventeen classes of books.

CONCLUSION

This paper provides evidence that tables of contents and indexes in books contain terms that some readers are likely to use in describing those books. Thus, these subject devices can complement traditional library catalog subject headings in providing subject access to books, if only because the additional terms would increase the likelihood that the catalog would link an appropriate book with a term that matches a reader's search term. These are not the only devices that could enhance the library catalog. Using title words and assigning more and more LCSH terms also would increase readers' chances of linking their terms with relevant books.

However, table of contents and index terms present several disadvantages, too. First, these two devices are missing from some books. Second, index construction is not nearly as standardized as the assigning of LCSH terms is. The example given in this paper noted that anticaterpillar structures differ from index to index. Perhaps this lack of standardization will be offset when we use computers rather than book pages for storing index terms. Third, contents and index terms sometimes disagree with the level of specificity of a reader's search term. Especially when the reader is searching via a broad term, these terms are not as helpful as are LCSH terms.

But even these simple statements are not rules. For some readers, what a book is about is exactly what the title or subject heading term says it is about. For example, a book titled *Principles of Egyptian Art* is a book about Egyptian art. For other readers, a book is about the piece of information they need to retrieve from it; that same book, for them, is about two-dimensional art. In one instance, the subject heading does very well in providing access to a book by describing the general, broad contents of the book. In another instance, only the index could provide the narrow, specific terms that agree with readers' terms.

Despite the existence of online catalogs, the results here remind us of the importance of printed tools. Missing tables of contents and missing indexes decrease access to the books we hold in our hands. The contents term or index term is so important, for the printed book has no device to permit us, say, to scan all its pages in a few seconds for search terms at which we might guess. The results also remind us of the complex relationship among readers, authors, indexers, and catalogers. Whether the subject analyst is a cataloger assigning a few subject headings to a book or an indexer deriving hundreds of terms from the author's text, that analyst is providing access for readers whose needs differ from person to person and even from time to time.

Tables of contents, index terms, and subject headings all are useful in various types of subject access systems. In an enhanced online catalog, the reader could have equal access to all these terms. In a completely manual system access is not equal, because the terms are stored in different places, some in a library card catalog, some in the books themselves.

In a hybrid situation, the online catalog provides access to subject headings. Then, once the book is in hand, the book itself presents its table of contents and index to the user. In any case, there are roles for all these subject access devices.

REFERENCES

1. As quoted in Karen Markey, "Subject-Searching Experiences and Needs of Online Catalog Users: Implications for Library Classification," *Library Resources & Technical Services* 29:40 (Jan./Mar. 1985).
2. Examples in this paper are taken from *Library of Congress Subject Headings* (Washington, D.C.: Govt. Print. Off., 1980).
3. For example, see "Current Book Contents," *Current Contents: Life Sciences* 28:25-42 (Apr. 1, 1985).
4. *BRS Directory and Database Catalog* (Latham, N.Y.: BRS, 1983), p.9.
5. Pauline Atherton, *Books Are for Use. Final Report of the Subject Access Project to the Council on Library Resources* (Syracuse, N.Y.: Syracuse Univ. School of Information Studies, ED 156 131, 1978).
6. Barbara Settel and Pauline A. Cochrane, "Augmenting Subject Descriptions for Books in Online Catalogs," *Database* 5:29 (Dec. 1982).
7. Atherton, *Books*, p.11.
8. Settel and Cochrane, "Augmenting," p.36.
9. Carol A. Mandel, "Enriching the Library Catalog Record for Subject Access," *Library Resources & Technical Services* 29:6 (Jan./Mar. 1985).
10. *Ibid.*, p.15.
11. Don R. Swanson, *Requirements Study for Future Catalogs. Final Report to the National Science Foundation* (Chicago: Univ. of Chicago Graduate Library School, 1972), appendix 1, p.1.
12. Atherton, *Books*, p.65.

APPENDIX A THE QUESTIONNAIRE

Select one book you just have checked out at the library circulation desk.

1. What is the book's call number?
Call Number: _____
2. What is the book's title?
Title: _____
3. Estimate the time you already have spent (in any way) using the book. Please account for all the times you ever have used the book. Place an *X* on one of the three lines below.
In using this book, you have spent a total of . . .
Five minutes or less (68)*
More than five minutes but less than one hour (29)
One hour or more (41)
4. Please write down one word or phrase that tells what the book is about. †
Your word or phrase is: _____
5. Have you ever used the *subject* section of this Library's card catalog to look for this book? Yes (88)_____ No (50)_____
6. Place an *X* on the line below that corresponds to your status.
Graduate Student (41) Staff Member (2)
Undergrad Student (73) Faculty Member (10) Other (12)

*The numbers in parentheses represent the numbers of respondents who checked the respective questionnaire items.

†The alternate version of question 4 was:

4. Suppose someone looks for this book by using the subject section of this Library's card catalog. Please suggest one word or phrase under which he or she probably will be able to find a card for the book.
Your word or phrase is: _____

Serials Librarianship, 1981-85: A Review Article

Mary Elizabeth Clack

This article reviews nine significant publications in serials librarianship with imprint dates of 1981 to 1985, inclusive. Its purpose is to present those publications that contribute to the serials librarian's knowledge of trends in serials management. Exploring the diverse aspects of this topic will be useful for other librarians interested in the role and future of serials in libraries.

SERIALS LIBRARIANSHIP IS A MULTIFACETED DISCIPLINE practiced in a myriad of organizational settings. The serials librarian deals not only with serials but also with monograph series, newspapers, microforms in their various manifestations, and sometimes government documents and continuations. He or she is responsible for supervision and implementation of most, if not all, of the following functions: acquisitions, bibliographic control, check-in, claiming, pre-order searching, fiscal control, binding, collection development, budgeting, and public service. These functions may be totally automated or partly automated, may include conversion of manual records to an automated system or developing and/or maintaining a union list of serials.

To accomplish these tasks effectively the serials librarian must be conversant with publisher and subscription agency practices, national and international standards, AACR2 cataloging, library organization, resource allocation, and costs and must be aware of future trends in prices, electronic transfer of acquisitions data, and electronic publishing. The serialist must have management skills to motivate staff members, foster productivity, and encourage purposeful creativity. In addition to designing and streamlining procedures, the serials librarian develops relationships with the outside world of vendors, binders, publishers, and distributors and evaluates these relationships.

Each of these functional areas has been liberally treated in the literature between 1981 and 1985. The nine publications reviewed here were selected because they contribute in a significant way to the body of knowledge concerned with the serial functions and skills described

Mary Elizabeth Clack, Serial Records Librarian, Harvard College Library, submitted this paper, which has been selected for publication in *LRTS*, in response to the "Call for Papers" evaluating important recent publications in technical services librarianship.

above. Many also include informative bibliographies.

For serials librarianship, the period between 1981 and 1985 could be known as the era after Osborn, since the celebrated text *Serial Publications* appeared in 1980 in its third revised edition.¹ One of the best of the post-Osborn texts is *Introduction to Serials Management* by Marcia Tuttle, with chapters contributed by Luke Swindler and Nancy I. White.² Published in 1983, this text is aimed at an audience of library school students and librarians who are beginning serials work; it covers the broad spectrum of serial functions in the order in which they are performed: selection and collection development, acquisition processing, cataloging, preservation (binding and microforms), and servicing of the serials collection to readers. The final chapter is devoted to data- and resource-sharing issues and national developments including automation and standards. Appended is an extensive annotated bibliography divided into "Working Tools" (reference sources) and "Research Tools" (secondary sources consisting of studies and other articles and monographs) with each section subdivided by the topics treated in the preceding chapters.

The value of this text lies in its comprehensiveness and the methodical presentation of each subject. It is apparent that the authors are experienced librarians with pragmatic concerns such as the flexibility of check-in records, the importance of date of receipt and timing in the claim process, caveats about proof of payment and refunds, the relationship between the nature of the material and the method of acquisition, the repercussions of cancellation and transfers, and the basic tenets of public service, cataloging, and collection development. The common basis for many procedures is elucidated here with clarity. Much basic information is included—the succinct presentation of types of binding, to cite only one example. The actual procedures described refer predominantly to manual systems. Tuttle acknowledges at the end of chapter 3 that acquisitions is in a state of transition, moving toward more automation of processes dictated by the budgetary concerns of each library, but the need for accurate records, whether manual or machine-readable, is still present. This text stands as a vital introduction to the serials field.

The other reviews in this article will examine relevant publications in the following specific areas of serials management: publishing and electronic publishing, cataloging, acquisitions, and serials automation, with a final section about a special journal issue devoted to these and other pertinent aspects of serials work.

PUBLISHING AND ELECTRONIC PUBLISHING

One of the areas in which the serials librarian benefits from increased knowledge and communication is that of serial publishers' practices. A source of such information is Wayne Thyden's article which examines the complexities of order fulfillment and service with an appreciation of the publishers' perspective.³ It is useful because librarians are often not cognizant of publishers' concerns. This unawareness leads to misunderstandings when it appears that certain publishers of journals with high circulation or popular periodicals develop policies based on profit rather than service. Editors and publishers of special interest journals with

smaller circulation may change addresses frequently without notice or be casual about other publishing procedures that affect libraries. Thyden also describes aspects of the publisher-vendor subscription relationship and the relatively new phenomenon, the fulfillment center, a center which distributes publications and handles renewals at the publisher's request. The remainder of the article treats cancellations and the varying degrees to which they are honored by publishers, the time when refunds for discontinued titles, may reasonably be expected, and policies regarding payment, prepayment, and additional charges. Thyden concludes that librarians should be aware of publisher practices and the extent to which they are predictable or exhibit discernible patterns. This information can enable libraries and subscription agents to circumvent some of the problems that inevitably arise.

Another monograph which explores the publishing area is David C. Taylor's *Managing the Serials Explosion: The Issues for Publishers and Libraries*.⁴ Writing at the time of double-digit inflation and rapidly increasing subscription costs, Taylor also examines the effect of serials publishing practices and costs on library management of serials. Against the backdrop of library operations and the unique budgetary considerations of serials (the yearly and continuing commitment of subscriptions), Taylor's aim is to "study the phenomenon of this cost rise for serials and try to understand the reactions to it in libraries."⁵ He explores the choices which must be made in light of the realities of publisher economics (the publishers' methods for obtaining revenue, past, present, and future). The actions which can be taken by librarians include scrutinizing approaches to the fundamentals of serials work (access, use studies, preservation, budget planning) and examining photocopying and interlibrary loan policies in light of copyright regulations. While some facts and figures are now outdated, the strength of the approach lies in the author's consciousness of the interrelationships among publishers, librarians, authors, vendors, editors, and readers. The author states that while automation has benefitted librarians by facilitating the growth of networks and consortia and by improving bibliographic control it has had a sometimes detrimental impact on publishers and authors. He also discusses alternative forms of publication which, if developed on a large scale, would reduce printing and postage costs. He lists the advantages and disadvantages of the electronic journal and describes selective dissemination of information, on-demand publication, microforms, videotext, teletext, viewdata, CEEFAX (the BBC's teletext system), and videodiscs.

Taylor concludes that the present journal system is failing all its constituents and envisions a future in which a class system of users with different levels of access to published materials dictated by the availability of online resources will develop. Efficiency will force librarians to adjust their thinking so that resources may be easily shared in a national information network which would facilitate document delivery by electronic means.

Although Taylor's concept of a national network has not yet become a reality, his book does provide basic information on publishing that is

useful today as an introduction to the electronic publishing question and as a stimulus to thought about future dissemination of information. In a more recent article, Taylor further sums up his thoughts on the relationships described in his earlier work:

In the scholarly enterprise, publishers and librarians have unique roles, which the other cannot duplicate. Despite the transformation wrought by new technology, roles of publishers and librarians will tend to be the same. If they are to solve their mutual problems, they must learn to trust each other, understand each other's problems, and cooperate in solving their differences and the problems of creating and disseminating information.⁶

An excellent complement to the publications already described is an article by Alan Singleton that looks toward the future. "The Electronic Journal and Its Relatives" addresses the developments in production of the electronic journal, the refereeing and revision process, advantages, such as cost reduction, improved communication and new services, and disadvantages, most notably loss of editorial and quality control and of bibliographic control.⁷ Singleton states that the communication aspect of the electronic journal is theoretically enhanced because it allows authors the opportunity for more rapid dissemination of their work. In reality, he acknowledges that it may be that the electronic journal will actually limit access to those who own terminals. The system might give birth to an "invisible college" of its own.

The author states that determining the comparative costs of electronic and print journals is difficult, although some studies have attempted to do so. For an electronic journal to be economically viable, the factors that affect response time must be considered, namely "the size of the central facility, its current use for purposes other than the electronic network, and the increase in load expected from the introduction of a new journal."⁸

Lastly, Singleton enumerates the possible routes to the electronic journal: conventional journals could become electronic (or conversely the electronic journal could optionally be produced in hard copy) or a full-text electronic store could be manipulated to supply a variety of outputs. Devising cooperative means for learned societies and other publishers to overcome the obstacles of system compatibility, handling graphics and different copyright laws would present problems. He cites several studies aimed at resolving these problems and moving toward standardization. A significant development at the time the article was written was that three large European commercial publishers were considering storing journal articles in full text on optical videodisc. The British Library Lending Division (BLLD) would retrieve the hard-copy versions of articles and mail them to users. While this might be an attractive short-term project, the long-term implications and costs have yet to be assessed. Singleton concludes that with electronic networks, the publisher's role in the system of scholarly communication would be secure.

The following articles that discuss recent significant developments in publishing, while not reviewed here, also are recommended. In "After Thor, What's Next: The Thor Power Tool Decision (U.S. Supreme

Court) and Its Impact on Scholarly Publishing," Schrift explains the effect of the Supreme Court decision on publishers' inventory policies and its subsequent impact on libraries.⁹ Tuttle demystifies the magazine fulfillment center in her article by explaining the center's contractual relationship with publishers and how it operates and citing measures that can be taken by libraries and subscription agents to solve problems with orders, renewals, duplicate shipments, etc.¹⁰

SERIALS CATALOGING

The serials librarian may or may not be responsible for actually cataloging serials on a daily basis, but the importance of cataloging as the nexus between acquisitions and public access to the collection cannot be overlooked. The implementation of AACR2 in the automated environment is discussed in articles by Turner and Heroux.

Turner's article, "AACR2 and Serials," was chosen because it neatly and briefly presents the main differences between AACR1 and AACR2.¹¹ Turner describes the changes in the code, which are (1) improvements, (2) changes of a controversial nature, and (3) less significant or "cosmetic" changes. The following changes are among the most significant for serials cataloging: criteria for title changes and new entries: an enumeration of specific categories of material entered under corporate body; guidelines for the construction of unique titles; definitions of key titles and ISSN; changes to superimposition, conference headings, and initials; and placement of the General Material Designation. Considered controversial are changes in the form of entry which cause inconsistency in existing catalogs and the treatment of microform reproductions. The changes termed *cosmetic* are related to the bibliographic description such as the levels of fullness for descriptions, ISBD punctuation, use of the ellipsis for omission of numbering, use of the General Material Designation, and transcription of the statement of responsibility. Throughout the article, terms are precisely defined, examples are given, and hypothetical cases are presented.

Much has been written about AACR2, and a longer article on the code, "Serials Cataloging up to and Including AACR2," by Neal Edgar, is recommended because it places the code in its historical context, gives reasons for the development of AACR2, cites numerous articles and treatises on interpretation of the code, and places AACR2 in the continuum of cataloging rules.¹²

The automated aspect of serial cataloging is treated in an article by Marlene Sue Heroux.¹³ "Automated Serials Cataloging" gives clear definitions of the codes, standards, systems, and projects which have combined to aid librarians in cataloging serials in machine-readable form and to permit the communication of the bibliographic and holdings data. Among the concepts described are MARC-S (MARC-Serial) format, AACR2, and, in the authority area, the Library of Congress Name Authority File, Name Authority Cooperative Project, and the Linked Systems Project, which will allow the sharing of authority work and data among the Research Libraries Group, Western Library Network, and the Library of Congress. Heroux also discusses two international orga-

nizations that have coordinated standards, namely, the International Serials Data System (ISDS) and the International Federation of Library Associations and Institutions (IFLA). ISDS has facilitated identification of serials by maintaining an international register of serial publications and introducing the concept of key title. IFLA developed ISBD (International Standard Bibliographic Description) in several formats.

Heroux' article also describes the CONSER project, the reasons for its founding, its adherence to standards, and its role in developing a quality database for serials which is constantly growing and being enhanced. Another topic covered is the United States Newspaper Project, an outgrowth of CONSER, which is adding bibliographic and holdings records of participants.

Lastly, Heroux mentions the role of the bibliographic utilities and regional networks in serial cataloging and the contributions of Title II-C retrospective conversion projects and the Southeastern ARL Libraries Cooperative Serial Project. All of these projects are constantly evolving, and updates to the facts presented here appear regularly, but the article is an excellent source of basic definitions, the histories of the projects, and commentary on the interrelationships among them.

AUTOMATION

The early 1980s saw an interesting debate in the literature over the issue of manual versus automated check-in systems. The catalyst was Huibert Paul, who argued that serials check-in, an intrinsically complex and labor-intensive function, is the most difficult and costly aspect of serials operations to automate.¹⁴ Dan Tonkery's response was that automated processing functions for serials can be efficient and cost-effective and indeed were already being implemented at several institutions.¹⁵

By now most serial librarians would agree that it is necessary to have a working knowledge of currently available automated systems. A most comprehensive survey of systems has been compiled by Boss and McQueen. In their initial report on individual systems, "Serials Control in Libraries: Automated Options," the first of two chapters on selecting a system covers the bibliographic database, discusses standards, database requirements, and the building of the database and considers the impact of standards on system design.¹⁶ It points out that the method of building the database depends on whether the data to be included come from one or several manual files. Another important factor is the extent to which editing of bibliographic information is required.

The second chapter, a valuable and comprehensive treatment of the functional requirements of a library system, consists of an exhaustive checklist of data elements and functions in these categories: bibliographic, authority and subject information, data entry, validation and maintenance, searching/accessing capabilities, interfacing, automated functions, selection, holdings, copyright status, claiming, routing, binding, union listing, statistical reports, vendor and bindery performance, and central systems requirements. The checklist is exhaustive, and a library would undoubtedly select the specific elements that pertained to their local situation. The checklist is followed by a description of the sub-

sequent steps in the process, i.e., identifying systems to consider, the evaluation and selection of the system, and the formal approach to acquiring the system.

Having thoroughly laid the foundation for a library's self-study, the authors examine the systems themselves in the remainder of the report. The information included about forty-seven systems (those of bibliographic utilities, serials subscription agencies, automated library system vendors, and library software developers) reflects the situation at the end of 1983. The degree of detail differs for each system because the determining factor was the documentation made available by the vendors. The authors emphasize that the value of each system depends on how it responds to the requirements and budget of the individual library, not the depth of detail in the description. Terms encountered in the classification of systems, such as *software package*, *turnkey*, and *time-sharing systems*, are defined.

Fully aware that material in the field rapidly becomes outdated, the authors published an update of their findings on the state of the market through May 1985. In the May/June 1985 issue of *Library Technology Reports*, fifty-four systems in various stages of development were studied, and changes or enhancements were added where applicable.¹⁷ Material from the first report was not republished, but references were made to the earlier report. Some vendors new to the survey may not support automated serials control but do have an interest in the field. Some vendors were dropped because they had withdrawn from the market. The conclusion in the text summarizes the unique character of the serials automation market and the library's position in relation to this market:

The automated library systems and services market is in a constant state of flux. It is not surprising that the serials control market has been particularly active in the past year or so. Along with acquisitions, serials control represents a last bastion of manual operations in an increasingly automated library environment. Because automation development has concentrated on circulation, cataloging, and on-line catalogs, libraries have had much less experience with automated serials control. Thus library administration and staff must be especially careful in choosing an automated serials control system or service and in negotiating a contract that will protect the library from performance failures.¹⁸

ACQUISITIONS

In acquisitions there is no substitute for on-the-job experience. However, since the use of serials vendors is becoming more prevalent, subscription vendor evaluation is an important area to study. The literature in this area is less than extensive, although one article in the late 1970s offers a well-thought-out list of criteria for selecting vendors and evaluating their services.¹⁹ It is often difficult for most practitioners to give objective reasons for initial choices of vendors and for maintaining accounts with vendors already on file. An article by Sharon C. Bonk, "Toward a Methodology of Evaluating Serials Vendors," presents very useful information on designing a study to answer the question of whether a library's choice of vendors meets the goals of its acquisitions program.²⁰ Bonk asserts that the goals and objectives must be explicit

from the outset. Two detailed and comprehensive lists of criteria and procedures are presented in "Figure 1, Steps in Evaluating a Vendor's Services"²¹ and "Figure 2, Determining and Measuring Objectives."²² The titles selected should be a sample that accurately serves as a basis for comparing agents' ability to supply different kinds of materials. The variables to be considered in comparing costs are outlined. The analysis of the data should lead to identifying possible changes in procedures, policies, budgeting, and staffing.

Bonk's study analyzed order fulfillment, the timeliness and accuracy of claims reports, and costs. An interesting aspect of the analysis of claiming was that the information gleaned not only evaluated vendor performance but also contributed valuable management information such as statistical data on the number of claims sent and the amount of time spent in claiming information for evaluating staff performance in such areas as judgment exercised in issuing claims or accuracy in claiming. Vendors were not ranked on the basis of the number of claims sent to each, but rather, the study identified vendors who were consistently having trouble fulfilling certain types of orders. In these cases, a pattern of transfers could be implemented to ensure that orders would be placed with the vendor who is able to provide the material in a timely fashion. The orders which needed to be monitored more closely were also identified.

Bonk asserts that personal customer service can be evaluated and is assessed by the agent's knowledge of the account, stability in the customer service staff, their expertise in problem solving, responsiveness to requests, and usefulness of personal visits.

A RETROSPECTIVE: TEN YEARS OF SERIALS LIBRARIANSHIP

Finally, the recent special issue of *Serials Librarian*, "Serials Librarianship in Transition: Issues and Developments," serves as a fitting selection to conclude this review since it covers, in twenty-nine articles, the major developments in serials of the ten years since the founding of the journal.²³ The editor, Peter Gellatly, points out in the introduction that the past decade has been one of profound and rapid change in most areas of serials operations, largely due to automation. This issue contains valuable clusters of articles on automation, organization of serials departments, and serials cataloging. The articles on automation include an annotated bibliography and review for 1976-84 with an emphasis on tools for the working technical services librarian by Fleischmann and Houghton and an appraisal of the progress in technology by Maruyama. Networking is explored by Kelley. As a follow-up to his article written during the frustrating years of the 1970s, Paul here reconsiders the benefits of automation, now that the technology has become more fully developed, in these cogent comments:

There are, however, a few things we can predict with certainty. The manual serial record system will disappear, eventually even in the Third World. Whatever its virtues, the information age will not tolerate information that is not instantly accessible in various places. It simply is the spirit of the times. The well-run manual system was a mighty warhorse, but even the most noble of fiery steeds must give way to the tank and the armored vehicle.²⁴

In the articles on organization of serials departments, Lanier and Vogt examine trends during the previous decade. Gorman presents the case for organization by function. An excellent review article by Harrington with a detailed bibliography includes a succinct presentation of the major arguments propounded in the past for separate serials departments (organization by form) or the combining of serials departments with other departments (organization by function).

The group of articles on cataloging covers the transition due to automation (Cummins), the problems presented by microforms and changes in the rules (Sadowski), cataloging history and the advantages and disadvantages of the AACR (McIver), and the decade's developments in ISDS/ISBD(s) and CONSER (Cole and Madison).

Another cluster of articles gives an overview of serials librarianship in the United Kingdom, Australia, India, and Nigeria and offers an interesting look at common processes and unique problems elsewhere in the world.

Single articles treat disparate aspects of serials operations. These include claiming (Bostic), budgeting and planning (Almagro), union listing (Bloss), microforms (Farrington), storage (Feinman), access (Gordon), and accessibility (McBride), relinquishing acquisitions control (Goehner), indexing (Cornog), and access to U.S. government periodicals in health science libraries (Florance).

The position of the subscription agency in the agency/library/publisher relationship and its evolution from 1975 to 1985 is described in the article by Lenzini and Horn. Trends in magazine publishing, economics, refereeing, abstracting, and indexing are summarized by Katz. Suggestions for self-education for the new serials librarian are presented by Leonhardt in a brief, conversational, and informative article.

The final article by Tomajko and Drake is a look at how scholarly communication is influenced and will be influenced by new publishing technologies, such as electronic bibliographic data retrieval, personalized information systems, electronic mail, text editing, teleconferencing, electronic publishing, telefacsimile, and optical and laser disk storage. Their conclusion affirms the paramount role of the library and librarians in the communication process:

Librarians need to be prepared to face many new challenges in the area of information storage and retrieval. With the increase in interdisciplinary research, most scientists need to be aware of research in areas other than their own specialization and outside their immediate research community or invisible college. Libraries will be essential to the interdisciplinary research process. Making research results known to the public by means of formal publication will continue, but publication may not be on paper. . . . As F. W. Lancaster said, "now is the time for responsible organizations to study the implications of the rapid technological changes that are occurring for the operations of publishers, primary and secondary, for the operations of libraries and information centers, and for the individual scientist as producer and user of information."¹²⁵

Many of the articles in this special issue are a conflation of historical information, present practices, evolutionary processes, and future prospects. Thus, it is an excellent conclusion to this review article, which has sought to recommend publications that were important contributions to

serials literature from 1981 to 1985. These publications were selected in the hope that they will provide valuable information for practicing serials librarians as well as for their colleagues who wish to learn more about serials and their role in libraries.

REFERENCES

1. Andrew D. Osborn, *Serial Publications: Their Place and Treatment in Libraries*, 3d ed. (Chicago: American Library Assn., 1980).
2. Marcia Tuttle, *Introduction to Serials Management*, Foundations in Library and Information Science, V.11 (Greenwich, Conn.: JAI Pr., 1983).
3. Wayne R. Thyden, "Serials Publishing: A World of Variation," *Serials Librarian* 6:69-76 (Fall 1981).
4. David C. Taylor, *Managing the Serials Explosion: The Issues for Publishers and Libraries* (White Plains, N.Y.: Knowledge Industry, 1982).
5. *Ibid.*, p.1.
6. David C. Taylor, "The Love-Hate Relationship of Librarians and Publishers of Serials," *Drexel Library Quarterly* 21:35 (Winter 1985).
7. Alan Singleton, "The Electronic Journal and Its Relatives," *Scholarly Publishing* 13:3-18 (Oct. 1981).
8. *Ibid.*, p.11.
9. Leonard Schrift, "After Thor, What's Next: The Thor Power Tool Decision (U.S. Supreme Court) and Its Impact on Scholarly Publishing," *Library Acquisitions: Practice & Theory* 9:61-63 (1985).
10. Marcia Tuttle, "Magazine Fulfillment Centers: What They Are, How They Operate, and What We Can Do About Them," *Library Acquisitions: Practice & Theory* 9:41-49 (1985).
11. Ann Turner, "AACR2 and Serials," *Serials Librarian* 6:27-39 (Fall 1981).
12. Neal L. Edgar, "Serials Cataloging up to and Including AACR2," *Serials Librarian* 7:25-46 (Summer 1983).
13. Marlene Sue Heroux, "Automated Serials Cataloging," *Serials Librarian* 9:69-83 (Spring 1985).
14. Huibert Paul, "Automation of Serials Check-In: Like Growing Bananas in Greenland? Part I," *Serials Librarian* 6:3-16 (Winter 1981/Spring 1982); "Part II," 6:39-62 (Summer 1982).
15. Dan Tonkery, "The Necessity of Serials Automation," *Serials Librarian* 7:57-60 (Summer 1983).
16. Richard W. Boss and Judy McQueen, "Serials Control in Libraries: Automated Options," *Library Technology Reports* 20:89-282 (Mar./Apr. 1984).
17. _____, "Serials Control in Libraries: An Update of Automated Options," *Library Technology Reports* 21:231-343 (May/June 1985).
18. *Ibid.*, p.238.
19. Harry Kuntz, "Serials Agents: Selection and Evaluation," *Serials Librarian* 2:139-50 (Winter 1977).
20. Sharon C. Bonk, "Toward a Methodology of Evaluating Serials Vendors," *Library Acquisitions: Practice & Theory* 9:51-60 (1985).
21. *Ibid.*, p.55.
22. *Ibid.*, p.56.
23. Peter Gellatly, ed., "Serials Librarianship in Transition: Issues and Developments," *Serials Librarian* 10 (Fall 1985/Winter 1985-86).
24. Huibert Paul, "Serials and Automation: Yesterday, Today and Tomorrow," *Serials Librarian* 10:94 (Fall 1985/Winter 1985-86).
25. Kathy G. Tomajko and Miriam A. Drake, "The Journal, Scholarly Communication, and the Future," *Serials Librarian* 10:296 (Fall 1985/Winter 1985-86).

Margaret Mann Citation, 1986

Jean Weihs



Jean Weihs (left) award recipient and Lois Hacker, chair, Cataloging and Classification Section.

The Margaret Mann Citation in Cataloging and Classification for 1986 is awarded to Jean Weihs in recognition of her pioneering efforts to standardize the bibliographic control of nonbook materials and to promote the philosophy of integrated collections. The groundbreaking work, Nonbook Materials: The Organization of Integrated Collections (preliminary ed., 1970; 1st ed., 1973; and 2d ed., 1979), of which she was the principal author, was accepted by the American Library Association as one of the four primary sources for the development of the relevant chapters of the Anglo-American Cataloguing Rules, 2d. ed., (1978). She has continued active participation in professional organizations at both the national and international levels, culminating in her appointment as 1984- chair of the Joint Steering Committee for the Revision of the Anglo-American Cataloguing Rules.

Jean Weihs

Receipt of the Margaret Mann Citation signifies outstanding professional achievement in cataloging or classification in one or more of several areas of expertise—publication, association activities, technological innovation, and teaching. This year's recipient, Jean Weihs, has made a contribution which touches, to some degree, on most of the areas. More precisely, her major contribution has been in the cataloging of nonbook materials, where she has played a major role in the development and standardization of the principles, rules, and practices used in the cataloging of such materials.

Through the 1960s and 1970s, as nonbook media became more and more important to communication in general and to library collections in particular, it was abundantly evident that cataloging librarians lacked adequate tools to cope with the problems some media presented. The result was a multiplicity of cataloging manuals, each developed for a particular library, or group of libraries, with little or no thought for national and international standardization of bibliographical control. Moreover, the publication of the North American and British texts of the *Anglo-American Cataloging Rules* (AACR1) in 1967 did little to alleviate the situation. While AACR1 recognized the existence of nonbook materials, its provisions for them were glaringly inadequate. The coverage of materials was very limited in scope and the rules included in part 3 were not entirely consistent with other parts of the code. At the same time, there was international disagreement on a number of issues which would eventually have to be resolved. Nevertheless, there were two positive signs in this situation. Recognition that a problem existed provided a starting point for serious investigation, and the criticisms of deficiencies acted as a catalyst to challenge cataloging librarians to take action.

Among those who accepted the challenge were three Canadians—Jean Weihs, Shirley Lewis, and Janet Macdonald—who set out to develop a manual for the cataloging and organization of nonbook materials, which was based on the principles and rules that were the foundation for parts 1 and 2 of AACR1. Together, this trio worked long and hard, although it was Jean Weihs who gradually assumed the leadership role and who rose to become an internationally recognized expert on the bibliographical control of nonbook materials.

The result of their first efforts was the preliminary edition of *Non-book Materials: The Organization of Integrated Collections*, which appeared in 1970. Although this was a manual of practice and not a code, its efforts to adhere to the principles and practices of AACR1 was one of the great sources of its strength. Its excellence was quickly recognized through favorable acclaim and wide use, both nationally and internationally, and it represented a significant step in the direction of standardization. The importance of this was duly recognized when, soon after its publication, this preliminary edition was endorsed by the Council of the Canadian Library Association and by the Resources and Technical Services Division of the American Library Association as an interim guide for the cat-

aloging of nonbook materials, until such time as AACR1 could be revised. Subsequently, in 1972, this publication was also formally adopted by the Australian School Library Association as the standard for Australian school libraries. Following from this, work was begun on what was to become the first edition of this work, and a Joint Advisory Committee of representatives from several media organizations, including the American and Canadian library associations, was formed to advise the authors and to coordinate information on the cataloging of nonbook materials. In 1973 the first edition of *Nonbook Materials: The Organization of Integrated Collections* was published and became one of three primary sources consulted in the revision and development of rules for nonbook materials for the *Anglo-American Cataloguing Rules*, second edition (AACR2). Given its international recognition and its demonstrated value as a cataloger's tool, it was inevitable that this manual would be updated. With the publication of its second edition in 1979, *Nonbook Materials* was brought into line with AACR2.

While *Nonbook Materials* is in itself an important contribution to library cataloging, of equal importance are the activities of its primary author, which followed from its success. Over the years since the publication of that first preliminary edition of this manual, Jean Weihs has become recognized as an international authority on nonbook cataloging. This she has accomplished not on the basis of the publication alone but through continuous and sustained involvement in the revision and extension of the principles and rules for nonbook cataloging. She has constantly been expanding her knowledge of the field to the fullest degree, carefully watching the changing face of technology with a view to keeping cataloging rules and practices up-to-date with developments. Jean has generously shared her knowledge and expertise with colleagues, responding to many invitations to publish articles and to speak at workshops and seminars locally, nationally, and internationally. At home, in Toronto, she is a teacher and director of a library technicians' program at Seneca College of Applied Arts and Technology, where she imparts sound principles of cataloging to her students. Here also, her outstanding contribution to librarianship was recognized when, in 1982, she was presented with the Jubilee Award, which the University of Toronto Faculty of Library and Information Science Alumni awards to its most distinguished members.

Both nationally and internationally, Jean Weihs has had a long career of active participation in catalog code revision. In the American Library Association, she was a member of the Descriptive Cataloging Committee of the Cataloging and Classification Section and acted as a consultant to the Catalog Code Revision Committee in its work on AACR2. Other involvements in ALA have included membership on several Cataloging and Classification Section committees, including the Policy and Research and the Cataloging of Children's Materials committees and the Subcommittee on Subject Headings for Nonbook Materials of the Subject Analysis Committee. Her leadership in the area of cataloging is even more evident in Canada, where she has been a member of the Canadian Committee on Cataloguing since 1978 and has served since 1979 as its

chairperson. In this capacity she is Canada's official representative on the Joint Steering Committee for the Revision of AACR and is the current chairperson of that important international cataloging body.

All of Jean Weihs' achievements have been accomplished in a very quiet and unassuming way. At the outset of her investigation of the mysteries of nonbook materials, she had a simple objective: to produce a manual of practice which would help Canadian library catalogers solve their nonbook problems. She had no thought or premonition that her work would play an important role in the standardization of nonbook cataloging. Nor have the results been accomplished without significant effort. It has been diligence and persistence in the search for underlying principles and rules, as well as their logical and careful application in practice, which has ultimately led to her success. In all of her activities, Jean has endeavored to leave no stone unturned and no problem without a reasonable solution.—*Nancy J. Williamson, Professor, Faculty of Library and Information Science, University of Toronto.*

Serials Section Bowker/Ulrich's Serials Librarianship Award, 1986 Ruth Carter



From left to right, Leigh Yuster, R. R. Bowker Company; Ruth Carter, award recipient; and Suzanne Striedieck, 1986 committee chair.

The Serials Section of the American Library Association presents the 1986 Bowker/Ulrich's Serials Librarianship Award to Ruth Carter, in recognition of her leadership and contributions to the field of serials librarianship.

Active participation in OCLC and CONSER activities has kept Ruth Carter in the mainstream of national bibliographic control of serials for more than a decade. Her work as technical director of the Pennsylvania Union List of Serials resulted in a statewide machine-readable database of serials, and her writings and presentations on the process have set a standard for all. Ruth Carter's roles on the Steering and Technical committees of the Pennsylvania Newspaper Project have advanced this local component of a national project and have contributed further to both regional and national bibliographic control.

In addition to these tangible products of shared serials control, Ruth Carter has written and spoken extensively on union lists, the application of automation, and standards for bibliographic control, and she is making further contributions to the library literature as editor of Cataloging and Classification Quarterly. A long-standing leader in RTSD's Serials Section, in her state library association, and in other library-related organizations, Ruth Carter's overall contributions and leadership in serials librarianship are impressive. She is an outstanding serials librarian and a worthy recipient of the 1986 Bowker Serials Librarianship Award.

Ruth Carter

Ruth Carter is the distinguished recipient of the 1986 RTSD/Serials Section Bowkers/Ulrich's Serials Librarianship Award, presented at the Annual Conference in New York, June 28, 1986.

The Serials Librarianship Award, supported by the R. R. Bowker Company with funding of \$1,500 annually, is awarded "for distinguished contributions to serials librarianship within the previous three years, demonstrated by such activities as leadership in serials related activities through participation in professional associations and/or library education programs, contributions to the body of serials literature, conduct of research in the area of serials, development of tools or methods to enhance access to or better management of serials, or other advances leading to better understanding of the field of serials."

Ruth Carter is at present Assistant Director for Technical Services at the University of Pittsburgh Libraries, having previously served Pittsburgh as Head of the Catalog Department, Head of the Serials Department, and as Systems Librarian. She has a Bachelor of Science in Education and a Master of Arts in European History from the University of Cincinnati. Her Master of Science in Library Science is from the University of Illinois-Urbana.

It is a challenge to pin down Ruth Carter's primary contributions, since her activities are so extensive and wide ranging. She is an expert in serials management, very active in and knowledgeable about serials union listing, and involved with automation, standards for data transmission, and the sharing of bibliographic information online. The Serials Librarianship Award is in recognition of the extraordinary degree to which Ruth Carter has shared her expertise.

For instance, Ruth Carter is a prolific author. Her articles in the last three years alone covered serials work flow, technical standards, union lists of serials, and online services and collection development, while 1983 saw the publication of a book on data conversion.* Ruth has also served on the editorial board of *Serials Review* since 1984 and is currently the editor of *Cataloging and Classification Quarterly*.

Ruth Carter is also a frequent speaker at a wide variety of professional meetings. She has conducted a number of workshops and helped to organize as well as participate in the RTSD/Serials Section serials cataloging institutes, which began with the Minneapolis institute in May 1986.

Ruth Carter has served the profession, specifically serials librarianship, through participation and leadership in its institutions and organizations. As noted in the citation, Ruth has served OCLC and the CONSER program in several capacities, most recently as a member of the CONSER Participants Group. She has also been active in ALA as chair of the LITA Technical Standards for Automation Committee, as the

*Ruth C. Carter and Scott Bruntjen, *Data Conversion* (White Plains, N. Y.: Knowledge Industry, 1983).

LITA representative to MARBI, in a number of roles in RTSD's Serials Section, and most recently as the section's chair.

Ruth Carter gives us an outstanding example of the challenges, rewards, and excellence in serials librarianship, and the 1986 RTSD/SS Bowker/Ulrich's Serials Librarianship Award is a fitting tribute.—*Suzanne Striedieck, Chair, Serials Section Bowker/Ulrich's Serials Librarianship Award Committee.*

Resources Section/ Blackwell North America Scholarship Award, 1986:

Selection of Library Materials in the Humanities, Social Sciences, and Sciences



From left to right: William Hepfer, award recipient; Stanley P. Hodge, award recipient; John R. Kaiser, 1986 committee chair; Marcia Pankake, award recipient; Jack Walsdorf, Blackwell North America; Patricia McClung, award recipient; Dean Herbert S. White, School of Library and Information Science, Indiana University; John Whaley, award recipient; and Beth J. Shapiro, award recipient (absent).

This outstanding volume has had a long history and truly reflects the contributions of many librarians who have worked diligently to advance the practice and theory of the selection of library materials. This book is unique when one considers its place in the ever-growing body of literature on the art of selection in that it is the first bibliographically documented guide to specific sources useful for selecting materials in our basic academic disciplines.

Concentrating on appropriate sources and techniques for the identification, evaluation, and selection of library materials for research libraries in general, this book provides practical advice for the beginner as well as for those experienced selectors who may need to select materials in disciplines for which they have had no formal training or practical experience. As well as for the practicing selector, this volume is an excellent sourcebook for administrators and others responsible for those involved in the selection of library materials. Given this, the volume could serve equally well in the classrooms of our library schools, for the students of today become the selectors of tomorrow.

The 1986 Blackwell North America Scholarship Award has been presented to the editors of *Selection of Library Materials in the Humanities, Social Sciences, and Science*, published by the American Library Association in 1985. The editor of this work is Patricia A. McClung, with William Hepfer, Stanley Hodge, Patricia McClung, Marcia Pankake, Beth Shapiro, and John Whaley serving as section editors.

The award citation was presented to the editors at the Resources and Technical Services Division membership meeting held June 28, 1986. The scholarship award of \$1,000 will be donated to the School of Library and Information Science at the University of Indiana by Blackwell North America.

This outstanding volume on the art of selection contains sections on the basic disciplines in the humanities, social sciences, and science and technology. For the humanities, there are chapters on English and American literature with notes on some Commonwealth literatures. Other chapters cover history, philosophy and religion, art and architectural history, and music. Individual chapters on anthropology, sociology, economics, political science, and psychology form the section on the social sciences. In the section on science and technology there is a chapter giving a general overview for scientific and technical materials as well as those covering biology, chemistry, computer science, geology, mathematics and physics, and astronomy. In addition to these chapters, one on general considerations analyzes selection sources and strategies; there is also information on buying out-of-print books and serials. The last chapter in the book is concerned with the challenges offered to librarians responsible for materials in special formats and subjects, such as government publications, small press publications, microform publications, nonprint media, and machine-readable data files.

Especially useful are the complete bibliographical citations given for the tools as well as the evaluative comments on the contents of each publication and the publication's general usefulness, such as the average number of reviews contained in each issue, the time lag between time of publication and the date of the review, and the importance of the publication in relation to others available.

The production of this volume has had a long history, but the following editors were responsible for its completion: Patricia A. McClung, listed as both editor and section editor, has worked at Harvard, the University of Virginia, and the University of California-Los Angeles. She has published in a wide variety of journals and is now Associate Director of Program Coordination at the Research Libraries Group based at Stanford University. William Hepfer, a section editor, is coeditor of *Serials Review*. He has held positions at the Pennsylvania State University Library, Texas A&M University Library, and is now Head of the Serials Department at the State University of New York-Buffalo. Stanley P. Hodge, a section editor, is Chief Bibliographer of Ball State University. He has been active in the library profession as a speaker on both a regional and national level and is the author of numerous articles, which have appeared in library journals. Marcia Pankake, Bibliographer for English and American Literature at the University of Minnesota, is the

author of numerous articles and chapters in books and an active member of the library profession in general. Although collection development is one of her main concerns, she has presented many papers at professional conferences. Beth J. Shapiro, Associate Director of Libraries at Michigan State University Libraries, has published widely in the fields of librarianship and sociology in such journals as the *Journal of Academic Librarianship* and *Insurgent Sociologist*. She has presented papers on social science collection development in numerous institutes and conferences and is an active member of the American Library Association. John Whaley, Associate Director for Collection Management at Virginia Commonwealth University, has for years participated in the planning and implementaton of the RTSD Collection Management and Development Institutes on a nationwide basis. He served as a bibliographer at both SUNY-Binghamton and the University of North Carolina-Charlotte and has published in *Library Resources & Technical Services*, as have Marcia Pankake and Patricia McClung.—*John R. Kaiser, Chair, Resources Section-Blackwell/North America Scholarship Award Jury.*

RESOURCES SECTION BLACKWELL NORTH AMERICA SCHOLARSHIP AWARD

Nominations for the 1987 Resources Section Blackwell North America Scholarship Award are now being accepted. They should be submitted by November 15, 1986, to Sara C. Heitshu, Assistant University Librarian, Technical Services, University of Arizona Library, Tucson, AZ 85721.

This award is presented to honor the author or authors of the outstanding 1986 monograph, article, or original paper in the field of acquisitions, collection development, and related areas of resources development in libraries. Blackwell North America will donate a \$1,000 scholarship to the U.S. or Canadian library school of the winning author's choice. The school will select a student concentrating in the acquisitions or collection development areas to receive the scholarship.

MARGARET MANN CITATION

Nominations for the 1987 Margaret Mann Citation are now being accepted. They should be submitted by November 15, 1986, to Desretta McAllister-Harper, P.O. Box 8652, Durham, NC 27707.

The Margaret Mann Citation is awarded annually for outstanding achievement in cataloging or classification through

- publication of significant professional literature;
- contributions to activities of professional cataloging organizations;
- technical improvements and/or introduction of new techniques of recognized importance; or
- distinguished teaching in the area of cataloging and classification.

Renominations of nonrecipients are acceptable.

ESTHER J. PIERCY AWARD

Nominations for the 1987 Esther J. Piercy Award are now being accepted. They should be submitted by November 15, 1986, to Judith N. Kharbas, University of Rochester Library, Rochester, NY 14627.

The Piercy Award was first presented in 1969. Its purpose is to recognize contributions to librarianship in the field of technical services by a younger librarian—one who has no more than ten years of professional experience and who has shown outstanding promise for continuing contributions and leadership.

The award may be granted for

- leadership in professional associations at local, state, regional, or national levels;
- contributions to the development, application, or utilization of new or improved methods, techniques, and routines;
- a significant contribution to professional literature; or
- conduct of studies or research in the field of technical services.

Renominations of nonrecipients are acceptable.

SERIALS SECTION BOWKER/ULRICH'S SERIALS LIBRARIANSHIP AWARD

Nominations for the 1987 Serials Section Bowker/Ulrich's Serials Librarianship Award are now being accepted. They should be submitted by November 15, 1986, to Linda Haack Lomker, 3815 Noble Ave. N., Robbinsdale, MN 55422.

The award consists of a citation and a \$1,500 cash award, provided by the R. R. Bowker Company, for distinguished contributions to serials librarianship within the previous three years. Contributions may be through leadership in serials-related activities; participation in professional associations or library education programs; serials literature; research; development of tools or methods that enhance access to or management of serials; or other advances that lead to a better understanding of the serials field.

RTSD

Annual Reports 1985/86

Report of the President

Marcia Tuttle

Nineteen eighty-six is the thirtieth birthday of the Resources and Technical Services Division of the American Library Association. RTSD's members celebrated on June 29 in New York with an all-day Conference-within-a-Conference, "Here Today, (W)here Tomorrow?: Future Challenges for Resources and Technical Services in the Information Age." The program's planning committee was most ably chaired by Martin Faigel and consisted of Lois Hacker (CCS), Jan Merrill-Oldham (PLMS), Mary Ann Ferrarese (RLMS), Connie McCarthy and Beth Shaprio (RS), Ellen Siegel Kovacic (SS), and D. Whitney Coe (RTSD Education Committee). Several hundred persons attended the four separate but related sessions of the anniversary program. In session 1, entitled "Overview of the Issues Surrounding the Information Age and Libraries," J. David Bolter (Classics Department, University of North Carolina-Chapel Hill) spoke on "Text and Technology: Reading and Writing in the Electronic Age." He was followed by Karen Horny (Assistant University Librarian, Northwestern University and a past president of RTSD) on "New Turns for a New Century: Library Services in the Information Era."

Session 2 was entitled "Issues Surrounding the Delivery of Information: New Formats and New Economic Structures." Speakers were Carol Risher (Director of New Technology, Association of American Publishers), discussing "The Electronic Book in the Electronic Society: A Look into the Crystal Ball of Publishing," and William J. Welsh (Deputy Librarian of Congress) examining "Libraries, Publishing, and the Future."

The first afternoon session, "Changing Roles and New Organizational Patterns," was headlined by Kenneth Dowlin (Director, Pikes Peak Library District) speaking on the topic, "Neo-Force for the Neo-Graphic Age." Dowlin's illustrated talk was followed by a panel of reactors, consisting of Michael Gorman (Director of General Services, University of Illinois at Urbana-Champaign Library), Paula Kaufman (Director of Library Services, Columbia University), Dorothy Gregor (University Librarian, University of California at San Diego), and Sanford Berman (Head Cataloger, Hennepin County Library).

The day's final session took as a topic "Education to Meet the Future." Speakers were Jane Robbins-Carter (Dean, University of Wisconsin-Madison School of Library and Information Studies) and Sharon Rogers (Director, George Washington University Library), discussing formal and continuing education for technical services librarians.

Perhaps the greatest strength of RTSD is its programming, whether it occurs in ALA summer conferences, in ALA preconferences, or in regional institutes treating topics of concern to technical services librarians. This year the pro-

grams continued RTSD's tradition of excellence. The division offered two pre-conferences in New York: Technical Services Costs and Preservation for Collection Managers. In addition, RTSD presented a full schedule of regional institutes throughout the year:

- Library Preservation: Fundamental Techniques, Stanford University, August 26-30, 1985
- Collection Management and Development Institute, University of Washington, September 3-6, 1985
- Nonbook Materials Regional Institute, Boston, December 9-11, 1985
- Preservation Microfilming: Administrative Issues, Washington, D.C., March 6-7, 1986
- Serials Cataloging Institute, Minneapolis, May 7-9, 1986
- Collection Management and Development Institute, University of North Carolina-Chapel Hill, May 18-21, 1986

Scheduled for next year are additional serials cataloging and collection management and development institutes. Planning is in the final states for three further series of institutes: acquisitions, classification, and statistics for technical services. The first institute for each of these new series will be held during the 1986/87 fiscal year.

At Midwinter 1985, RTSD initiated the Library of Congress Reporting Session, presented by Henriette Avram, Assistant Librarian for Processing Services at LC. This meeting, held also at summer conferences in conjunction with the RTSD Membership Meeting, has been a complete success, according to the tally of evaluations turned in at the four sessions. Avram gives an overview of events at the Library of Congress relating to technical services and has on hand librarians in the area of processing services to help answer the many questions from the audience. This year her focus has been the library's response to reductions in staffing and services mandated by the Gramm-Rudman-Hollings bill and the effect the changes will have on America's libraries.

The Resources and Technical Services Division established two new committees during 1985/86: the Publications Committee and the Budget and Finance Committee. These units were created to give the division better control over its printed products and its finances, and each has been given a long list of responsibilities that will occupy its time and energies for several years to come.

The Publications Committee reviews all manuscripts resulting from RTSD committee work and recommends its preferred means of publication (ALA monograph, RTSD pamphlet, journal article, etc.). Its members also work with ALA Publishing Services by recommending referees and potential authors. An eventual function of the committee will be to determine publishing needs within the division and to facilitate filling these needs. Beth Shapiro, Chair of the Publications Committee, and her colleagues have worked exceedingly hard this year and have begun to accomplish a large part of the complex charge given them by the board.

The Budget and Finance Committee, under the direction of Arnold Hirshon, has had only half a year to consider its equally complex charge, to determine priorities, and to begin the work of gaining better control over RTSD finances. The committee's work was made more difficult by ALA's move toward a total accrual accounting system that shows RTSD and other divisions with an apparent deficit. The group discussed at great length the division's institute programming finances. A top priority for next year is the development of guidelines for planning and funding these regional meetings.

At the Annual Conference, the Organization and Bylaws Committee recommended, and the Board of Directors approved, a third new committee, the Catalog: Form and Function Committee. At that same meeting, the Public Librarians in Technical Services Discussion Group was approved. Increasing the

service of the division to public librarians, to meet the needs of these colleagues who have very different concerns from academic librarians, has been a particular emphasis within RTSD in recent years.

The division has been very involved, through its Publisher/Vendor/Library Relations Committee (formerly the Resources Section's Bookdealer/Library Relations Committee) with the discriminatory pricing of many British scholarly journals for the North American market. The committee keeps informed through correspondence and conversations with the publishers and with American librarians. Its chair reports regularly to the RTSD Board of Directors, detailing progress made by the committee, expressing concern with the continuing geographical discrimination and proposing resolutions of commendation where publishers have taken measures to reduce the pricing differential. The committee works with other groups to monitor journal pricing in the United Kingdom and other European countries.

Following the Midwinter Meeting, the RTSD membership approved two Bylaws changes. One extends voting privileges to designated substitutes for board members. The second changes the status of the division's parliamentarian from nonvoting member of the Board of Directors to consultant, in order to conform to ALA practice and to enable RTSD to keep its excellent parliamentarian, Edward Swanson.

At the Annual Conference, the board approved a document entitled "RTSD Legislative Statement of Purpose and Guide to Legislative Action," submitted by the RTSD Legislative Committee and defining the scope of this group's work. The board also adopted a resolution encouraging ALA Publishing Services to print RTSD journals and, indeed, all of its publications on alkaline paper, according to ANSI Standard Z39.48.

At the 1985 Annual Conference the Board of Directors revised the function statement of the Planning and Research Committee, charging the group "to undertake a systematic and continuing review once every five years or at the request of the RTSD Board, whichever comes first, of all sections, committees, and other divisional level units as to their charge, function, composition, size, and relevance to and success in forwarding the goals and objectives of RTSD; and to recommend action to the RTSD Board about the continuation or discontinuation of the unit reviewed." In order to add this organizational review to its already heavy work load, the committee membership was increased by two.

Working together, the Planning and Research Committee and the Organization and Bylaws Committee established a mechanism and timetable for conducting the reviews on a five-year cycle, beginning immediately. Ad hoc committees, appointed by the body being reviewed, will conduct the review and report back to the two committees. A schedule covering the five sections, fifteen division level committees, and nine discussion groups calls for two sections, three committees, and two discussion groups to be reviewed each year, thus adhering to the five-year cycle.

At the same time, the Planning and Research Committee is heavily involved in long-range planning for RTSD, in conjunction with ALA's Strategic Long Range Planning. At the Annual Conference, RTSD board members identified several areas of greatest concern from the lists compiled during a similar meeting at Midwinter. Among the areas relevant to RTSD, the most crucial were "research" and "continuing education." The division will be implementing specific "goals for action" in each of these areas during the next few years. RTSD supports the association's emphasis on cooperative programs, and the division plans to work with other ALA units in carrying out these goals.

On June 30, the RTSD membership was 5,951, an increase of 134 over the previous year. Of these, 4,930 are personal members and 1,021 are organizational. Section membership is as follows:

Cataloging and Classification	3,890
Preservation of Library Materials	1,803
Reproduction of Library Materials	1,360
Resources	2,364
Serials	2,348

For the Resources and Technical Services Division, this year has been a time of coming to know ourselves better through hard work. We have examined our activities and our obligations, not only with regard to the division, but also in a broader context, from our perspective as one of the major units of the American Library Association. RTSD's officers and other leaders have accepted the responsibility entrusted to them by the membership. Through the mechanisms the Board of Directors has created this year the division will be able to continue the maturing process. It has been a difficult year, but RTSD is a better organization because of these efforts.

Cataloging and Classification Section

Lois Hacker, Chair

Every library is dependent to some degree on cataloging and classification, and the Cataloging and Classification Section (CCS) must try to help a large, diverse group. Moreover, it is a group wrestling with changes in rules, changes in interpretations of rules, changes in terminology, and changes in the technology by which all this is put together in service to the library and its users. The changes are made in response to communications from a variety of sources that say they are needed, and CCS is instrumental both in bringing about the changes and in helping its members cope with the results.

CCS serves the library community through the hard work of its committees, subcommittees, ad hoc committees, and task forces, its representatives and liaisons to outside groups, its five discussion groups, and through workshops and programs, preconferences and institutes. Much of the work is receiving and writing documents, writing responses to them, discussing them, amending them, and passing them on for implementation or publication. The many CCS members involved in this process find it heady stuff, right at the heart of their professional commitment. It has been a pleasure for me to be a part of the work, to see the care with which it is done, and to appreciate its continuity over the years.

Central to CCS are its standing committees. Their work is so extensive, I can only report on highlights. The Cataloging of Children's Materials Committee (CCMC), with Frances Corcoran as chair, is preparing a packet of articles—information on various aspects of cataloging—to be published and used at an open meeting or forum at the San Francisco Conference next summer.

The Committee on Cataloging: Asian and African Materials (CC:AAM), chaired by Michael Fitzgerald, is making recommendations on Dewey numbers for southern Africa, for homelands, historical events, and towns. It plans to cosponsor with ACRL's Asian and African Section a program, "Asia and Africa in Undergraduate Library Collections," in San Francisco.

The Committee on Cataloging: Description and Access (CC:DA), with Dorothy McGarry as chair, has been especially busy clearing recommendations for the consolidated edition of AACR2. Always the most document laden of CCS committees, CC:DA has had a heavy year. Some recent topics for consideration have been the revision of AACR2 chapter 9, a glossary, pseudonyms,

cartographic materials, and entries for performers of musical works. A challenging new request asks the committee to consider how to reduce the number of serial title changes that require closing down the record for a serial and starting a new one.

CCS Policy and Research Committee, chaired by Ellen Korvacic, has been considering work in research. The Subject Analysis Committee (SAC), with Joan Mitchell as chair, has just published *Guidelines on Subject Access to Microcomputer Software*. It is now available for purchase from ALA. Joan Mitchell was chair of the working group that prepared the *Guidelines*. SAC is developing a part of the CCS program for San Francisco "Subject Authorities in the Online Environment," with cosponsoring from several other ALA divisions. Newly appointed subcommittees of SAC are studying the treatment of current terminology in Library of Congress subject headings, Dewey Abridged Edition 12, and subject access to individual works of fiction, drama, etc. Interest in SAC's work is high, and CCS is exploring the possibility of making SAC documents available on a subscription basis, as CC:DA's are.

CCS became a partner this year with the Library and Information Technology Association Authority Control Interest Group (ACIG). The possibilities of automated authority control are of major interest to catalogers, and many attended more than seven hours of program and discussion sessions ACIG offered at the New York Conference. Its concerns are especially tied to those of CC:DA and SAC in that it works with their headings.

The CCS Executive Committee had, as always, long agendas, covering reports from its committees, discussion groups, and representatives, as well as projects initiated by the committee. Again, I can only mention a few notable events. At Midwinter, representatives Arnold Wajenberg and Robert Holley reported on their IFLA activities. Wajenberg is on the IFLA Section on Cataloging Standing Committee and Holley was elected chair of the IFLA Bibliographic Control Section Standing Committee on Classification and Indexing. Liz Bishoff, Ellen Kovacic, Tamara Frost, and Nancy John have been working on procedures by which CCS will review the work of its committees and discussion groups. Nancy John publicized the discussion topics of CCS groups meeting at Midwinter and the New York Conference in *RTSD Newsletter*. That was heartily approved for its convenience to members deciding what to attend.

This June, Janet Swan Hill presented the CCS Executive Committee with the completed report of the Task Force on Education and Recruitment for Cataloging, a report surveying the extent to which cataloging is taught in library schools, and surveying libraries hiring catalogers. The preliminary report was endorsed by the RTSD Board at Midwinter, and CCS hopes for its publication in *RTSD Newsletter*. Liz Bishoff and Heidi Hoerman also worked on the report, and all three are to be congratulated for their extensive and imaginative work. An open meeting with the Association of Library and Information Science Education will be scheduled at Midwinter to discuss its implications.

Charles Simpson, with John Duke and Joan Mitchell, submitted an admirably thorough report on CCS's relationship with ACIG, covering as well other ALA groups with cataloging interests. The CCS Policy and Research Committee will consider what actions are appropriate.

Helen Schmierer, now in her second term as ALA representative to the Joint Steering Committee for Revision of *Anglo-American Cataloguing Rules* (JSC), submitted a fascinating report on the JSC's history and operations, with her recommendations for its future. CCS and the RTSD board have endorsed the report and forwarded it to Gary Facente, ALA Trustee of the Common Revision Fund, and Thomas Galvin.

CCS took part in a number of programs at the New York Conference. ACIG presented a program reviewing automated authority control systems.

CC:AAM cosponsored "Asian and African Collections in American Libraries: Meeting the Research Needs for Area Studies." SAC was cosponsor of "New Directions in Subject Access to Nonbook Materials" and presented the "004-006 Workshop" on the new Dewey computer science schedule. CCS also helped in planning the RTSD Conference-within-a-Conference: "Here Today, (W)here Tomorrow?"

The CCS discussion groups have been very popular, as they give conference attendees a forum in which to hear presentations on current topics of interest and a chance to participate in discussing them, exchanging ideas on problems directly. Excellent and well-attended meetings were arranged at both Midwinter and the Annual Conference by the Catalog Management, the Cataloging Norms, the Copy Cataloging, and the Heads of Cataloging departments discussion groups. A new CCS discussion group was approved this year: the Map Cataloging Discussion Group, and its meetings are attracting new members.

The CCS Nominating Committee was ably chaired by Whitney Coe. The newly elected members of the CCS Executive Committee are Robert Holley, Vice-Chair/Chair Elect; Alice Allen, Secretary; and Beacher J. E. Wiggins, Member-at-large.

The Margaret Mann Citation Committee, with Judith Hopkins as chair, gave the award to Jean Weihs, chair of the Joint Steering Committee, a very worthy recipient (see the article in this issue).

The CCS Executive Committee must lose three valuable members whose terms are completed: Nancy John, Past Chair; Janet Swan Hill, Secretary; and Tamara Frost, Member-at-Large. Their excellent work, depth of knowledge and experience, and their wit and wisdom have been vital to the committee's work.

Doris Clack will take over as the new chair of CCS. She has been organizing a part of the CCS program for San Francisco, "Linked Systems and the Online Catalog." She has been a member of the ALA Research Committee this year and has long been active in CCS and other ALA groups. I look forward to her leadership.

For my own part, I am grateful for having had the opportunity of chairing CCS. It has been a busy and informative year for me and has brought me a closer appreciation of the dedication and thought of many members whose work I have come to know and admire and whose work will continue into the years ahead, carrying on CCS's service to librarianship.

Preservation of Library Materials Section

Carolyn Clark Morrow, Chair

The 1986 Annual Conference in New York marked the sixth anniversary of the Preservation of Library Materials Section (PLMS), launched in 1980 in New York. In 1986 the RTSD Organization and Bylaws Committee approved a revised function statement for PLMS that reflected six years of expansion and maturation for both the section and the preservation field.

During the 1985/86 year, PLMS culminated a four-part series of preservation institutes with a conference "Library Preservation: Fundamental Techniques" held at Stanford University, August 26-30, 1985. The conference was filled to capacity and heralded a greater recognition of the need for increased conservation activities in libraries. The 125 participants were given a unique opportunity for a practical, hands-on experience, and the preservation field was

provided with a model for a conference combining lectures with hands-on experience. The previous three conferences in the series (cosponsored by ALA and the Library of Congress) addressed the administrative and organizational aspects of developing comprehensive preservation programs in libraries.

In recognition of PLMS' six years of maturation and change, at Midwinter the chair appointed the Task Force to Examine Committee Structure, chaired by Margaret Brynes, PLMS Vice-Chair/Chair-Elect. The task force is addressing such issues as the need for additional discussion groups (as evidenced by the large crowds of interested parties that attend PLMS working committees) the role of liaisons, and the need for a committee to address the topic of selecting materials for preservation. The task force will also explore the pros and cons of a merger of PLMS with the Reproduction of Library Materials Section (RLMS).

In 1985, PLMS began to forge new links to the Resources Section (RS), a trend recognized as highly desirable by both RS and PLMS members. A planning committee cochaired by Anna Perrault (RS) and Carolyn Morrow (PLMS) planned "Preservation for Collection Managers," a preconference to the 1986 Annual Conference. The preconference explored the preservation options available to collection managers and placed preservation in the context of a library's collection development program. In addition to papers by collection development librarians, the conference included four breakaway sessions by preservation librarians on replacement/reformatting, prospective/preventative preservation, library binding, and conservation treatment/repair. In a unique small-group session organized by Sherry Byrne, participants had the opportunity to examine a group of books and formulate treatment decisions based on the bibliographic record and the actual physical condition of the items. At the annual meeting, RS presented a resolution to PLMS requesting the exchange of formal liaisons between the two sections' executive committees.

The first two meetings of the Preservation Administrators' Discussion Group chaired by Barclay Ogden were held in 1985/86, and members wondered how they had ever gotten along without such a forum. The major topics of discussion included the placement of preservation programs within the library organization and the scarcity of experienced preservation administrators and collections conservators available to head newly developing and expanding preservation departments.

With a separate discussion group for preservation administrators, Chair Sherry Byrne reorganized the ever-popular Preservation of Library Materials Discussion Group and instituted a highly successful single-topic format for the Midwinter Meeting. The meeting focused on all aspects of the formal "Preservation Planning Program" available from the Association of Research Libraries, Office of Management Studies. The multitopic reporting format will be retained for the annual meeting. This discussion group also serves as a mechanism for outside groups who desire input and reactions from the PLMS membership. For example, a report was given in New York by Mary Lou Miller from the Network Development and MARC Standards Office at the Library of Congress on plans to develop preservation data elements for the USMARC format.

In 1985/86 PLMS committees brought several projects to fruition and embarked on a number of new projects and directions. The Physical Quality of Library Materials Committee, chaired by Wesley Boomgaarden, was particularly active. ALA published the committee's *Preparation of Archival Copies of Theses and Dissertations* by Jane Boyd and Don Etherington. The committee completed an abridged student edition to the publication and recommended that both be made widely available. Also completed was the committee document "Guidelines for Photocopying for Preservation Replacement." Boomgaarden launched a new committee initiative in New York with an ad hoc meeting be-

tween five large library supplies vendors and four preservation librarians to discuss cooperative efforts to improve the quality of the advertising and widen the range of preservation materials offered to the library community. A "workshop" for vendors will be a major goal of a new task force to continue the dialogue with vendors of preservation supplies.

The Education Committee, chaired by Sally Roggia, approved a new edition of the *Preservation Education Directory* and developed a proposal for a 1987 institute on commercial library binding that was approved by the RTSD Board of Directors. In a departure from the typical working committee agenda, the Library/Binders Relations Committee, chaired by Barclay Ogden, experimented with a report and discussion format for the meeting that highlighted the need for a discussion group. The committee's meetings are regularly attended by a substantial number of Library Binding Institute (LBI) members and the opportunity is there for pivotal discussions of new products and production and preservation issues. A proposal for a Library Binding Discussion Group was discussed and approved by the Executive Committee. The Library/Binders Relations Committee is continuing work to produce a companion publication to the eighth edition of the *Library Binding Institute Standard for Library Binding* published by LBI in 1986.

With the guidance of the Policy and Research Committee, chaired in 1985/86 by Robert DeCandido, PLMS is widening its horizons and planning several new initiatives in the national and international preservation community. Robin Gay Walker is representing PLMS and ALA on an advisory committee to the newly established Preservation and Access Commission, a national group that seeks to organize a program to solve the nation's brittle book problem. PLMS will seek ongoing communication with the International Federation of Library Associations and Institutions (IFLA) and is increasing its interest and input in the legislative activities of the ALA Washington Office and the National Commission on Library and Information Science (NCLIS). Finally, a number of proposals will be forthcoming from the committee to the National Information Standards Organization (NISO) recommending standards development in the area of preservation.

PLMS closed its 1985/86 year with a feeling of satisfaction from six years of growth and accomplishment and an atmosphere of excitement for the opportunities and challenges ahead.

Resources Section

Connie Kearns McCarthy, Chair

The many and varied activities of the Resources Section for 1985/86 reflect the imagination and energy of the members of the section. The section has continued to be a source of continuing education programs, publications, conference programs, and discussions that have served to alert all members of the association to areas of particular concern to those involved in the selection, acquisition, and evaluation of library materials in all types of institutions.

Following on the success of the Chicago (1985) preconference, "The Business of Acquisitions," the Acquisitions Committee, chaired by Sharon Bonk, is pursuing planning for a regional institute. In addition, the committee is planning a program for the San Francisco Conference focusing on the link of information among reference, acquisitions, and collection development departments.

The Blackwell/North America Scholarship Award committee, chaired by John Kaiser, proudly made the award to *Selection of Library Materials in the Humanities, Social Sciences, and Sciences*, edited by William Hepfer, Stanley P. Hodge, Patricia A. McClung, Marcia Pankake, Beth J. Shaprio, and John Whaley. This volume is the culmination of years of work on the part of the Collection Management and Development Committee, and work continues on two sequential volumes.

The Bookdealer-Library Relations Committee officially became the Publisher-Vendor Library Relations Committee after Midwinter Conference when it became a committee at the RTSD divisional level. Under Judy Webster's very able guidance the last two years, the committee has continued to pursue a strong position of advocacy on the part of libraries in regard to the dual pricing structure practiced by British publishers. As a result of the committee's actions there have been some adjustments to the pricing structure on the part of some publishers. The committee publication, "Guidelines for Handling Library Orders for Serials and Periodicals," is being forwarded to the RTSD Publications Committee. The Resources Section wishes the committee continued success at the divisional level.

The Canadian Studies Resources Committee, which has been chaired by Thomas Patterson, has begun the process to move to ACRL as a discussion group, following on the recommendation of the RS Policy and Research Committee and upon acceptance by the ACRL board.

The Resources Section and the Preservation of Library Materials Section presented a successful preconference at the City University of New York Graduate Center on "Preservation for Collection Managers." Anna Perrault directed the planning for the section and in doing so emphasized the importance and relevance of the involvement of preservation concerns as responsibilities for the collection manager.

As a further recognition of the interests of the Resources Section in regard to preservation, the Executive Committee passed a resolution that was taken to the RTSD board urging that RTSD and ALA publications be produced on alkaline paper according to ANSI standard A39.48. In addition, the Chief Collection Development Officers of Large Research Libraries Discussion Group passed a statement of concern that collection development staff be formally integrated into the preservation decision-making process of all research libraries.

Continuing education goals combined with well-planned and executed programs have guided two additional Collection Management and Development Institutes held this past year: in Seattle in September 1985 and in Chapel Hill in May 1986. The institutes continue to be fully attended, and registration waiting lists are common. Planning is currently under way for the tenth institute in Denver in May 1987. The Collection Management and Development Committee, chaired by Cecily Johns, has forwarded "Guide for Writing a Bibliographer's Manual," to the RTSD Publications Committee. The subcommittee that developed the guide was chaired by Carolyn Bucknall. An additional subcommittee chaired by Barbara Lockett held hearings in New York on "Guide to the Evaluation of Library Collections." That publication will also be forwarded to the Publications Committee. The "Vendor Performance Guidelines," having been reviewed by the Publications Committee, will be further revised by the Resources Section. Additional work is proceeding in subcommittees of the Collection Management and Development Committee on the revision of the *ALA Guidelines for Collection Development*.

The Library Materials Price Index Committee, chaired by Rebecca Lenzini, continues to provide a valuable service by compiling and publishing data on book and periodical prices. Various options for the structure of the committee are being explored as a way to provide consistency in the production of the in-

dexes and to provide adequate recognition of committee members' efforts.

Following upon the urging of its members, the Micropublishing Committee will remain as a committee of the Resources Section. The committee, chaired by Helga Borck, is seeking to strengthen its role as a clearinghouse for information on micropublications.

The Nominating Committee, chaired this year by Judith Fouts, has developed helpful procedural guidelines for the work of the committee.

At the next Midwinter and Annual Conferences the RS Policy and Research Committee will be working closely with the RTSD Planning and Research Committee on divisionwide planning and evaluation of all committees and discussion groups. The section's committee, chaired by Carolyn Fields, has continued the work of the previous chair in completing the review of section committees and discussion groups and making recommendations for changes in structure, affiliation, or charges to the groups.

The various discussion groups of the section continue to provide lively and topical discussions and a forum for information sharing among librarians from all types of libraries and across all types of positions. Discussion groups chairs for the year were Dana Dinwiddie and Christopher Tyzack (Acquisitions Librarians/Vendors of Library Materials); Ken Jensen (Chief Collection Development Officers of Large Research Libraries); Jeanene McNair (Collection Development Librarians of Academic Libraries); Romaine Ahlstrom (Collection Management/Selection for Public Libraries); and Mae Clark (Gifts and Exchange Discussion Group).

The Resources Section Executive Committee continues to value the important reports of our various liaisons in keeping us informed of relevant issues of other groups in the association. Liaisons for this year have been Ceres Birkhead (Cataloging and Classification Section); Ann Thompson (International Relations Committee); Paul Mosher (Publications Committee); and Jutta Reed-Scott (Preservation Microfilming Committee).

The vitality and energy of the members of the section, and particularly of the Executive Committee, will continue to provide a wealth of ideas to the incoming chair, Gail Kennedy. Under her leadership the section will be able to meet the dual challenge of participating in divisionwide strategic planning and of putting all of those terrific ideas into programs, discussions, and publications!

Serials Section

Ruth C. Carter, Chair

The dominant theme of activities of the Serials Section during 1985/86 was "outreach." This was accomplished in a number of ways of which the most dramatic were the sponsorship of the first of the regional Serials Cataloging Institutes and the addition of interns to most of the section's committees. In addition to taking major steps to involve more people in the work of the Serials Section and bringing the section more visibly to its widespread membership, there was continuing emphasis on the activities of its committees and discussion groups, representation on committees of the Resources and Technical Services Division, and service for the American Library Association.

The first regional Serials Cataloging Institute cosponsored by the Serials Section and the Library of Congress took place May 7-9, 1986, in Minneapolis. All faculty members were present and delivered their own papers. The reaction of the participants was positive and encouraging; the faculty anticipates a second

successful institute in Pittsburgh in late October 1986.

"Serials and Standards: Why, How and What's New" was the title of the Serials Section Program at the Annual Conference in June 1986. The Program Committee, chaired by Marjorie Adams, brought together a timely and informative program and outstanding speakers. Mary Ellen Clapper served as the moderator. Speakers were Richard R. Rowe, President, F. W. Faxon Company; David F. Bishop, Director of Libraries, University of Georgia; Minna C. Saxe, Chief Serials Librarian, Graduate School Library, City University of New York; Majorie E. Bloss, Assistant Director for Technical Services and Automation, Illinois Institute of Technology; and Sandra K. Paul, President, SKP Associates. Attendees heard up-to-the-minute presentations on such topics as Serials Industry Systems Advisory Committee (SISAC), the new standard Z39.44 for Serials Holdings Statements, and the MARC Format for Holdings and Locations. Information was also provided on how the standards development process works and how interested individuals can become active in that process.

Suzanne Striedieck, Chair of the Serials Section award committee, presented the 1986 Bowker/Ulrich's Serials Librarianship Award to Ruth Carter, the current chair of the section. This award, presented for the second time, honors an outstanding serials librarian and has been made possible through the financial contributions of the R. R. Bowker Company and the efforts of many members of the Serials Section.

The Policy and Research Committee, with the leadership of Carolyn Mueller, Chair, was responsible for several significant initiatives in 1985/1986. The first of these was the development and approval of guidelines for interns for section committees. The second area was the development of procedures for the review of the committees and discussion group of the Serials Section. The procedures recommended by the Policy and Research Committee were approved by the Serials Section Executive Committee. Committee reviews will begin at Midwinter 1987 with the review of the Serials Section Education Committee. In addition to the action items cited, the Policy and Research Committee heard reports on CONSER and developments in serials at the Library of Congress.

One of the most active committees was the Committee to Study Serials Cataloging, chaired by Suzanne Thomas. That committee concentrated much of its time on developing a proposal for a rule change to AACR2 for what constitutes a title change. The proposal, with minor changes, was acted on favorably by the Committee on Cataloging: Description and Access (CCDA) at the Annual Conference. Crystal Graham served as the Serials Section liaison to CCDA. Additionally, the Committee to Study Serials Cataloging broke important new ground at the Annual Conference on the topic of multiple versions/formats of the same work. The committee heard about seven proposals for treatment of multiple versions currently under investigation at the Library of Congress. The topic of multiple versions is not limited to serials cataloging but is particularly noticeable in serials work. It will undoubtedly be a major topic of discussion in many future meetings.

The Education Committee, chaired by Mary Ellen Soper, and the Regional Serials Workshops Committee, chaired by Elaine Rast, both raised issues related to future directions for the respective committees. The Education Committee noted that its scope could well extend to continuing education as well as formal training in library schools. The Regional Serials Workshops Committee suggested that a review of its charge is in order. Questions were raised regarding the publication of the second edition of the directory of speakers for regional serials workshops.

The Acquisitions Committee, chaired by Odette Shepherd, completed its

first year as a standing committee of the section. Discussion centered, in part, on potential topics for committee consideration. One area likely to receive investigation in the future is the cost effectiveness of purchase versus the acquisition of serials on exchange. The Acquisitions Committee is an indication of the Serials Section's assertively meeting the expressed needs of its members. It is anticipated that many important issues in serials acquisitions will be considered in the years ahead.

Several committees were in the process of completing major projects or, having just completed one, deliberating on the most profitable activity to undertake in the future. This included the Committee to Study Serials Records, Nancy Putnam, Chair; and the Union List of Serials Committee, Dianne Ellsworth, Chair. An updated union list of serials directory is in progress by the latter. Standards and binding-related records may be future subjects for activity by the former. Both of those committees identified training-related issues as needing attention.

The ad hoc Committee to Study the Feasibility of Creating Dynamic Lists of Core Serials was chaired by Suzanne Striedieck. It is expected that the committee's final report will be submitted soon and that the committee will be discharged.

The Worst Serial Title Change of the Year Committee, chaired by Janet Arcand, filtered through sixty-seven nominations to come up with nine titles to receive awards of dubious distinction. In addition, the Worst Serial Title Change Committee considered the possibility of a publication directed at publishers to inform them about title changes.

Ann Okerson and Robert Alan served as cochairs of the Serials Section Research Libraries Discussion Group during 1985/1986. Discussion topics during the year included SISAC, CONSER, new services from vendors, and Northwestern University's experiment with latest entry cataloging.

Irene Wernstedt served as chair of the section's Nominating Committee. Jean Farrington was elected Vice-Chair/Chair-Elect and Mary Ellen Clapper was elected Member-at-Large. They will join Marlene Heroux, the new chair of the section, and the other continuing members of the Executive Committee in the year ahead: Ruth Carter, Past Chair; Julia Blixrud, Secretary; Deanna Astle, Member-at-Large; and Linda Sapp Visk, Member-at-Large. The duties of the section representative to the Editorial Board of *Library Resources & Technical Services* were ably carried out by Linda Sapp Visk. Jean Cook and Marjorie Bloss are the outgoing members of the Executive Committee. Their hard work and dedication will be missed, but the section and RTSD expect to benefit from their continued interest and contributions in various new capacities.

CONSER was a recurring subject throughout the year. This very significant cooperative serials project was highlighted with a ten-year review prepared under the auspices of the Library of Congress. Jean Cook, the American Library Association representative, reported to the Serials Section on the meeting of the CONSER Advisory Group that was held at OCLC in February 1986. There will be a planning retreat of CONSER participants and others in the fall of 1986 to develop future goals and directions for CONSER. To date CONSER has emphasized file building, but now maintenance and applications will receive more attention. The members of the Serials Section can be expected to be interested in and contribute to CONSER activities and concerns in the years ahead.

As with all other components of librarianship, serials librarians must adapt to a rapidly changing environment. Given that the inherent nature of serials is change and evolution, the Serials Section members can be expected to fill positions of leadership as the American Library Association and the profession move ahead.

For the Record

Annual Report of the Decimal Classification Editorial Policy Committee, July 1, 1985–June 30, 1986*

Lois Mai Chan, Chairperson

The eighty-ninth and ninetieth meetings of the Decimal Classification Editorial Policy Committee (EPC) were held at the Library of Congress on October 17–18, 1985, and April 24–25, 1986. The committee welcomed Peter Paulson in his capacity as the newly appointed executive director of Forest Press and Joan Mitchell as a member to fill the remaining term of Peter Paulson on the committee.

Discussions and actions taken during the October 1985 meetings include the following:

1. *Editorial rules for Edition 20 and Abridged Edition 12*

The committee approved, with a number of amendments and modifications, the proposed editorial rules for Edition 20, which include provisions for the style and format of entries, captions, centered headings, the kinds and syntax of cross-references and notes, and the format of the index. Among the amendments and modifications are the forms of geographic, jurisdictional, personal, and corporate names used in the index. Wherever applicable, the AACR2 name headings and LC nonjurisdictional subject headings as established in the LC Name Authority File and the Subject Authority File shall be included in the index. In addition, variant forms of names may also be included as appropriate.

With regard to Abridged Edition 12, the committee agreed that the notation should be a literal abridgment of that of Edition 20. Consideration of the level of abridgment was deferred until a later meeting.

2. *Schedules*

As part of continuous revision, the following schedules were discussed and approved with minor adjustments for inclusion in DDC: Area tables for Melanesia including Papua New Guinea, Abridged version of 004-006 (based on the new schedule recently developed for Data processing and computer science), and revised 001-003 (proposed Systems and communications schedules).

Two versions of the proposed Life sciences (570-590) phoenix schedule were presented to the committee, one prepared by the Decimal Classification Division (DCD) and the other by a team from Lancashire Polytechnic in Britain. It was the committee's opinion that there is not sufficient time to complete the life sciences phoenix before Editions 20 and 12. The same is probably true for the Public administration (350) phoenix. Nonetheless, work on both may continue

*The Decimal Classification Editorial Policy Committee annual report appears this year in its entirety in *LRTS*, as Forest Press has decided to discontinue issuing *DC&* until after the publication of Edition 20 of the *Dewey Decimal Classification*.

as time permits and consideration may be given to publishing these phoenixes as separates after Edition 20 appears.

A proposed schedule for the expansion of the area table and historical periods of South Africa, prepared by a classification group in the Republic of South Africa, was presented and discussed. The committee agreed that the proper authorities in South Africa should be informed that the proposed schedule may be applied in South Africa, but that it may not appear in Edition 20 in the form presently proposed.

3. *Other business*

Lois Mai Chan was elected chairperson for a term beginning in January 1986. This being her last meeting as chairperson, Margaret Cockshutt was commended for her fair and expeditious handling of the meetings and for her dedication and service.

January 1986 marked the conclusion of the DDC Online Project conducted by Karen Markey and sponsored by the Council on Library Resources (CLR), OCLC, and Forest Press. An invitational conference was held at OCLC in Dublin, Ohio, to present the results of the project and to discuss future directions. Results of the project are presented in the report entitled *Dewey Decimal Classification Online Project: Evaluation of a Library Schedule and Index Integrated into the Subject Searching Capabilities of an Online Catalog* (1986), available from OCLC.

The Decimal Classification Division began work on Edition 20 in December 1985. With the appointment of Julianne Beall as an assistant editor, DCD now has an editorial team of four, each devoting 60 to 80 percent of his or her available time to editing. As an aid to guide the editorial work, a priority ranking list of possible revisions proposed by DCD and ranked in priority order by EPC members was established.

Edition 20 and Abridged Edition 12 will incorporate all new schedules, revised schedules, and changes and additions made since the last edition which have been published separately or in *DC&*. These include the expanded 301-307 (Sociology), the new 004-006 (Data processing and computer science), and a number of expanded area tables. The only major phoenix schedule in Edition 20 will be 780 (Music), which was approved by EPC and the Forest Press Committee in the spring of 1985 with support and/or endorsement from the ALA Ad Hoc Committee on 780 and the (British) Library Association Dewey Decimal Classification Committee (LADDCC). Further work on major revisions in the classification will be a lower priority and deferred until after the publication of Edition 20 and Abridged Edition 12. The entire schedules, tables, and index will be reexamined and revised in order to integrate the changes that have been made since the last edition, to make provisions for new subjects, and to conform to the editorial rules. Relocations will be made mainly for the purpose of eliminating dual provisions or improving collocation of related subjects. In view of the upcoming edition, no more separates or *DC&*s will be published before Edition 20. All revised schedules, tables, and indexes will be presented to EPC for approval and recommendation to Forest Press Committee for publication in Edition 20.

Discussions and actions taken at the April 1986 EPC meeting are summarized below:

1. *Draft schedules for Edition 20*

A. *780 (Music)*-The 780 phoenix schedule, which has been revised to incorporate suggestions from the ALA Ad Hoc Committee on 780 and the LADDCC, was discussed at length. Issues deliberated at the meeting included the treatment of the staging of operas, arrangement, accompaniment, phase relationships, biographies, and composers' works. Portions of the draft schedule which incorporate revisions proposed and approved at this meeting will be pre-

sented to the EPC at the next meeting for further review.

B. *001-090 (Generalities)*—These schedules incorporate the new schedule for 004-006 and the revised schedule for 001-003 approved at the previous meeting. The remaining draft schedules represent mostly routine revisions and stylistic changes. The schedules were approved subject to editorial refinement.

C. *301-307 (Sociology)*—This schedule incorporates the changes and expansions made since the phoenix schedule appeared in Edition 19. The schedule was approved in principle with a number of suggested changes to be presented again for review at a later meeting.

D. *390 (Customs, etiquette, folklore)*—The draft schedule was approved.

E. *500-509 (Natural sciences); 520 (Astronomy)*—The major changes in these schedules include the change of the name of the 500 class from *Pure sciences*, normalization of standard subdivisions, and elimination of dual provisions, particularly in 520.

2. *Lists of changed numbers and reused numbers*—The practice of listing changed numbers arranged alphabetically by topic is to be retained. Lists of reused numbers for phoenix schedules will be discontinued since practically all numbers in a phoenix schedule are reused. However, lists for reused numbers and relocations outside of phoenix schedules will be retained. Furthermore, DCD will explore the possibility of preparing conversion tables for phoenixes going both from the old to the new numbers and vice versa.

3. *Schedule notes versus manual notes*—It was agreed that notes explaining Library of Congress policy, where that policy is not binding on other users of the scheme, should be placed in the *Manual* rather than the schedules.

4. *Abridged Edition 12*—The editorial rules for Abridged Edition 12 were approved. An ALA ad hoc subcommittee will be established to advise the DCD, EPC, and Forest Press Committee on matters relating to the level of abridgment in Abridged Edition 12.

5. *Expanded area table and historical periods for South Africa*—A number of questions have been raised regarding the proposed historical period table and expanded Area table for southern Africa. It was agreed by EPC that official incorporation of these numbers in Edition 20 is contingent upon further review based on literary warrant, unbiased representation through consulting with various groups in the library community, and the editorial rules.

7. *Impact of LC's budget cut on DCD activities*—Because of the recent budget cut resulting from the Gramm-Rudman-Hollings Act, there has been a decrease in the number of DDC numbers assigned to MARC records as a result of the curtailment of overtime. Nonetheless, the editorial staff was commended for its productivity, evidenced in the amount of editorial work produced for this meeting.

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Volume 30, 1986

Compiled by Edward Swanson

General Procedures Used in Compiling the Index

The following types of entries are included:

- a. authors—of articles and letters
- b. titles—of articles and of articles about which letters were published
- c. subjects of articles

Subject entries for individuals are identified by “(about)”; letters are identified by “(c).”

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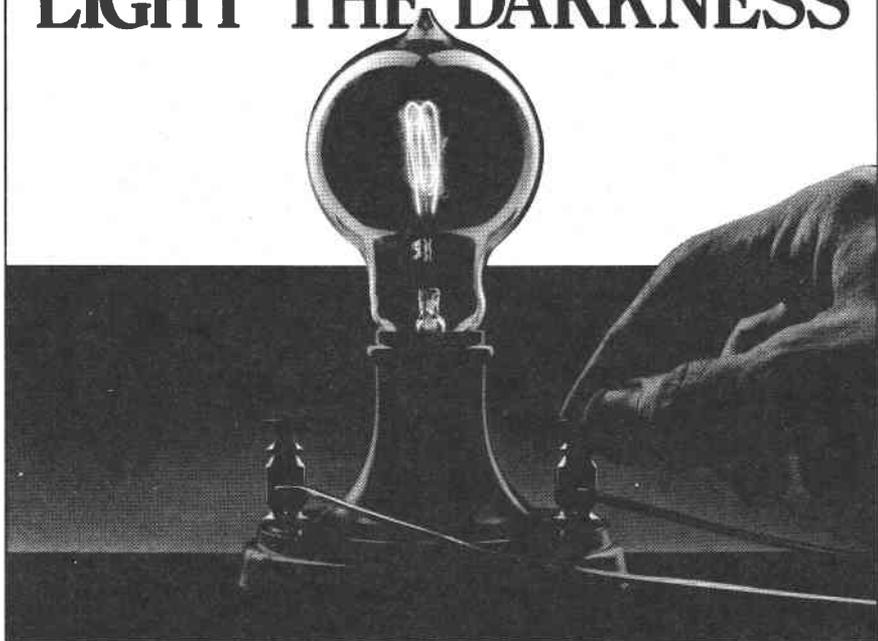
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2. being without a like or equal; unequalled.
3. very rare or uncommon; very unusual.

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